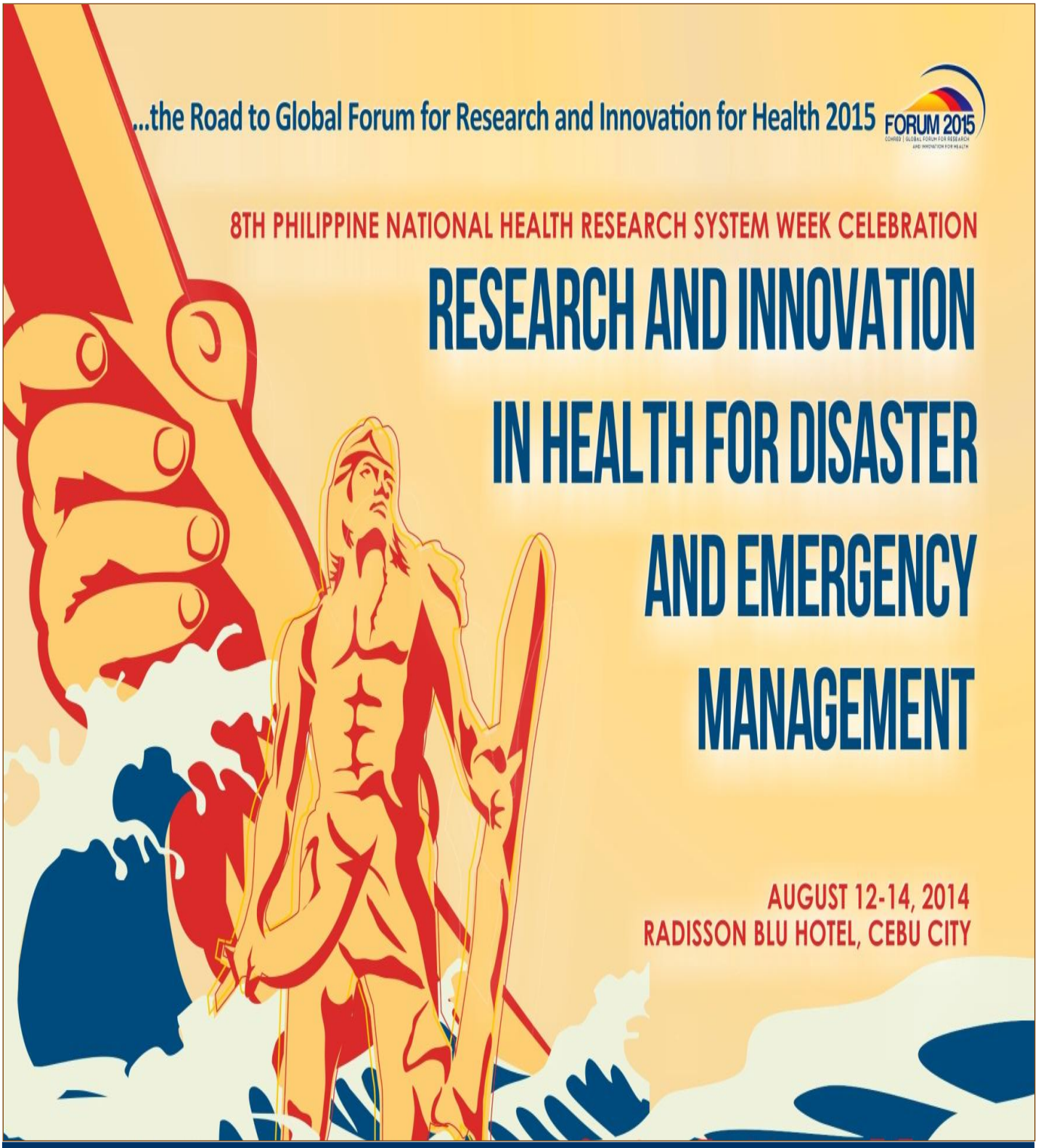

8th PNHRS PROCEEDINGS

Central Visayas Consortium for Health Research and Development
Regional Office of Department of Science and Technology VII (DOST VII)
Cebu City, Philippines

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Contents

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PRE-EVENT PRESS CONFERENCE

Dr. Enrico B. Gruet, Central Visayas Consortium for Health Research and Development (CVCHRD) Chairman and Ms. Merlita Opeña, Philippine Council for Health Research and Development – Research Information Communication and Utilization Division (PCHRD-RICUD) Chief invite stakeholders in health R&D to the 8th Philippine National Health Research System (PNHRS) Week Celebration. Kapihan hosts are Ms. Rachel Nessia of PIA 7 (left) and Mr. Wen Celen of DYMR (right).

Welcome to Kapihan! I am Rachel Nessia, we are coming to you from Radisson Blu and of course with my co-host from DYMR, Radyo ng Bayan to introduce our guests, Wen Celen. We have Ms. Merlita Opeña, Chief of the Research Information Communication and Utilization Division of the Philippine Council for Health Research and Development and Dr. Enrico B. Gruet, Chair of the Central Visayas Consortium for Health Research and Development (CVCHRD) and Dean, Cebu Doctors' University College of Medicine. We also have another guest, Dr. Thelma L. Fernandez, we will be introducing her once she arrives. Our Kapihan is actually in celebration of the Philippine National Health Research System Week Celebration. This is actually an annual celebration spearheaded by, I believe, the Department of Science and Technology and this is the eighth year that they are celebrating it and Cebu will be hosting the annual gathering this year. This will be starting tomorrow but for more details about the event, I'd like to ask Ma'am Merl for a little background on what will happen tomorrow and until the 14th.

Ms. Merl Opeña: Thank you Rachel. Maayong buntag sa tanan! The Philippine National Health Research System Celebration started in 2007. That was the time where there was a Presidential Proclamation that every second week of August is the Philippine National Health Research Systems Week. Since then, every year, what we do is Manila, outside of Manila and then go back to Manila. But this year, it's in Cebu. Last year, we had it in Laoag. It's a special case and we are very happy that Cebu took the leadership immediately because next year we will have the Global Forum for Health Research and Innovation at PICC, 2015. So if you will be in Manila.

But it's going to be an international?

Ms. Merl Opeña: Yes, it is an international event so we say this is the road for the Global Forum 2015. The Philippines is hosting that.

For next year? The event tomorrow is a national gathering. Who will be the participants?

Ms. Merl Opeña: It's a national event and all of our partners from the seventeen regions. So in the seventeen regions, we have research consortia. So Cebu is one of the earliest and stronger consortium among the seventeen.

So how many Ma'am will be around?

Ms. Merl Opeña: We are expecting around 500 to 600.

They are all researchers?

Ms. Merl Opeña: It's a mix. There are researchers, there are also users of research results, there are policy-makers and there are also even funder of research and supporter of research for whatever capacity.

Your topic for this year's gathering is, "Research and Innovation in Health for Disaster and Emergency Management." What's the impact of this when it comes to disaster preparedness and management among our stakeholders particularly in the health and research industry?

Ms. Merl Opeña: The underpinning word here is science for disaster preparedness including the health of our people so it's important that we also look at our research outputs along the area of disaster and emergency management. So it will enable us as a country to be more prepared that there will no loss of lives. That's the bottom line.

Maybe Dr. Gruet can also give us the assessment because right now the LGUs are really doing their work. The keyword now is "Build Back Better." So the disaster preparedness and management plans when it comes to the LGUs because they are the front liners. Right now, is science and research playing a part in what they're doing now especially in the local government, in the communities?

Dr. Enrico Gruet: Right now, there's still no good coordination between the local government and health in science. But this is what we want to achieve by having this conference. We want the researchers to disseminate their findings so that the stakeholders can also make use of them. As you know, we have lots of disasters. Health is always affected, health of the people. It may not be apparent right away but later on the health of the people will be affected and research along this line would be very, very helpful in making sure that the health of the people are maintained.

So the research presentations during the event, the LGUs can avail of those and utilize them in their own disaster management?

Dr. Enrico Gruet: Yes.

Who have we invited for the event? What topics will be discussed?

Ms. Merl Opeña: Actually, we have a copy of the program. It's a full-packed program. We wanted to have more parallel sessions but we can no longer accommodate.

Social media, did it play a big role in the rehabilitation after the disaster, the post-disaster work. How big a role was social media there?

Dr. Enrico Gruet: I believe that there was a role, not really that big. We want to be something that is coordinated so that everyone who will be able to help can help.

Yes and so we can utilize social media. Is this for free?

Ms. Merl Opeña: The registration is free from 12 to 14.

Wen, do you have questions?

This is for Dr. Gruet. I just want to have clarifications regarding your statement that the local government and most of the science people are not closely coordinated with and how come? Is it because they are not scientists? What are the reasons, Sir?

Dr. Enrico Gruet: No. There is coordination but through this effort, we want better coordination so that all the resources of the health sector can be used by local government.

For layman, when you talk of the topics like science, research. It's automatically technical. But your event is highlighting that it plays a big role especially in disaster and management. Ma'am Merl and Dr. Gruet, how should especially communicators, I mean, there's a need to make it more understandable for the layman.

Ms. Merl Opeña: From the science perspective, if you know, your Project NOAH, from DOST, we were starting with the accurate and the right information at the right time because if we have the right information at the right time when you need it, we can have better prevention. So that's a key role of science.

Project NOAH is spearheaded by DOST?

Ms. Merl Opeña: DOST and it is run by experts based in UP working PAG-ASA.

I think it's the first app for Smart phones. And now, the newest one is Batingaw. It's produced by SMART in coordination with local new media start-ups. Do you think there's also a need for private sectors to come up with apps similar to these tools?

Dr. Enrico Gruet: Yes, everyone is welcome to develop their app and it will be only a matter of time before we find out which will be the best one to use.

But it's also open for your organizations to support?

Ms. Merl Opeña: If there are good applications, we can support it.

Dr. Enrico Gruet: One of the roles of PNHRS is proper dissemination of results of research. So you mentioned about research being technical. One of the roles is for the researcher to disseminate by bringing down the level of communication, translating to the public or depending who will be the audience, the public or stakeholders, something that they will understand at their level. The results of the research no matter how important it is, if it's not properly disseminated to the intended audience, it will be useless, it will not be used

Exactly. Do we have enough research right now related to disaster management?

Ms. Merl Opeña: I think if we do a mapping, we know just a few. But we want to encourage people to go into this research area.

Especially sa academe, students conducting research. Wen?

What do you think about the participation of the LGUs Ma'am regarding research for them to make?

Ms. Merl Opeña: The LGUs are very important in whatever research whether it's disaster management or health care delivery services or even high-end biomedical research because in the end, they will be the users of research. And the researcher must have good links with the LGUs so that if there is a better appreciation of research down to the community level, there will be a better appreciation also of the research in the science community. Kasi parang malayo eh kung nasa Ivory Tower iyong research, so we want to bring down the researchers talking to the LGUs.

Sir the LGUs are also part of the event of tomorrow?

Ms. Merl Opeña: Yes, we have presenters from the LGUs.

Do we have from the local, from Cebu?

Ms. Merl Opeña: I think we have from Cebu. Mayor of Camotes.

He will be presenting?

Ms. Merl Opeña: Yes, he will also share his experience from the LGU side.

Do we still have a problem, in terms of speaking of support, to our researchers, scientists? In terms of support in budget for the research they conducted.

Ms. Merl Opeña: In terms of research budget, if you compare it to previous years, there's a substantive increase in research funding. I think in the last 2 to 3 years. I think we want to match it with more people to do the research. If there is money, there is budget but there are a few people doing research, we will just be looking at the same people to do research.

So there is a need for more people to do research?

Ms. Merl Opeña: Yes, capacity building.

So there is already a budget Ma'am? How much is the budget? If for example, somebody is interested and they have research, who do they go to?

Ms. Merl Opeña: Depende. Because in the DOST, we have three sectors. We have agriculture, environment, forestry, that's Philippine Council for Agriculture Research and Development (PCAARD), for health that's Philippine Council for Health Research and Development (PCHRD) or even the PNHRS because the consortium in Cebu or other region, they can also support for research and then there's for industry and energy, the Philippine Council for Industry, Energy Research and Development (PCIEERD). So it depends where your research is.

Ma'am, do you have figures on how many are our researchers, scientists in Cebu?

Dr. Enrico Gruet: Right now, we don't have the number. I don't have the figure.

But is the trend increasing?

Dr. Enrico Gruet: Yes, it's increasing and it's a continued process that we try to encourage research in the different academic institutions.

I would like to ask, why do we need to encourage? Why is research not a popular venture especially in the academe? In Cebu we have medical schools.

Dr. Enrico Gruet: First of all, it takes time to do research. So, the teachers in the education institutions, they have to be given what you call deloading. The number of their teaching units will be lessened so that they can concentrate on research. So the universities, colleges have a program for this what we call deloading. But still, with that program very few go to research because number one, they feel that they're not capable they are not doing it. And that's one of the reason why we have the consortia, the regional consortia, so for Region 7, just like in other regions, the programs are capacity building, training faculty members and students on how to do research, actually writing the research, going from the start of the research until they finish and publish their research.

But the research need not to be limited to teachers, professionals who are interested? Do we have that or mostly, majority, it's still teachers?

Dr. Enrico Gruet: Students, teachers and professionals are doing research. So one of the highlights of this event will be the research contest. That's one way to incentivize research. There's a student category and professional category. So here they present their research, their findings and they will be judged and we will come up with winners.

So the contest is already open.

Dr. Enrico Gruet: They have submitted already

So they are the ones that will be presented? The winner, how much is the cash prize?

Ms. Merl Opeña: There's a cash prize. For the first prize, Php20, 000.

And maybe funding for the research project?

Ms. Merl Opeña: Yes, if they want to go to the next phase.

This is a national contest?

Ms. Merl Opeña: Yes, all the 17 consortia submitted their entries. There was a pre-screening before the finalists.

So the finalists, we don't have winners? During the event pa?

Ms. Merl Opeña: Yes.

Can you mention researchers for the activity?

Dr. Enrico Gruet: You're talking about the contest?

Research papers.

Ms. Merl Opeña: Researchers from De La Salle, from Ateneo de Davao, among others. This is just Parallel Session 1 but there are still others where research on disaster and emergency management is presented.

What are these about?

Ms. Merl Opeña: Example, for Dr. Lamberte of De La Salle, "Immediate Effects of the Typhoon, Socio-economically Disadvantaged Families in Leyte."

Dr. Enrico Gruet: I'll just give an example. Some of our faculty members went to Yokohama to present their findings and in that presentation, they were able to meet other researchers who also have similar experiences. Also, for this celebration, we want the researchers to talk to each other so they can share their experiences.

Yearly sa PNHRS, different topics, different theme? Example last year, what was the topic?

Ms. Merl Opeña: Over the years Sir, the theme is, *"Unity in Diversity"* because the seventeen regions have diverse profile but we always come together to the platform to present the researches we have undertaken.

So last year, it was about?

Ms. Merl Opeña: Last year, parang general.

This is the first time that we will be talking specific talaga on disaster, science and disaster?

Ms. Merl Opeña: Yes, this is the first time.

Do we have student participants?

Ms. Merl Opeña: Yes, we have a special session because there is a Student Research Competition so we expect the students to be there. And there is a session which was really crafted by Cebu for students for disaster preparedness.

Dr. Enrico Gruet: It's a workshop and we invited students on how they can organize themselves in order to prepare for a disaster and what they would do afterwards.

Are the students, how did you choose the students?

Dr. Enrico Gruet: Mainly these are students from the Student Council, student leaders in the school.

But these are students in Cebu only, or these are from the national level?

Dr. Enrico Gruet: Well, there are students also who attend from other parts of the Philippines so they can join this workshop.

The entire event is open for the media coverage?

Ms. Merl Opeña: Yes, the media is a very important partner.

Is Ebola research included in the activity?

Dr. Enrico Gruet: There's no specific session on Ebola. So I guess it would be just a general topic, discussion on how we can deal with health emergencies but nothing specific on Ebola.

Are there any researcher interested to study on this one?

Dr. Enrico Gruet: I'm not aware of any researcher doing that here in the Philippines.

But probably, there's a possibility because now it's an emerging problem, globally. But this is a research topic that's also welcome? For DOST Ma'am, when it comes to Ebola virus research?

Ms. Merl Opeña: Yes, similar with Sir, general pa. But from the videoconference of Dr. Fajardo, from the US Centers for Disease Control, maybe we can ask him. He can give us advice.

Do we have facilities that researchers can use, do we have that in Cebu? Or do we have support? Institute or private or LGU?

Dr. Enrico Gruet: In Region 7, right now, we have sixteen member institutions already. Most of them are academic institutions and some government institutions for support. So if a researcher would want to do a research, they can approach the Central Visayas Consortium for Health Research and Development, give their proposal for research. It would be studied by the committee and the suggestions, revisions and so on until it is approved for funding.

So there's a process? Where do you get the funding for that Sir, if ever it gets approved?

Dr. Enrico Gruet: The Department of Science and Technology provides funding for this through the different regional consortia.

Is there a budget that DOST allots every year?

Ms. Merl Opeña: On a yearly basis, PCHRD supports the operation of the consortium and for research projects, it is proposal driven. Depende sa proposal, depende sa number of proposal.

Is there a maximum amount for each research? Parang ceiling?

Ms. Merl Opeña: I think from the regional level, approval at the regional level, it can be up to Php500, 000.00. If the budget is more than that, it is processed in Manila.

I would like to know what is the objective of this event.

Ms. Merl Opeña: Actually, the PNHRS is a platform where people doing research, supporting research, communicating research will be talking to each other. So it's both a platform and exchange of expertise. I think it's very important that the seventeen consortia get to meet at least once a year.

What are the areas that needs more research?

Ms. Merl Opeña: In the Philippine National Health Research System, we have the National Unified Health Research Agenda, that is one agenda crafted by the DOST, DOH and CHED. That's the national. But the regional also have the Regional Unified Health Research Agenda which Dr. Gruet can explain.

Dr. Enrico Gruet: As mentioned by Merl, each region comes up with its own Regional Unified Health Research Agenda. So we did it for Region 7 by conducting several workshops in different areas, here in Cebu, Tagbilaran City and Dumaguete City. So the researchers in these areas meet and design which ones are the most important topics that they want to include in the research agenda.

I'm just curious. Is there a need for health communication? I don't know in health organizations communication plays a big part.

Ms. Merl Opeña: Technical terms, to make them understandable in the general public. That's a major, major concern.

Dr. Enrico Gruet: There's a need for researchers to coordinate with people who are good with translating the technical to something understandable.

This could be a hitch Ma'am, health communication because you need to understand both, you need to communicate well and at the same time understand the technicalities of science. Do we have another question?

So far in all of the researches in the country, how many were utilized?

Ms. Merl Opeña: From the technology commercialization side, iyong *Lagundi,* that's a product of research. And right now, maybe there are ten companies adopting the technology and commercializing it. *Lagundi* and *Sambong.* There are many brands in the country like Ascof, Plemex, and Lagundex, that's a concrete product of long-time research. Research, we cannot do it over night also. It takes time to produce the right results.

Regarding the research, who will recommend the title when the researcher make a research? Is it the DOST or will the researcher produce their own title?

Ms. Merl Opeña: Sir, we have a research agenda. There are topics there. So if you want your proposal to be a priority, dapat nakatumbok doon, naka-address doon sa agenda whether it is a regional agenda or a national agenda.

I would like to confirm if Secretary Montejo, Secretary Ona and Secretary Lacson will be here tomorrow.

Ms. Merl Opeña: Secretary Lacson, confirmed because he is the Keynote. Secretary Montejo and Ona, unfortunately, they are in Malacañang so they will be represented by their Undersecretaries.

Maybe we can ask our speakers to close the forum. Parting statement.

Ms. Merl Opeña: As we say the media is very important in research work and you are the link between the research community and the public so we'll be happy if you will all be there tomorrow up to Thursday. Hindi lang tomorrow until Thursday, if you can also work with the research community here in Region 7. We can strengthen the link between the media and the research community because sabi namin, health research is not only a concern of the health sector. It cuts across agriculture, environment and policies so all of us will have to work together.

Dr. Enrico Gruet: Same. I'd like to invite you to join us for the next 2 and a half days, for those who will not be able to attend (when is this showing, is it on Wednesday?), all the sessions will be streamed live. I'm not sure how we can do that. (We will get the web link from Ronya later). (The site is www.healthresearch.ph). And you

can post your comments anytime during the session. And lastly, for anyone who would like to do research, I'd like to invite you to make your proposals for the region for funding.

OPENING REMARKS

HON. PETER JOHN D. CALDERON

Hon. Peter John Calderon represents the 2nd Congressional District of Cebu Province. He sits as Chairperson of the Committee on Public Health & Social Welfare.

Secretary Panfilo Lacson, Assistant Secretary Enrique Tayag, Members of the Philippine Council for Health Research and Development led by Executive Director, Dr. Jaime C. Montoya, members of the Central Visayas Consortium for Health Research and Development led by the Chair, Dr. Enrico Gruet, participants of this 8th Philippine National Health Research System Week, ladies and gentlemen, maayong gabii kanatong tanan!

On behalf of Gov. Hilario P. Davide III and all Cebuanos, I welcome you all to Cebu. I hope you find your stay here comfortable and enjoyable. Congratulations also to all of you! The theme of your conference, which is "Research and Innovation in Health for Disaster and Emergency Management," is indeed timely.

As you all know, our province suffered two devastating natural disasters last year - the major earthquake in October and the Super Typhoon Yolanda in November. Tragic as these events may be, we learn and continue to learn a lot from them with the hope to be better prepared for the future. We learn about our weaknesses and we learn about our strengths. Yet, there is much more to learn, much more to improve. On this note, we look forward in learning from you, participants in this research systems week. As we strive to build a better Cebu, a better future for the Philippines through economic growth, development programs, education programs and the like, we must be vigilant and attentive to the health issues and needs of our people. For without a healthy, strong and vibrant population, growth will not be realized.

Again, we look forward to you in helping us serve our people. Thus, this 8th Philippine National Health Research System Week Celebration gives us confidence and faith for the future of our fellow Filipinos because of your collaborative efforts and on-going achievements. We wish you luck and continued success.

Thank you!

Good evening and welcome once again!

WELCOME REMARKS AND INTRODUCTION OF DELEGATES

DR. ENRICO B. GRUET

Dr. Enrico B. Gruet is the Chair of the Central Visayas Consortium for Health Research and Development and Dean of Cebu Doctors' University College of Medicine.

Good evening ladies and gentlemen. It is my honor to welcome all of you to the 8th Philippine National Health Research System Week Celebration with the theme, "Research and Innovation in Health for Disaster and Emergency Management."

Early this year, with the Visayas still reeling from the successive devastation brought about by the Bohol Earthquake and Typhoon Yolanda, the Central Visayas Consortium for Health Research and Development was requested to host the 8th PNHRS Week Celebration. The consortium decided to focus on disasters and emergencies and their immediate and long term effects on health care delivery and other aspects of health and how research has helped or can help the community and the nation cope.

Fortunately, the Central Office approved the theme and basing from the resource persons' passion and the participants' emotional responses to this morning's and this afternoon's sessions, I can say that we did not make a mistake in our choice for the theme. The scientific committee has prepared a full-packed program with multiple parallel sessions to tackle the important aspects of the theme. Tomorrow's plenary sessions are likewise expected to be as interesting and stimulating.

As many of you have noticed, all the sessions of this two-and-a-half day activity are streamed live for those who are not able to join us to attend this affair. Social media are also being used to allow delegates and others to post comments and photos online instantaneously using the wifi available in the venue. Some sessions utilize videoconferencing so that we can still make use of the expertise of resource persons who are not able to join us in person. We have tried to take advantage of technology to bring the message of the PNHRS Celebration to as many people as possible. The importance of ICT in relation to our theme will be highlighted in the plenary session tomorrow afternoon. So don't miss that.

We really hope that you will stay until the last day, on Thursday, and be in the biggest gathering of health researchers and lovers of research where you can interact with each other and hopefully forge partnerships for research. And for those who would like to visit some of the many tourist attractions in Central Visayas, there is a tour desk located outside at the foyer.

Once again, I welcome all of you and extend a special welcome to our guest presenter, our keynote speaker and the other dignitaries at the presidential table who will be properly introduced later. Thank you for acceding to our request to grace our Opening Ceremonies. Let me take this opportunity to thank the different committees for the preparation of this event, the members of which coming from the Central Office as well as Region VII that have worked together harmoniously to make this celebration possible.

At this point, I'd like to introduce the delegates. So as I call your region or consortium, may I request its members even though you're seated in different areas in this ballroom to please rise to be recognized.

First on the list, Cordillera Administrative Region Health Research and Development Consortium, second Region 1 Health Research and Development Consortium, Cagayan Valley Health Research and Development Consortium, Central Luzon Health Research and Development Consortium, Health Research and Development Consortium Region 4A, MIMAROPA Health Research and Development Consortium, Bicol Consortium for Health Research and Development, Western Visayas Health Research and Development Consortium, Central Visayas Consortium for Health Research and Development, Eastern Visayas Health Research and Development Consortium, Zamboanga Consortium for Health Research and Development, Northern Mindanao Consortium for Health Research and Development, Regional Health Research and Development Consortium 11, Regional Health Research and Development Consortium Region 12, Autonomous Region in

Muslim Mindanao Health Research Consortium, CARAGA Health Research and Development Consortium and Metro Manila Health Research and Development Consortium.

So these are the delegates from the seventeen consortia in the country. So thank you very much for joining us and once again welcome to all. Thank you!

MESSAGE from the Department of Science and Technology

DR. CAROL M. YOROBE

Dr. Carol M. Yorobe is the Undersecretary for Regional Operations of the Department of Science and Technology.

Honorabe Secretary Panfilo Lacson, Assistant Secretary Tayag, Commissioner Alarcon, Chancellor Agulto, Dr. Montoya, Dr. Gruet, Prof. Murray, Provincial Board Member Calderon, Director Paradela, our distinguished guests, ladies and gentlemen, good evening!

Secretary Mario G. Montejo of the Department of Science and Technology regrets that he could not join us today. He has been called to a very important meeting and I shall read his message:

First, in behalf of the Department of Science and Technology, we would like to thank Secretary Panfilo Lacson for gracing this important occasion. The Department of Science and Technology takes pride of our people's resiliency to survive even the deadliest of disasters. But surviving alone is not enough. Lessons must be learned if we are to stand again from the debris. Smarter actions must be made if we are to conquer disasters and calamities. The plight of the survivors and countless loss of human lives during disasters should not only make the headlines of news but rather as a challenge for us to create innovative solutions and push better policies in order to become better prepared in such times of emergencies. This year's theme, as we celebrate the 8th Philippine National Health Research System Week, “Research and Innovation in Health for Disaster and Emergency Management” mirrors the Department of Science and Technology's goal to utilize what we have learned in catastrophes and deal with future disasters and emergency situation wisely.

In this light, I am very grateful that the Department of Science and Technology through the Philippine Council for Health Research and Development or PCHRD was able to forge a very strong alliance with the Department of Health, the Commission on Higher Education, and the University of the Philippines Manila in the Philippine National Health Research System. In times of crises, it is crucial that every decision we make is guided by science and evidence. PNHRS ensures that from the rabbles of disasters we learn and from these learning, we are empowered to move, rebuild and thrive again. Through PNHRS, we are able to stir the initiatives of the whole health research sectors in the country to respond to the most pressing health concerns of our nation which include disaster and emergency preparedness. Through the PNHRS, we are able to mobilize the four implementing agencies as one unified body in order to achieve our common goals.

This year's celebration marks a very special point in the PNHRS' timeline as we enter the first year of the enactment of Republic Act No. 10532, which institutionalizes the Philippine National Health Research System. With the PNHRS law in place, we aim to harmonize research resources and ensure that research results are translated into relevant policies and programs. To make this happen, we will fully embrace the Filipino spirit of Bayanihan. We will work hand in hand and engage in multi-sectoral collaborations, sharing of information, expertise and resources. With this, I congratulate the men and women who have persistently worked towards the realization of PNHRS.

May you all continue to uplift the quality of life of every Filipino through health research. Mabuhay at marami pong salamat!

MESSAGE from the Department of Health

DR. ENRIQUE A. TAYAG
Dr. Enrique A. Tayag is the Assistant Secretary of the Department of Health.

The Honorable Secretary Panfilo Lacson, Undersecretary Carol Yorobe, Commissioner Minella Alarcon, University of the Philippines Chancellor Manuel Agulto, the Executive Director, Jaime "Jimmy" Montoya, Dr. Enrico Gruet, Prof. Virginia Murray, our officials from the Province of Cebu and Cebu, our tinkers and thinkers and dancers tonight, magandang gabi po sa inyong lahat! It's an honor to deliver this message from our Secretary of Health, Secretary Enrique Ona. Let me begin:

Dear guests, colleagues, good evening! The theme for this year's Philippine National Health Research System Week is very timely and relevant especially after the most recent devastation from Typhoon Glenda that has befallen some parts of our country again. Storms and floods are the disasters that cause the most deaths and damages in the country. According to the Philippine Disaster Reports of the Citizens' Disaster Response Center, we have consistently been among the Top Ten Countries with the most number of people affected by natural disasters worldwide for the past five years.

In 2013, we are second only to China with more than twenty-six million individuals affected by disasters primarily due to Typhoon Haiyan or Yolanda and the earthquake in Bohol. Preparedness is the key to mitigate the damages in disasters and effectively manage a disaster situation. Natural disasters cannot be prevented or stopped with our current technology but we can minimize the risk and vulnerability to disasters through vigilant individuals, organized communities, good communication systems, resilient structures and an efficient national response mechanism. We are still undergoing recovery and rehabilitation after Typhoon Yolanda and plans for disaster resilience are being implemented. This include building better and stronger hospitals and health facilities, coordinating with other countries such as Japan on strengthening coordination and communications during disasters and minimizing human activities in identified disaster prone areas.

The Department of Health is highly involved in disaster response because the welfare of individuals and public health are compromised during these events. News reports often focus on the number of people who died during a disaster. This is indeed significant information however, we are also concerned about the health of the survivors. Treating those who are injured and preventing illnesses including outbreaks in devastated communities is the bout of the work of the department during disasters. We ensure that people in relocation sites have safe drinking water and maintained sanitation; that vaccines are provided to children to prevent outbreak of diseases such as measles; that the mental health of survivors is addressed through counseling and treatment, if necessary; that there is an adequate supply of maintenance medications for hypertension and diabetes; and that emergency medical services are available specially for pregnant women, to name a few.

I also want to emphasize the need for multi-sectoral collaborations in a disaster situation. The Department does not work independently. It is part of a systematic and coordinated response that involves other sectors and agencies such as the Department of Social Welfare and Development (DSWD), the Department of Public Works and Highways (DPWH), the Department of Science and Technology (DOST) and other government agencies. Different aspects of an individual and community are affected during disasters including food, shelter, health and livelihood. In order to effectively respond to the needs of affected populations, the approach should be multi-sectoral. Our recent experience with typhoons Yolanda and Pablo and the earthquake in Bohol have shown us that our country needs to increase its capacity to handle disasters. Key issues that needed to be addressed include: "How can we improve the disaster response system in the country?" "What technologies could be developed to aid in disaster and emergency response?" "What are the risks to disasters in the different areas and populations?" These questions will be answered with presentations during this week.

The research sector recognizes the need for more data and innovation to improve the country's response to disasters and emergencies. Although there is much work to be done, the researches to be presented in the coming days will give us helpful information that will guide the improvement of our disaster response. Studies that have been conducted include the

role of health organizations, safe hospitals campaign that will expand mapping, and assessment of different levels of hospitals in small and medium size cities as part of its second phase.

In the future, there can be more studies that can help develop the way we predict, prevent and response to disasters. I'm pleased that that the theme for the Philippine National Health Research System this year is on, “Research and Innovation in Health for Disaster and Emergency Management”. This will be a means to further promote research that will generate the needed data and technology for disaster management. I hope that more researches will continue to be produced because these also help more policy makers in making decisions in taking actions. Through research and innovation, the Philippines can reach the point that casualties and damages during disasters will be minimal because of adequate preparations and appropriate response mechanism. Our collective efforts will bring us to share new information as we host in Manila the 2015 Global Forum for Research and Innovation for Health.

Maraming, maraming salamat po sa inyo!

MESSAGE from the Commission on Higher Education

COMMISSIONER MINELLA C. ALARCON

Comm. Minella Alarcon is one of the commissioners of the Commission on Higher Education.

Distinguished and honorable guests, dear friends, ladies and gentlemen! Good evening!

I have the great pleasure to represent CHED, the Commission on Higher Education in this important event for the Philippine National Health Research System. The PNHRS is all about promoting, facilitating and coordinating health research and capacity building activities for a more coherent research agenda. These two are important tasks for CHED. CHED, is therefore, proud to be associated with PNHRS as one of its core agencies especially in its focus on the role of health research in disaster and emergency health management.

As part of good governance, our country is responsible for the health and well-being of its citizens not only during normal times but more so during periods of crisis and emergency. As a disaster prone country, the Philippines should be prepared and be ready when disaster strikes through emergency response strategies that reduce potential physical damage. In a developing country like ours, poverty is a real aggravating factor. Therefore, our public health system - our clinics, our hospitals, our health workers and volunteers, should be well prepared to save lives, reduce suffering and minimize injuries for those rich and poor.

As I join PNHRS in welcoming you to this event, I would like to emphasize the importance of preparedness in times of crises and disasters, medical preparedness, in particular. It is a very important topic in health research for disaster and emergency management. What are the measures of medical preparedness? What indicators give evidence to medical preparedness during times of disasters and emergencies? In managing risks to prevent or minimize loss of lives and property, how is the level of medical preparedness measured? How does one know if the public health system is sufficiently prepared? In particular, considering the poor and vulnerable, how does one prepare the public health system to effectively respond to disasters and emergencies and reduce suffering and save lives? It is important to find answers to these questions and we can find these answers through research.

I hope that during this PNHRS Week, we are able to find answers to important questions on health for disaster and emergency management.

Thank you and best wishes to all!

MESSAGE from the University of the Philippines Manila

DR. MANUEL B. AGULTO
Dr. Manuel B. Agulto is the Chancellor of the University of the Philippines Manila.

Pinagpipitagang tagapagsalita, punong tagapagsalita, Senator at Rehabilitation Czar, Panfilo M. Lacson, Health Secretary Enrique Ona, represented here by Asec. Enrique Tayag, Secretary Mario Montejo, herein represented by Usec. Carol Yorobe, Commission on Higher Education Chair Patricia Licuanan, herein represented by Commissioner Minella Alarcon. Bakit ko po iniisa-isa iyong dalawang Department Secretaries at CHED Commissioner? Sapagkat ang inyong abang lingkod ay nagkaroon ng karangalan na pumirma sa Philippine National Health Research Law. At ako lang po ata, sa apat na pumirma, ang nandito ngayon sa gabing ito.

At inaakala ko po na dapat ko ring sabihin sa inyo na ang University of the Philippines Manila ang siyang namumuno sa pananaliksik sa kalusugan at iyan po ay maaaninag natin sa katauhan ni PCHRD Executive Director, Dr. Jaime Montoya. Maaari ho bang tumindig? Ang aking pinagmamalaking Executive Director, Jaime Montoya. And of course, gusto ko rin pong batiin isa sa aking pinalitan sa UP Manila, former Chancellor, Maria V.T. Reyes, the *"Charina for Ethics*". Ang amin pong kupunan na nanggaling sa NIH, the National Institutes of Health, a creation of law that allows for further research in the health sciences. Maaari po bang tumayo ang mga taga-UP Manila, doon sa bandang dulo po. Hindi po sila inacknowledge kanina. And of course ang Central Visayas Consortium for Health Research and Development Chair, Enrico Gruet, who is also from UP Manila. Kailangan ko pong gawin ito sapagkat napapansin ko po na nalilimutan ata ng mga kasamahan ko na pumirma dito sa batas na ito na ang kasamahan nila ay galing sa UP Manila gaya ni Usec. Herbosa. Kaya ngayong gabing ito, I would be remising my duties if I didn't highlight the contributions of UP Manila to the PNHRS.

And of course, fellow health workers and the other dignitaries, we have Professor Virginia Murray from the United Nations International Strategy for Disaster Reduction Science and Technical Advisory Group, the Governor of Cebu, represented by the Provincial Board Member Calderon at Regional Director, DOST VII, Engr. Edilberto Paradela. Mga kasamahan sa pananaliksik sa kalusugan, mga panauhing lecturers, resource persons, maayong gabii kanatong tanan!

I am pleased to participate in this 8th Anniversary Celebration of the Philippine National Health Research System. And in behalf of UP Manila, I welcome you to this anniversary forum. We extend our gratitude to the Central Visayas Consortium for hosting this year's program.

As in previous celebrations, this forum is a good opportunity to discuss significant issues and concerns on strengthening research as a tool for health improvement. This forum again tackles another urgent and relevant theme, "Research and Innovation in Health for Disaster and Emergency Management". The recent disasters that hit the country have led to a greater visibility and increase recognition of the significance of disaster and emergency management in health. With the Philippines' major experiences in growing vulnerability to disasters and emergencies, the role of research-based emergency management should be more appreciated and understood as we continue to hold public discussions and dialogues such as this. That disaster management now forms an integral part of health policy making and planning is highly encouraging for us in the health and academic sectors.

Finally, we are coming to grips with the impact of disasters in society and in our lives. This forum is a welcome and significant step that should generate follow-up activities if we hope to find evidenced-base solutions to our health problems. This after all is the vision of the PNHRS to contribute to finding solutions, coordinations health problems through research.

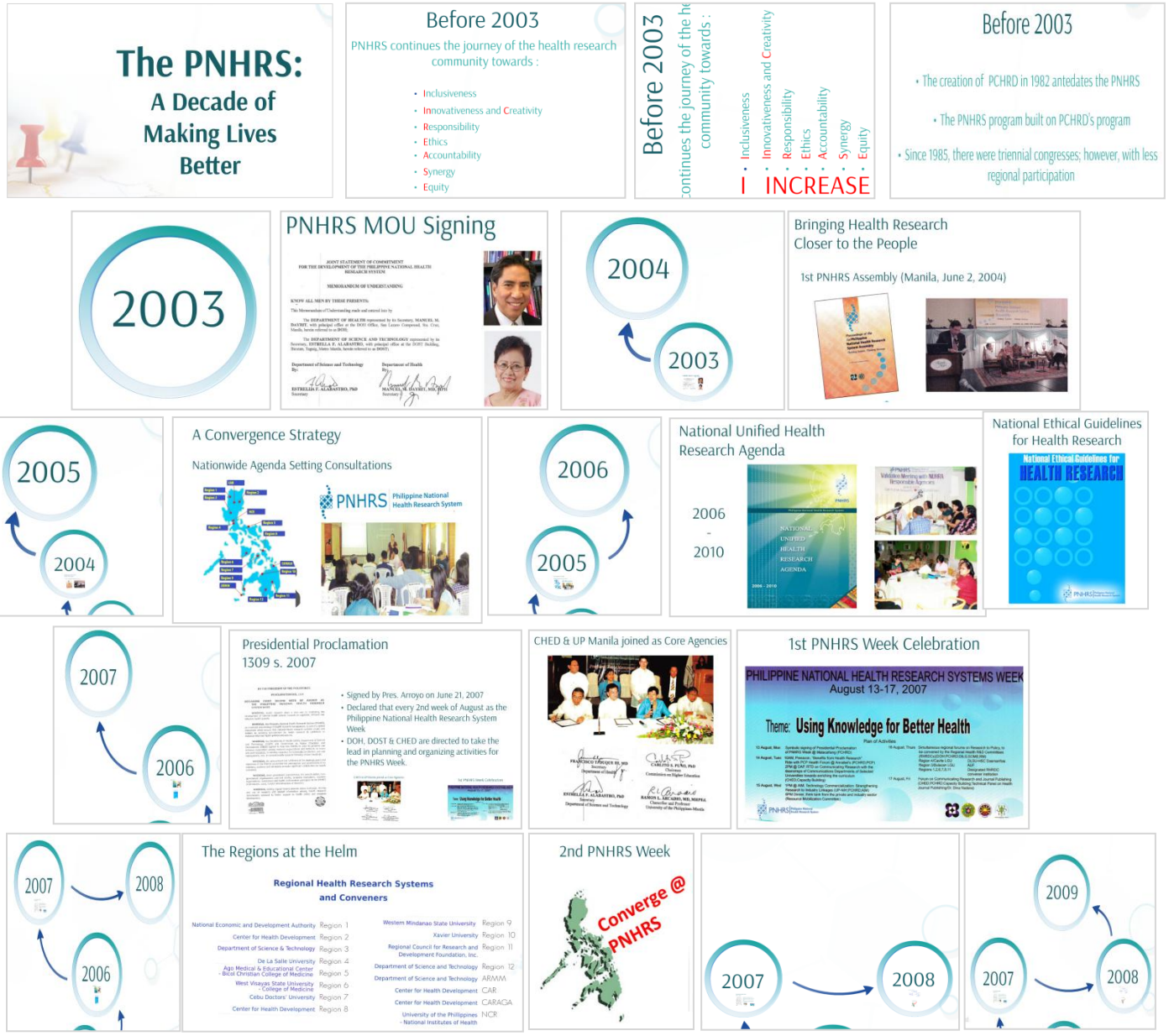
Through the years, the Philippine National Health Research System has proven to be an effective mechanism for the conduct of collaborative researches that are relevant and responsive to our needs and condition. Researches that truly address the pressing health needs of the country and Filipinos. Mabuhay po ang PNHRS! Magandang gabi po!

Report of the Philippine National Health Research System

DR. JAIME C. MONTOYA

Dr. Jaime C. Montoya is the Executive Director of the Philippine Council for Health Research and Development – Department of Science and Technology (PHCRD-DOST) and the Lead Coordinator of the Philippine National Health Research System.

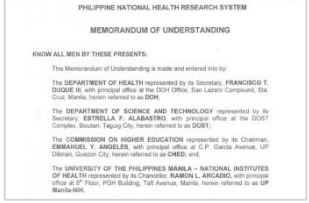
As the saying goes, pictures are worth and speak more than a thousand or even a million words. So please sit back and watch a short video that chronicles the ten year journey of the Philippine National Health Research System.



Regional Assessment

3rd PNHRS Week

Renewal of Commitment


PHILIPPINE NATIONAL HEALTH RESEARCH SYSTEM

MEMORANDUM OF UNDERSTANDING

KNOW ALL MEN BY THESE PRESENTS:

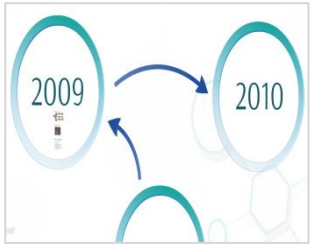
This Memorandum of Understanding is made and entered into by:

The **DEPARTMENT OF HEALTH** represented by its Secretary, **FRANCISCO T. DUQUE III**, with principal office at the DOH Office, San Lazaro Compound, Sta. Cruz, Manila, herein referred to as **DOH**;

The **DEPARTMENT OF SCIENCE AND TECHNOLOGY** represented by its Secretary, **ESTRELLA F. ALABASTRO**, with principal office at the DOST Complex, Bicutan, Taguig City, herein referred to as **DOST**;

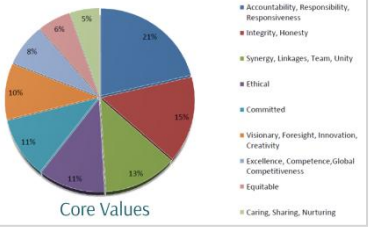
The **COMMISSION ON HIGHER EDUCATION** represented by its Chairman, **EMMANUEL Y. ANGELES**, with principal office at C.P. Garcia Avenue, UP Diliman, Quezon City, herein referred to as **CHED**; and,

The **UNIVERSITY OF THE PHILIPPINES MANILA – NATIONAL INSTITUTES OF HEALTH** represented by its Chancellor, **RAMON L. ARCADIO**, with principal office at 8th Floor, PGH Building, Taft Avenue, Manila, herein referred to as **UP Manila-NIH**.



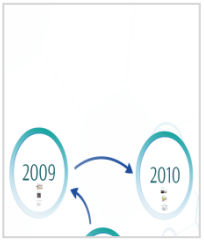
PNHRS Planning

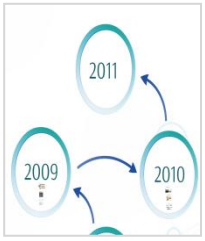
- Revisited the PNHRS Vision, Mission, Goals, Objectives
- Identified the PNHRS Core Values



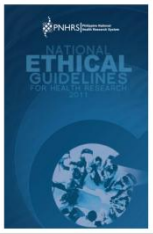
4th PNHRS Week

17 RHRDCs





National Ethical Guidelines for Health Research



NUHRA 2011 - 2016

Strengthening Commitment among Core Agencies


PHILIPPINE NATIONAL HEALTH RESEARCH SYSTEM

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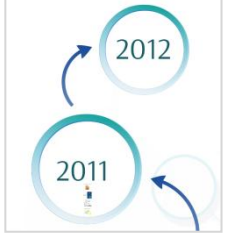
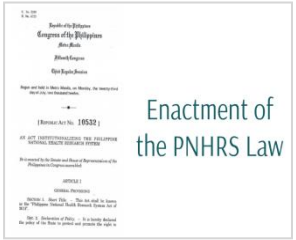
The **UNIVERSITY OF THE PHILIPPINES MANILA** represented by its Chancellor, **RAMON L. ARCADIO**, with principal office at 8th Floor, PGH Building, Taft Avenue, Manila City, herein referred to as **UP MANILA**.

5th PNHRS Week



Launching of the Philippine Health Research Registry

6th PNHRS Week



Enactment of the PNHRS Law

Implementing Rules & Regulations – PNHRS Act

- DOST Special Order No. 534 s. 2013 created the Inter-Agency Technical Working Committee (IA-TWC) to draft the (IRR) of the PNHRS Act.
- 3 public consultations were held:

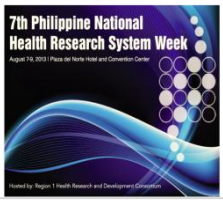
Davao (June 25) Iloilo (June 26) Manila (June 28)

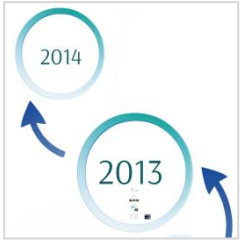
Implementing Rules & Regulations – PNHRS Act

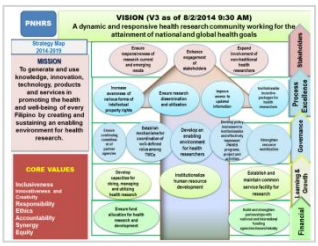
- Online consultation was setup also from 9-11 July 2013 to solicit additional inputs.
- The legal officers of the four implementing agencies reaffirmed the IRR on 24 July 2013 prior to the signing of their respective institution head.

Implementing Rules and Regulations of RA 10532

7th PNHRS Week







VISION

A dynamic and responsive health research community working for the attainment of national and global health goals

MISSION

To generate and use knowledge, innovation, technology, products and services in promoting the health and well-being of every Filipino by creating and sustaining an enabling environment for health research.

If I may say, you, all of you will determine the future of the Philippine National Health Research System. Please continue on sharing your expertise, your talent and your skills to make the life of every Filipino better through health research.

Thank you very much!

PRESENTATION: DISASTER RISK REDUCTION AND ROLE OF SCIENCE

PROF. VIRGINIA MURRAY

Dr. Virginia Murray is the Vice Chair of the United Nations International Strategy for Disaster Reduction Science and Technology Advisory Group. Dr. Murray has been a consultant in Global Disaster Risk Reduction in Public Health in England and a visiting professor in Health Protection MRC-HPA Center for Environment and Health; Imperial College and King's College, London.

What a huge honor to be here with you for this 8th Philippine National Health Research System Week Celebration! What an incredible organization you are! What an amazing video! What you are achieving is fantastic. So I'm truly honored to be here.

I've come to talk about disaster risk reduction and the role of science. Having seen your amazing presentations today and listened to some of the discussion, I know you are much concerned about the vulnerability of the Philippines to disasters. So let me show you a few things that have been happening in the United Kingdom. Well, the first one is to say that we do have some occasionally. It's not just you in Cebu who have it. But we also have problems with heat. Heat frost can kill. In 2003, we had one of our hottest periods and a spike of deaths. Last year, we had another bad heat wave but this time with a good heat wave plan for England, the numbers of deaths were dramatically reduced.

But for us in the United Kingdom, cold is also a problem. We know when we compare ourselves with our European neighbors, but we in the United Kingdom have a very bad output with winter mortality. Your typhoon Yolanda has totally killed about 16,000 last year. Last year, we had an excess winter mortality of over 31,000. So, we too, have disasters. Not always quick and short, some are long term and we still don't manage them well. In the United Kingdom, we have very clear guidance on how to respond to disasters with our Civil Contingencies Act. It makes some very clear suggestions of how we respond. Most of our response is at bronze, operational, front line response. But if there is a problem and people can't cope with it, then it might become a sliver response and go to tactical. But if it's a very big event, it might go to gold, of which case we have a strategic response reporting to our Prime Minister, in our Cabinet Office Briefing Room A, known as COBRA. Health Protection Public Health England works at all levels. Sometimes disasters are driven from the top down, but more frequently it's the bottom up. But it's a very flexible and easy system to operate we have found.

As part of that, we have a National Risk Register. This is our last year's risk register which looks at terrorism and other malicious acts as well as other risks. I will take you into the other risks. Our highest risk of relative impact score versus the likelihood of it happening is on the top right hand corner which is pandemic influenza. So there's a lot of concern in the United Kingdom about whether Ebola will arrive there. But we think with good management, World Health Organization (WHO) will be able to keep it under control.

I just told you about the problems of low temperatures and heat waves. So now, I turned flooding be it coastal or inland and storms and gales in the United Kingdom. So flooding is a problem. This is last winter, where we have the wettest winter on record since our record started in about 1666. It was extremely wet but we have resources to help us with it. We have been working hard on building evidence-based science to support us and this is a piece of work we have done with the World Health Organization, as well as ourselves, in Public Health England and we found it very helpful.

But we also have a storm last year. This was Wind Storm St. Jude on the 28th of October. Here we had very good warning. Six days in advance that the wind storm was coming that the wind gusts will be up to 80 miles per hour. But by using a multi-agency cross governmental response, with our Cabinet Office Press Releases, we only had 5 deaths because people stayed at home, did not go on public transport and were very careful. But for that, we had another evidenced-based systematic literature review which was found to be extremely helpful and informative and were able to show the timeline of pre-storm, storm and post-storm effects. This information was extremely important in sharing it with the members of the public and making sure they have the information they needed. But it's not just in the United Kingdom that we have problems we know there are problems worldwide. And these are the natural catastrophes mapped at 2012, points to your Typhoon Pablo, known as Typhoon Bopha elsewhere, in the Philippines in the 4th to the 6th of December.

But the whole world is at risk. Now that we have climate change and things have become more difficult. So if your typhoon last year, we worked very closely with the Cochrane Collaboration which I think many of you know and their small sub-group of Evidence Aid and we put up a series of resources on Typhoon Haiyan in the Philippines making to have free access to all the data.

The Cochrane Library was available to you free until the end of March. We put a lot of public health information, mental health, infectious diseases, second-risk stresses but we also put up information on disaster evacuation and medication, power outrages and extreme health events disaster risk management for health with World Health Organization (WHO), disaster needs assessment and the website which hosted your Philippines response. So that our non-governmental organizations who came in working through World Health Organization (WHO) and your Department of Health in Manila could share the information as appropriately as we could possibly do. We worked very closely with our Met Office in the United Kingdom which has very close links with your Met Office here and we share a lot of the evidenced-based with them too. So it's a real partnership working.

But this is only part of the work that we in the United Kingdom get involved in. I'm sure many of you have heard of the Hyogo Framework for Action (HFA) that has run from 2005 to 2015. But I know that some of you have never heard of it so I'm going to explain it a little. This is about building resilience of nations and communities to disasters. It is designed by the United Nations as a result of the Yokahama Framework in 1994 and this Hyogo Framework in 2005. There are five priority areas. The first is governance: organizational, legal and policy frameworks - make disaster risk reduction a priority. In the Philippines, you have led on much of this across the world providing your safe hospitals, example, as one of the things that we were very proud to discover with the work that you've been doing. However, we know that it's very difficult for you. We know that risk identification, assessment monitoring and early warning are key and those big discussion today about the word storm surge and what it means and how you can actually educate the people to understand the risks more clearly. And I believe there's a lot of work going on in the Philippines to try and address this more clearly. One of the calls I listened to today was about knowledge management and education. You who seemed to ask for much more education at all levels to make sure people really understand the risk of disasters. But it's not just in the health domain. It is a very wide domain because disaster risk reduction should be main stream throughout every decision in the government. We are told now partly because we need to reduce underlying risk factors. And on a tour in Cebu yesterday, I was quite concerned to see that there weren't many sea walls and you have built extensively on your flat planes. We, too, in the United Kingdom have done this. It's only in the Netherlands that I know that they are really prepared. And only finally do we get the bits that pour most discussion today when I was listening to your talks on preparedness for effective response and recovery. Being prepared and ready to act, which I felt from your discussions suggested that coordination was not easy for all of you. But equally the need for research to be embedded in the government response and recovery seems to be crucial and to hear the ethical debate this afternoon about trying to get ethics approval for work, I thought was really important. Congratulations on that!

Now, disaster impacts across the world have caused much expensive damage, affected billions and have killed many. The peaks and graphs are there to see in 2012 information from the United Nation International Strategy on Disaster Reduction but equally the impact of climate change seems to be growing faster than we expected. And here you have the information up to 2011 with the increasing risk of floods that have been documented recognizing that disaster database documentation is not as robust as it could be. I am the Vice Chair of the Science and Technical Advisory Group for United Nations International Strategy for Disaster Reduction Science and Technology Advisory Group (UNISDR) and this was the report to be presented last year at the Global Platform where we had over 3,500 people, with over 170 countries, with over 50 UN Organizations and many others there to talk about how we deal with disaster risk reduction.

We felt that the simplest way to show that science can make a difference was to write it as if a policy maker might need it. So we looked at the disaster risk reduction problem, the science, the application to policy and practice and then there's bit that so many scientists don't seem to follow often. Did it make a difference? I'm going to show you just two examples. One is the New Tsunami Warning and Mitigation for the Indian Ocean Region which has been used in Indonesia most extensively and has really made a difference. The second is more health based and I therefore thought easier to explain. The problem has been congenital rubella which many of you know many too well. But in the United States, at one period, they had over 11,000 babies that died and over 20,000 that had severe anomalies. The science really started in Australia in 1941 by a man called, *"Norman Gregg"* who overheard two women in the Outpatient's Clinic of an Ophthalmology saying that their

babies had very similar problems and they both had German measles, rubella. Gradually, Gregg and others grew the epidemiology and it was discovered that rubella obviously causes very serious effects that all of us know now.

The policy and practice changed was the vaccination which was particularly picked up in the Americas through Pan American Health Organization (PAHO) and all the Americas have really been pushing this vaccination program and increasingly the vaccination program has been used across the world but there are some countries who still don't have full access to it. So we know it save lives.

The recommendations in this case studies show that science should demonstrate that it can inform policy in practice just as we have been called upon by your Undersecretary of the Department of Health that we must use a problem solving approach to research that integrates all hazards and disciplines, that we must promote knowledge into action and that, for us now, science should be key to the Post-2015 Hyogo Framework for Action II (HFA II) which was brought out in the Closing Chair Summary of the Global Platform in May 2013 where the Chair reported that Hyogo Framework for Action II (HFA II) will have a clear recognition for a central role for science and of course, science includes all health sciences, all social sciences, all engineering sciences and many other sciences.

2015 will be marked by three of these landmark agreements: one is the disaster risk reduction; the second is sustainable development goals which will take on from the Millennium Development Goals; and the climate change agreements. These are really crucial to the future and it's very important that you here in the Philippines in this conference should help to inform what you need. We have a clear timeline to 2015. We've already had the First Preparatory Committee for all the countries of the world, in Geneva in July and the next one is due in November.

Last Friday, they release the very first pre-zero draft of Hyogo Framework for Action II (HFA II) which is very important for those who are interested to see. It will be agreed in March next year in Japan and taken to the United Nations General Assembly for ratification in September next year. But as scientists, we're really worried. We knew that science was not strong in Hyogo Framework for Action I (HFA I) so we have proposed an International Science Advisory Mechanism for Disaster Risk Reduction to Strengthen Resilience for the Post-2015 Agenda. We've called on for an Action Agenda: champion and reinforce existing and future programs, initiatives for integrated research and the scientific assessment on disaster risk. And second is to establish an International Science Advisory Mechanism for Disaster Risk Reduction to Strengthen Resilience for the Post-2015 Agenda. What could this do? Well the first thing is to produce periodic report on current and future disaster risks and all the stages of efforts to manage such risks at global, regional, national and local scales. So this really important report on the intergovernmental panel on climate change special report on, "*Managing the Risks of Extreme Events on Disasters to Advance Climate Change Adaptation,"* is absolutely crucial that people inside the Philippines know, use and can benefit from it. I am the first author of one of the nine chapters and know it intimately and feel that it's a really important tool with a very clear health message.

We also need and will have the opportunity with Hyogo Framework for Action II (HFA II) in monitoring progress towards internationally agreed targets. Some of them have been described in the elements program but now we have a very clear framework on what we could achieve with inputs, outputs and outcomes some based within countries but some will be globally assessed. What an opportunity for the Philippines to show that although you have disasters, you can really make a difference. The next is to provide guidelines on terminology, methodology, standards for risk assessment, risk modeling, taxonomies, use of data and other things. Terminology is always difficult but I saw in the presentations today that you have several definitions for various things that were not standard United Nations agreed. Maybe it's an opportunity for us all to take forward the standards that exist and improve them.

But it's no good in having a statement if it doesn't reflect what the stakeholders need. The whole process of science is it must be much more pragmatic, much more reflective on what needs to be used, of what we can do to really make a difference. So as to identify and address these demands for Science Research Information Evidence on Disaster Risk and Resilience is key both at community, local, national, regional and global levels and the final thing that we are really interested in is making sure that communication complex scientific information evidence to support the decision making of policy makers and other stakeholders should be facilitated so that policy makers can really use the science that is available in a way that helps them to make better decisions. This is being supported at the 5th Africa Regional Platform in Abuja in May where all the African countries and African union came together. This is being supported by the coal of the America's

meeting in Guayaquil, in Ecuador in May. This is being supported by the Bangkok Declaration for Disaster Risk Reduction in Asia and the Pacific in June 2014. This is also being supported for the Pacific and for the European Ministers. At the world, United Nations World Conference for Disaster Risk Reduction Preparatory Meeting where many statements talking about the need for science are real call for how we can help. But one of the things that I was already pleased about was that in strengthening science is absolutely key to the joint United Nations statement where they wanted a United Nations system supporting the proposed creation of an International Science Advisory Mechanism to strengthen the evidence-based on implementation and monitoring of the new framework. This was signed by all these United Nations bodies which also include the World Health Organization, a huge achievement on behalf of our colleagues worldwide.

So finally, disaster risk reduction and the role of science. It is essential that we know that disasters are increasing in frequency, either little ones or the terrifyingly big ones like your Typhoon Yolanda. We know that evidence-based science is key to public health preparedness, response to increasing way to recovery. There is now an opportunity for science to impact on policy and practice by establishing an International Science Advisory Mechanism for Disaster Risk Reduction to Strengthen Resilience.

Thank you for allowing me to bring my presentation to you and I look forward in working with you over the next two days.

KEYNOTE ADDRESS

SECRETARY PANFILO M. LACSON

A member of Matatag Class of 1971 of the Philippine Military Academy and a distinguished servant leader in our country, he is known for his distinctive phrase: What is right must be kept right; what is wrong must be set right --- a personal credo he has faithfully observed in his more than 40 years of public service as a law enforcer, legislator, and now as rehabilitation czar. His rise to national consciousness started when he catapulted the Philippine National Police to one of its highest public approval ratings in history. Not only did he restore the PNP to its glory days, his stint as Chief PNP also sparked a grueling yet worthwhile uphill climb for this man from Imus, Cavite. During his two consecutive terms as a Senator, he had consistently not availed of his Priority Development Assistance Fund entitlement, commonly known as pork barrel, which is worth P200 Million annually, as part of his crusade against graft and corruption. He served as Chairman of the Senate Committee on National Defense, Committee on Civil Service and Government Reorganization, Committee on Ethics, and the Committee on Accounts. Some of the more significant laws that he authored and sponsored are the following: Republic Act No. 9485, Anti-Red Tape Act of 2007, Republic Act No. 10349, An Act Amending Republic Act No. 7898, Establishing the Revised AFP Modernization Program and for other Purposes, Republic Act No. 9166, An Act Increasing the Base Pay of the Members of the AFP, Republic Act No. 9416, Anti-Cheating Act of 2007, Republic Act No. 10167, An Act to Further Strengthen the Anti-Money Laundering Law, Republic Act No. 10354, An Act Providing for a National Policy on Responsible Parenthood and Reproductive Health, Republic Act No. 10351, An Act to Restructure the Excise Tax on Alcohol and Tobacco, Republic Act No. 9484, The Philippine Dental Act of 2007. At present, he is in charge of rehabilitating and rebuilding the 171 cities and municipalities hit by the storm surge caused by typhoon Yolanda.

Thank you Director Paradela for that kind introduction! Undersecretary Carol M. Yorobe of the DOST, Assistant Secretary Eric Tayag of the Department of Health, Professor Virginia Murray of the United Nations, my fellow workers in government, delegates and participants of the 8th Philippine National Health Research System Week, friends, guests, ladies and gentlemen. Let me first thank the Department of Science and Technology, the organizers and conveners of the 8th Philippine National Health Research System Week and our friends at the Central Visayas Consortium for Health Research and Development for giving premium to health research.

I can still remember when I was in the Senate actively participating in the annual budget deliberations, I would make it a point to introduce an amendment to augment the meager resource of the DOST particularly in pursuit of research and development. I purely believe, then and now, that one driving force which can propel our country's growth and development rests heavily on scientific research and our ability to harness our home grown talents by giving them all the support and motivation to keep them here and contribute to our own country and none other. I cannot understand for the life of me why they keep on driving away the many scientists and inventors we have from our shores to the waiting arms of a foreign land only to heap praises and accolades on them even trying hard to claim honor by tracing their Filipino ancestral roots after they excel in their fields.

Sadly, almost always when we do, they already renounced their birth citizenship and had oath allegiance to another nation's flag. To illustrate, the world was made brighter by a full-blooded Filipino, Agapito Flores, when he invented the fluorescent lamp. Children and adults continue to enjoy one of the world's favorite toys, the yoyo. Thanks to another Filipino, and another Flores, first name, Pedro, who invented and mass produced yoyo in a small toy factory in California, USA, where he migrated until he sold the rights to an American who hit it big in business by selling millions of yoyos all over the world. Fe del Mundo, the first Asian to enter the Harvard University School of Medicine invented the incubator and jaundice-relieving machine. Eduardo San Juan, who invented the moon buggy or the lunar rover, which was used by Neil Armstrong and other astronauts when they first explored the moon in 1969. The unheralded and forgotten Abelardo Aguilar who invented erythromycin, better known as an Iloson-brand antibiotic named by an Indiana-based Pharmaceutical firm, Eli Lilly Company, in honor of Ilo-ilo, province where Aguilar discovered and developed the fungi into that antibiotic drug. We don't have to go far to stretch this point. My office's very own, Atty. Karen Gimeno, has an aunt, Nora Ventura Lapitan, who is a Filipino genetic scientist, now working with the US Government's National Science Foundation and the Bill & Melinda Gates Foundation. Her inventions include DNA sequences for a wheat gene conferring drought resistance. As much as she would like to share her talent here, the lack of facilities and opportunities in the Philippines prevents her from coming back. I can mention many, many others because there is a lot more. But there's still a good number in this program and I'm afraid that I

might finish my Keynote Address at 12:00 midnight just calling the role of Filipino scientists and inventors whose talents may not have necessarily gone to waste as they contributed a great deal to mankind and humanity. But the whole point that I want to underscore is the apparent neglect of most of our national leaders or at the very least, their lack of support to the propagation of innovative scientific research in this united land. That is why, the organizers and promoters of this evening's event deserved to be commended and nothing less.

It is timely supported in this kind of initiative and undertaking with no ifs and buts, but unequivocally. In my case, I will continue to be an advocate and supporter of meaningful research and development in whatever personal and official capacity. Since childhood, I have always dreamt of seeing in my lifetime a Filipino health advocate finding an antidote to cancer so that the agony of dying and waiting to die will never be felt by anyone. Or somebody who can make the hair regrow in its original texture and color so baldness and white hair will only be by choice. Or a chief drug that will put Vicky Belo out of business so husbands can stop working their butts out at some point in their lives only to spend hard earned money to make their wives look beautiful and younger. More relevantly, how I wish that a Filipino scientist can invent and develop a technology that can dissipate and weaken down to zero wind velocity any typhoon or hurricane hours before it makes landfall.

I just remember, we are here in my adoptive city of Cebu, and since Typhoon Yolanda or Haiyan made its second and third landfalls in Daanbantayan and Bantayan Island in Northern Cebu, I might as well report to you that on August 1, 2014, through the concerted efforts of the cabinet clusters and the local government units, we submitted the Php 170.9-B Yolanda Comprehensive Rehabilitation and Recovery Plan or CRRP to the President. With the President's approval to the comprehensive plan, combined with his earlier nod on the phase implementation of the six vetted local government units (LGU) rehabilitation and recovery plans which includes Cebu, we are confident that all rehabilitation efforts of the government will now shift to high gear. But even with massive mobilization of government resources and the downloading of funds to the implementing agencies, we will need you, the health sector, to take up even more significant roles. Never before had our country been faced in so unprecedented a task of reconstruction. I find very timely your celebration of the 8th Philippine National Health Research System Week, whose theme dwells on, "Research and Innovation in Health for Disaster and Emergency Management." I agree with you completely that evidence-based action, planning is important for disaster management and preparedness. We will need you delegates of PNHRS to help us arrive at health outcomes in a manner that would build back our country better, safer and, in ways, resilient.

Before I discuss the topic of evidence-based action planning on disaster management, I wish to revisit an unforgettable personal experience with human generosity, if not, the particulars of the human condition unbounded by the circumstance of time and place. When Typhoon Yolanda cut a swath of devastation across the central part of the Philippines last November 8, 2013 killing 6,300 people and severely affecting over 1.4 million families, the whole world came to help and helped unconditionally. Yolanda taught us many lessons mostly about the generosity of bleeding hearts. I tell you when that heart bleeds; it forgets its race, color and language. It even forgets its age. As Yolanda makes no distinction between age or gender, or one's social stratum, so too, are combined human responses to Yolanda, should make no distinction. My encounter with important social actors led me to bear witness to human interactions in ways that uplift the human condition permanently from turnovers of motorized *bangkas* to fisher folk to inaugurations of hospitals to the great humanitarian commitment of pledges of whole countries. It was then and there when I realized that private sectors stakeholders can be a prime mover for the state. One of my encounters with human generosity was in Tanuan, Leyte. It was there where I learned of the story of our youngest donors, Tala and Malaya David, aged 10 and 13. They were born and raised in Berkley, California, USA. Over dinner with their grandfather, Amado David, who had earlier immigrated to the United States from Tanuan, Leyte. The two young girls told him they wanted to raise US$1,000 to buy some school supplies for the poor kids in their grandfather's hometown. The girls had yet to set foot on Leyte but saw TV news footages of the destruction brought about by Typhoon Haiyan. Amused, Grandpa Amado, simply smiled, unconvinced and maybe skeptical then forgot what he heard that evening. Without his knowledge, the David sisters went online selling red-, white-, and blue-colored rubber loom bands for US$10 a piece indicating where they would use the proceeds. In two months, they collected a total of over US$135,000 or roughly Php 5.8-M enough to build a four classroom building in Brgy. Maribi, Tanauan, Leyte where we broke ground around three months ago to signal the start of its construction. While I referred to Tala and Malaya earlier as our youngest donors, I had to appropriately describe them now as our youngest heroes.

Just like the scientists and inventors that our country has produced and all those that will come after them to save and prolong lives out of science and technology. Indeed, Secretary Montejo and his DOST family rightly deserve our support both in words as well in actual acts of encouragement. We are capable of doing what the two young girls did in California, barely even at their teens to raise Php 6-M enough for a four-classroom structure to be built from ground up. I believe that the participants in this forum will be able to translate your normative and empirical methods which you already routinely apply to raise health awareness and health outcomes in the Yolanda corridor. I know you can make research-based solutions to health problems to a simple straight forward action. I have other human interest, real life stories of pro-heroism and honesty, if you will, to share and which transpired along in the Yolanda corridor at the time of unimaginable suffering and difficulties of the survivors. Like that of a mother of four, who walked a few kilometers to return Php1,500 under a Php500 per day cash for work program of the Taiwan-based Tzu Chi Foundation. The woman voluntarily claimed that she did not deserve the excess amount because she failed to report for work as she had to attend to and take care of a sick child for three days. Or that of a ten-year-old boy sent on an errand by his ailing father to return Php 3,000 in excess of the Php12,000 in one-time cash assistance to typhoon survivors that their family of five was entitled to compare to larger families of 8 that were entitled to receive Php15,000.

But then, I know you invited me here to discuss the topics on evidence-based action planning on disaster management and preparedness. This is no doubt an equally important task. I will also give a quick summation of all Yolanda rehabilitation efforts being coordinated by my office as Presidential Assistant for Rehabilitation and Recovery (PARR). Based on my understanding, evidenced-based action planning is typically designed for early detection and treatment of health risks, which can be applied to prevent cases of asthma exacerbation, under-age alcoholism to larger community wide vaccination programs. The list of applications seen so far and wide because I understand that evidence-based action plans are geared towards how health professionals can make the most optimal strategic interventions particularly in an environment with insufficient data and imperfect or asymmetric information about a patient's symptoms. Much color sheet in the field of evidence-based action plans will almost always end with some degree of inconclusiveness along with the typical conclusion calling for more studies, better results and findings with less variation. But medical scholarships also point to evidence-based action plans as one that requires medically relevant strategic intervention under protective prevention or precautionary principles or principles requiring diligent deployment of health mechanisms under circumstances of medical uncertainty. Scholarships also point to action plans carried out in the name of early detection. All told the continuum of medical claims converges towards an appraisal of evidence in whatever form or degree towards a strategic action and how that action can best raise a patient's health outcome. It so happens to be that your patient here today is the entirety of the Yolanda corridor which comprises 171 cities and municipalities in 14 provinces across 6 regions.

While far from being a medical expert on my own right, my own layman's observation is that tool kits for Disaster Risk Reduction and Management or DRRM should always predicate action under extreme uncertainty. I think the slogan, *"Acting with certitude even in times of uncertainty,"* applies equally to medical evidence-based action planning and Disaster Risk Reduction and Management (DRRM). Under the circumstances of the new normal, what with all the unpredictability of the adverse impacts of climate change are calculus ought to be start slanted towards an action-based paradigm that requires swift response even with uncertainties and incomplete information. But one without compromising the totality of health outcomes of the subject society you intend to diagnose and treat. While we have submitted our master plan last August 1, still our ability to cope with disaster management since Yolanda struck in November will be put to severe test. As medical experts, you may be familiar with productivity and empirical model typically called, "The Bottom-up Approach." The Bottom-up Approach is applied in various settings from scientific field testing to poverty alleviation for the purpose of planning, managing, forecasting productivity improvements. Since the President approved in principle our phase implementation of projects the bottom-up approach, my office ask all affected lot, local government units (LGUs) to develop their own rehabilitation and recovery plans for these local government units (LGUs) to immediately articulate the needs and requirement of their local government units (LGUs) for integration in the comprehensive plan. Last July 25, the President approved the vetted Local Government Units' recovery plans of the provinces of Cebu, Leyte, Samar, Eastern Samar, Ilo-ilo and the City of Tacloban with a total of Php 112-B in funding needs and requirements that the Department of Budget and Management (DBM) is now authorized to release to the different implementing agencies. Our implementing line agencies can in turn download some of the resources to the local government units (LGUs) which hold appropriate absorptive capacities.

Phase implementation was necessary despite lingering uncertainty and we knew that we are to act and act now. Acting with certitude despite uncertainty can specially hold true under the new normal. Under the new normal, there can be systemic lack of data, lack of understanding over causal relationship and methodological uncertainty and yet the new normal will require all key social actors including you to act now, today, with certitude despite lingering empirical uncertainty. If we are faced with lingering uncertainty despite scientifically best methods within our reach, resilience will be key. Recognition of resiliency can inform your evidence-based action planning. Today's mega disasters put to the test the very coping ability of nations, regions and the international community at large. The roles and functions of governments, entire laws and land use codes and institutional behavior both private and public must be subjected to a new resiliency test. Your collective insight and sustained advocacy for a new set of medical best practices will be needed in Disaster Risk Reduction and Management (DRRM) generally and in our great tasks in Yolanda rehabilitation in particular. We will need you to engage us in our combined efforts to uplift and rehabilitate the Yolanda corridor.

Before Yolanda, these six regions had a combined population of 29.5 million people accounting for 17.4% of the country's Gross Domestic Product (GDP). They were contributing a total of agricultural output of 26.8%, 16.7% of industry and 15.8% of services. This pre-disaster demographics provide us with indicators of what are baseline data should be when formulating our programs, projects and activities or PPAs under the build back better platform of the President. One of our major goals in the Comprehensive Rehabilitation and Recovery Plan (CRRP) or master plan is not only to restore pre-Yolanda economic demographics but to go beyond the Quality of Life associated with the pre-Yolanda status quo. As over-all manager, Presidential Assistant for Rehabilitation and Recovery (PARR) is task to unify and coordinate rehabilitation and recovery efforts from the public and the private sector. From the public or government sector, Presidential Assistant for Rehabilitation and Recovery (PARR) establish a cluster framework approach by organizing five clusters of the national level namely: infrastructure, resettlement, livelihood, social services and support, each headed and supported by the relevant government line agencies. This is in addition to our bottom-up phase implementation I mentioned earlier which requires participation by all government units.

To give you an overview, we will need to resettle 205,128 housing units to safe zones after the Department of Environment and Natural Resources and the Department of Science and Technology have properly identified some 1,364 hectares of suitable sites for resettlement. The identification of safe zones means that the covered areas are free from multi-hazards such as storm surges, floods, erosion, landslides, volcano eruption, fault lines and even soil liquefaction. Along this line, my office led an initiative on multi-hazard mapping which integrates and topologically overlays different schematic maps generated by various government agencies and other groups to create a unified multi-hazard map. The unified multi-hazard map will be useful and beneficial to the local government units (LGUs) to view coincidence hazards in their areas. This will allow planning to become strategic and geographically targeted. Our government is faced with the need to provide assistance either in financial form or in the form of distribution of construction materials or both to some 1,010,000 families whose houses are located in safe zones but are nevertheless damaged either partially or totally. National roads, bridges, ports and airports will be rebuilt and reconstructed. In fact as I speak, so much of the infrastructure is already being rebuilt. And as the President mentioned in his State of the Nation Address (SONA), the reconstruction of many national roads, ports, airports have already been completed. Livelihood opportunities will be generated and expanded in the agricultural and the fisheries sector as well as in the industry and services sectors. As we anticipated the gaps and hurdles which in here in the bureaucracy across all government institutions, the private sector, Non-Government Organizations (NGOs), Civil Society Organizations (CSOs) are organized to become development and sector sponsors. They have so far contributed immensely and continue to assist in the rehabilitation efforts. Upon the President's approval of the master plan, we will shift our focus towards monitoring and evaluating the implementation of projects as part of my office's oversight mandate under Memorandum Order No. 62. This is a new challenge which Presidential Assistant for Rehabilitation and Recovery (PARR) will face. Consider this, a mere 1% leakage in whatever form, in the implementation of the project, programs and activities, costing Php 171-B, actually means Php1.71-B in wasted taxpayers' money. Worst, if these project implementers a.k.a. contractors, encounter the unscrupulous maski 10% or magaang 20% while undertaking the projects, the result could be disastrous and sickening.

This is where you as delegates and participants of PNHRS Week and other like-minded groups can continue to help us by way of monitoring how and where the monies go. Sums of money, which we, as tax papers are all contributors in the first place. Needless to say, like Tala and Malaya David, you and I have a stake in every peso to be spent on rehabilitation. The Presidential Assistant for Rehabilitation and Recovery (PARR) has formulated a tool to do this. We have dubbed it as

EMPATHY, short for *Electronic Management Platform, Accountability and Transparency Hub for Yolanda*. EMPATHY captures all pipeline, on-going and completed projects in support of Yolanda recovery. This includes projects funded by the private sector, bilateral and multi-lateral donors, as well as those funded by national and international government and non-government institutions and organizations. Presidential Assistant for Rehabilitation and Recovery (PARR) hopes that beyond Yolanda efforts, this same platform will eventually be used to monitor all types of government projects to promote transparency and accountability. Of course our official website will also have a function that allows Presidential Assistant for Rehabilitation and Recovery (PARR) to receive reports about any anomaly pertaining to any rehabilitation and projects.

I would like to end my message with the acknowledgement of the participation of the private sector, multi-lateral, bilateral agencies, Non-Government Organizations (NGOs) and Civil Society Organizations (CSOs) who have proved invaluable in filling the gaps needed for the rehabilitation efforts. To the Department of Science and Technology (DOST) officials, our health professionals, and all those present in this year's Philippine National Health Research System (PNHRS) Week, I can only say, I cannot thank you enough for everything that you have done and continue to do within your means that will best provide comfort and hope to our countrymen along the Yolanda corridor. We appeal to you to continue and sustain multi-sectoral support even as our implementing agencies are forced to undertake major projects.

Mabuhay ang Pilipinas, mabuhay po tayong lahat!

Risk Communication on Typhoon, Rainfall and Storm Surges Warning System: Post Assessment on Typhoon Yolanda

Dr. Oscar Victor Lizardo
Chief Science Research Specialist
Project Nationwide Operational Assessment of Hazards (NOAH)

Discussion

Hello. Maayong buntag sa tanan! Taga-Cebu ba ta tanan diri? Di? Sige lang, ako man pud, dili man pud ko taga-Cebu. Ang seryoso naman natin dito. Bakit ganoon? Anyway, so, by the way, I am Oscar Lizardo. And I hope you don't mind, we will make this a little light. So mabilis lang ang presentation ko. It won't be too serious and I hope you would be interested with what I am about to say.

So again, I'm Oscar Lizardo. I'm from Project NOAH, and Project NOAH stands for the *Nationwide Operational Assessment of Hazards* because that's what we study, the hazards, which is entirely different from disasters. I'll show you later what's the difference. Now, in Project NOAH it's not all hard science. Marami, marami tayong ginagawa sa Project NOAH. To some degree, yes, forecasting the weather, identifying the amount of rainfall. These are all science. But disasters do not end there. Disasters, it's a wide range. So it's not just predicting the weather. It's also important to communicate the effects of that weather, the effects of those hazards in order for it not to become a disaster. Kaya in Project NOAH, we are geologists, hydrologists, meron din tayong mga anthropologists and communicators para pag-aralan how we could communicate these things effectively. Kasi there's really a problem in terms of communications. I'll show you later why. Again, so to start with the importance of communication, it's best to understand first what the difference between hazards and disasters are.

I guess the question is, *"Is the Philippines the most uninhabitable place in the world?"* Kasi nga tayo ay binabagyo, nililindol, binubulkan, nilalandslide. Lahat na ng problema sa atin but does that mean tayo ang pinakamalas sa buong mundo? Again, there's a difference between hazards and disasters. We are plagued by hazards and these are hazards. Natural hazards are naturally occurring event. Ibig sabihin, ito iyong paulit-ulit na nangyayari sa atin. Ito iyong bagyo, landslides, earthquakes. Ito po ay isang bagyo, iyan po ay isang natural hazard. Tayo po sa Philippines na Typhoon Belt, nangyari iyan sa atin twenty, twenty-five times a year, some times more. This is what you call a natural hazard. Nagiging disaster lang po siya pag iyong bagyo ay nagdala ng pag-ulan at ang isang komunidad ay binaha, mga sasakyan natin ay tinangay, may mga taong nalunod, saka siya magiging disaster. Ngayon, tayo rin po ay nasa Pacific Ring of Fire. Ibig sabihin, ang lindol, lagi ring mangyayari sa atin. Isa ito sa mga bagay na hindi natin mapipigilan, paulit-ulit lang din po itong mangyayari sa atin, 20 times. But if you will notice sa picture na iyon, there was ground rupture but then, walang daan, walang kalye, walang sasakyan, walang nasira, walang namatay. It is again a natural hazard that occurred but has no effect. Disaster lang siya pag ganyan, may nasirang mga gusali, may mga namatay na tao. So, saka lang siya magiging disaster. Again, dahil tayo ay nasa Typhoon Belt, tayo ay nasa Pacific Ring of Fire, hindi natin mapipigilan ang landslide whether it's rain-induced or earthquake-induced. Again, in this picture, may landslide, pero wala namang namatay. Hindi natin maiisip ito, hindi natin papansinin ang pangyayaring ito. Pero pag ganyang ang mangyari, saka siya papasok sa ating mind. Ito na, may nabuhusan na na komunidad, disaster na po iyan. Iyong susunod na larawan is the best example. Pag nahuli kayo ng asawa niyong nambababae o nanlalalaki, disaster po iyan. Using this example, it is hazardous to cheat. It only becomes a disaster if you get caught. So how do you prevent disaster from happening? So if you ask me, how to prevent this disaster from happening? Wag na lang kayong magcheat. Iyon iyong sagot. Ang dami ko pong naririnig na sagot, na magcheck-in, maglock ng kwarto. Hindi po iyon ang sagot. Huwag kayong magcheat, ganoon din po ang gusto nating mangyari pagdating sa natural hazards. Ilayo po nating iyong sarili natin sa panganib kasi we are so focused on reacting to a disaster waiting for it to happen, we forget the fact that we can prevent it entirely.

To stress that point further, how do you prevent and mitigate disasters? Sabi nga kanina, malas ang Pilipinas dahil tayo ay binabagyo, nililindol, nasa geographic location po tayo, na ganoon talaga. Pacific Ring of Fire, halos gitna po ng equator, diyan po madalas nangyayari ang mga bagyo, so malas. But, if you will notice, in that same geographic location, nandiyan din ang Japan. Sila din binabagyo, sila din nilindol, malalaki din ang mga bulkan nila. In fact, it would make the case na mas malala iyong mga lindol nila. Just these past two months, merong dalawang mga malalakas na mga bagyo na dumaan sa kanila. So the same ang hazard profile natin. Halos parehas lang. Pero bakit sa list na ito, number 3 tayo? Sila wala man lang sa listahan na ito. That is because although our hazard profile is the same, pare-parehas iyong mga nangyari sa atin, hindi sila naapaektuhan, hindi sila nadidisaster. Bihirang-bihira lang, except for large scale hazard events saka sila tumutumba. Dito number three tayo, parehas lang naman.

The World Risk Index, 2012				
Rank	Country	World Risk Index (%)	Exposure (%)	Vulnerability (%)
1	Vanuatu	36.31	63.66	57.07
2	Tonga	28.62	55.27	51.78
3	Philippines	27.98	52.46	53.35
4	Guatemala	20.75	36.3	57.16
5	Bangladesh	20.22	31.7	63.78
6	Solomon Islands	18.15	29.98	60.55
7	Costa Rica	17.38	42.61	40.8
8	Cambodia	17.17	27.65	62.07
9	Timor-Leste	17.13	25.73	66.59
10	El Salvador	16.89	32.6	51.82

That is because they have mastered the art of disaster prevention, mitigation and preparedness. Hindi na nila hinihintay magka-disaster pa. Bago pa man mangyari, months in advance, sinisigurado na nila na ang mga komunidad nila is away from harm, pag dumating man ang isang hazard, handa na sila. Sinigurado nila lahat iyan. Ganoon din iyong pangarap natin dito sa Pilipinas. And to some extent, nagagawa natin iyon.

Two months ago, Typhoon Neoguri, ito po ay dumaan sa Japan. Super Typhoon ang tinawag nila dito. Dumaan siya, may narinig ba tayo pagkatapos? Wala. Dahil sila po ay naghanda ng mabuti. Iyon po ang pinag-iba ng Japan sa atin. Ngayon lagi pong sinasabi sa atin, dahil Japan iyan, maraming pera iyan but again to some small extent, nagagawa natin dito. Alam ba natin itong lugar na ito? Tama ito po ay Batanes. Two years ago, dumaan po diyan si Typhoon Odette. Category 5 Typhoon po iyon. Wala po tayong naramdaman. Kami sa Maynila, dahil na enhance ang monsoon rains, kami pa iyong minalas. Pero ang bagyo sa kanila dumaan, walang namatay. In fact, I just read an article, a few months ago. Sabi, doon sa Batanes daw, pag ikaw ay nasugatan dahil sa bagyo, napakalaking tanga mo raw talaga. Ganoon daw ang mentality nila doon, ganoon daw sila ka-handa. They make sure that they're houses can withstand winds, their roofs can withstand winds, when it's raining they're just inside their homes. Pag may storm surge, they make sure na iyong mga *bangka* nila ay further in land. Ganoon po sila. Marami na pong nakakagawa niyan dito. Another example is Albay. Sila po ay very prepared. Dumaan po si Typhoon Glenda sa kanila, ngunit zero casualties sila. Expect damages, yes. But the importance is, we save lives. Kaya, we all say that there's no such thing as natural disasters because disasters, by its very nature, is not natural. The only natural thing there is the hazard. But disasters are a reflection of people's vulnerabilities. Ibig sabihin, ito iyong kahinaan natin na magresponde at magprepara sa isang sakuna. Kung bibigyan ko po siya ng formula, ganito po iyon:

$$\textbf{DISASTERS} = \frac{\text{Hazards} + \text{Exposure}}{\text{Capacity}}$$

Natural Hazards - ito po iyong bagyo, earthquake, ulan, lahat po iyan natural hazards;
Exposure - mga values na puwede maapektuhan ng isang hazard. Ito po iyong population, infrastraktura, komunidad;
Capacities - all the resources that we have in our hands, to prepare, to mitigate, and to respond to disasters.

So iyong natural hazards, plus iyong mga values na iyon, iyong tao, population. Pagmababa iyong kapasidad natin, saka tayo madidisaster. Simply put, more or less, iyong natural hazards, sorry na lang tayo, nandiyan talaga iyan. But we can do something about it, our vulnerabilities and our exposure. We can lower our exposure and increase our capacities. More than ever, now we have the tools, the technologies and the resources to understand disasters and to respond to them effectively. Nandiyan na po tayo. It's all just a matter of lowering all our exposure to these hazards para ma-avoid nating iyong mga scenarios na ito.

So kami nga, sa Project NOAH, that's how you prevent disasters from happening. You reduce your exposure. You increase the capacity and therefore reduce your over-all vulnerability to disasters. Ganoon lang po. Like for example, ito po ang bahay na resistant to flooding and to winds. So ganoon siya katibay. If we can create that sort of community, we will be safer. Hindi na natin papansinin kung babaha iyan o hindi. So ito lang mga kailangan mong gawin, you just need to know the potential hazards in your area. You use the proper land use planning. Let's say, you established at this area that is prone to flooding, if possible, don't put the communities there. If you could not help to put the communities there, make sure you have the proper engineering

interventions. And then also, proper preparedness. At this point, talagang mataas na talaga iyong exposure natin to hazards. So the best we can do is prepare when a hazard does come to our locality. It's that simple. So how do you know kung saan itong mga areas na ito? Paano mo malalaman kung saan pupunta? Then, this is where we come in. This is where science and technology steps in to identify those areas.

So these are the projects under Project NOAH:

- LiDAR – we use LiDAR technology in order for us to create high-resolution hazard maps, I won't go into these anymore because this is not the topic of my presentation. But just to give you an idea, high-resolution hazard maps, now we have the ability to identify down to the household kung saan puwedeng baha-in, saan puwedeng magkalandslide, saan puwedeng magkastorm surge. We are already at that point, it is now available in our hands.
- Flood Hazard Mapping and Modeling
- Storm Surge Mapping and Modeling
- Landslide Hazard Mapping Enhancement
- Hydromet Sensors Development
- NOAH Web GIS

But in spite of that, bakit ito nangyari pa rin? Ito po iyong Typhoon Yolanda, di ba? Now, sufficient warnings were given, believe me. Days before Typhoon Yolanda, kami naman sa Project NOAH, we are not a warning agency, pero nagpuyat rin kami para makatulong din dito because we found the need to help kasi nga napakalakas talaga ng bagyo na ito. By all accounts, it is by far the strongest typhoon that ever made landfall. So believe me again, sufficient warning was given. Iyong pangulo po natin nag-warn, ang mga media outlets po na-pick up iyan, even kami. Ito po si Mahar Lagmay. Ito po ang boss ko. Kasi nga we are not a warning agency, we have limited means, we only have our website and the social media to warn our people. So pinakita niya dito na very clear yong mangyari na storm surge and each and every media outlet and even the President said, *"Storm surge is very likely to occur in the regions."* And then, binanggit pa daw kung how many number of meters it is. Tapos even media outlets picked up on that storm surge height. So, there was no question that warning was indeed given.

And also hazard maps were available. But although at that point, it was still in low resolution. But the fact is, information was already given in advance in order for people, LGU to know that such an occurrence is most likely to happen in their areas. All of this information was available already pero nangyari pa rin ito. Bakit ganoon? I mean, warning was given, but still this happened. That's when we found out that communication is an entirely different animal. There was a difference between warning the people and how the people received that warning. Obviously, hindi nila na-pick up. Maybe it was not given importance. Maybe it was not understood clearly. Maybe they did not know what a storm surge was. But that is where the problem lay, iyong communication part. It was not communicated effectively. There's a difference between warning and communicating. That's why you have to communicate effectively, this is by far very important. Sabi ko nga sa inyo, sa Project NOAH, hindi lang kami mga scientists doon, we have communicators also, just to study how to do that. This is by far the most difficult part of our job. How to give that, how to send that message, I mean, the simple thing of explaining that we need to be proactive instead of reactive. Simple thing of saying that disasters can be prevented, walang masyadong nakaka-pick-up nito pero sa inyo, napaliwanag na ba that disasters are preventable? Is this clear in this room? That's very good, that means I'm doing my job.

Let me state again that we are not a warning agency but we do provide ways on how to warn people at very limited means: websites and social networking – Facebook, Twitter. So let me give you this example on how hard it is to communicate. This is Mr. Mahay Lagmay, he has probably 30,000 followers twitter. Nag tweet siya sa time ng Typhoon Pablo. Sabi niya, *"The latest position and track of Pablo."* The reason why he shared this para makarating sa kinauukulan, para makarating doon sa mga tao na maapektuhan. Pero alam niyo, naka 15 retweets lang siya. Now this is the contrast, kilala niyo ba si Mario Maurer? Si Mario Maurer na ang kanyang katangi-tanging kasikatan ay ang kanyang katangi-tanging kagwapuhan at the same time, at the same moment, nag tweet din siya, at ang sabi lang niya, "Good afternoon po." Naka-628 retweets ho iyan, mga kaibigan. Obviously, he is a better communicator than all of us. Meron siyang magaling na ginagawa na hindi namin ginagawa. Hindi naming siya kinakastigo dahil sa kanyang ka-pogihan, hindi rin namin siyang gustong maging kagaya dahil sa kanyang kagwapuhan, gusto lang namin magcommunicate kagaya niya. How does he do it? So nagkaroon kami ng social experiment sa aming office, mayroon kaming social anthropologist sa office, sabi niya, let's do a social experiment. Ano ba iyong subject na dikit na dikit sa ating mga Pilipino? Ano ba iyong topic ng ating mga telenovela madalas? Ako na ang magsasabi. Pag-ibig. Love. So ito, itry mo ito, *"Ang love ay parang*

bagyo, iyan eh. Mahirap i-predict kahit may PAG-ASA." 1,000 retweets po kaagad iyan. Na pick-up pa ng GMA iyan, ibig sabihin, may paraan magsend ng mensahe. Kailangan there is a way of sending a communication and there are people who can send that communication well. Another experiment, ito forecast ng Typhoon Santi, paki-share sa inyong mga kababayan. Again, can we all agree that this information can save our lives? 29 retweets, again a dismal number. So si Dr. Lagmay, katabi niya si Didi, try mo to pare. *"Ang mag-reretweet nito, ay gaganda ang love life."* Eh di, 99 na kaagad. Again, that is an example of how to communicate with people, how to get their attention. It's not as simple as saying Hello. Mahirap talaga ito kasi tayong mga Pilipino hindi natin pinakikinggan si Vic Malano. Kilala niyo ba si Vic Malano? Siya po iyong head ng Philippine Atmospheric, Geophysical and Astronomical Service Administration (PAG-ASA). Kung meron mang tao sa Pilipinas, na makapag-sabi kung ano ang lagay ng panahon, siya po iyon. Hindi din natin pinakikinggan si Usec. Del Rosario, ang dating head ng National Disaster Risk Reduction and Management Council (NDRRMC). Hindi natin pinapapakinggan iyan, hindi iyan, hindi iyan, kundi iyan (Mr. Willie Revillame). Magaling po siyang magcommunicate kasi siya po meron po siyang charisma sa tao. Pag siya ang nagsasalita, kuhang-kuha po niya ang puso ng masa. Iyon po ang intensyon natin. Iyon po ang kailangan natin. Masasabi po ba nating kawawa tayo kasi wala tayong ganito?

There are certain solutions to that problem because tayong mga Pilipino, we just need somebody to listen to. That's why we need to empower our local leaders. This is one solution we can make. Our local leaders especially far-flung provinces, sila po ang pinakikinggan ng taong-bayan, sila po ang pinaniniwalaan. Disaster, problemang-problema po iyan ng ating bayan kasinlaking problema po iyan ng pork barrel. Kaya dapat each and every local government, dapat may kaalaman po dito. Also, we need to empower the disaster management that could be you in this room. Kailangan, alam niyo rin iyon, para you know how to react. You know what kind of treatment you need to give your client, di ba? Di naman puwedeng magdala kayo ng treatment ng leptospirosis, earthquake naman iyong nangyari. So you need to know these things. And also, iyong ating mga weather forecasters, mas influential pa iyan kesa doon sa ating mga weather forecasters from the government. Dapat sila, tama iyong sinasabi nila, tama iyong mga nirereport nila. Kayo ba, si Philippine Atmospheric, Geophysical and Astronomical Service Administration (PAG-ASA) pinagkukunan niyo ng weather reports niyo o iyong mga weather forecasters na ito – Si Atom Araullo, Mang Tani (Mr. Nathaniel Cruz), Kuya Kim? So far, they're doing a good job. They're very good in terms of sending out the message.

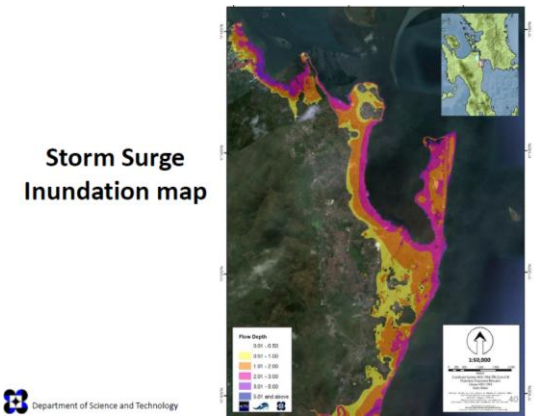
And also, we need to capitalize on the entertainment industry. A lot of people, are scoffed with this idea, "Yuck, ang baduy, artista." But you know, they have a tremendous influence over everyone. Ganoon katindi. We need to approach them and tell them how they can help but the message they will send must be correct. You know, a few years ago, merong telenobela sa TV. It was about disasters. May ulan, may earthquake, very important, sana makakatulong na iyon, it will help people understand hazards and disasters more. Ngunit sa isang segment ng show, here comes the President of the Philippines, sabi niya, in a cabinet meeting, for example, tinawag niya ang kanyang Cabinet Secretary for Science and Technology, sabi niya, *"Secretary, tawagin mo ang ating pinakamagaling na scientists para pag-aralan ang mga problema natin."* Sabi pa naman ng Secretary, *"Ah, Madam President napatawag na po natin ang ating pinakamagaling na meteorologists and top five best astrologers."* Astrologers po ang sabi ng Secretary. Laking gulat ko po talaga. Kasi Diyos ko po, ang astrologer po ay manghuhula. Ibig niya sigurong sabihin ay astronomer. Iyong show na iyon maganda na sana ang ginawa nila pero hindi nila alam iyong difference ni Galileo at Madam Auring. Okay na sana. It was sending the wrong message. Again, it was very influential. To let you know, how very influential sila, noong na-uso iyong si *"My Legal Wife,"* ang nangyari doon eh, tumaas iyong nagrereport nang pangangaliwa ng may-asawa. That's how influential they are. Imagine, if we can do that in the realm of disaster management even in the field of health research, they could be a very powerful ally in terms of informing the public. And of course, dapat lahat tayo sama-sama. Disaster is a whole of society approach. Hindi lang po iyong gobyerno natin. Dapat lahat po mayroon tayong kaalaman. At some extent, yes, there are people who will really not bother themselves about these things. That's why all the others that I have mentioned before are important. But that should not stop us from learning.

Ito ipapakita ko lang sa inyo, talking about Yolanda. I do not want to divide you guys but if you look from the objective prospective out of sa buong population ng Tacloban less than 1% lang iyong namatay. Again, I do not want to be violent. But it's better than the previous disasters that we had.

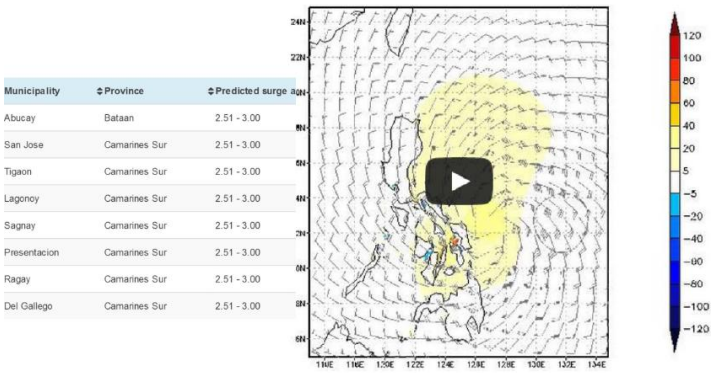
Results:

- Minimum estimate of informal settlers at risk from storm surges: 31,478
- 2010 Population of Tacloban City: 221,174
- Number of dead in Tacloban City according to NDRRMC as of Nov. 25: 1,725
- Percentage of deaths relative to informal settlers in Tacloban City at risk from storm surges: 5.5%
- Percentage of deaths relative to entire population of Tacloban City: 0.8%

Kasi we have accounts from the early 1800s, early 1900s na nagka-storm surge na doon. There was a report that 12,000 iyong namatay. Another, 7,000 iyong namatay during that time. That was half of the population. During that time there were less people, less exposure pero more people died. So we are in a better place now. For Project NOAH, we are now improving our hazard maps. This was the storm surge that occurred. The hazard maps na gawa ng Project NOAH is almost exactly the same. We are already at that point maganda na ang ating mga tools to do all these hazard maps in getting high-resolution hazard maps.



And then may dinagdag na tayo ngayon, kasi nagfo-forecast tayo ng storm surge heights binibigay na rin natin iyon. Kasama na siya sa ating warning system.



Municipality	Province	Predicted surge
Abucay	Bataan	2.51 - 3.00
San Jose	Camarines Sur	2.51 - 3.00
Tigaon	Camarines Sur	2.51 - 3.00
Lagonoy	Camarines Sur	2.51 - 3.00
Sagnay	Camarines Sur	2.51 - 3.00
Presentacion	Camarines Sur	2.51 - 3.00
Ragay	Camarines Sur	2.51 - 3.00
Del Gallego	Camarines Sur	2.51 - 3.00

Always remember, lahat po ngayon ay quantifiable na. Mame-measure na po natin iyong storm surge. Everything is quantifiable. Isa na lang po ang hindi natin mame-measure na hazard. Iyon po ang love. Thank you very much!

Immediate Effects of the Typhoon among Socio-Economically-Disadvantaged Families in Leyte

Dr. Exaltacion E. Lamberte
University Fellow and Professor of Sociology
De La Salle University

Discussion

Maayong buntag sa tanan! Maayo unta na puno na ang atong tiyan maka-concentrate pa kita but anyway, I am trying my best that you get to be interested with the things that I share with you today. The previous abstract, the title of the study was a bit longer. But for this presentation, I will focus it only on health, the health systems, because it's a health conference, research and development. We know that there are lots of consequences when disasters come into our country. The previous speaker, I'd like to thank Oscar. Oscar gave me the favor of providing the rationale of my discussion. I will tell you today, some of the findings we got from our study on the aftermath of Yolanda, focusing on Leyte. Generally, it will focus on what happened and the empirical situation of the province. And later on, I will draw some implications for public health system preparedness. I reinforce the idea that what we need is preparedness: the individual, the person, the community and the society. What we always hear are the officials of the government, the national and the local, with their turfing problems. We forgot that after all, we would still be the people who will meet the challenges of disasters and consequences. But

before I proceed, I'd like to thank the organizers and most of all the staff of PCHRD. We should give big hands to them and the others who are so generous in responding to our emails. And we should all thank God that we are all here today alive, listening to all the things that are being shared today.

So you notice I will focus only for the health needs, health-seeking behavior and the health system dynamics in the Province of Leyte. I'd like to thank PCHRD for giving us the additional funding. But initially, the research came from the in-house funds of the Social Development Research Center of the De La Salle University (DLSU). For 30 years, I have been working with them and they have been generous enough to give us some funds. Now, I am already retired. In La Salle, the mandatory retirement is 60 years old but we have this level of university fellow where we are given support for our continuous engagement in research and teaching. The touch of my life is really all about research but I'm more for people development research. And sometimes, we had to think deeply really. Well, I was asking my co-speaker, "What is it that we can do?" We have not really done much. Where is the gap? Perhaps, we can discuss this more. The Yolanda aftermath, we know that but what makes it significant is that it brought about damages that really need something to think about if you don't want it to happen in the future. These are the affected areas:

- Panay
- Negros
- Northern Cebu
- Leyte
- Cities of Samar
- Tacloban, Roxas, Ormoc
- Guiuan
- Iloilo

These are the empirical damages, empirically gathered damages in Leyte:

- An estimated 11.5 million people have been affected (DSWD)
- A record of 6, 268 persons dead
- Thousands missing (missing ones can be alive, they can be dead)
- 544,606 people remain displaced (382,288 people in 1,215 evacuation centers; 162,318 people outside the centers)
- Most Affected Area: Tacloban City, Palo, Tanauan

What are the questions that allowed us to reflect?

- To what extent did people prepare for the coming of the super typhoon? What factors influence the level of preparedness among the people?
- What type of illnesses struck the survivors? Who among the family members got ill?
- Where did the ill people seek medical/health service care? What are the sources of care?
- What are the difficulties encountered in seeking for care?
- From the point of view of the public medical/health professionals, what are the barriers for strengthening the public health system to prevent further disaster and health risks occurrence among people and the community?
- How do we characterize the sentiments of the survivors? To what extent are they optimistic in recovering themselves from the present condition?

Definition of Terms

- Disaster - A serious disruption of the functioning of the community or a society involving wide-spread human, material, economic or environmental losses and impacts which exceed the ability of the affected community or society to cope using its own resources.
- Disaster risk – The potential losses in lives, health status, livelihoods, assets and services which could occur to a particular community or a society over some specified future time period.
- Disaster risk reduction – The concept and practicing of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters including through reduced exposure to hazards, loosened vulnerability of people and property, wise management of land and the environment and improved preparedness for adverse events.
- Disaster risk reduction preparedness – A comprehensive approach whose main objective is reduction of disaster losses in the lives of the people and the social and economic assets of the community. Its emphasis is pro-active, preventing and/or mitigating further losses.

- Resilience – The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner including through the preservation and restoration of its essential basic structures and functions.
- Response – The provisions of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.
- Public health – Defined by WHO as "the art of applying science in the context of politics so as to reduce inequalities in health while ensuring the best health for the greatest number"
- Public health system – Encompasses all the elements together with their links/relationships which are found to be critical to the core work of public health, namely governance and stewardship, functions and practices, services and public health outcomes

For the research method, we used the triangulation method – survey, the informant and the case method

- Descriptive and explanatory
- Survey design
- Data collection was done through the use of face-to-face interviews
- Semi-Structured Interview Schedule
- Key Informant Interviews and Focus Group Discussions
- Quantitative and systematic qualitative method

Sample and Sampling Procedure

- Sampling Techniques: Stratified, Cluster and Systematic Random Sampling
- Moderately and highly affected or damaged area been covered
    - Classification based on Municipality/City Master List of Affected Areas with barangays indicated as either moderately or highly damaged
- Criteria used by municipality/city
    - Number of families and individuals heavily affected
    - Number of houses, government facilities/public buildings destroyed

Cities/Municipalities Covered

- Moderately Affected: Baybay City, Municipality of Albuera, City of Ormoc, Municipalities of Abuyog and Mayorga
- Highly Affected: Dulag, Mc Arthur, Tolosa, Tanauan, Palo and Tacloban City
- Sample: 941 families; 20 key informants

Findings

- Characteristics of Respondents
    - Female (75.03%); Male (24.97%)
    - Mostly Married (75.24%)
    - Common-law arrangement (14.35%)
    - Residence:
- Originally from area (74.47%)
- Migrants (25.53%)

Characteristics of Respondents

- Highest educational attainment:
    - High school graduate (26.25%)
    - High school only (20.62%)
    - Elementary graduate (17.00%)
    - Elementary only (19.02%)
    - Have gainful work (37.18%)
- "Pantawid" Program Beneficiary (22.42%)

Awareness of coming of Typhoon and Sources of Information

You will see that a lot of people are aware, 98%, so we are talking of lives, may naiwan pang 2%.

- Highly Affected: Aware (98.97%)
- Moderately Affected: Aware (98.08%)
- Predominant sources of information

- Television (53.88%)
- Text exchanges from brigade (21.21%)
- Radio (17.93%)

Preparations for typhoon Occurrence
Out of the 98% who are aware, only 1/3 were prepared for the Typhoon.

- Made Preparations (73.65%) prior to the event
- Specific Preparations
  - Prepare things/food/rice (42.76%)
  - Evacuate to schools/centers/church (30.57%)
  - Get ready and stayed in the house (5.43%)

Illness

- Stricken with illness (75.52%)
  - Reference Period: November 2013 to January 2014
- Family member who got sick
  - Child/children (61.76%)
  - Spouse (14.29%)
  - Respondent (10.50%)
  - Older member of family (7.98%)

Type of Illnesses

- Philippine Health Insurance Corporation (PHIC) membership (7.65%)
- Whether received emergency medical care (65.87%)
- Self-reported Illnesses
  - Cough/colds (57.13%)
  - Fever (23.43%)
  - Injury (13.94%)
  - Diarrhea/ stomach pain (6.22%)
  - 20 illnesses mentioned by respondents with sick family member

Sources of Care and Medicines

- Local Sources (82.27%)
- Specific local sources of care
  - Health centers (71.79%)
  - Family/relatives (20.32%)
  - Parish church (2.95%)
  - Military Medical Mission (3.16%)

Sources of Care
The sources of care were health centers rather than foreign groups. But if we look at the TV, the foreigners are all there active but only a few people received care. When I came to Tacloban, where I did research from January to February, I was so humiliated I was using a van compared to the foreigners using this High Lux. I don't know if they are going from place to place but I don't question them. They have their own goals to work. I found out that they are actually Non-Government Organizations (NGOs) working closely with the government. And later on, I will tell you the dynamics on how foreign aid goes to the lower level. Because the US, gave this amount, France but actually when you look at them, only certain amount goes to the real aid because the airplane, the supplies, are counted on that. The thing is they created so much expectation to our people.

- Foreign (17.30%)
- Specific Sources of Care
  - Foreign Medical Aid/Humanitarian Aid (31.30%)
  - United States Agency for International Development (USAID) (36.11%)
  - German Medical Aid (36.11%)
  - Red Cross (36.11%)

Other Foreign Sources of Care

- United Kingdom Aid (29.17%)
- Red Cross (16.96%)

- Tzuchi (23.61%)
- Samaritan Purse
- Save the Children

Difficulties in Seeking Medical Care

- Experienced Difficulties in Seeking Care (37.50%)
  - No available medicines (48.29%)
  - Long line/long waiting time (20.91%)
  - Health center/barangay health center destroyed/damaged (10.65%)
  - Health personnel discriminating/not fair (10.70%)
  - Health services personally needed not available (8.36%)

Optimism to Recover

- Optimistic (16.11%)
- Less optimistic and carrying negative feelings (51.56%)
- Hopeful so long as government and other people/foreign governments continue to help us (15.80%)

Medical/Health Professionals View

Why are the people pessimistic? Because they have not seen any output. There are partisan politics. We have interviewed from mayor to mayor.

- Extent of Optimism for People/ Community
  - Moderately pessimistic (63.15%)
- Reasons for Pessimism (N=216)

Why are people pessimistic? Because they have not seen any results there. They have the partisan politics. No coordination, nothing. When I went from Mayor to Mayor to interview, their problem is that, they have a chaotic system of relief. Why? Because local and foreign aid, they just go and select their own barangays where they could serve. So imagine that? So you can expect some barangays receive more and the others none because they will select. The foreign agencies will select areas that are safe. How would the Mayor know? Because the Barangay Captains will report to them that these people are there.

- Indifference of some agencies/organizations expected to provide assistance (28.24%)
- People are pessimistic /indifferent (23.61%)
- Lack of coordination among government officials (10.70%)

Perceived Reasons for People's Pessimism

- No assurance from government (3)
- Frustration with government (3)
- Loss of loved ones/property/poverty (8)
- Mere indifference of people (6)

- Belief in People's capacity to overcome
  - Yes (17)
  - None (3)

Perceived Hindrances to Recovery (People's Behavior and Attitudes)

- Dependency towards others (4)
- No cooperation from People (4)
- People are at a loss on where to start helping themselves (4)
- Loss of trust in the government (2)
- People are resigned to their conditions (2)
- People in government are greedy (2)
- Lack of initiative to find ways; just wait for and always dissatisfied with assistance (2)

Perceived Hindrances to Recovery (System of Governance)

- Mismanagement of resources/activities (3)
- Partisan politics (5)
- No links/coordination in the services delivery (3)

- No connection with the national government (2)
- Miscommunication (3)
- No Plans/no budget (2)

DAMAGED HEALTH FACILITIES UNDER QUICK FIX (DOH-Reg Office, 2014)				
PROVINCE	HOSPITAL	RHU	BHS	2014 TOTAL
Leyte	13	35	94	142
Eastern Samar	3	11	42	56
Western Samar	1	3	16	20
Southern Leyte	1	1	0	2
Biliran	0	2	0	2
TOTAL	18	52	152	222

All these results would give us certain points. There are two things. The difference between cognition and action. People are aware and doing everything. My guess is that people look at the typhoon coming as something that is really normal, commonplace, it happens every time and they did not expect the big consequences because disaster means actually potential losses of lives, property, infrastructures and assets. We lost of all that, that is what we call disaster. But people did not realize that, did not put that in their hearts because I'm sad when you will see preparations were only made by this number of people. It should be 100%. 30% is still a big number. Even if you say like, what Victor said, it may be negligible but that's already something. The gap is problematic with our thinking and our action. In the local government, two weeks before, the Local Government Units (LGU) held meetings but 3 days before, that was when they call the General Assembly Meeting where others did not come. And the day before, they also went around to people using the megaphone. And after that, there are still people who did not want to get out from their place so they have to bring policemen so that they will be forced to bring to the evacuation system. In the health system, the problem is coordination and the lack of supplies of medicine and I saw two municipalities where the Human Aide and *Médecins Sans Frontières (MSF)* established a small emergency hospital for those who were delivering baby in the municipal hall. So this one gives us an idea that preparedness infrastructure is not just housing building, you have to have health centers where people can get ready when disasters come.

Our findings are contrary to Social Weather Survey (SWS), people are generally pessimistic. If you were there, I went there three times already. You will see how the systemic response that you expect is still not there. You could just imagine the rehabilitation plan only came out last month or last week and that's two months before the anniversary of Yolanda. And I don't have anything on community planning but these are different with community planning. Now the other thing that we will have, although we did not have it, too long in a stage, you know there are a lot of stages in disaster management – relief, recovery, reconstruction, rebuilding. But it took almost a year to stay in that relief stage. Until now, Department of Social Welfare and Development (DSWD) is still there. They should be out in real terms because it will reap out more the dependency. That's why people are pessimistic because they expect that the government and other people will help. Too long of relief assistance. Therefore, I would like to conclude, two things. The question of optimism and indifference are not only because people are indifferent sometimes the situation, the gaps that they are experiencing reinforces that. The trust is very important in governance. In public system, leadership and governance are very important. You cannot have health services, good health outcomes without good stewardship, good governance and leadership. Second, links and leadership even among agencies. In disaster preparedness, you should have a leadership on how the coordination would look like, one thing that is challenging risk, in certain areas. It is not the local government that is running but the chief executive officer or the trusted person. So if you do not have the trusted persons because agencies are nothing, local agencies, City Health Officer, City Social Health Officer, they're nothing if there is no signal at the net level of the system. So there has to be a system. And the coordination would have to be worked-out. Some mechanisms should have to be developed. Now one thing that we also covered, the health services provider, they cannot be blamed because they are also victims themselves. I have talked to one medical officer, the city, rural. You will see they also have a problem of coordination.

And to end, thank you! Let us be hopeful still. Like the medical health workers and things would have to be seen in the positive life. Perhaps we can transform the present forms and challenges to something to become opportunities. If we succeed in the province of Leyte, not only in Tacloban, you will have a very strong community there. Secondly, in preparedness. I emphasized preparedness because it is much pro-active. Management is developed to a higher level. Preparedness is more on the people's behavior and response. If people are resilient, fine, but they are really resilient at the low level of resiliency. If we are going to define resiliency, it is not just

going to bounce back but being able to do something to recover, to improve, to do something with condition. In my future report, I will do some measures in the level of resiliency. Thank you!

Towards a Culture of Resilience and Adaptation: Building Back Better (3Bs) Post Pablo Communities, Ecosystems and Economy in Eastern Mindanao

Dr. Jessie B. Manuta
Consultant, Tropical Institute for Climate Studies (TropICS)
Ateneo de Davao University

Discussion

Good morning! I am Jessie Manuta. I will be sharing our insights in the rebuilding process of the local government communities in Eastern Mindanao. Kaming taga-Mindanao, we have this comfort zone that we are typhoon-free. Not anymore because in 2011 December, we have Sendong, which was very disastrous in Cagayan and Iligan and 20 months ago, Pablo struck Mindanao on December 4, 2012 and in 2012, it was considered the deadliest typhoon with 260kph, Category 5. Very interesting because once it entered the Philippine Area of Responsibility (PAR), it was projected as Category 4 but dramatically transformed into Category 5. As physicists, there was so much heat in the atmosphere, climate change, maybe. These are the affected area: Eastern Mindanao (Regions XI & XII); Davao Oriental and Compostela Valley (ComVal) mostly affected. The rainfall was 500mm in 24 hours. 1,146 people reported dead, 834 people remain missing and 233,190 houses totally or partially affected. These are the scenes of destruction. These are very important to us because during that time we have not experienced typhoons, we have no idea what is Category 5 or even Category 3. We don't usually bring umbrellas. That is not experience. That is our culture. But it's changing now maybe because of climate change. But ever since this destruction, Compostela Valley, it's the number one producer of banana. Davao Oriental is the number one producer of coconut. Fish cages affected, home destroyed in Cateel, homes and livelihood destroyed in New Bataan. In terms of cost, the Department of Agriculture estimated a cost of damage at more than PhP 30-B (US$ 750-M).

Banana Industry: PhP 20 Billion (USD 500 Million)
Coconut Farms: PhP7.22 Billion (USD 193 Million)
Rice: PhP 197 Million (USD 5 Million)
Maize: PhP 362 Million (USD 9 Million)
Source: Emergency Food Security, Nutrition & Livelihood Assessment for Typhoon Pablo, January 2013.

I'd like to discuss, the focus of my paper, is basically, three things:

1. Why is there a need to Build Back Better (3Bs)?
2. I would present you two Cases
3. I would conclude on towards a Culture of Resilience and Adaptation

Why Build Back Better? I think Mr. Lizardo has discussed why there is a need for us to build back better. These are the ingredients of disaster: geographical location of the Philippines; changing climate regime and vulnerable conditions. If these two interplays, sabi nga ni Oscar kanina, ito iyong magiging disaster. The end of these factors will result to disaster. I would like to point out, I got this from Dr. Otadoy from San Carlos University, if you look at the graph, there's a data there of frequency of typhoon. There has been an increase of Level 4 or 5. In 1990 to 2004, there has been an increase of 35%. In other words, from that period, the frequency of super typhoons level 4 or 5 has increased has manifested in Yolanda and Pablo.

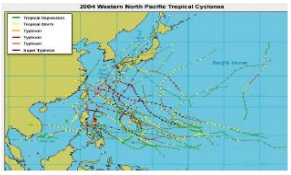
Natural Geophysical Location

- Situated in the Pacific Ring of Fire

Mt. Pintubo eruption

Bohol earthquake

- Located in the Western North Pacific typhoon belt (on average 20 typhoons a year)



Source: Otadoy et.al. (2014)

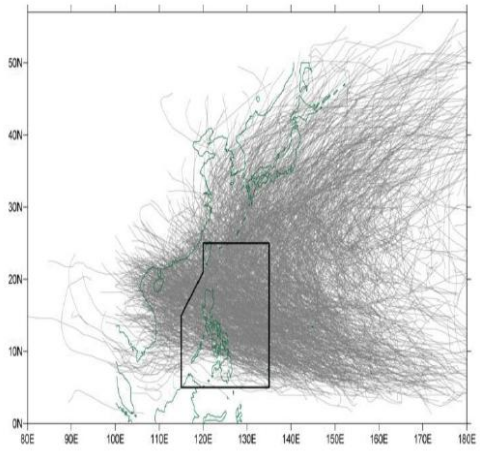
Table 1. Change in the number and percentage of hurricanes in categories 4 and 5 for the 15-year periods 1975–1989 and 1990–2004 for the different ocean basins.

Basin	Period			
	1975–1989		1990–2004	
	Number	Percentage	Number	Percentage
East Pacific Ocean	36	25	49	35
West Pacific Ocean	85	25	116	41
North Atlantic	16	20	25	25
Southwestern Pacific	10	12	22	28
North Indian	1	8	7	25
South Indian	23	18	50	34

Science 1844(Vol.309, No.5742, 2005)

In the Philippines, according to McNamara, the Philippines have increasing ocean temperature, changing rainfall trends, sea level rise, extreme events (typhoon, floods, drought, heavily precipitation events). We all have that as a consequence of the changing climate pattern. Therefore, the frequency now, these are the track of typhoon:

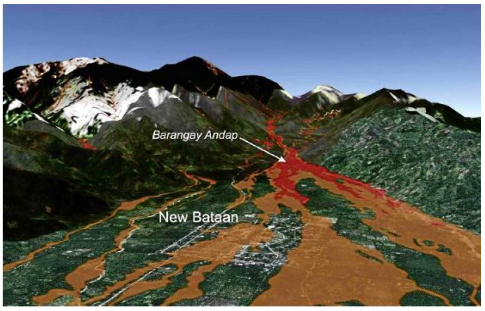
Source: Otadoy et. al. (2014)



Source: E G Anglo

Basically Japan and the Philippines are the most badly hit because we are in the Typhoon Belt. And can you just imagine, this has an increased number of Category 4 or 5 Typhoon Belt. So, very interesting quote from Anthony Oliver-Smith in, "The Angry Earth: Disaster in Anthropological Perspective (1999)," *Disaster as "failure of a society to adapt successfully to certain features of its natural and socially constructed environment in a sustainable fashion is made inevitable by the historically produced pattern of vulnerability, evidenced in the location, infrastructure, sociopolitical structures, production patterns and ideology that characterized a society."*

We should have been the center of disaster studies because this is our life but we have not been able like Japan to look at and prepare to disastrous events. In fact, how our government has been responding to Yolanda. According to our colleague, Lopez (2012), disasters are not the necessary result of natural hazards but occur only when these natural hazards intersect with poorly located and poorly constructed development or built environment as well as social, economic and other environmental vulnerabilities. In June 2013, we did a Participatory Rural Appraisal (PRA) in Barangay Andap, New Bataan. And these were the analysis of the community: rainfall was too high (swollen rivers), landform change due to human habitation, bad mining practices, agriculture and forest denudation. Yes, there was heavy precipitation but it was exacerbated and compounded by the changing landform changes due to rehabilitation, mining practice and agriculture in that area. This is now the representation of New Bataan. If you look at this, this is the flood plain and New Bataan is located in the middle of the flood plain. What happened is they transformed the forest, deforestation, and mining. When Pablo struck that area, you have the deadly flash floods. So what I'm saying is that there was hazard but the transformation to the landscape contributed to the disaster



situation in the area.

If you look at Eastern Mindanao from the Food and Agricultural Organization (FAO) and World Food Programme (WF) 2013, food insecurity in Eastern Mindanao is between the range medium to high level; Department of Science and Technology (DOST) 2011, Davao Oriental and ComVal have acute and chronic malnutrition rates that are or above national average; National Statistical Coordination Board (NSCB) 2009 Davao Oriental and Agusan del Sur are two of the poorest provinces in the Philippines; (CIP) 2013 Eastern Mindanao dubbed the "timber and mining corridor of the Philippines" is environmentally vulnerable. These are the vulnerable conditions.

The challenge is to build back better. The recovery and reconstruction processes provide an opportunity to strengthen the capacities of the communities and the government to cope with the impacts of Super Typhoon Pablo while reducing the people's vulnerability to future hazards and shocks. We have two cases: (1) Reconstruction and Development Framework 2013 to 2016 of the Municipalities of Baganga, Cateel and Boston and (2) Disaster Proofing and Disaster Risk Reduction – Climate Change Adaptation (DRR-CCA) Mainstreaming Action Plan of New Bataan Water Services Cooperative (NEBAWASCO). A month after Pablo devastated the area, these are the plans:

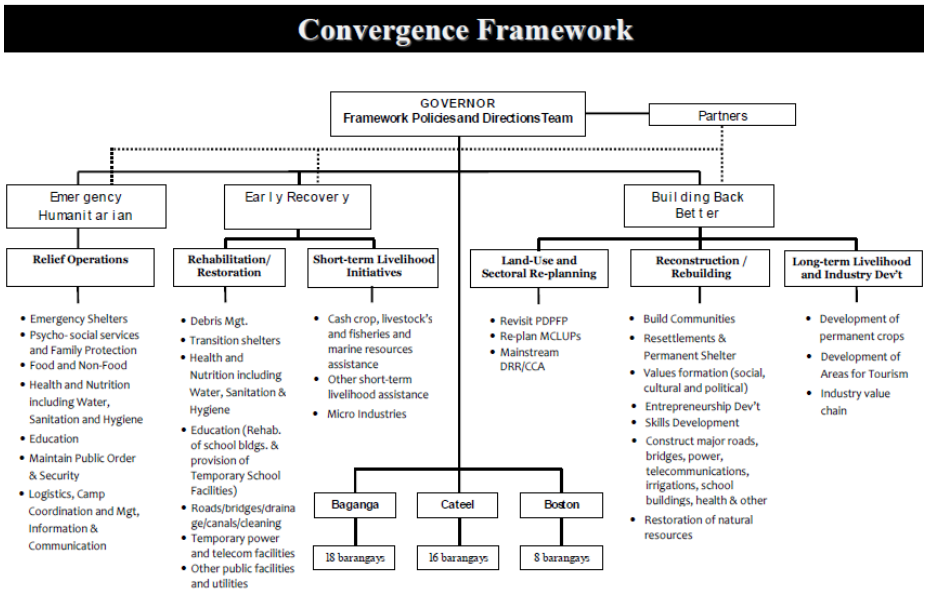
Reconstruction and Development Framework 2013-2016 of the Municipalities of Baganga, Cateel and Boston

Stages	Action Agenda	Timeline
Emergency Humanitarian Response	• Relief Operation	Dec 2012 – June 2013
Early Recovery	• Rehabilitation and Provision of Food	Jan 2013 – Dec 2013
Build Back Better	• Land Use and Sectoral Planning (Mainstreaming DRR-CCA) • Reconstruction • Livelihood and Industry Development	Jan 2013 – Dec 2016

Building Back Better Stage

Tasks	Goods and Services
Revisiting the approved Provincial Development and Physical Framework Plan (PDPFP)	• Data updating, land use modification and rezonification
Replanning the Municipal Comprehensive Land Use Plan (MCLUP)	• Mainstreaming DRR-CCA • Identification of opportunities for development (e.g., agriculture, industry, tourism and environment)
Pursuing appropriate legislative actions	• Adoption of and updated land use plan • Zoning ordinances
Project Development	• Project Proposals
Provision of goods and services for agriculture, industry, and tourism development	• Development of agricultural areas for permanent cops • Development of industry value chain • Development of areas for tourism

In other words, they are now factoring into risk assessments. Thanks to NOAH and support services basically introducing the planning to prepare the whole community in the event of another hazardous event that will strike the place. This is the convergence framework. This is a calibrated framework from the Emergency Humanitarian from Relief Operation towards the building back better.



The other case is New Bataan Water Services Cooperative (NEBAWASCO). Disaster Proofing and Disaster Risk Reduction – Climate Change Adaptation (DRR-CCA) Mainstreaming Action Plan of New Bataan Water Services Cooperative (NEBAWASCO), a Barangay Water Program – Rural Waterworks and Sanitation Association assisted by MLG-USAIDE and it was turned-over to Local Government Unit and renamed in June 2012 as New Bataan Water Services Cooperative. They were also affected and destroyed during Pablo but they received financial assistance from the Philippine Equity & Foundation (PEF) for rehabilitation of water infrastructure. We did training on DRRSA. Ito iyong vision and mission nila:

Vision: A leading provider of quality water in Compostela Valley Province.

Mission: To become a self-sustaining water service provider with a well-defined system of operations and advocating environment friendly development approaches for the improvement of quality of life of the people.

Goal: Adequate, reliable and potable water by the end of 2017. Better financial position, improved management system and consumers services.

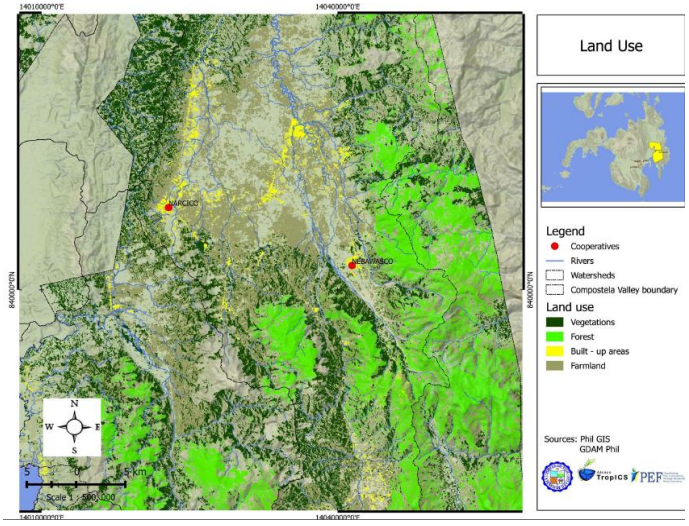
They improved their vision and mission, integrating climate change and disaster.

NEBAWASCO's Enhanced (Proposed) VMG and Programs

Vision: Sustainable provider of quality water in Compostela Valley... Disaster Resilient... Preserving the gift of Nature through Cooperative way of Life.

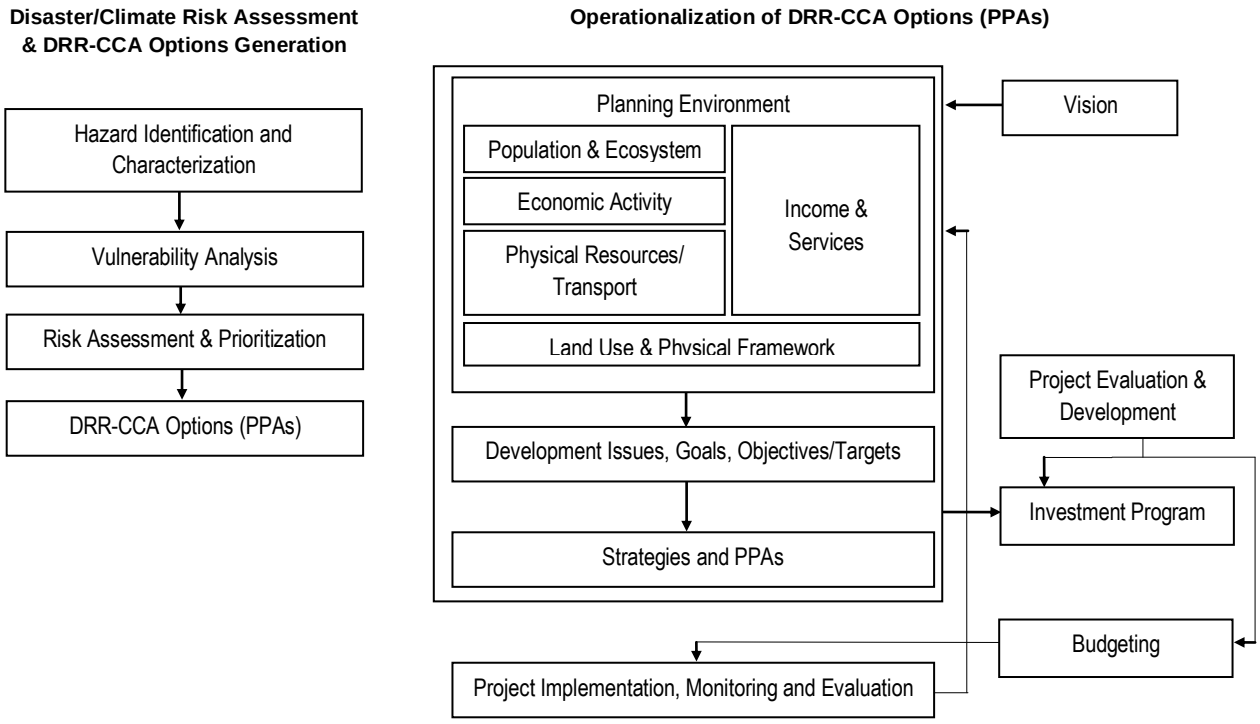
Goals: A designed and better implementation of watershed development and management plan up to 2020; Promote and develop the quality of potable water and partnership to the government concern agency, Indigenous people, and other sectors with common understanding for future development.

This is now the New Bataan, if you look at, this is now the new water shed. The green one is the forest. So, it's very low and very exposed to the hazard.



What is interesting here, is the risk analysis is a very important component in the process. The output for the planning will incorporate now provisions for disaster management.

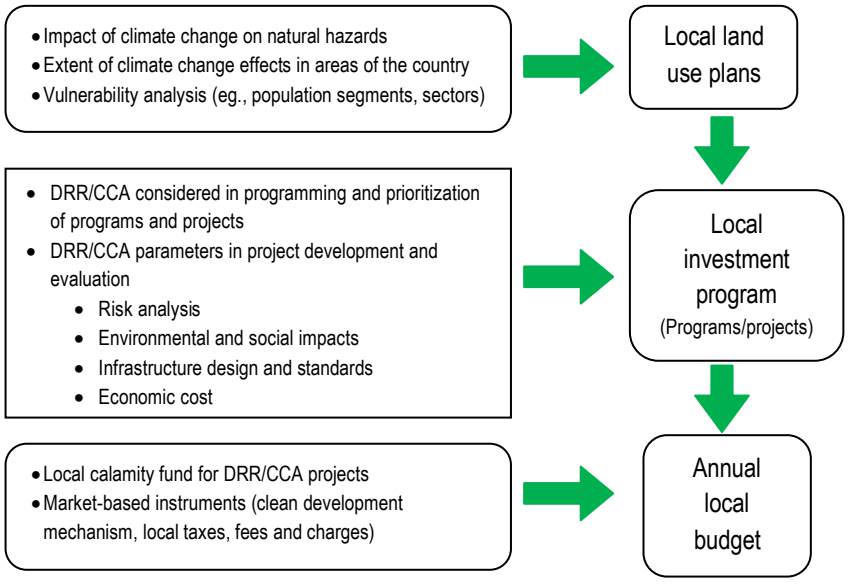
Mainstreaming Disaster Risk Reduction-Climate Change Adaptation in Local Planning: Framework and Processes



Source: Modified from NEDA

So integrating DRR and Climate change adaptation so therefore, in the area you have to invest for preparedness so that the process will go from analysis down to planning, investment local program and development, other social concerns. Risk pa iyan, hazards and vulnerability, risk pa iyan. But mag-abot iyan, disaster na iyan so we need to reduce the risk. So disaster risk reduction, basically including that in the process.

INTEGRATING DRR and Climate Change Adaptation



Source: ASOG (nd)

TAKE RESPONSIBILITY FOR RISK

Invest in risk reduction Use cost-benefit analysis to target the risks which can be most efficiently reduced and which produce positive economic and social benefits	**Take responsibility** Develop a national disaster inventory system to systematically monitor losses and assess risks at all scales using probabilistic models	**Anticipate and share risks that cannot be reduced** Invent in risk transfer to protect against catastrophic loss, and anticipate and prepare for emerging risks that cannot be modelled

INTEGRATE DRM INTO EXISTING DEVELOMENT INSTRUMENTS AND MECHANISMS

Regulate urban and local development Use participatory planning and budgeting to upgrade informal settlements, allocate land and promote safe building	**Protect ecosystems** Employ participatory valuation and management of ecosystem services and mainstreaming of ecosystem approaches in DRM	**Offer social protection** Adapt a conditional cash transfer and temporary employment schemes; bundle micro-insurance and loans; consider social floor and poverty line	**Use national planning and public investment systems** Include risk assessments in national and sector development planning and investment

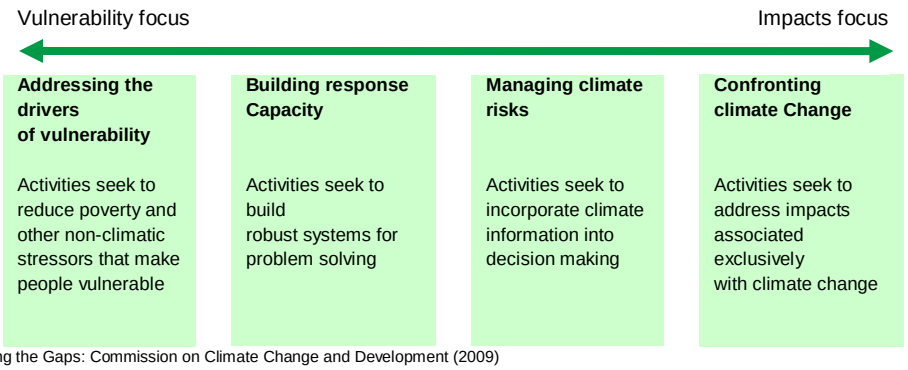
BUILD RISK GOVERNANCE CAPACITIES

Show political will Place policy responsibility for DRM and climate change adaptation in a ministry with political authority over national development planning and investment	**Share power** Develop decentralized, layered functions; use principle of subsidiary and appropriate levels of devolution including budgets and to civil society	**Foster partnerships** Adopt a new culture of public administration supportive of local initiatives and based on partnerships between government and civil society	**Be accountable** Ensure social accountability through increased public information and transparency; use performance-based budgeting and rewards

Source: ASOG (nd)

So towards a Culture of Resilience and Adaptation, I'd like to quote from Gregory Bank off, in his article, "Living with Risk; Coping with Disasters: Hazard as a Frequent Life Experience in the Philippines" (2007). We have a: Culture of Disaster, Culture of Coping, and Culture of Adaptation. The challenge now is we need not only to bounce back but better adapt with it especially with the changing climate. So therefore, culture of adaptation is a very important ingredient in the preparation, preparedness for the future.

Continuum of adaptation activities



Source: Closing the Gaps: Commission on Climate Change and Development (2009)

We can look at ranging from, we can address vulnerability right now like poverty and all those things or we can look at building response capacity like the Local Government Unit (LGU) because apparently, like in Yolanda, the capacity of the LGU to respond is very, very low. Or we can manage climate risk by integrating that into the planning processes or we can look at the catastrophic climate change through LiDAR, *Light Detection and Ranging* and NOAH, efforts to really prepare us for the eventualities. With that, daghang salamat!

Reporting from the Ground: A Reporter's Firsthand Experience on the Effect on People, the Environment, Delivery of Health and other Services

Mr. Nestor P. Burgos, Jr.
Chief of Correspondents
Philippine Daily Inquirer Visayas Bureau

Discussion

Good morning! I will not be presenting a study or a research but this is just a quick, personal account while covering Yolanda, basically Ilo-ilo. I covered Panay Island. For more than a month, I covered the impact of the Super Typhoon and its effect to the communities and how assistance was being given to the victims. Some of the sites, this is a common site, iyong ibang *bangka* hindi na natin makita during that time. In Ilo-ilo, iyong mga *bangka* was thrown away by the storm surges and nawasak din iyong mga bahay.

It has been again and again, it has been repeated and this has been an unprecedented disaster. Even for us journalists, ako, I've covered a lot of disasters. But as I mentioned, I covered the Guimaras oil-spill, considered to be the worst marine disaster in the country and the earthquake. Even for us journalists, Yolanda was something different. As mentioned, it was the strongest typhoon to hit land, winds reaching 300 kph. These were the figures of the Civil Defense as of March: 6,268 dead, nearly 28,689 injured, about 1,061 missing. But many have said, these were very conservative figures. We never know the actual toll. 476,705 houses destroyed, 557,813 houses damaged and massive destruction of schools, public infra and business. Aside from being hit and traumatized by the typhoon, people have to stay even months or up until now in the evacuation centers, in bunk houses, in temporarily relocation sites, in tents, in schools that unfortunately were also hit by the typhoon. Until now, people are still suffering and have yet to recover from the super typhoon because of the magnitude of the damage. This was a resident in Aklan. People were eating just in front of their destroyed houses and at the time I interviewed this person, he has been receiving relief goods for more than a month already. Naging dependent sila doon. Ito iyong naging school, itong mga tents, parang cute siya tingnan pero hindi ito camping. Children were staying under the heat of the sun, inside these tents and this could become unbearably hot during the day. So how do you expect children to concentrate on their studies? Ito ang nangyari after Yolanda. Some of the victims were given materials to rebuild their homes but kulang. So ganoon na lang ang ginawa nilang mga bahay. No walls, no posts to have some place to sleep.

The loss of livelihood as I have mentioned earlier: poorest most affected, fishing boats and gears destroyed or damaged and croplands and livestock obliterated. As in any disaster, in my experience in covering disasters, iyong kawawa ang the poorest. It's so tragic that those really the lowest in life in terms of economic status, iyon iyong matinding tinatamaan. While the tragedies spared no one, in terms of being rich, in the middle class but you are better off if you have relatives to stay with. Ang daling lumipat. You have friends and families who can help you. But iyong mga mahihirap talaga, walang wala, they have nowhere to go to. Iyong destruction of fishing boats, iyon ang matinding tama especially in Panay, they are known for its fishing industry. The destruction and damage of boats have been very intense. In fact, when you interview the fisher folks, they will tell you, *"Later na iyong mga bahay, we can do without houses for now. We need boats more than houses."* As they say, kung may bahay sila, wala silang boat, hindi sila makakain. But if they have boats, they can fish. They can have income and can later rebuild their houses. For Aklan, example, I cannot imagine an official telling me that 60,000 coconut trees were uprooted during Yolanda and it will take them at least two years to recover. So you can imagine the impact on the coconut farmers. How they will sustain themselves? How will they live?

The social cost of the damage and the loss of livelihood of the victims will also result to vulnerability to prostitution and crime especially in evacuation centers. This is mentioned earlier: recovery and rehabilitation slow and delay in government assistance. I'm not saying lahat, I have seen several government workers spending countless of hours helping the victims. But in many, many instances government assistance were lacking. Just a point, the national government promised those who lost their houses assistance of Php30,000 per family and those with damaged houses will received Php10,000 per family in construction materials. 9 months after, wala pa po iyan, I tell you. So ano? People will just wait? They cannot. They have to rebuild their houses so nangungutang, naglo-loan, etcetera. So hindi puwedeng, business as usual ang government. This is a disaster of this magnitude. This is the worst typhoon recorded to hit landfall. Hindi puwedeng ang rason, baka ma-Commission on Audit (COA) kami, we need to go to the process. I think government and agencies should review their processes. Sabi pa, hindi pwedeng business as usual in these events. So for health concerns, na mentioned kanina, hospitals and health centers also affected, poor sanitation in evacuation centers. Mahirap to prevent people from going back to their houses even in danger zones. In Estancia, Ilo-ilo, may oil spill, people were forcibly evacuated because of

health risks but they go back to their homes at night, they take a bath at their houses because walang facilities sa evacuation centers and walang privacy sa evacuation centers. You have heard of course, na ang ginawang bunk houses were very substandard. Fortunately, binago iyong mga specs, instead na dawalang pamilya sa isang unit, ginawang isang pamilya na lang because they were really uninhabitable.

This was a disaster within a disaster. If you are familiar with this already, an oil spill hit Estancia, Ilo-ilo when a barge slams in the coastline. An estimate of 900,000 liters of bunker fuel spilled the coastline. Ang communities nasira din ng bagyo, so dalawang disaster. This happened on November 8, 15 days after pa sila na-evacuate. 294 families or more than 1,000 persons were evacuated. Ang reason ay because of toxic fumes benzene level 16.9 ppm (normal = 0.5 ppm). This is way, way above the acceptable 0.5 ppm. We were covering, we just stayed there for a few minutes pero the smell sticks to your skin. Pero sila, they lived there for 15 days before they were evacuated. There were respiratory diseases especially among children and there were reports of fatalities of clean-up workers because even the clean-up workers were not properly equipped. As I said, many kept returning to their houses. There was delayed and inefficient clean-up. If you heard the reports na kinuhang clean-up company ay dating water refilling company, so nagbago siya, naging oil spill na. So may problema diyan especially because of our geographic location, oil spills can happen during disasters.

These are the workers. Look at their equipment. Tinatabunan lang ng damit, walang proper gear, manual na paghahakot. These are the evacuees. May mga social workers na nagha-handle sa mga bata sa evacuation camp. Siguro ito, something that you have not read or seen on newscasts, how has this affect the journalists? This was an unprecedented disaster. As what is mentioned by Mr. Lizardo, information is key during disasters. Key point lang, storm surge, anong storm surge? Karamihan sa mga tao, hindi na-relocate, kasi storm-surge, ano iyon? But when you say, tsunami, takot iyan. But technically, tsunami is not the proper term, it should be storm surge. But we have to explain to them even for us journalists, we should know what storm surge means because people will react on how they were told and how they understand the information. So malaki ang naging role ng media in triggering global assistance because of the news, but sadly, example, nagka-problema din kami especially us, in Panay because we felt that the news was so focused in Tacloban, Western Viasayas. I'm not saying that Tacloban deserve less. It's just that other areas deserve more attention than what they are getting. So key din on how to give that information. Lack of information can worsen problem. Days and weeks after Yolanda, there were several cases of tsunami scares in Panay dahil lang sa text messages because at that time there were no radios. All radio stations were destroyed. They were off-air for a few days or few weeks. So the only source of information, walang kuryente, pero merong text at ang sabi nila, *"May nabasa ako sa internet, na may paparating na tsunami,"* and it spread like wild fire. The entire community and towns ran during the night to the nearest mountains, even if it turned out that it were false reports. It also raised the importance of ethical guidelines among journalists, the sensitivity to details. Kasi, kami journalists in many cases are also first responders, first sa scene. So meron ding ethical considerations sa pagreport, how do you interview victims without food and water? Karamihan, victims were expecting media to give them food. So when you report, mag-iinterview ka, wala kang dalang pagkain, wala kang kwenta. In my case for example, when I know walang pagkain, walang tubig, even pagdrink lang ng bottled water, I hide. Kasi pangit, eh.

As victims and first responders, four journalists were killed during the disaster while in coverage. Houses were also destroyed or damaged. In many cases, journalists were working while their families were victims. And it's so difficult to work when at the back of your mind, you're thinking, ano nang nangyari sa family mo? Wala kang contact. So these were the conditions where we work with. Mayroong culture sa media na patibayan nang loob, laman, when you see dead people, disaster, part of the job iyan. Dapat matibay ka. Don't show emotions. Pero mali iyan eh. And in this particular disaster, we were all affected. We see a lot of dead bodies. This one was very painful also. We helped a lot of stress debriefing also for ourselves because we believe kailangan. Makikita mo, nagkakamental block iyong mga writers, hindi nakakasulat, umiiyak when you go home. Tapos, may guilt feelings because you were there with the victims but you cannot help them. You were trying to convince yourself that your work will help them pero ang kailangan nila, pagkain, bahay and we were angry also because some officials in the government were giving out statements which were totally out of reality. They were talking about Yolanda and they were saying that assistance has been very fast, iyong ganoon, hindi iyan iyong nakikita namin.

It's part of our efforts right now, in fact, the organization is trying to, the National Union of Journalists in the Philippines, we conducted several debriefing sessions. One in Western Visayas, one in Central Visayas, those who were covering the earthquake and Yolanda and in Panay. Kailangan ng pagbuild ng peer support network because we cannot wait for a professional to intervene na may psychiatrist na tumulong in the field. Minsan,

weeks andoon ka to do the coverage. That's why several journalists have to be pulled out from the coverage. Salamat and good morning!

Open Forum

The first question is addressed to Dr. Lamberte. A while ago Doc you made mentioned that those who helped first in Leyte are the NGOs. Why are the response of the government officials there, lacking?

Dr. Exaltacion Lamberte: There is a gap. In ideal terms, if we based in international development, management of climate change and disaster, the forefront will be the national government. Our problem is the national government was not so sure how the local government will respond. And this was seen already in the actual event. The problem is, it's in the law. The local government units seem to think, they're the major power player. They don't recognize the role of the disaster risk management group. I would like to think that the top management, the disaster management groups have lost also the regular contact. I know they have been doing workshops among the disaster groups at the local level. In my experience, it came out that the members of the disaster management were not really tapped, they are floating front liners and they were just assigned to that. It keeps us the idea of how important they are from the Local Government Unit (LGU) perspective and in the process, some were run by those who were trusted by the Mayors. So you have the management from the local level but somebody else is running it.

I'd like to ask all of the speakers, given the context of the previous question. So would you now, how would you recommend the response to be then? Should we in a disaster, in Yolanda's magnitude or given Pablo's magnitude, should we automatically say that national government should be in charge and assume that local government would not have the capacity to respond given our experience that in almost every case that we have this kind of natural occurrence, the local governments are usually also become victims themselves. And therefore not in a position to help. So should there be an automatic provision that the national government should just go on and carry out the assistance without waiting for permission from local government? Because I remember, really, it was sickening to watch, the discussions between the Department of Interior and Local Government (DILG) and Local Government Units (LGUs), I will not mention names, it was really sickening, in the phase of all of the people suffering. But they shouldn't be arguing about political issues at the time like that.

Mr. Oscar Victor Lizardo: Obviously during the case of Typhoon Yolanda, yes, the Local Government Units (LGU) were victims themselves, not just the city, the municipalities but the entire regions. So I guess, it would be safe to say that yes, the national government should take over. And there is already a mechanism, if I remember correctly, the Disaster Risk Reduction and Management (DRRM) system, when two or more communities are incapacitated, it goes out to the municipalities, two or more municipalities, it goes on to the province, and so on and so forth, it goes to the national. So, yes, there's a mechanism that is present, at least, in my opinion that mechanism didn't happen during the Yolanda event. But the problem was the lack of information of what is happening after Yolanda passed through. Because ang nangyari doon, there was total miscommunication for a day so the government was not well-informed what the situation is, so therefore, they could not respond accordingly. So mechanism is there, it's just that the minor response was lacking, it was not because of the lack of infrastructure, more of they lack the information. Like Dr. Lamberte was saying earlier, they don't even know which areas to prioritize. Some areas were having more food than the others because they don't have the capacity to identify those areas. Then the problem is, Non-Government Organizations (NGOs), they go to a place where it is convenient for them to go to a particular point. They do not have coordination with the national government on where they need to go. Yes, obviously there is a mechanism involved. The problem is just that it was not managed because information was not immediately available.

Dr. Exaltacion Lamberte: It should be a national thing because there are issues that cross boundaries. Some of the problems we have requires national, politically, like the question on housing. If the private owners do not sell their properties, or do not give, the national government can do so, that's within the law. The local government cannot do that because they have many things to think about. The concerns of the local victims. The second one, it has to be national government because everyone is affected, the survivors. I don't feel like saying victims but survivors because it has like an active connotation. The case of the health personnel in Tacloban, they were really affected. It took almost half morning for me to talk to a medical health center doctor but they're saying, just giving you an idea that they also suffered the consequences so they don't have the stamina to serve. In this instance, I would like, it would be good for the regional in Cebu or nearby or those who are not affected to distribute themselves like in Luzon, the regional offices to out rightly help because the victims or survivors will not be able to do it and the only mandate that will be received are from the national government. So I go for that.

Good morning! I'm Maria Sumagaysay. I am from Tacloban, my hometown is from Tanuan. My question is for Dr. Lamberte. By the way, it's a personal bias. I don't want to call ourselves victims, the victims are dead. We are rather survivors. To our friend, journalist, may be you can help us, those who are alive, survive, and those who are victims are dead. First is, I was expecting ma'am, findings on the health links, health seeking behaviors of the survivors. And also, I was trying to connect the optimism part so I was expecting that in your paper. Number two, I have reservations in your statement, like no nothing, no coordination, and no stamina to serve the health personnel because I don't really think that it was. And if ever, it was, as researchers, may be our contribution would be to put more details because the general lingo, the public lingo, would be coordination that's okay. But as academic, as researchers, would be to add information to that. For example, I cannot understand what we mean here by pessimist, moderately pessimistic, some are highly pessimistic, what are the indicators, how did we measure that? Back to the methodology, how did we identify our respondents, and is the cluster, I saw stratified cluster, how did we do that? And maybe we have to be careful about understanding the results, this was made January and it's no longer that interpreting. And just to be careful because after disaster, the things are fast and sometimes we are taken over by events. So whatever we say, you have to contextualize it, so for purposes of those who hear. And the third, our session is on lessons learned? So what? I heard more on leadership, resilience. I would want to hear more on health service delivery management in times of disaster. Thank you!

Dr. Exaltacion Lamberte: This is the dilemma really of sharing here in this session. One, your expectations is too much. Two, the time limitation is too long so I have to operate to that. You notice, in my discussion, I just read my notes or my slides because I am an empirical person because I don't like to show something which are hard data. The health seeking behaviors is already in the data shown in slide whether they are sick, they sought care, where did they get the care. And the health needs, we will have to discuss that more. Now our data was not self-sufficient but you will see that aside from the medicines, from working operational health centers, we need to have good psychosocial interventions. That's why I raised the idea of sentiments, we have to overcome the negative feelings and pessimistic and less optimism of our people so that they will know they have a chance to recover, they have to find that. If only I have a long discussion on that, long time, then I can do that. That's why I went straight to leadership, stewardship and governance. But you are right, when I did the survey, this is from December until mid of February where I could still smell the foul smell of the dead persons. And there's no food, no store, no water, but you're right. Now, I hope, there's an improvement because my associates who went to Tacloban, they say it's normal, but the situation have not gone far. Now so it's between your thought and the view of my associates. But let us see, how things would go, and then, evidence talk. So other than the health needs, other than medicines, the centers that are readily available is the care for the injury and so forth, these are what we call health needs. And the feeling low as if you are lost that you don't trust anymore people and that is something that we need to process so that people can go back to their ways. So that is still a health need. You wait for our comprehensive report. This is only a part.

My name is Samantha. I am from Cebu Doctors' University. First of all, I would like to commend the speakers for the excellent job you gave and all those concerns about the different perspectives of disaster and climate change and all that. Actually, I would like to commend the last speaker. My father's family is from Capiz and thank you for that because not a lot of people from outside that area knows about what is happening there because it was not covered in the media as much, especially Estancia, Ilo-ilo. Thank you for giving us that information. But my concern is, when this disaster happened, I was actually in Malapascua Island and I didn't know what a storm surge was, to be honest. I heard people saying storm surge, storm surge. I thought, "Ah baha lang iyan, kay naa siya sa low water, it would not make any difference." But my Mom called me from the US and she told me, "You know what, Samantha, a storm surge is like a tsunami," and I was like, "Mom, you're just ruining my vacation, we are scuba diving and having fun." You know, I didn't realize that the impact of it. How do we educate and empower people more because you just can't tweet and tell people stuff, there's storm surge but most people know what that is. How do you empower people from the grassroots level, the student level, like our youth, like you said, we're in the Ring of Fire, we're in the Typhoon Belt, we all know that. But how do we prepare? Not even during emergencies, we need to know these things, we're growing up. Like what you said about Japan, like Japan, they have better infrastructure, that's why they don't get affected as much by disaster but you know what, the Philippines is a strong country, the people here are very strong. We can do this. The problem is into being educated. What is your idea of educating not just students, like the masses, how do you plan to do this? I know you're not the President, you're not in Congress. Your idea would be helpful. Again, I thank you for voicing out your studies. I learned a lot today and I'm very appreciative. And another question, what are we going to do because when Yolanda happened, we all have this heart, we all have this "Bangon Pilipinas," "Bangon Visayas,"

"Bangon Cebu," "Bangon Capiz," after like months later, wala na. We're not feeling that sentiment anymore. What happened? We need to be prepared. How do we educate the masses, the educated and the uneducated?

Mr. Oscar Victor Lizardo: The word storm surge that is the proof of failure of communication on all levels of government from the national to the local, all going to the LGU. You will be surprised, in terms of educating, you would see this in schools, textbooks but again, these are not given importance as it should be. So it is indeed a problem, so how do you do that now, how do you put importance to those things? That's why disasters in the Philippines is a whole of society approach. It cannot be solved just by the schools alone. It must be participated by everybody, the parents to teach their children, the schools must teach their students, the local government must educate their people. I mean here in Cebu, it shouldn't be a problem because it's a highly urbanized city. People can get information but in far-flung areas, it's very crucial. The local leaders are very crucial. It is their job to tell their locals what these are. If we look at from the national, for example, I'm in Manila. We're handling the project so it's difficult for us. As we probably know, the Philippines is multi-cultural. We are a country of many nations. It would be very difficult for us to make a solution for each and every culture. That's why local leaders are very important. Ask the local leader to educate their people on these things because disasters, natural hazards, these are part of our lives, we cannot change that anymore. That's why it is important that these local leaders know what kind of hazards are in their area. And professions of TV, like Nestor here, tama siya, people from the media play an important role, they are an influential group. So it's all levels really until we get to the point of the culture of safety because right now, we are at the point of culture of resilience, which is often misunderstood. We should build back better and learn from that experience. Again, it's a whole of society approach.

Dr. Jessie Manuta: Let me add because you raised a very important point, we talk about the culture of adaptation. We cannot achieve, well, education is a very important component in the culture of adaptation and I agree it's a long process. But let me site promising points. One is, we are now preparing the K to 12 and I understand how disaster is discussed to be included in the mainstream education system. I'm just hoping that it would go beyond the ordinary way but I'm hoping that it would be creative in terms of internalizing that like for example, typhoon, we don't experience typhoon in Mindanao. We don't know Category 3, Category 4. If you don't experience that, you won't understand that. Simulation is a good tool in terms of experience. Experience is the best teacher here. That's why the students and the community to experience that may be in a simulation in order for them to prepare. Another example is a lot of efforts in the grassroots like participatory grassroots and understanding of risk. These are discussed. What is lacking now is a scale. We need a scale so that it becomes nationwide. Scale in terms of nationwide. I understand a lot of disaster organizations are training the community, a barangay but we need a nationwide so that all sectors of the society will be prepared.

Dr. Exaltacion Lamberte: I have to bring this up because I'm an educator. One, we need behavior change. Our action is so slow. Second, to carry out behavior change, we have a lot of challenges. You notice those who are survivors those who are affected in disasters are the poor people. They are residing, we call them *informal settlers*, government or private. Our problem is to convince them that life is a gift. That life is something that you have to work for. The economy is the same; the poor will always be poor. We cannot do something about that because their line of thinking, they just want to survive, they just want to live. Why heck bother about the improvement? And that we have to counteract that disaster or what we call hazards is part of our life and that we have to do something about it that means full understanding and we can readily do that in education, as far as nursery, kinder, elementary. The elementary group is the best because that is where values and feelings are formed. High school more defined; college more cognitive. So the elementary and the high school is where value formation, feeling, behaviors can be developed. Behavior change also happened when people have experienced but we don't have to experience it. Like in Ormoc, the government is just so small. Two days later, they were able to go back to its normal. The rest of the areas in Tacloban took some time because there was no water, there was no electricity and all of that. But the people in Ormoc already learned their lesson, they have the 2007, they experienced this flashflood and somebody came and they did a very good community-based disaster management. If that happens, it can happen in other areas but behavior change is very important.

Mr. Nestor Burgos: To add additional information to the points that were raised, I always tell this to my friends in the academe, speak the common people's language. We have the right information. The problem with storm surge is that it is precise but people do not understand. Twitter, social media is good but sometimes it's part of the laudable effort of the local government but the most vulnerable people are not in Twitter and Facebook. When you tell people about storm surge, you don't have to be precise about it. You can use analogy like it's going to be a tsunami. They can better understand that. If you tell people that the floods will be a hundred meter tall, why not tell them that it's going to be as high as a coconut tree or three times your house? You would better understand

that. So stick to people's language. That's one point. On the part of how whether it should be the national or local government, I think there's a need to overhaul protocols in the government just like what happened in Yolanda. It's not a question whether it's national or local; it depends on the magnitude of the typhoon. Like in Yolanda, it is clear that it must be the strongest typhoon, then it should be national government because local government units have long needs to react, to have that resources to address these. Third, as I said, protocols should be revised. We need that in the media. We should look at the phase at a very different manner because there were reports that Yolanda could be the norm, not just an exception, God forbid. And regarding the point that was raised, the term victim or survivor, I'm sorry if it took the negative connotation. But we were taught to call a spade, a spade and we don't refer victims as those who died. Anyone who experienced is still called victims because they are also affected by the effects. We are all victims. But if that would empower then I don't have a problem calling victims as survivors. Thank you.

Mr. Oscar Victor Lizardo: I agree with Nestor, Yolanda, that kind of typhoon. Yes, it should be a national scope, tama iyon, and matindi iyon for any local government unit to respond. But in terms of preparedness, that's entirely a different thing. That should be done, maybe the national can do that, but at the expense of a very large budget. Again, it's very different from every local government unit. One problem of one local government unit maybe typhoons, the other might be volcanoes and earthquakes, another could be armed conflict. Each local government unit should have a preparedness plan. It should come from them, it should be participative, dapat alam nila iyon. And they should include their people, their community which is extremely difficult for the national government to do. And just to give contrast between response and preparedness, I hope that information can help us. Thank you.

There are two scenarios: one is Cateel that is practically unprepared to Typhoon Pablo. But here comes, Surigao Sur, they were quite prepared. 24 hours before, they evacuated their residents already. So there are two extreme scenarios of Local Government Units responding to a disaster. The same is also true with San Francisco, Camotes or Albay province when we're talking about zero mortality, still with responding to disasters. So I believe, here comes the issue now of leadership in the part of the Mayor, the issue of preparedness, are we proactive or are we reactive to disasters? So, I don't know perhaps, this is a very good venue for us to tackle this issue. The same is also true to Olongapo City when it comes to flooding. Are we going to be proactive, or are we going to be reactive, or are we going to stay put with regards to the political dynamics? So these are the issues that confront us.

Dr. Exaltacion Lamberte: I think this is in all service agencies. Our problem is really things like this which affect lives of our people should be politicized, should be highly and the only thing that we can attain this respect is the loss of lives of the people. But I don't know how we can manage to communicate this to our politicians that when lives are already at stake, politics should be set aside. We are always met with this problem but I feel we could do something about this. Kasi, kung ganoon na lang kaya tama iyong observations noong foreign consultants, the Philippines is very rich but only a few have the large chunks of money. So ito iyong may mga power and riches, problema are the interlocking politics. So we have to overcome that in preparedness kahit sa local area lang, the national government, babatukan sila ng international community because they will be criticize. Didn't you know that we have 105 international agencies that have helped in the Typhoon Yolanda damage, 105? Would you imagine that? This is over and above our own LGUs.

Sir, there are students in the Bachelor of Science-Information Technology program who have developed several mobile applications. The question is where can they possibly access the raw data so that the students can develop these apps?

Mr. Oscar Victor Lizardo: Where are these students? Are they here? Because I have to congratulate them. I mean, the data is open. You can get that at Science and Technology Information Institute (STII) at Advanced Science and Technology Institute (ASTI). They could access that data. It depends also on what they need. I can help them with any kind.

I'm Dr. Jessie from the Philippine Nurses Association (PNA). I would like to let the panel know that PNA Cebu responded in Yolanda 3 days after the disaster. What we did, 63 nurses, we just made use of Facebook, social media, calling for volunteers. Then we pull them out of the field, we were able to give psychological first-aid, we were able to relieve nurses in the hospital that do not have 24 hours of sleep, taking care of those injured. We helped packed the relief goods and have also assisted. So we were able to utilize our nurses, we were not called by the Department of Health. We voluntarily went to DOH and asked them. My question is, the discussion said

that we have to be prepared? Do we have map that is available where we have identification of high-risk areas, that LGUs can make use of, so we can prepare for disaster?

Mr. Oscar Victor Lizardo: It's good that you asked this question because the answer is yes, we do that have available data, very high-resolution hazard maps on flooding, storm surge and landslide. But we still keep on doing that so not all areas have been covered. The bright side of having a disaster, we prioritize these areas, Tacloban has one, Bantayan for storm surge. We have that data. This is one that you could use down to the barangay level. And we have, we put it all in the website, you can download it, sa inyo ko po lang ito sasabihin, it's a beta web-site. That's *beta.noah.dost.gov.ph.* And all of you here, please let your local government know that you have access to this data. Thank you.

Dr. Exaltacion Lamberte: *We have a question to Oscar. Oscar, how is the data given, is it in a form of the plain listing given Word, Excel? The other one, where can we find data on perhaps the LGU could be happy to have it. The last data for the past five years because we have more disasters five years. More on flooding earthquake.*

Mr. Oscar Victor Lizardo: These are maps based on Geographic Information System (GIS) formats so, it's not static map. You can zoom in, zoom out. Unfortunately, we don't have data five years before. But I'm sure the Philippine Atmospheric, Geophysical and Astronomical Service Administration (PAG-ASA) have that data and the National Disaster Risk Reduction and Management Council (NDRRMC), they have data on these disasters.

Bioterrorism

Dr. Geroncio C. Fajardo
US Center for Disease Control and Prevention

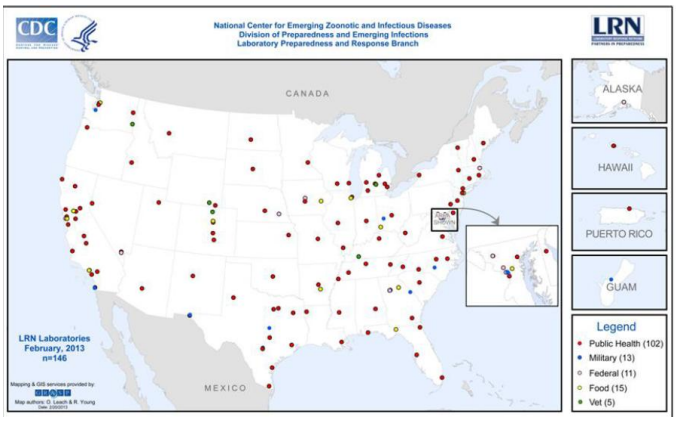
Discussion

Maayong buntag kaninyong tanan! Magandang umaga po sa inyong lahat! Good morning everyone! Thank you very much for your kind introduction. My name is Geroncio Fajardo and as was mentioned, I have been working as an Epidemiologist with the US Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases, Division of Preparedness and Emerging Infections, Emergency Preparedness and Response Branch.

In this presentation, we will discuss "Potential Bioterrorism-Related Incidents Involving Unknown White Powder: Comparing Electronic News Media Reports to Reports Received by the US Centers for Disease Control and Prevention and the Federal Bureau of Investigation: USA, 2009-2011." In the interest of time, I would to request that you hold on to your questions until I will have finished my presentation. First, what is bioterrorism? Bioterrorism, actually, is a human activity that could result to a man-made disaster when there is the intentional release of biological agents, bacteria, viruses, or other germs as they called it. Bioterrorists are sowing the seeds of terror in the community. Some of these agents may be transmitted from person to person and the infection may take hours and days to become apparent. Traditionally, bioterrorism agents are grouped into three by the CDC, Category A, Category B and Category C. This category A, actually are composed of organisms or bio threat agents that are easily reproducible but have very high fatal rate.

The primary objectives of this study is to (1) review and compare potential bioterrorism-related "white powder" incidents reported by electronic news media with those reported to Center for Disease Control (CDC) and Federal Bureau of Investigation (FBI), (2) describe policies, procedures, and limitations faced by the CDC and FBI ascertaining reports of unknown "white powder" incidents and (3) discuss need to share information about unknown "white powder" and other bio threat incidents between law enforcement and public health.

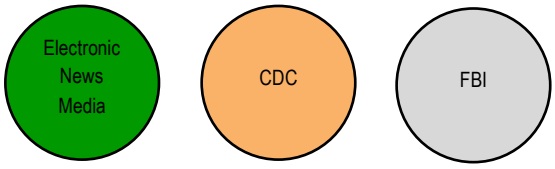
In the aftermath of the 2001, the CDC and our state, local partners were inundated with people. We realized that a system was needed to be developed to keep track of these reports until they were ruled out.



Map coverage of the Laboratory Response Network in the United States of America, February 2013 (Source: http://www.bt.cdc.gov/lrn/usmap.asp)

Methods

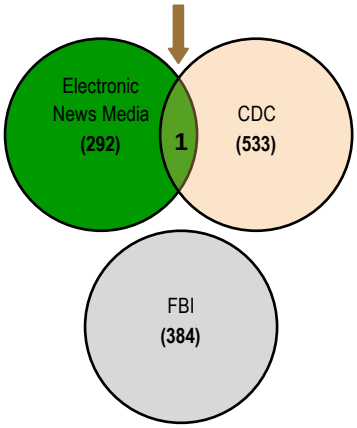
Reviewed information about unknown white powder from three sources for June 1, 2009 –May 31, 2011:



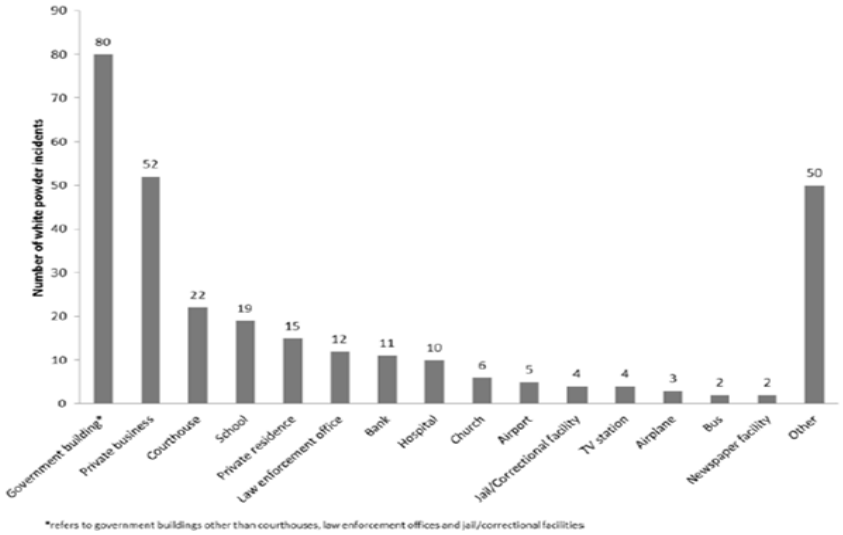
Internet searches for "unknown white powder" (Yahoo search engine, Google search engine, US CDC DPEI/EPRB incident reports); Abstracted the following information (report date, state of incidence, specific

location of incidence, identification of the unknown white powder, emergency responders involved, FBI involvement); electronic database using Excel 2003; and Descriptive statistical analyses using SPSS 17.0 and SAS 9.2.

Results



USA map showing frequency distribution of electronic news media unknown "white powder" incidents by state, 2009-2011 (n=297)



Electronic news media reports of unknown "white powder" incidents by location, USA, 2009-2011 (n=297)

Identities of unknown white powder (n=74)

Identity	N	Identity	N
Sugar/artificial sweetener	10	Brownie or cake baking mix	1
Flour	9	Calcium carbonate	1
Talcum powder	5	Crushed silica	1
Medical powder	4	Foot powder	1
Narcotic	4	Instant soup	1
Baking powder	3	Office dust	1
Baking soda	3	Ordinary household product	1
Coffee creamer	3	Powdered alfredo sauce	1
Corn starch	3	School project source	1
Baby formula	2	Soap shavings	1
Candy	2	Sodium bicarbonate	1
Cream of Wheat	2	Table salt	1
Fire extinguisher residue	2	Titanium dioxide	1
Bean substance and cream sauce	1	Ultra Slim-Fast powder	1
Boric acid or warfarin	1	Whey powder	1

TABLE 1 – *Unknown "white powder" incidents* by FBI region† and source of information: January 1, 2009 – May 31, 2011*

Region	Source of information					
	News media		CDC		FBI	
	n	%	n	%	n	%
Central	39	13.13	94	17.50	87	22.66
Northeast	95	31.99	269	50.00	122	31.77
Southeast	71	23.91	58	10.80	66	17.19
West	92	30.98	117	21.70	109	28.39
Total =	297	100.00	538	100.00	384	100.00

* redundant or updated reports of the same unknown "white powder" incident is counted as one incident

† Region (field office area of responsibility):

Northeast - New York, Maryland, West Virginia, Massachusetts, Rhode Island, Connecticut, New Jersey, Washington, DC, Northern Virginia, Vermont, Pennsylvania, Maine, Delaware, New Hampshire

Southeast - rest of Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Kentucky, Tennessee, Puerto Rico

Central - Ohio, Michigan, Illinois, Indiana, Arkansas, Louisiana, Mississippi, Missouri, Kansas, Oklahoma, Nebraska, North Dakota, South Dakota, Iowa, Minnesota, Wisconsin

West - California, Oregon, Idaho, Washington, Montana, Colorado, Nevada, Texas, New Mexico, Arizona, Alaska, Hawaii, Wyoming, Utah

Conclusions

Unknown "white powder" incidents occurred in practically every state and region; emergency responses to unknown "white powder" incidents generally managed at the state/local level; CDC LRN a technical resource for credible threats; and unknown "white powder" incidents require integrated response activities from various emergency responders including law enforcement (Joint Criminal and Epidemiological Investigations Workshops).

Tohoku University and the Great East Japan Earthquake

Dr. Shinichi Egawa

Division of International Cooperation for Disaster Medicine, International Research Institute of Disaster Science (IRIDeS), Tohoku University, Japan

Discussion

Thank you so much! Good morning! I am Shinichi Egawa from Tohoku University. These are the contents of my talk today. First, I want to thank you for supporting Japanese disaster. I want to talk about the preparedness

before the disaster, outline of the disaster, role of Tohoku University and IRIDeS and Hyogo Framework for Action II in Sendai World Conference. As you know the disaster risk is calculated by this equation,

$$\text{DISASTERS} = \frac{\text{Hazards x Vulnerability}}{\text{Capacity}}$$

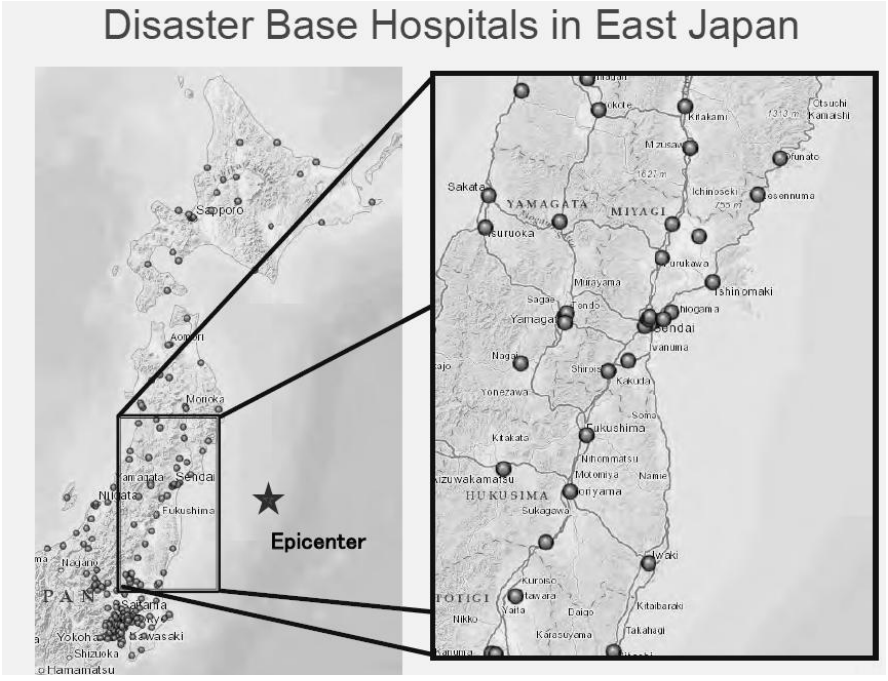
We have many hazards. We have long history in tsunami. About 400 years ago, a very big tsunami attacked our area. And 800 years ago, we have evidence that we also have tsunami. Since we have incidence of tsunami, the people build a large sea wall (total length = 2,433 m, base Width = 25 m, 10 above sea level) and memorials indicating how high the tsunami was in the area.

The Great Kanto Earthquake in 1921. It was in Tokyo Metropolitan area, more than a 100,000 people died. The main cause of death was fire. In the same time, with an earthquake that destroyed many buildings, so the buildings should be earthquake proof. We had lessons: that we have to know the risk and we made a hazard map and an indication that estimate the tsunami in an inundated area, an early warning system. Every September 1st, when the Tokyo Metropolitan area had an earthquake, it's a national disaster drill day. The children are taught to evacuate by themselves. In 1995, we had an earthquake. And in 2011, we had the Great Japan Earthquake.

Medical Preparedness before the Disaster

The role of health professionals is to increase the capacities and decrease the hazard and vulnerability. In 1995, the Great Hanshin Awaji Earthquake killed more than 6,000 people. The main cause of death was asphyxia because of the collapse of the building. At that time, no disaster specific hospital was available so we develop a disaster base hospital and we establish the DMAT (Disaster Medical Assistance Team) who act very rapidly. There was no wide area transportation, the Staging Care Unit (SCU) System was established and there was no disaster medical information system, the Nationwide Emergency Medical Information System was established. There was no disaster medical coordinator, we establish it. We established Japanese Association for Disaster Medicine, 2 years after the disaster earthquake.

The Disaster Base Hospital provides intensive care unit and response to the patient's transportation, provides DMAT and provides medical resources to affected local hospitals. There are more than 609 Disaster Base Hospitals throughout in Japan. There's one (1) National Disaster Medical Center. The location of DBH in East Japan:



The Disaster Medical Assistant Team (DMAT)
More than 1000 teams were trained in Japan after Hanshin Awaji Earthquake. The DMAT arrives in the affected area within 24 hours and save the lives from preventable death until 72 hours when the local health care recovers. It is consist of a medical doctor, a nurse, a pharmacist and a logistician with self-standing materials and vehicle. The DMAT are specifically trained for confined space medicine and wide area transportation.

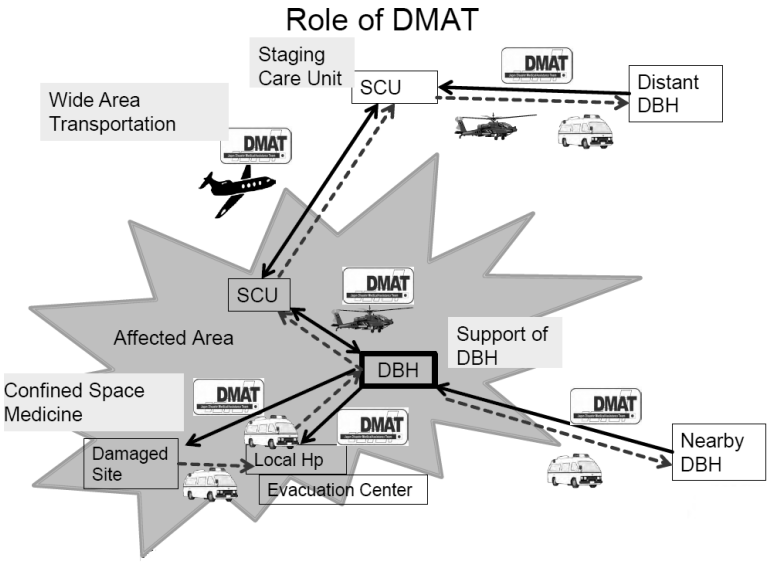
The DMAT and DBS is controlled under the Ministry of Health, Labor and Welfare and the Emergency Medical Information System coordinates the activity of DMATs. These are the aircrafts used for wide area transportation run by the Self Dense Force. Only four to eight patients can be carried by these big aircrafts. This is a picture of the Emergency Medical Information System. The Disaster Medical Coordinator is first established in Hyogo in 1997. Four out of forty-seven prefectures (10.6%) had designated medical coordinators before the Great East Japan Earthquake. Miyagi prefecture assigned six coordinators in 2010 but Iwate and Fukushima did not have a coordinator.

In March 11, 2011, a magnitude of 9.0 earthquake hit East Japan. Luckily, it was Friday afternoon with sunlight, outpatients were on their way home, medical staffs were on the job and the weather was cold but getting warmer. Whole Japan was shaking. The main cause of death for the Great East Japan Earthquake was mostly drowning.

Tohoku University as a Disaster Base Hospital
The Tohoku University was located far from the seashore and had a very small number of patients visiting to our hospital within a week. But the Ishinomaki Red Cross Hospital had to accept more than a 1,000 patients a day, two days after the earthquake even though they have very small number of doctors, small number of nurses.

The Japanese DMAT Headquarter and the DMAT went to the local headquarters of the local government and assisted the health sector. The 1,800 members of the DMAT gathered right on the day up to March 22 and helped many nations. Not only DMAT, other members of the team: National University Hospitals, Japan Red Cross Hospitals, Japan Medical Association also came in to the affected area.

The Role of DMAT:



A very important function of DMAT is wide area transportation based on network centric operation. There were 78 patients who need hemodialysis in Kesennuma City. And no hospital can provide hemodialysis at that time, so they send the patient to our university hospital (Tohoku University Hospital), we became transient hemodialysis of this 78 patients in one day and sent to airport to Matsushima and send them by airway to Sapporo.

But we have to know that the medical needs are changing.

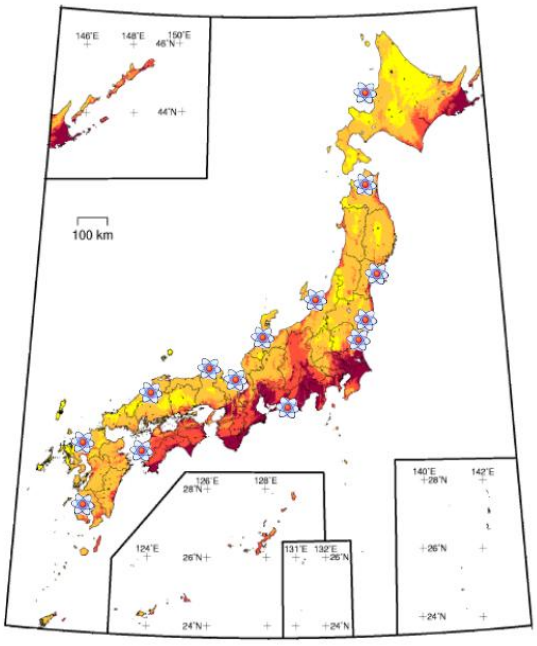
	Injured (a)	Dead or lost (b)	(a)/(b)
Hanshin-Awaji Earthquake	43,800	6,433	6.8
Great East Japan Earthquake	5,942 ⇩	19,582 ⇧	0.93

There are, however, many unmet medical needs. The people with chronic illness (with home oxygen treatment: lack of O_2 tanks; hemodialysis: lack of dialyzers and fluids; hypertension, DM: loss of daily drugs and insulin; loss of glasses, teeth brushes); crowded shelter without enough heat, food and water (fear of outbreak of diarrhea and pneumonia, loss of privacy, quarrel and harassment); loss of family and job (psychological depression, alcoholism, PTSD); loss of gas supply; sleeping in a car to wait fuel (deep vein thrombosis) and lack of substitutes of local medical staff. And another problem is disaster related deaths, there are 3,089 who died after.

Hospitals should be the Last Building Standing in a Disaster
Another problem is flood-in of supporting medical teams and lack of coordination. Many teams visited the affected area but no coordination. So the prefectures assigning disaster medical coordinator was greatly increased after the Great Japan Earthquake.

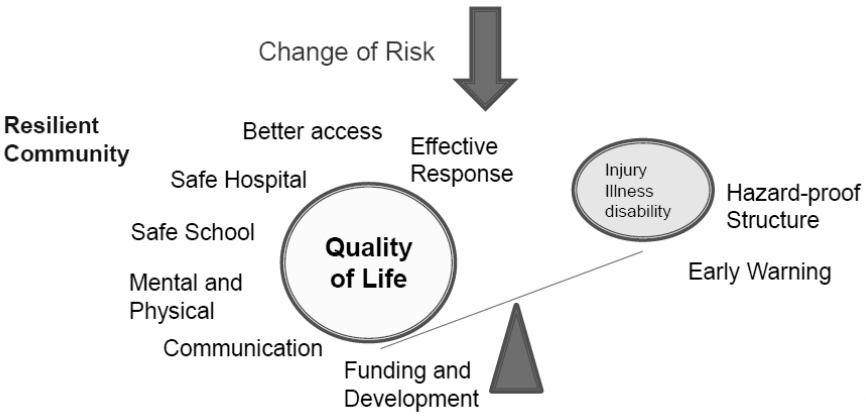
The Tohoku University implemented a new research institute: International Research Institute of Disaster Science (IRIDeS). Multidisciplinary approach of IRIDeS include hazard and risk evaluation research, human and social response research, endowed research, regional and urban reconstruction research, disaster information management and public collaboration, disaster science and disaster medical science. The Disaster Medical Science include international cooperation for disaster medicine, disaster psychiatry, disaster-related infectious disease, disaster obstetrics and gynecology, disaster medical informatics, disaster oral science, disaster-related public health and radiation disaster medicine. But, we are expecting another threat in the near future. If we have the Great South Trough Earthquake, the number of people at risk is 1.63 million. Another threat is the Tokyo Metropolitan Area.

So the hazard map is illustrated like this and we have seventeen nuclear power plants nationwide, in which no active reactors.



Destructive earthquake hazard map of Japan, Copyright ©The Headquarters for Earthquake Research Promotion

The Hyogo Framework for Action was introduced in 2005 in Hyogo and will be revised next year in Sendai. Only three words and one paragraph of "health" in 10,130 words of HFA: *"(e) integrate disaster risk reduction planning into the health sector; promote the goal of "hospitals safe from disaster" by ensuring that all new hospitals are built with a level of resilience that strengthens their capacity to remain functional in disaster situations and implement mitigation measures to reinforce existing health facilities, particularly those providing primary health care."* Who responds to the health risks? The voice of health professionals in risk reduction is very weak. We have to be aware that due to the paradigm shift, like climate change, rapid urbanization, poverty, lack of resource, loss of biodiversity, all kind hazards (biohazards), we are facing the change of risk.



I organized the International Symposium on Disaster Medical and Public Health Management in Washington, DC last May 21-22 making the (1) frameworks and policies, (2) planning and vulnerable populations, (3) psychosocial/behavioral, (4) infrastructure/resources and (5) education. And we published a position paper at prevention web, editorial in Disaster Medical and Public Health Management (DMPHP) (Burkle and Egawa), and we are now publishing the proceedings in Disaster Medical and Public Health Management (DMPHP) on-line.

So our proposal to HFA-II is the risk reduction. People have to know the health sector's voice. After typhoon Yolanda, we visited Leyte Island and visited the hospital and University of the Philippines Manila School of Health Sciences (UPMSHS) in Palo and they are reconstructing and relocating. Tindog Tacloban and let's reduce the risk together. Thank you very much!

Open Forum

What did you see in terms of the management of the rehabilitation efforts, what are the impression and the challenges?

I visited the hospitals. We found that storm surge and strong winds devastating the hospitals and heavy rains were very bad. It may be because of the climate change but also maybe because of the structure of the hospitals. I know that the safe hospital campaign was carried in the Philippines from 2008 and I visited the DOH and shared the information with them. My feeling about the people's health is that, still, you don't have that clear water hygiene so the people's health requires clear water system and sewage system. I am also worried about the children's health. In the Philippines, I heard that here was no lunch provided by the school. So maybe you may have program for your children's health. The coordination of medical assistance was very massive in the Philippines. Philippines is a very acceptable country.

You mentioned one of the components was emergency medical system information. Can you expound?

Web system and health professionals, DMAT information about the hospitals. The system is mostly on domestic use. This provides the information on how many doctors and how many patients are there in a hospital and the information on how many patients can be accepted in that hospital.

How are cellphones used during disasters in Japan?

Communication was a problem during the Great East Japan Earthquake. The backbone of internet was not damaged. The government is now planning to increase the capacity of the communication.

Did you ever had a situation that caused alarm? In the Philippines where we have an earthquake, people are panicking because of tsunami alert. Do you have that kind of situation in Japan, how were you able to avert the problem?

The accuracy of the forecasting or early warning is very important. Japan is one of the very advanced country and also we have scientists on tsunami who majored their mechanism on tsunami. Transition of the tsunami was very correct. Many factors that affect the size and direction of the tsunami. But of course, there is a problem with a false warning. People still remember the tsunami, in the coastal area, people are warned to evacuate if the tsunami expected. Scientific accuracy is very important.

From the point of view from administering the effort because it's a very complicated effort, you showed the slide were you felt there was little coordination between the actors on the ground. I think that's also a problem in the Philippines, what do you think is a good example in national, local, etc. on the framework for the effort on the ground?

I think only education and training can solve this problem. Of course, we have to establish a system that can be organized or coordinated to respond appropriately. But, at the time of disaster, everything will be in chaos. If we know the common words, common terminology, the kind of information, coordination and push logistics and arranging their health needs is very important. And not only the government and the communication of the people in the community and the people in the community should establish hazard map and way of evacuation and way to get out to be helped. So that kind of education of training is very important. And especially for the medical part, I think medical students and nurses should be educated about disaster medicine.

Do you have a formal program for training of the DMATs?

Yes we do, and they are trained annually. There are two kinds of DMATs: advanced course and basic course. Advanced course DMATs can become coordinators in the local government.

Who gives the training?

The National Center for Disaster Medicine provides the education and training courses.

Let's go to one of your key points, you feel that in the global plan, disaster and health medical emergencies is not yet that highlighted. What is your agenda moving forward? Is it really focused on the Sendai conference next year?

Yes, apparently, the United Nations International Strategy for Disaster Reduction are organizing and making the framework for action. But, the next framework will be used for more than ten years, twenty years or thirty years for the future. It is trying to combine the risk reduction and development because everybody needs the resource and thrusts. So the next framework is a very important issue to the global base.

Any last words, Dr. Egawa, to wrap up the session?

Our institutes made an agreement with the University of the Philippines Manila and Angeles University and with the other universities in the world. And since disaster has no border, we have to coordinate to reduce the risks. Japan and Philippines are one of the most disaster prone countries but we have also reduced the risks by the experience of the past disasters. However, the disaster risks have been changing, we may have outbreak of influenza like the Ebola in Africa, so we are facing that new spreads. And the health professionals are the frontline responders and if we are not prepared, we cannot respond appropriately. So preparedness is the key to reduce the risks. Health professionals should raise their voice in the process of risk reduction. So let's work together and the future collaboration.

In Vitro Antiprotozoal Activity of *Morinda citrifolia* Crude Extract Against *Blastocytis hominis*

Jaime D. Ayub, Jr., Heizyl-Gine D. Baliad, Diane Aubrey O. Carreno, Ella Marielle J. Estanislao, Herminio C. Faustino, Jr., Maria Jamie Liza D. Lagon, Lian Lou O. Madrones, Vincent Nathan S. Pastor, Rhea Mae B. Resurreccion, Lyslie Jane J. Vasquez, and Karl Elson A. Ycon
Prof. Jasmen S. Pasia

Presenter:
Mr. Jaime Ayub, Jr.
San Pedro College, Davao City

Abstract
Iridoid-containing Morinda citrifolia (Apatot) dried fruit crude extract was tested for its antiprotozoal activity against Blastocystis hominis. Test organisms obtained from human stool were cultured anaerobically using Locke-Egg Medium at 37°C for 48 hours then treated with plant crude extract as the experimental control and Metronidazole as the positive control at 25 µL, 50 µL, and 100 µL. Treated culture tubes with protozoal inoculums were incubated for 48 hours and 96 hours. Antiprotozoal activity was assessed by performing viability count using Eosin-Brilliant Cresyl blue which stained live cells green and dead cells red. Results show that cell viability decreases as the concentration and duration of exposure to treatments increase. The decrease in viability percentage of cells using the crude extract was greater than that of the Metronidazole. This shows that the antiprotozoal activity of M. citrifolia crude extract is higher than that of the Metronidazole.

Keywords: Morinda citrifolia; In vitro; antiprotozoal; Blastocystis hominis; Iridoid

Nephroprotective Effects of Cogon *(Imperata cylindrica)* Root Aqueous Extract on Sprague-Dawley Rats with Gentamicin-Induced Acute Kidney Injury

Mr. Jonnel Poblete
University of the Philippines Manila College of Medicine

Abstract
Introduction: Acute kidney injury (AKI) is a significant medical complication in developing countries, leading to increased mortality and health care costs. AKI could be induced by oxidative stress. Based on the antioxidant properties of cogon (*Imperata cylindrica*) root, this study aimed to evaluate the nephroprotective effects of its aqueous extract (ICRAE) in a rat model of gentamicin-induced AKI.

Materials and Methods: Fifteen Sprague-Dawley rats were randomly assigned to five groups: Control (*per orem* NSS, intraperitoneal NSS), Gentamicin (p.o. NSS, i.p. gentamicin), and three treatment groups ICRAE 100, 500 and 1000 (p.o. 100, 500 or 1000 mg/kg ICRAE, i.p. gentamicin). ICRAE and NSS were administered at days 1-17 while gentamicin at days 8-17. Kidney weight to body weight ratio (KWBWR), biochemical, and histological parameters were evaluated and statistically analyzed. ICRAE was subjected to phytochemical screening.

Results: The KWBWR for ICRAE 100 (0.92 ± 0.06 mg) was significantly different from the Control (0.67 ± 0.05 mg). A significant decrease (p= 0.0466) in serum creatinine was observed in ICRAE 100 and 1000 when compared to Gentamicin. No significant difference was observed for Blood urea nitrogen (BUN) among the treatment groups (p= 0.23142). Histopathology analysis showed no interstitial edema and similar severities of glomerular congestion, vascular congestion, interstitial infiltrates, tubular necrosis, and tubular RBC casts in all the groups. Distal tubule hyaline casts were present in Gentamicin, ICRAE 100, and ICRAE 500. On phytochemical screening, ICRAE had a pH of 5, and was positive for glycosides, flavonoids, and reducing substances.

Conclusion and Recommendations: The dose related decrease in KWBWR, serum creatinine, BUN and hyaline casts in ICRAE-treated rats with AKI signify a possible nephroprotective effect of the extract especially in the early stages of AKI. This effect is mainly attributed to the flavonoids and reducing substances in ICRAE which exhibit antioxidant and anti-inflammatory properties. Further investigations include identification of active constituents of the extract and evaluation of specific biomarkers related to oxidative damage to confirm the findings of this study.

Mangosteen Extract, A Comparable Anti-Angiogenic Substance to Bevacizumab on Duck Chorioallantoic Membrane

Alcazar, E., Alcala, C., Cataluña, R., Concepcion, D., Congjuico, K., Fornolles, M., Hernandez, J., Miro, J., Romero, P., Sandino, L.

Presenter:
Ms. Elizabeth Grace Alcazar
Cebu Institute of Medicine

Abstract

Background: In the Philippines, anti-angiogenic drugs for cancer treatments are expensive and have several side effects. A cheaper and safer alternative is warranted.

Objective: Determine whether mangosteen extract possesses comparable anti-angiogenic activity to Bevacizumab on duck chorioallantoic membrane (CAM)

Study Design: Experimental design

Study Setting: Biochemistry, Microbiology and Physiology Departments of Cebu Institute of Medicine, Cebu City; and Chemistry and Pharmacology Department laboratories of University of San Carlos-Talamban, Cebu City

Test Subject: Twenty-four duck embryos per group, for a total of 72 Cairina moschata (Muscovy duck) embryos from Alio Poultry, Cebu City

Maneuvers: Bevacizumab, sterile 0.9 NaCl and crude mangosteen extract were the positive, negative and experimental groups respectively. Their effects on angiogenesis were demonstrated on CAM. The number of branching blood vessels within the 6-mm diameter of the discs were counted and percent vascularity was computed.

Outcome Measures: Significant mean difference in the percent vascularity among the three groups.

Results: The negative control had the average of10.67 ± 6.34 blood vessels and a mean percent vascularity of 85.51% ± 110.19, the positive control demonstrated mean number of 5.75 ± 2.98 blood vessels and 0 ± 51.86% vascularity, while the experimental group showed a mean number of 6.21 blood vessels ± 2.41 with mean percent vascularity of 16.67% ± 59.25. There was a significant mean difference among the three substances (p=0.001) and NSS was substance significantly different from the others.

Conclusion: Mangosteen and Bevacizumab demonstrated moderate and strong anti-angiogenic effects respectively. Mangosteen has comparable anti-angiogenic activity to Bevacizumab.

Determination of the Anti-Angiogenic Activity of White Angel (*Holarrhena antidysenterica*) Leaf Extract Using Chorioallantoic Membrane Essay

Presenter:
Ms. Reynalyn Quiban
Angeles University Foundation

Conclusion

Over the past years, research on anti-angiogenic and anti-tumor effects of non-toxic compounds have been the focus of several fields of science, particularly medicine. Much of the attention has been focused on the anti-angiogenic and anti-tumor effects of non-toxic compounds from natural products. Angiogenesis principally depends on the proliferation, proper activation, adhesion, migration and maturation of endothelial cells. Angiogenic suppression and inhibition have been considered an advantage for metastatic and tumor growth prevention. (Keshavarz, 2011).

Some substances identified to be effective in animal models to their anti-rheumatic effects have been described to also have anti-aging effects. Examples of such are methotrexate which contain anti-angiogenic activity (Folkmann, 2006). A number of active ingredients are present on most of the extracts obtained from plants which are made up of complex chemical combinations with medicinal properties that directly affect tumor angiogenesis

(Keshavarz, 2011). The chick chorioallantoic membrane assay was used for examining the antiangiogenic activity of H. antidysenterica. The results indicated that H. antidysenterica inhibits angiogenesis in ovo.

It has been observed that the H. antidysenterica leaf extract significantly inhibits the development of capillary networks in CAM. The extract exemplified very low branch point densities wherein it portrayed an anti-angiogenic activity similar to the positive control (Ibuprofen). The statistical analysis gives evidence that there is significant inhibition on the angiogenesis or formation of new blood vessels from pre-existing vessels by the leaf extracts of the White Angel (Holarrhena antidysenterica). It also indicates that it has suppressive property which has an effect on chick embryo angiogenesis. The observation in this study suggests that the H. antidysenterica extract may have the potential to be a useful deactivator of numerous serious diseases characterized by regulated angiogenesis.

Not All Taua-tauas Are Alike: A Morphological, Molecular, Genetic, Phytochemical and Anti-thrombocytopenic Profiling of Different *Euphorbia hirta* Linn. Plants from the Philippines

Presenter:
Ms. Sheriah Laine M. de Paz
University of the Philippines Manila College of Medicine

Abstract
There have been conflicting evidences regarding the therapeutic properties of taua-taua against dengue. Hence, this study aimed to investigate its morphological, genetic, phytochemical, and anti-thrombocytopenic characteristics. Ten plant samples of *taua-taua* were collected from different locations in the Philippines. Morphological characters were noted, rbcL gene was amplified and sequenced, and HPLC profiles were taken. After this, cluster analysis was performed. Anti-thrombocytopeic tests were also made using mice. It was shown based on morphology, morphometrics and *rbcL* sequence analysis that there were two clades of putative *taua-taua* in a typical field collection area where these plants grow: the *E. Hirta* clade and the *E. lasiocarpa*/*E. prostrata* clade. The HPLC analysis of the phytochemical signatures of these plants showed that *taua-taua* samples of the same species do not necessarily produce the same relevant compounds and this may be related to the environmental differences where these plants thrive. Thus, the biological activities claimed by previous studies may not necessarily hold true for all *taua-taua* varieties. The anti-thrombocytopenic activity of *taua-taua* extracts could vary in terms of pattern where one elicit stable followed by decline platelet count or a fluctuating pattern. QCG extract demonstrated statistically significant anti-thrombocytopenic effect, while a number resulted to a mortality of taua-taua fed mice.

Keywords: *E. hirta*, taua-taua, anti-thrombocytopenia, morphological analysis, molecular genetics, HPLC profiling

Antidevelopmental Effects of *Callistemon viminalis* (Weeping Bottlebrush) Leaf Extract on the Early Development of *Tripneustes gratilla* L. (Sea Urchin) Embryos

Authors: Cercado, G., Arnaiz, K., Dy, A., Filipinas, N., Joshi, G., Lao, M., Moscoso, R., Pasco, D., Quirante, F., Rodriguez, R., Sy, R.

Presenter:
Ms. Geraldine P. Cercado
Cebu Institute of Medicine

Abstract
Background: Cancer is a common disease. It is costly and has made people look for cheaper sources for treatment. Callistemon viminalis may have potential if found to be antidevelopmental to Tripneustes gratilla.

Objective: To determine if there is an effect of Callistemon viminalis leaf extract on the early development of Tripneustes gratilla embryos.

Study Design: In-vitro controlled experimental research design was used.

Study Setting: The study was conducted at USC Marine Station in Lapu-Lapu City, Philippines.

Study Population: The leaf extract of Callistemon viminalis and mature male and female Tripneustes gratilla were included.

Maneuvers: Extracts were made from dried, ground Callistemon viminalis leaves, using 95% ethanol. Extract solutions were prepared at 5, 10, 25, 50, 75, and 100% concentrations. Sea urchin embryos were mixed to seven treatments: 100% sterilized filtered seawater as control, and six concentrations of extract as experimental treatment. Monitoring was done at specific intervals to identify cell stages and morphologic aberrations.

Results and Discussion: Results showed the leaf extract of Callistemon viminalis has antidevelopmental effects on the embryologic development of Tripneustes gratilla. Five percent concentration of the extract delayed embryologic development and caused morphological abnormalities in the cells. Higher concentrations prevented the development beyond the 1-cell stage and caused morphological abnormalities, which included: atypical, deformed, burst, and arrested forms. This can be attributed to the presence of polyphenolic compounds which probably arrest cell stages and/or inhibit enzyme metabolism.

Conclusion: C. viminalis leaf extract caused developmental delay, cell arrest or alterations on mitotic division, cell deformities, and cell bursting of sea urchin embryos.

Welcome Remarks

Dr. Enrico B. Gruet
Chair, CVCHRD and Dean, Cebu Doctors' University College of Medicine

The Executive Director of PCHRD, Dr. Jaime Montoya, is not available this morning. His flight has been delayed so I'm tasked to read to you his welcome remarks.

Distinguished guests, ladies and gentlemen, good morning! It is my pleasure to welcome you all here to participate and share with us your time for this session on the National Assessment of Health Research Capacity of researchers, research institutions and regional research consortia. We are honored to have you here and knowing that some of you have travelled from the different regions to attend this event serves as a reminder to all of us just how important our work in health research is. One of the objectives of the Philippine National Health Research System or PNHRS for short is to elevate the level of health research in the Philippines. That is why the development of and support for our health researchers, research institutions and regional health research consortia which are the heart of the PNHRS are deeply engraved in the vision on the capacity building committee of the PNHRS. It is imperative that the status of these three health research sectors is assessed to identify their strengths and weaknesses. This way we can set the grounds for our next endeavors to turn these strengths into actions and weaknesses into opportunities. Southeast Asia has become an avenue for research and innovation and we have to ask ourselves, "*Are we keeping up with this trend?" "Are we at par with the capacity of our neighboring countries such that we can give worthwhile contributions in the advancement of health research in ASEAN especially in view of the ASEAN integration 2015 which transforms us into one community?"*

To answer those questions, we have to look at the capacity and capabilities of our regions for health research promotions, conduct, evaluation, governance, monitoring and implementation and how these regions can be capacitated in terms of research agenda setting and resource management to generate the best yield in research. We need to evaluate our research institutions to discover new systems and mechanisms that will increase their potential for health policy and health programs development. We need to assess our researchers so that we can identify with them which avenues create better research opportunities, enhance their interest and involvement and help improve their skills in doing quality research. So let me take this opportunity to encourage all of you here to share with us your wisdom and dedication. There is still a lot to be done but if we remain true to our mission and vision as members of the capacity building committee and of PNHRS as a whole. We can answer the question, *"Are we keeping up?"* with a resounding "YES!"

With these things I leave you hopefully with a new purpose and agenda in mind. Prepare yourselves to be challenged, excited and inspired. Again, I welcome everyone and may you have a very insightful day ahead. Maraming salamat po!

Background of the Assessment

Dr. Remedios T. Habacon
Chair, PNHRS Capacity Building Committee

Good morning everyone! My task this morning is to answer the questions of who we are, what the mandate of the Capacity Building Committee (CBC) is, why and how. The how part is easy because I will just pass it on Dr. Sarol. As you all probably know by now, the Philippine National Health Research System, as Dr. Gruet has said is tasked to seek the improvement, the development and vibrance of research in our country. Under the PNHRS are six technical working groups: the Structure, Organization, Monitoring, Evaluation (SOME), the Research Agenda, the Capacity Building, Research Mobilization, Research Utilization, and Research Ethics. Number 3 is us, the Capacity Building Committee.

We are tasked to recommend programs that will help develop further or upgrade different human and institutional resources to improve the conduct, analysis and use of health research together with capability building upgrading of human abilities and as I would put it to increase the mass of researchers in our country. The first question that came to our mind when we were told that our task is to recommend programs is, *"What are we going to recommend?"* So all of us, especially new researchers know that there are a lot of problems that you encounter. I will not enumerate all of them but we all are aware of problems ranging from the administrative to the actual gathering of data, and presentation of papers, publication, etc. And in different regions we have different kinds of problems, different researchers. Your interests vary and as your interest vary, you encounter also a lot of

problems. And so as we were initially discussing this, we have to know where to start. We cannot just do a generic program. Because if we start doing a generic program, then we may not be able to address the problems of certain areas or we will be able to overshoot what the different areas are already aware of. And so since that is our dilemma then, we decided to conduct an assessment of the capacities of each research institutions and consortia and researchers all over the nation. And so, we decided to conduct a national assessment survey of the health research capacities of researchers, institutions and consortia. This is for us to be able to know where each consortia and institutions will be coming from and to be able to recommend appropriate and relevant capacity building programs so in the process and this is more than a year in the making. So we tried to sum it up by just scheduling the more significant processes that we underwent and from March of 2013, we started to finalize a proposed framework for assessing health research capacity for the different evaluation components, the level of inputs, processes, outputs and outcomes, will be measured and we chose these areas: the agenda setting, research design and implementation, ethics, capacity building, research utilization, resource mobilization and SOME (structure, organization, monitoring and evaluation) for each of the consortium and the institutions. Then on April 2013, we did a workshop. This is a 3-day workshop to finalize the assessment tool prior to pre-testing in the region. So we reviewed the tools and design it specifically for research institutions, consortium and researcher. We agreed in June of 2013 to pre-test the assessment tools. We divided amongst us within the different regions, we tested our assessment tool for researchers, institutions and consortium. We pre-tested it and we had to get the endorsement, not only of PCHRD, to Dr. Montoya but also of the Chair. Because the research institutions are mostly educational institutions. And so we tested this tool, one institution, one consortium and 10% of active researchers in each consortium and institution. We tested them in CAR, NCR, Region 3, 7, 10 and 11. And then, from there, we evaluated their responses, made the proper corrections as to the recommendations of the people who we pre-tested for this. And we finalized in July to December. It took us six months to finalize it. At the end of the day, we were also so confused because it's so hard to answer the different, ilang region pa lang iyon ha, six and we are going to field it to how many consortium? 17 consortia and so many research institutions and so many researchers. So, we decided we will listen to everybody so we just finalized it and reviewed and revised the assessment tools based on the pre-test. The assessment tools, finally, we came up with the Researcher Assessment Form, Research Institution Capacity Assessment Form and Research Consortium Capacity Assessment Form. It is RAF, RICAF, and RCCAF. And then we decided at that point to tap the intellectual output of Dr. Jesus Sarol and to validate the questions from the statistical and more scientific point of view and once we got his approval, we decided to tap them also as an external consultant for the roll-out of the assessment tools. Obviously, we cannot roll it out without their help and statistical evaluation. So in the development of terms of reference, Dr. Jesus Sarol really gave us a lot of boost there and then the research capacity for the 17 regions was also approved for the implementation for the period June 2014 – June 2015. Dr. Sarol's team will field out the assessment forms and they will also do the evaluation. And from there, we prayerfully aim to be able to look at the pertinent weaknesses and strengths of each consortium, group of researchers and the institutions. From there, we expect that we will be able to make more pertinent and adequate proposals that will address, more or less the problems, prevalent in these places, in these areas.

And just to provide you with a glimpse of what PNHRS is really already doing, which we hope to reinforce and adequately distribute as to the problems that are actually present in the areas, are these ones:

> As far as the researcher is concerned, the capacity building interventions that we proposed are the: degree scholarship programs, short-term training programs, mentoring programs, fellowship programs or apprenticeship, awards and incentives. We were always concerned with incentives and awards because we want to be able to show actual appreciation of the performance or the output of each researcher.
>
> And then, as far as research institutions are concerned, we are proposing to restart the twinning programs (I don't know if you are aware of the twinning programs that has been finished beforehand). And to support region-based capacity building programs. So, more or less, we will able to tailor the programs that we will recommend be given to specific areas. And of course, R&D support/ support for access to health research facilities (Tuklas Lunas Center; HERDIN training, installation and/or deployment) and the Balik Scientist Program.
>
> In terms of the Regional Research Consortia. Of course, the logistics support, support for regional research agenda formulation, research fora/ activities/trainings, planning activities, and of course, publications. Research support for research projects (i.e. regional research funds), resource sharing arrangements and develop regional R&D collaboration, development and technical/ethical review of research proposals and website development/maintenance.

We were kind of envisioning that if you have certain strength in this area and you belong to the same region, at least, people will know where to go. And one thing that I would like to underline is that, you, (meaning researchers, consortia, and institutions) are not going to be graded. Kasi pag nakita ang scoring na 0, 1, 2, it's just so we can evaluate statistically and we will have a more solid evaluation tool. But you will not be graded. We just want to know, as the term connotes, "*assessment"* means we just want to know where you are at the moment. So that where you are, we can meet you. Sabi nga kung mag she-shake tayo ng hands, we have to be on the same level. So we just want to know where you are. Iyon ang gusto kong reiterate. No other basis po, the only basis and the only thought behind this project is to know where you are. So we will be able to meet what you need. Iyon lang po. No hidden agenda. Nothing else, iyon lang po ang purpose namin. So we will be able to help you, give you the help that you now need, presently. Kasi kung meron na kayo, if you already have experts in your region, maybe we can even utilize you to help. Ngayon kung wala naman, or nandoon pa kayo sa medyo starting then we will just send people and do programs that will help you in that situation. So maybe next year when we do the assessment again, then you will be on a higher level. Iyon lang po ang agenda nito, nothing else. So I hope I made it clear. And I would like at this point to point my finger and hand the microphone to our consultant, Dr. Jesus Sarol, Jr.

Maraming salamat po. Daghang salamat po!

Presentation on the Initial Results of the National Assessment

Dr. Jesus N. Sarol, Jr.
Ms. Claire D. Pastor
University of the Philippines
National Teacher Training Center for the Health Professionals (NTTCHP)

Discussion

Good morning to all! Anyway, I am both really nervous and excited. Because I would like to really present this, and also, in the end, I would also like you to support this project. Perhaps, it's been emphasized by three speakers already as far as developing research capacities in the Philippines is concerned. So, health research provides the knowledge needed to improve people's lives by preventing diseases and effectively managing them. It is conducted mainly by the researchers from the academic institutions, private research companies and units within government service agencies. Research production is a function of many factors including the capacities of researchers, institutions and their bigger environment. Research capacity building is one of the main thrusts of the Philippine National Health Research System (PNHRS) and the four pillars of the PNHRS which are the Philippine Council for Health Research and Development, the Department of Health, the Commission on Higher Education and also the University of the Philippines – Manila have all been active in the research capacity development.

The PNHRS defines capacity building as the upgrading of different human and institutional resources to improve conduct, analysis and use of health research while capability building specifically pertains to the upgrading of human abilities and competencies to improve the conduct of health research. It has been pointed out that research capacity building developments have been conducted at three levels: (1) at the level of researchers (for example, PNHRS providing scholarships, awards, incentives research grants to individuals and also the trainings); (2) institutions are also on the next level (e.g. trainings, twinning projects, where institutions are partnered with one another, research funding, and acquisition of R&D equipment through Tuklas Lunas, a recent project on research and development where PNHRS identifies institutions in the different regions that they would like to actually develop their capabilities to be able to support the regional capacities of their local researchers); (3) and also to the consortia. By consortia, we might not actually be focusing ourselves to the consortia established in coordination with PCHRD, (so I'm talking about the 17 different consortia), but if you take consortia on a more generic scale, even PNHRS and PCHRD, in particular, have actually supported consortia, perhaps, example the medical societies and the likes. So these are the different levels where capability building activities have been implemented.

Prior to 2004, the Capacity Building Monograph reported that research capacity was kind of concentrated in National Capital Region (NCR) and there was a need to strengthen the regional research capabilities outside of NCR and developing a critical mass of available qualified researchers throughout the country to perform different health research activities. This need prompted the PNHRS Capacity Building Committee (CBC) to develop tools to assess health research capacities, in particular, the need for standardized tool to be used because you could

have actually conducted your own research capability assessments individually for the different regions but that might be difficult for them to really come up with more effective programs. A standardized tool was developed for national assessment. These assessments will facilitate the designing of interventions that will be specific to the research capacity needs of the regional consortium. Meaning at the regional level, what are the specific needs and perhaps, this should be important for you to realize because if the region do not participate in this assessment, then they might be left out on what exactly will be their needs and they're going to be just given what others perhaps are given.

Ultimately, this national assessment will help PNHRS to elevate the component institutions of the regional consortia to becoming individual *Centers of Excellence.* Now it was already explained that the framework or the development of the tool, just to repeat it and make it quite short, research capacity is assessed using the evaluation approach based on the human resource development plan of the PNHRS, which means, actually considering the six different areas or components which are: agenda setting, research design and implementation; ethics; capacity building; research utilization; resource mobilization; and structure, organization, monitoring and evaluation. And we'll see that for each of these component, there is a technical committee corresponding to each. Just to emphasize these different components, now, the assessment will use results-based performance approach. What do you mean by this? To determine whether the accomplishments, which are the outputs and the outcomes, justify the resource requirements which are the inputs and the processes. Meaning to say, in these assessments that you will perhaps, encounter, you will see that you will be asked, *"What have researchers resulted to?" "What new products, commercial, what new curriculum,*" and so on. We are not only taking of what you have got and what you have actually produced, what these products of yours, what has become of them. And these outputs and outcomes will be related to the amount of input and process, had they been reproduced in a more efficient way? Of course there's kind of an over inputs and process involve and little output or perhaps a better situation would be less inputs but great outputs and outcomes. This particular assessment will also corresponding to the different components will also cover the different areas for evaluation: agenda setting, research design and implementation; ethics; capacity building; research utilization; resource mobilization; structure, organization, monitoring and evaluation.

Now, perhaps, this is really where the most exciting in this presentation is, *what are these tools that have been developed?* As mentioned, there are three different levels where these interventions have been provided for by the different pillars of PNHRS. So we have different tools for the researcher, for the institution and the consortium: Researcher Assessment form (RAF), Research Institution Capacity Assessment Form (RICAF) and Research Consortium Capacity Assessment Form (RCCAF). I'm not sure whether we have distributed the research assessment forms we have prepared. You can actually take a look at them and see how it looks like. Please don't be, of course it looks formidable, medyo masyadong mahirap, it is just a reflection on the amount of information that is required for this assessment to come up with really effective interventions.

We have three different forms. I would just like to point out, initially, the output of the capacity building committee was this assessment tool and if you can go down sa form na binigay namin sa inyo. The tool is on the second part. May konting instructions. You will find the tool on the second half of the form. There's a certain kind of format to it. Just to be familiar with this tool, you will see that for the researcher tool, there are 18 items covering the different inputs, processes, outputs and outcomes. And for each of those, you need to only determine a score 0, 1, and 2. 0 means something, 1 means something and 2 means something. Of course if you want to put some remarks why you give that score, you are allowed to do in this tool. We will not really have the time to go over each of these items, if you have some comments on the contents, maybe that can be discussed but I don't think we have the time for this to really go through each one of them in this particular session. Gusto namin ipakita iyong hitsura niya and how it actually works. So it's only a matter of looking in a particular indicator and determining where you stand. Are you going to give yourself a score of 0 or 1 or 2? Iyong researcher tool, medyo simple lang siya because there's only one section. Let's go to the institution capacity assessment form. For those of you who would be responsible in filling up the institution capacity assessment form, this form is broken down into six different areas or components: agenda setting, ethics, capacity building, and so on. Are you getting the idea? Naglagay lang ng indicators for each of those items. The evaluator is simply asked to put either score of 0, 1 or 2, and then some remarks if you want to explain your score. I hope that by explaining that way, I just want to emphasize that the tool is made simple for you to fill-up. But the assessment needs some reflection. Each item would need some reflection where do you specifically stand.

Now, the first part ng tool actually is designed to help you evaluate yourself in terms of the tool because the first part actually asks you for the different items that you might need to actually think about like, what are the health

researches that you have conducted, which health researches have been used, which have been published and so on kasi pag meron kayo noon, then you would be guided more or less, matutulungan kayong sagutin ang assessment tools na iyon. Parang ano siya, support to what you're going to score. Anyway, sa consortium, napadala na namin sa 17 consortium. Madali naman sa consortium kasi ang level of interaction sa consortium is quite more frequent at saka ang mga staff nila, when we do this, we are really dependent on the support of the regional project staff for us to accomplish this mission.

Each form consists of two parts: first part is the research capacity data, for you to provide the data that you use for the self-assessment; the second part is the research capacity self-assessment, kayo mag-aasess sa sarili niyo. Of course you might ask, papaano? Kunyari may data kayo doon tapos tiningnan namin iyong data niyo, iba naman iyong self-assessment niyo, that's a different story. As far as the plan for the reporting is concerned, your self-assessment will be the one that's going to be considered but hopefully we would like it also to provide, the usefulness of the first part, is to help you in answering the second part.

I'm going to the assessment for each indicator. By the way, ito iyong ginawa especially for the institutional capacity assessment form, the capacity building committee has assigned weights on how to actually come up with an over-all score. Ito iyong mga binigay nilang weights for each of those.

AREAS OF SELF-ASSESSMENT (with percentage weights)

- Agenda Setting, Research Design and Implementation (15%)
- Ethics (15%)
- Capacity Building (20%)
- Research Utilization (20%)
- Research Mobilization (10%)
- Structure/Organization, Monitoring and Evaluation (20%)

The scoring is like this, for each item. 0 - means that the provision or item is not met or not observed. So kung may item doon, *have you published in the journal?* and if you have not published at all, eh zero (0). Pero nasa process kayo na nagpupublish na kayo, then you have a score of 1 - provision or item is partially met; improvement/s is/are recommended. And if you have already observed it, nakapublish na kayo then you would give a score of 2 - provision or item is observed or satisfactorily met; no significant modification needed at the moment.

For each item, you just have to determine where you stand. Of course, ito sinimplify ng CBC, of course some people will argue, papaano if somewhere in the middle eh talagang, sinacrifice na iyon for purposes of simplicity. Anyway, hindi naman ganoon ka importante iyong exact ano niyo, at least we get an idea of where you stand. So once we have the score for each item, for you to come up with the over-all score. Ang gagawin:

1. Compute for the sum of the scores in each item and divide by the perfect score for that area.
2. Multiply this by the assigned percentage weight.
3. Compute for the sum of the percentage scores for all areas.
   e.g. 8/16 X 100% x 0.15 = percentage score for the evaluation area

Pag nakuha niyo na ang over-all, then, we will be able to categorize you.

- Level III-EXCELLENT (85-100%)
- Level II-GOOD (70-84%)
- Level I-FAIR (51-69%)
- Level 0-POOR (50% and below)

In this kind of, I might say, tentative for now, because depending on the results of this over-all assessment. Because whether there might be a need for us to reclassify or define the different levels in some other way. For now, we will just have our working levels wherein for a particular item. If you get 85% of the total points, that means for that particular area, let's say agenda setting or ethics, nakakuha kayo ng 92%, that means that is an excellent, more or less, most of the items there nafufulfill niyo so that you have given yourself a score of 2 for most of them. But if ang score niyo eh, 30%, perhaps that means in some items wala kayo, in some items, meron. Ito iyong categorization, but in this categorization of course, the committee attempted to come up a certain description of what it might mean to be an excellent, good, fair or poor situation.

You can find these also in your forms. But let me go through this. By the way ang definitions are different in each level. Meaning, there's a different definition of excellent for a researcher and different definition for excellent institution and different definition of excellent consortia. Magkakaiba iyon, okay? But this example that I'm presenting you is what does it means to be an excellent institution, medyo mas mahaba pa ang definition niya, makikita niyo sa form:

> *Level III-EXCELLENT (85-100%)*
> This level indicates a fully functional and mature research institution which has realized or is currently realizing its mission and objectives through systematic governance and administration.
>
> *Level II-GOOD (70-84%)*
> The research institution is currently on the way to achieving its mission and objectives with adequate governance and administrative policies. Congruence in all areas and collaborative work are evident.
>
> *Level I-FAIR (51-69%)*
> The research institution is still at its infancy as far as its health research capabilities are concerned but with clear cut mission and objectives.
>
> *Level 0-POOR (50% and below)*
> This level indicates serious gaps in most if not all areas evaluated and indicates suboptimal performance of the research institution in general.

So iyan ang ibig sabihin noon. I hope you got the idea on how these assessments is going to be done. Naglatag na, nag-identify na ang Capacity Building Committee ng tool wherein they already identified the different indicators to be used for the assessment of the different levels, iyong inputs, processes, outputs and outcomes o iyong impact. Makikita niyo iyan when you encounter the form you will see the different items. May mga tanong doon, *what are the spin-off projects that have been resulted out of these research?* May mga ganoong tanong. That's already an outcome, that's already an impact. Ibig sabihin nanganak na ang project na iyan o may kinalabasan aside from just being reported ay meron pang sumunod na activity. Okay? So iyon iyong mga items. Tapos bawat items doon, you just have to make a reflection, of course, the idea based on the first experience when this was piloted, there was a feeling naman na medyo hopefully there will be honest evaluations on your part because if you are not going to be honest, you are going to come up with the wrong interventions. Okay? So iyan ang mangyayari.

Where is our role in this? So alam niyo na na merong assessment form. Tapos noong binigay sa amin iyong assessment form, when we started our work, what we did was for each of this form, we said na para bang, what are the data requirements? That's why sa mga forms na ibinigay sa inyo, may first part diyan, may mga tables diyan. Doon ilalatag ang mga different items na makakatulong sa inyo to evaluate yourself and out of that idea of trying to put some evidence and give the evidence to us, naisip naming i-suggest sa PNHRS na i-capture na rin namin iyong mga data na iyon, iyong mga listahan sa research na iyon and put it in a database. Sayang naman. Andiyan na iyong information na binibigay sa amin. Kung ang information na iyon ay binigay niyo lang, finill-upan niyo lang tapos ang kalalabasan lang is ginamit niyo lang siya para magamit niyo kung anong level niyo, kung 1 o 2 o 0 kayo tapos wala na. Sayang naman iyong effort niyo na nilagay niyo pa, sinulat niyo pa iyon. Eh samin, gusto namin para meron kaming basehan to compare your answers with what you really have. Nanghihinayang kami sa availability ng data might as well put it together because this information is actually also important. Why? Because the assessments do not give exactly the detail of what you are doing. It only tells you where you are but it doesn't give PNHRS the idea of what are the specifics of these things that you are reporting. Anu-anong mga areas na ginagawa niyo? Anu-anong specific problems, anu-anong mga equipment na meron kayo diyan, etc. Eh, iyan sinuggest na rin namin na total, ibibigay niyo rin lang sa amin iyong information, ipasok namin sa database and at the end of this project, we hope that this database will be something of our legacy to PNHRS. And then, it can be something that could be continued which we hope it will be that the moment meron na iyan, mag-uupdate-update na lang tayo. We can use the same database to just enter the new activities that you are doing dahil iyong sa previous activities niyo nandoon na sa loob, idadagdag na lang at idadagdag at habang nadadagdagan iyan, nakikita ng PNHRS iyong current situation niyo, iyong updated situation niyo. Okay? So, hopefully it will also kind of convince you na iyong mga information na iyan, eh importante rin. Ayoko na munang sabihin sa inyo baka mamaya hindi niyo gagagawin kasi in reality, as far as the CBC is concern, ang gusto ng CBC is your levels. At sabi ko nga sa inyo, kung ano man sinulat ninyo doon tapos wala naman kayong data doon, hindi pa rin namin buburahin iyong levels niyo kasi self-assessment iyan eh, naglagay lang kayo ng

dalawang research, at irereport niyo meron kayong apat. Eh di na makita iyong dalawa, anong gagawin namin, papalitan namin iyon, gagawin naming dalawa? No. In agreement, sabi namin, self-assessment iyan. And it might be there will be some reasons why you might not actually provide this but it would be something of a start kung medyo kapos kayo na iniligay doon then we will be able perhaps, to follow-up on you, maybe you can say na, *"O, idagdag natin ito, idagdag natin to."* Alright? So, hopefully you will also realize na malaking bagay rin na iprovide niyo iyong information na iyan sa amin, sa PNHRS. Now, so the objective of this survey na pinapagawa sa National Teacher Training Center for the Health Professions (NTTCHP) is to determine the research capacities of regional consortia, institutions and researchers engaged in health research in the Philippines and dagdag na lang iyong database. Iyong database assist lang, of course, we can also analyze the database, but that's another thing that PCHRD might want to actually do for some researchers in the future might need some data for their activity, for their requirements. Pwede niyo rin naming ibigay iyon, *"gawin niyo ito para merong pakinabang,"* at makatulong sila sa PCHRD o sa PNHRS. So iyon ang aming objective.

We have the three different populations. Sinu-sino ba ang kasali, sinu-sino ba ang pwedeng isama sa database na ito? The plan is to include all known health researchers, research institutions and consortia in the Philippines who meet the inclusion/exclusion criteria. This inclusion/exclusion criteria is something that we might actually also discuss. Right now, what we are going to provide you is something on a more inclusive level. Kasi pupwede ding i-redefine natin, what do you mean by a researcher? Ang isa pong researcher ay isang taong nagbabalak gumawa ng research. Would you consider him to be a researcher? Or to be considered a researcher, he must already have one publication. So pag sinara mo iyong mga nagbabalak pa lang, included na doon iyong mga meron na. So most inclusive iyon na kung gagawa tayo ng assessment only at the level na meron ng naproduce then walang problema doon kasi i-sususbset mo lang iyan sa iyong presentation. There would be no excluded as long as they are qualified. Hindi na kami magsa-sampling, hindi na kami mamimili. Lahat kasali. All inclusive. The idea is also to produce a national database. The initial list of these entities will come from the database of PCHRD because PCHRD knows a lot of you already but augmented as the study progresses. It is envisioned that by the start of this survey, all regional consortia shall be functional, meaning the 17 consortia, lahat kasali.

Consortium inclusion criteria - pag sinabing consortium, we are just referring to the consortium na inestablish ng PCHRD. The regional health research development, RHRDCs, or consortia. Maaring may consortia na private, so hindi iyon. The consortium of health research institutions and other partners in the region established in coordination with PCHRD. It is envisioned that all regions will have established its own regional consortium by that time of study.

Research inclusion criteria - research institutions refer to the academic institutions teaching health-related courses including hospital-training institutions and other private and government entities that conduct health-related researches. Mostly kasi nasa academic iyan, pero may mga institutions na gumagawa ng research pero hindi nagtuturo, pwede nating isali diyan.

Exclusion criteria would be those who are doing health researches that do not wish to coordinate with PCHRD or participate in PCHRD's capacity development programs. Kung wala silang pakialam, kung talagang ayaw nila, eh, hindi namin ipipilit.

Researchers' inclusion criteria - researchers include any individual affiliated with the qualified institutions who is expected to conduct health researches as part of their work. So ang mga institutions will help us identify kung sinu-sino ba ang mga sinasabing health researchers niyo so we will leave to you to identify who they are. You identify them because you also want them to be considered doon sa paghahanap sa mabuting interventions or interventions that may be required to develop them but there are also as we have seen, those who are retired or are independent health researchers not affiliated with a qualified research institution but who have completed at least one health research project in the last 10 years. Kasali rin sila kasi mapapakinabangan din natin ang kanilang expertise. They might also perhaps qualified to get research grants. Exclusion criteria includes not actively participating or not interested in PCHRD's research capacity development programs.

How are we collecting this data? When we talked about this, I would admit to you now the problems regarding our approach. But the idea was two approaches, one magbibigay kami ng hard copies of forms sent to researchers and institutions. Fifill-upan niyo iyan at ibabalik sa amin. Kami na ang mag-uupload, mag-eencode at magpapasok sa NTTCHP to the database. The other approach, we're hoping to actually come up with an on-line database. So sasabihin naming go to this website, at kung gusto mong ipasok iyong information. From our standpoint, mas preferred namin iyon kasi deretso na. Unfortunately, I didn't realize that a development of a

database eh hindi pala ganoon. The database is really a work in progress. Towards the end, we will have the database which we have this features where hopefully for PCHRD, they would like to do some automatic reporting para bang kung magclick sila ng isang button doon, o magsesearch sila kung sinu-sino iyong ganoong may facilities na nakikita niyo naman. I think you have experienced working on on-line databases where you are allowed to search and that there might be some characteristics that we would want to be available sa database na ito. It's really an ambitious project pero sabi ko nga, *"Eh, kung kakayanin naman why not?"* However, sabi ko nga, nagkamali kami kasi inuna namin iyong pag-announce, hindi pa pala namin siya maset-up. What we are doing now is really a stop gap solution. Ang ginawa namin, iyong mga gusto na ayaw isulat, pinapadalhan namin sila ng Word Document form. Andoon iyong file tapos may mga blank spaces doon na doon niyo ilalagay ang information tapos pag matapos niyo iyon ay isusubmit niyo iyong buong Word Document. Again, gusto rin namin iyon, compared to writing it on paper. Why? Kahit hindi iyon nakapasok sa database mas madali iyon magpasok for us kasi cut and paste lang. Hindi na kami magreretype. Actually sa totoo lang, noong una naming natanggap, ang hirap pa lang mag-encode. Matrabaho but we cannot do but allow you to have that option. If you preferred it to be written on paper at your service naman kaming lahat. The solution is we can provide you with, we are now actually trying to work on, we have also come up with every info database. We just have during our last meeting with CBC, when we thought about this problem, "*Ano ba iyong naging problem namin?"* Hindi namin natantiya na medyo, syempre, iyong ipapadala naming mga forms, medyo disente iyong papers na nilalagay diyan, kaya lang magastos iyan. And if really, there will be more people who will volunteer na ipasok na lang siya na imbis makakatanggap ka ng hardcopy at isusulat eh, makakatipid kami nang Malaki both in terms of expenses and time and a lot of all the things to that advantage. Ang laking tulong niyan kung pupwede iyon.

Maybe as early as tomorrow morning, what we can actually do to those representing institutions is we're going to provide you with a USB na andoon na iyong every info, program. Hindi niyo na kailangan i-install, naka-install na siya sa loob, i-click niyo lang siya at tumakbo na siya and then pagsinabing ano iyong file na bubuksan niyo, of course, we are going to give you the files for the institution and also for the researcher and i-operate niyo lang iyan at deretso ng pasok. Right now it's already ready, except na may dinagdag ng additional features that will make it more convenient for you to enter. Kasi sa form na iyan, kada page, kailangan ilalagay niyo pangalan ng institution niyo. Eh kung 14 pages iyon, ilalagay niyo paulit-ulit baka kayo magalit sa amin. Simple program lang iyon na tututuusin, automatic na iyon na once isulat niyo iyong pangalan niyo sa harap, iyong next pages meron na siyang laman. We will try to make it as friendly as possible for you. You can use the same USB para iyon na ring ang gamitin ng mga researcher, pwedeng ipasok na rin doon or the researcher can just copy the USB tapos sila na magpadala sa amin.

We anticipated that there will be a lot of interesting things that we will encounter while we are doing all of these. There are some concerns also, *what about the validity of the data?* Hindi namin sinasabi na hindi kayo magiging honest, we just want to go through that motion of determining so-called validity especially for those that have some quite interesting information that they are offering. So we are going to look at them, identify some institutions that might need to be visited because, mukha yata meron silang clinaim na bagong equipment, totoo ba to o hindi? At gusto nating ma-verify iyan. Hindi namin mapupuntahan lahat. We will just be selecting. Iyong pagselect namin, more or less, medyo bias kami towards those which we think are more important information to be shared to the bigger community.

We will of course from time to time request some documents. Hindi naman kami nag-imbistiga. There might be some interesting things with those. We might request some documents during our visits but hindi namin kailangan na magpadala kayo. We will conduct visits. These visits will have these purposes: to follow-up on the submission of forms to decrease non-response rate, to determine if there are other qualified respondents in the regions that are missed and to verify information in the submitted forms. If we visit your institutions, that means we find your institutions interesting. Documents for verifying the entries in the forms will be requested from the respondents. Examples of these documents are curriculum vitae of researchers or memorandum of agreements for research projects.

At this point, we started with the project. Signing of documents were ready last June but the actual signing of documents and release of funds were delayed. It was really planned for this meeting, meron sana kaming ma-iproduce na resulta na. We planned to concentrate on Region 7, being the host, tapos 6 and 8. Pinadalhan namin iyong mga institutions ng forms, of course we understand, na hindi pa lahat nakapag-ano. So Region 7 begged off, busy sila sa pagprepare dito so that's understandable. Meron na kaming natanggap na mga forms, mostly from region 8. Region 6 and 7, we're communicating and we understand that it may take time. We have a few and we decided not to send the results, not to make unnecessary conclusions from the very few. We would like

acknowledge and thank those who have submitted. Your submission is very helpful because nakikita namin kung ano pa iyong problema natin. We would like to acknowledge PNHRS, PCHRD team, the team of Dr. Habacon who provided the guidance, medyo alam kong there's a point na nainip na rin sila sa amin kasi hindi kami mabilis but they are very patient with us. Ms. Annie Catameo, Sheryl Grijaldo, iyong mga regional coordinators ng DOST-PCHRD, si Inna Rebulanan pa pala, I'm sorry. We would like now to invite you because most of you will eventually be part of the respondents, as a researcher or answering for the institution. Sabi nga kanina ni Dr. Gruet and Dr. Habacon, PNHRS needs this information so they can come up with the right, appropriate interventions specific to the region. Sana marealize niyo iyon for motivation to participate and encourage people to also participate dito. And also, we would really entertain your advice, your recommendations because you know, talagang ang aming concern is how to get more people to send back the forms. Ano bang magandang magawa, ano ba ang suggestion on your end? We are really open for those ideas. Sabi ko nga, iyong paggamit ng USB, we compared how much it would be cheaper and a lot convenient for us to use that than to rely on the hardcopies. I would like to acknowledge the presence of my team, Dr. Maria Lourdes Salvacion, Claire Pastor, Annie. You will see us, may table kami diyan. By tomorrow morning, magdistribute na kami ng USBs. Thank you so much for listening.

Open Forum

Dr. Remedios Habacon: As you might have noticed from the very beginning we have been reiterating the purpose of this study, I would just like to practically beg everybody concerned. All of us are interested in research, all of us have personal complains. This is the time that we should get involved. We will not know how we will proceed unless you will be involved in the data collection. I think the mind of the team is to look at this at the national level and the main objective of this is how we can really recommend procedures, processes, programs that will strengthen further our main objective of strengthening the research agenda in our nation. Tapusin na natin iyong mga *"Ay bakit ganyan? Ay bakit ganito?"* Ang tawag po namin doon ay mga *Doubting Thomases.* Let's stop being *Doubting Thomases*. As I keep underlining, there is no other agenda here. We just want to know where you are as researchers, as research institutions, as consortia. So, let us for once do this together. For all you know, malaki ang pag-asa natin na from where you are we can help. No matter how small the help that we are going to do, at least we are doing it. I cannot beg you enough to please. Alam niyo ba, nagsend kami ng 80 forms, like any other researches, may hitches. Meron bang nakapag research dito na walang hitch? Meron ba? Di ba merong hitch? Especially during the data collection. We are in the process of data collection so please, help us. 80 po ang pinadala, nagkaroon kami ng hitch sa funds na pinadala which is not surprising, ang nagbalik po ay 10. 10 out 80 ang ibinalik. I would like to thank from the bottom of our hearts, Region 8. They are the ones who really responded. Sana pag next time when we see you again, lahat irerecognize, from Region 1 to -. Sana, please cooperate with us on this. Promise we will report to you whatever happens to this, in whatever way we can, what has happened and whatever program we can recommend. Thank you so much!

Good morning! I'm Dr. Franco Teves from the NorMinCohrd. I really agree that capacity building committee plays a very important role in helping our research capabilities in the country. I just have three points that I would like to raise. One is something that maybe extracted from the data that will be submitted to your committee. I'm very much concerned with our aging researchers which is really true. I don't know if we have this as a concern. How many of our health researchers, for example, will be retiring in the next 5 years and if we have also some plans of mentoring so that we'll have a continuous sustainability of health research in the country. And in particular, which fields in health research are wanting for now? For example, I believe, that there are only a few epidemiologist in the country. And I don't know if our regions have enough epidemiologists to help really improve health researchers especially those that involve epidemiological studies. That is one. The second one, I'm hoping that you could also include in the questionnaire like problems being encountered by the researchers. For instance, we are hoping that other line agencies especially those responsible for funding our researches like the Department of Budget and Management (DBM), the Commission on Audit (COA), perhaps if they can have some representatives invited in our meetings like this so that these line agencies will understand the kind of work we are doing. For example, in Northern Mindanao, in Iligan for instance, where we are involved in (RAMOS), Reproductive Study on Age and Mortality, our researchers are when they go to remote places just to get the correct information and complete data, our Commission on Audit (COA) does not understand this. So, we can only have this much and we really need such funds to reach the last barangay, the last sitio to get the data. We always have a problem justifying this every now and then. I hope that these things can also be addressed when we have this kind of activity.

Dr. Remedios Habacon: I think in one of the meetings of PNHRS Technical Working Committees at the Department of Health, we also discussed the problem of funding and the release of funds. One of the comments, when the funds are released to PCHRD, it has to go to DBM. That was one of the problems in our meeting of TWCs. We really don't know how to go about it and as Dr. Sarol has mentioned, medyo iyong pondo din namin para dito nadelay din but rest assured that it is in the mind of PNHRS Committees, we're trying to come up. Unfortunately, I wasn't able to go to the last meeting pero, it is in our minds. We just still do not know how to go about it.

Dr. Jesus Sarol, Jr.: As far as the form is concerned, specifically the questions, they're kind of related to the requirements for the assessment. Ito iyong assessment, *"Do you have spin-off projects?"* Doon sa form, humingi kami, anu-ano ang mga spin-off projects na ito? Of course, the problems of a researcher are very important information. But unfortunately, hindi siya nacorrelate sa specific items doon so hindi namin na-isama. Now, the suggestion is, isama natin siya doon sa mga questions and this is really an information na pagkinuha namin iyan it has nothing to be related on with the assessment. So talagang hiwalay siya. I guess ano kasi, more or less, kung okay lang ba sa PNHRS na isama na rin sa database iyon, kukunin na rin natin. Kami naman, eh kung sinabing, *"ilagay niyo,"* ilalagay rin namin. I think di pa naman huli para ilagay iyon. There's a suggestion na pwede ba natin siyang i-include? Now, personally, if that is also another topic, in my case, if titingnan ko siya, is this activity of the national assessment perhaps the best venue on how to identify those problems? Or could there be some other activity where this could be done? Kumbaga, para bang mas direct na magkaroon kayo ng regional meetings to discuss the problems without waiting for this national assessment. So isa iyan sa mga options niyo. Do you want to put it here and antayin pa natin itong national assessment na matapos para makita iyong problems? Or it might be something na medyo siguro kailangan na kaagad ng aksyon. Now, doon sa form naman, may page na blank na some sort of summary. That's also a point where you can also write your problems, specific problems. Kaya lang, at this point, we just have to inform the respondent. Pwede namin sabihin sa respondent na ilagay niyo iyong problema niyo but it's going to be something na textual. Ikwento niyo, tapos ma-analyze naman later on. On our part, our solution, just leave this last page na pati problema niyo sa research, ilagay niyo rin diyan.

Dr. Libertad Garcia: Idadagdag ko na rin po na doon po sa kaalaman ng karamihan, doon po sa instrument na ginamit natin for assessing the capacity of our researcher, there is a portion there. It's an open-ended part of the questionnaire, page 21, where you are requested to identify your strengths, weaknesses and recommendations. Hindi po siya naka-specific doon sa profile of the researcher himself or herself, in terms of age. Nakalagay doon open-ended what you feel are your strengths, weaknesses and recommendations. Sometime in 2002, I'm not so sure of the date there was also a study conducted by PCHRD and true enough, it was shown in that report na karamihan sa active researchers natin in terms of age, they are already about to retire. That is why PCHRD thought of coming up of a project on research mentoring. In fact, not just research mentoring, even encouraging our active research mentor in the form of giving awards. Best Health Research Mentor kasi gusto natin tuloy-tuloy, regardless of your age, young or old but your input about the inclusion of this is welcomed. We would like to say, I hope we captured it on the last part of the instrument. Regarding sa line agencies, like COA, I know each government agencies is doing its best to take part to help in the contribution. At the Commission on Higher Education, pirmahan pa lang ng MOA, nagbibigay na kami ng malaking initial fund. Kasi alam namin, you cannot start your research without the funding assistance. Meron tayong tinatawag na tranche releases, totoo po iyon, mas maganda po talaga, in all these activities, we have to invite our COA and DBM. So they will also appreciate and understand timely release of budget.

Good morning! I'm Dr. Fatima Alvarez Castillo from the Philippine Health Research Ethics Board and UP Manila. I would like to thank and congratulate the Capacity Building Committee and the research team of Dr. Sarol. This is really a very important step and even I think much delayed pero mabuti na iyon kesa wala. I am not quite sure because I am not about to retire. I am actually already retarded. That is the new normal for retired. But I think, I am still quite active. My comments are really not on my behalf. But on behalf of researchers who I think are quite excluded in this study. So because I'm retarded, I may not be very exact on my history. I remember many years back, I was asked to comment on a draft questionnaire which is very similar to this. It came from PCHRD. And my comment was that, I think there are two groups of researchers which are, there's a bias against these two groups of researchers and these are the social researchers and people's organizations researchers. And I made some recommendations, in fact, on that questionnaire and I'm sure I sent it back. But anyway, because the survey is already being done. My comments perhaps would be very more useful if there is a next round of survey. But I would like to take the opportunity to speak about it now as quickly as I can without sacrificing coherence. What is my basis for saying that there seems to be a bias with quantitative and scientific biotechnology and

biomedical research? I have identified in the questionnaire the following tables. Table 1 C, Table 1 D, 1E, 1F, 1G and Table 4. These are the tables where researchers who are working with people organizations will have zero (0) score. Researchers on people organizations do research because there is a specific, concrete, immediate need that the people's organization or a community do the research for. So the researchers don't even have to publish or present in conferences but what they have in mind is how their research can be used by this organization or by this community. In 1990s, DOH gave us a small funding with Dr. Lory Ramiro and a few others of us. We did a national survey of health researchers in the country. And if DOH, I don't know if they have still a copy of our research report, and when we went around the country and we talked to community based researchers and NGO researchers, this is what they said, "No, we are not researchers. We don't do research." And when we explained what we mean by research. Then they said, "Perhaps, we do research." So, in your exclusion criterion, they are already excluded because they don't actively participate with the PCHRD activities. They don't. So if you think of a second round. I suggest a systematic, intent, serious searching for this. And I suggested, in fact in the pre-test draft, because you know, I help these people's organization researchers, I mentor them, I know their needs, I know what they are doing, I know what their problems, they are networks and alliances so you need to search for them. They don't come out in publications. They don't have peer-reviewed publications. They are not affiliated with academic institutions. They do not present their papers in conferences like this but they have their own meetings where they disseminate their findings. There's a different world out there for them. It's different milieu. There's a different context. And I think, the capacity building committee, Ma'am Remy here seriously consider this and Dr. Sarol, we need to consider this. We need to understand their context where they're coming from so we will not exclude them because they need capacity building, definitely, they need capacity building. Secondly and my last point, there is also a bias against qualitative research. In your indicators, and in the questionnaire, you have here example Table 1D, spin-offs, and I thought, there should have been an early page defining these terms, what is "spin-off," what are "products for technologies," what are "utility models developed" because I don't know about the validity issue here as Dr. Sarol has more expertise. In fact, I'm really very ignorant about statistics but health policies created, I come from the discipline of political science and I know for a fact that most health policies recommendations of very good researches don't end up as health policies. So, I would be zero perhaps here but I think I have done quite good researches in the past 100 years. So if you use health policies created as one indicator, I don't know how reflective would that be of the outcome. What is the difference between output and outcome? An outcome in a qualitative social research may not even be seen in twenty years, you cannot quantify that. But just asking a woman who is poor and who has TB, asking her about her life experiences, about how she is not able to access health care, asking her that question triggers a consciousness transformation in her mind that is not seen in this questionnaire. Thank you!

Dr. Remedios Habacon: Bago iyong statistics, thank you Fatima for that comment. I have to say *mea culpa* because I'm not really fully aware of the social implications that you have stated. To my mind lang, we were given the mandate to do health researches maybe naging one track iyong mind namin to be focused more on the health researches. Maybe because ako, personally, I speak for myself. My mind is always geared towards health being a medical doctor and being connected with the academe of the medical academe and the ignorance on social on organizations. But I'm thinking, maybe nga on proper orientation lang because I always associate in my mind iyong social like health of women, children, ganoon din naman eh, iyong gender equality, ang thinking ko kasi when you talk of maternal and child health, that is also about the health of women, mothers and children. So I'm thinking, maybe, there is this kind of segregation in our minds na pag naging social, it's no longer health science but I would like to see the time that it would be merged as one because when you find data about the health of women, the social aspects of being mothers and children. I think when you talk of people, there will always be health implication. So you cannot talk of people and societies without thinking of health. In my mind, that's it. So maybe we just have to reorient our thought processes, kasi definitely when you talk of people, you talk of health, when you talk of health, you talk of people and when you talk of disease, you talk of ideologies, the implications to the nation, resources and all of that. I think there should be an intermarriage of all these things. So maybe next time, I'm glad you mentioned about that. This is not the end. This is not the first and last assessment tool and that is why we want to talk to you also kaya lang hindi namin masasabi sa iyo na iyong sinuggest niyo ngayon will be automatically incorporated in these because we have already lost enough blood doing this. I think some of my gray hairs is because of this. And I cannot think of another, kasi sinasabi nila, *"Ano ba ito pinapa-critic ba natin sa kanila and you will change that?"* No, do not expect that we will change this anymore. I was so thankful to the Lord that He allowed us to finish all these. The only one good thing that came out of this is I lost some weight but my blood sugar really shoot up and that is being a person dealing with this which also concerns my health as a person. And I think that is enough example that we can intermarry the whole thing and I promise you that we will touch on it in the next assessment because there will be definitely a follow-up assessment. And please do not think this is the only time that you will fill this up because after this, after Dr. Sarol's team reports

the result of this. Then, we will spend another year to look into what your answers are and your responses kaya nga kami naglagay doon ng vacant space for your recommendations. So we will study your recommendations, try to put it into a questionnaire form so that we will be able to assess it but we will include your suggestion. Thank you for that. So, it awakens, if there is some cells that still can be awaken. I think from the statistical point of view, si Dr. Sarol.

Dr. Jesus Sarol, Jr.: Actually, at this point, I don't know whether we should discuss about statistical issues here or whatever. For one, I don't want to wash my hands. Ayokong sabihin dito na kaya hindi namin naisama iyon dahil hindi sinabi sa akin ng CBC iyon. Eh, siguro, kung baga, ako'y sumusunod lang kung ano iyong kanilang dinikta. Of course, it could have been possible that we could have actually included a lot more pero I believe kung dinagdag namin ang aming gustong agenda, ako nga gusto kong maglagay ng questions about my statistics, eh. Sigurado i-iscrap nila iyon. Di ho ba? Anyway, that is an issue, siguro nga, maaaring, perhaps hindi lang siguro nagkaroon ng pagkakataon to involve someone who has this perspective in the development of these indicators kaya medyo napag-iwanan. Now, as far as, I mean, people doing, maybe not really health professionals, maybe they're social scientist working on a health problem. Actually itong form namin na ito, wala naman kaming, we are not a judge of who should be here or not. Kasi, kumbaga, inclusive na kami niyan kung gusto mong sumagot diyan, ilagay mo diyan kasi na identify kayo ng mga networks namin na pupwede kang sumagot at hindi naman kami siguro na gagawa ng paraan sa paglagay sa database. Maybe at some point in time that we are going to come up with that analysis that we might help to but reapply and include on this inclusion criteria in a more strict way. Sabi ko nga, it could be possible na ang aming criteria, could be in the end only those researchers that have actually submitted the proposal, at least, ang masasabi mong researcher na. Kasi kung wala ka pang proposal, eh nagbabalak ka pa lang, maaaring di ka magqualify. Eh kung sumagot ka rito na nasa stage ka pa lang, allowed naman. Lagay ka lang diyan, saka na lang natin sila himayin. So, those people who are working in the social sciences who believe that they have health-related research activity, they are welcome. Open siya. We are not in a position to exclude them. Okay? And sabi ko nga, we just rely on our networks. Kasi sa region committee, minsan, kayo na rin nagdidikta na gusto isama iyong social aspect sa inyong health research agenda. I don’t have any control of that. Sa amin, the form is open basta health research, ke sino man ang gumagawa niya, ke computer scientist ka lang, eh medyo qualified ka pa rin. Iyon ang aking point.

Good afternoon! I’m Ray from University of Mindanao. Having the people behind this instrument, there is no reason our country can really take a very big great leap in terms of doing research, quantity and quality wise. So I think they deserve a round of applause, those people who created this. Sa akin naman for the next round na naman to. Kasi according to, performance is measured according to three variables. One is capacity or capability which in this study is defined separately and another is motivation and opportunity and somehow in my own personal reading sa instrument medyo nag mix-up iyong capacity and opportunity because we measured the opportunity provided by the institution for the researchers. And dito naman para sa susunod, parang I don't think the motivation of the faculty or the researcher is measured kasi we have a lot of experiences already where the institution has already provided everything but the researcher, the teacher or faculty is not interested at all. So there must be good reason to determine this particular problem. So iyon ang pwedeng gawin next time, iyong measurement ng motivation and opportunity which is defined here iyong opportunity as capacity. Ang title kasi is focused on capacity pero hindi na mention iyong capability. So pwede siguro nating imention dito health research capabilities and capacity. Kasi iyong capability, iyong performance sa individuals. Iyong capacity, iyong sa loob dito may questions na really intended for capacities or capabilities. Last concern. In our institution, we are right now conducting research similar and somehow related to this kaya lang it's not only focused on health-related researches so lahat na no. And in the meantime, we are doing this in partnership with three universities in Australia but doing it in our own institution and we are planning to expand it afterwards so ang ginagawa namin ngayon nagdedevelop kami ng instrument to measure not only the capacity and the capabilities but the performance of the institution. My question is, can we possibly use some of the items here? But we will of course, cite the organization and the people behind this. Citing your output will also make your output stronger in that sense especially because we are planning to expand it nationwide. If possible, have it in foreign educational institutions because our initiative now is being supported by big universities in Australia.

Dr. Libertad Garcia: Thank you for the updates and comments Sir and for the initiative in working closely with institutions in other countries that is very much appreciated and even CHED is very happy that you're doing this initiative. Actually, as an additional input also, at CHED, I think you are familiar with CMO 46 s. of 2012 where right now, we are starting typing our institution whether they are university, college or professional institution. That's why we are also, when I join the team that was also one objective, why I'm actively involved because we are also looking at the indicators for capacity to do research not only for health but for all other disciplines as well.

So thank you for that information. Maraming salamat na nalaman namin that you are working with other universities outside of our country. Any other information, update, reaction, comments, suggestions?

Dr. Jesus Sarol, Jr.: I just want to address. Sir, you mentioned. I don't know whether you're kind of meaning this but you might be interested in the use of the database and then citing us as the one who. I don't know if I'm opening works here in reality but okay naman, ano? Cite source. When I thought about this database and assessments, ang aking idea is that the database is going to be created and given to PCHRD for their use. Akala ko, noong una, I was excited also that this database is going to be a public database wherein those who contributed would have also perhaps be given some access so that instead of going to PCHRD to know, ano ba iyong laman ng database na iyan, eh andiyan na iyan eh, nagcontribute ako diyan eh. Gusto ko sana makita rin ano iyong iba. Gusto kong malaman directly na hindi na dadaan sa PCHRD. Sino ba ang may ganitong capability, eh andiyan naman sa database iyan. Okay, the ownership issue but I think whether it's a turning issue at this moment, that point whether this is going to be something na ano pero I remember that when we were discussing this. Sabi nga ni Dr. Habacon, you know this is something na mahirap pag-usapan, and it might be something that we might have to throw to the audience, *what would be your preference?* Do you think that this is something that you would like to be you know, useful to you also, na nagcontribute kayo, eh hanggang doon na lang ba iyong contribution niyo, bahala na ang PCHRD ang gumamit noon? Or is it something na parang andiyan na iyan, nagsubmit ka tapos kung willing ka naman i-share ang information mo, okay. Pero kung hindi ka willing, there's also an option na pwede naming hindi isama iyon sa public viewing. Okay? I don't know about that.

Dr. Remedios Habacon: Dr. Sarol is just mentioning about our last discussion. This happened in the last discussion. We were discussing actually and sorry to make it public before I talked personally to Dr. Reyes because at the end of our discussion kasi actually hindi naman discussion, we were just talking about it kasi nga honorable naman iyong suggestion ni Dr. Sarol. Sabi niya kasi to maximize the use of the data that we are collecting nationally, so to maximize the use, why don't we just put it in the database that anybody can look into. And say ah, let's say, *"Si Fatima, nasa Level 3 na siya so kung ako ngayon ay zero, I may look at what Fatima is doing and so it will help me.*" Now, what came into mind naman kasi abogado iyong anak ko eh, so kinokonsult ko siya. So sabi niya, *"Ma, that will be encroaching on privacy,"* sabi niya. At the end of our discussion, sabi ko, *"I-refer natin kay Dr. Reyes kasi ethics. Eh, di tanong muna natin kasi I think kung gagawin namin iyon, offering this then we have to have ethics review.*" Kasi baka sabihin ni Dr. Reyes, *"Bakit hindi kayo nagbabasa ng ethics, eh, nag-eencroach kayo on privacy?"* Sabi ko, *"Huwag mo munang sabihin, sabihin muna natin kay Dr. Reyes."* I'm kind of glad it was brought up into the open because in any discussion, syempre merong lalabas at lalabas naman. Actually, irerefer muna namin sana sa inyo. At the end of the day, *"Eh, teka opinion tayo, tanungin muna natin ang PHREB.*" So actually po iyon po ang kasunod naming step. But the data so far ang decision namin, iyong data na mako-collect, ano muna siya kasi iyong letter, if you will read the introductory letter of Dr. Montoya naka-promise doon na all data will be kept confidential. Eh if we will break confidence, I think we have to refer it to ethics muna pero sana maganda. Nakikita naman namin iyong advantage kasi lahat pero siyempre, we have to respect privacy.

I'm Dr. Palaganas from UP Baguio and I'm also with the CAR Consortium. While listening to some of the arguments and discussions here, one question that came up from our group is, did the research underwent ethical approval? Because in our consortium and consortia, we always say that no research will have to be conducted without any research approval because in the ethics approval definitely lalabas iyong issue na iyan, iyong privacy issue, iyong mga ownership issue. Kung iyong ethics committee ay talagang isang ethics committee na multi-sectoral, etc. iyong tinuturo niyo naman sa amin, isa sa mga tatanungin iyan kung hindi siya na address. So parang now, we are looking at an issue that should have been addressed before conducting the research. That's why parang iniisip namin, dumaan ba? Iyon po iyong issue na na-isip namin kasi pwede naman siyang lagyan ng waiver, doon sa consent kung gusto na i-allow nating maging public. Eh kung ako iyong respondent, I can always sign or check the waiver form parang ganoon lang naman po.

Dr. Remedios Habacon: Actually, the reason bakit hindi namin nabigyan ng significance ang ethics, initially we were just forming an assessment tool. In our mind, it is an assessment tool of where you are. Pero dinidiscuss namin sa assessment tool. Kaya lumitaw iyong ethics kasi nga noong sinasabi ni Dr. Sarol na, *"Bakit hindi natin ilagay sa database?*" Kasi when we were formulating the tool, the questionnaire, we were thinking, assessment tool ito ng institution, ng ano, and we're not comparing anyone with anybody. Basta titingnan lang namin where you are. Actually, nagkaroon kami ng dilemma diyan eh. Kasi we started as IDD-TAG, *Institutional Development Division-Technical Advisory Group*, iyon kami. Wala pang PNHRS, under PCHRD. Ang sabi lang nila sa akin, *"Ma'am, kayo na po mag-Chair ng Technical Advisory Group. Ang title po, Adviser." "Okay ano ba ang ginagawa*

ng IDD-TAG?" Ang sabi, *"Ma'am, ano po, gagawa lang po tayo ng questionnaire, assessment tool."* Siyempre, first question, *"Ano ba objective?"* Eh nakita ko naman, assessment tool. Okay naman kaming lahat, nagpick na ako ng members and everything. Tapos, bigla na lang siyang naging, *"Ma'am naging PNHRS law na po." "Anong kinalaman ko sa PNHRS law?" "Eh kasi po iyong IDD-TAG, CBC na po ngayon." "Ah, okay, ano iyong CBC?" "Capacity Building Committee. Ma'am iyon din po iyong IDD-TAG ginawa lang pong CBC." "Ah okay."* Eh ako naman, ka ookay, ka ookay. Mamaya eto na, *"Ma'am, apurahin niyo na po kasi ipe-present niyo na po." "So. O, sige."* Nag-attend na ako ng meeting and everything. Iyong asawa ko, my husband, who is a member of PHREB already asked me that question. Sabi niya, *"Hindi mo ba idadaan iyan sa ethics?"* Sabi ko, eh kasi assessment tool. Ang nasa isip ko talaga assessment tool and I didn't realize at all na iyong assessment tool ay. Kasi I'm the former dean of the College Medicine of the Far Eastern University – Nicanor Reyes Medical Foundation (NRMF), I've been answering assessment tools na hindi naman ako naghahanap ng ethics certificate, iyong information about my school. So sa akin, information about my school, okay. So ganoon iyong line of thinking ko. Noong lumabas na iyong ethics kaya sabi niya *can of worms* eh, that we were trying to kill sana the worms without opening the can. So, anyway, pinag-usapan na namin iyon. Tapos sabi ko nga, *"Eh teka, bago tayo magdecide diyan, we have to talk to Dr. Reyes."* Kumbaga, doon nanggaling. Now, we are under pressure already because I think you will agree with us, kailangan naming i-field itong tool na ito kasi as we have met with the PNHRS group, with the six TWCs, lahat, sinasabi nilang ang SOME, di namin alam kung anong program isa-start natin kung wala iyang CBC, di ba? So parang under pressure kami na kailangan naming magbigay kasi this will be the jumping board for the programs of other TWCs. So at the risk of Dr. Reyes' getting mad at me. One of the reasons, why I came here is kasi mag-uusap tayo. Hindi talaga pumasok sa isip namin kasi ako talaga, I will speak for myself, nasa isip ko assessment tool. Pero, oo nga, assessment tool parang kinocompare namin ito parang research siya kasi the process is just like that. So I would like to defer not an aging researcher. Age is just a matter of years. We age like wine. The sweeter we get, the more years we have.

Ms. Inna Rebulanan: Let's hear from the former PHREB and current Chair of the National Ethics Committee, wala nang kokontra.

Dr. Marita Reyes: This question really pleases me a lot. First of all, we have to understand what this is. We have what we call the research ethics umbrella that follows certain guidelines. So we have two kinds of human activities: the research and the non-research. This is not to say that only the research would need an ethics review. All human activates, in fact, should undergo an ethical evaluation, policy, program, researches. But the question here is, is this research or not? And if we go by the definition of research doon sa National Ethical Guidelines, it says that the primary of that activity must be generation of knowledge. So in this case, in other words, the key question is the purpose. The purpose of the activity. Is the purpose to generate knowledge? In this case, it's not. So it does not fall under research. It's a non-research human activity. It's probably a quality assurance thing, something like that. But the question, does this need an ethical review? Yes, it does because it's a human activity but it does not fall under the required. Suggestion really is that all institutions must have an ethics committee that will look into all its activity, its policies, its programs because of this impact of people. But whether it is required is another matter, whether it will fall under the review of the PHREB and its review committees. Well you know. But it's good that a question was asked. And related to this kasi is a recent activity we had with the College of Public Health. Because public health has a lot of activities too, that if you use the definition of research as generating knowledge, they will say, but also most all activities will generate knowledge. But the primary question would be, *"What's the purpose?"* Because all activities can, in fact, later on generate knowledge. But the question is, *"What's the primary purpose?*" If the primary purpose then is to generate knowledge, then it is research. If the primary purpose is something else, improve quality and all that then it's not research in that sense. Is that clear?

Good morning everyone, I am Gene Genosa, the research coordinator of DepEd Region 8. Just like the previous participants, their reactions regarding this research that was also I felt when I first received the letter of Dr. Sarol to our Regional Director. It was given to me. And by profession, I am a social science researcher. First things first, what I did, was I talked to our medical health officer that, "Please invite me in one of your meetings so that I can also get the idea of how practitioners were in our agency." So during their meeting in the deworming, having a seminar in one of the hotels in Region 8, I volunteered to conduct another research because I have read in your letter that I can get another respondent aside from the main respondent of the agency. So I even spent my own money in photocopying because I divided the group into ten respondents. Each group will have one respondent. There were ten all in all. I even went to the statistics of adding all the indicators. I think you have received it Sir. I coursed it through DOST Region 8. Because in the letter, we are given only five days to answer. So being an obedient servant, I answered it. So first things first because that was health research and I am a social science

researcher so I get ideas from professional health practitioners even go to the extent of reading about ethics because ethics is not anymore new to me being a social researcher. I also go to the extent of opening the website on how I could come in contact with officers about health research. So I just used my own resources so I can get the answers, the correct answers because I have learned from Dr. Manglangit of Ateneo School of Governance that in research, if you are using the data which are not needed, just garbage out. Garbage in, garbage out. So I should get the correct answer to all these questions. So that my data will be useful to the researcher because I know this research is very important. I just answered this diligently without any asking because I have the passion for research. I just answered it and because I am limited, I do not have the capacity to answer on health, as I am social science and it is not related so I have to outsource other ideas so that I can come up with the correct data. I divided the group into ten, there were respondents with one group leader. So I was able to answer the questionnaire although I am not a health researcher. And then I just would like to add regarding the database, in our region, NEDA has done already this database. The Director already asked for the pool of researchers from the different HEIs in our region so we can link. I'm just sharing this so we can link with NEDA through DOST because this is in collaboration with DOST. I even course my answers to DOST. So including the photocopied actual answers of the health practitioners in the region, including dentist, nurses and the medical practitioners in the district so I can get a valid and reliable answer to the question and then for funding because I have done already several researchers. In fact, I have already submitted studies to Jasper Research, the very important thing, I outsourced before, and I presented a research proposal. Research proposal is very important to get funding from outsource because my Department cannot give me such funding although I have heard that there is much for research but I haven't received. To receive is to believe. So I outsource. And Citi Savings, I just take advantage of. Citi Savings is where the teachers usually lend money. I outsource to give us the funding. So that is Citi Savings. So there gain is returned to us. So that's how I organized the medical health practitioners in order to answer the questions. Although I agree with the concerns of Ma'am Fatima and all others regarding the qualitative and quantitative research, how you are going to answer it. Thank you ma'am!

Dr. Jesus Sarol, Jr.: Ma'am, let me just express. We receive a response from Region 8 kayo na yata nga iyon. I remember this particular form na sinubmit sa amin. Sa totoo lang, the form was kind of, huwag naman natin sabihing mali, she did it as if the form was for the individual level kasi nagbibilang pa siya eh. But the form was intended for the institution.

(It was in the instructions.)

Because what happened in the report, meron siyang tabulation sa mga sagot. Imagine, iyong assessment form, diba 0, 1, 2 ang nakalakagay doon. May isang tao sa 0, may dalawang tao sa 1, may isang tao sa 2. Kaya nalilito din kami kasi we only expect one answer for that particular form. So eto iyong sinasabi ko, it was not intended to be for individual counting but as a group counting. I actually appreciate her effort to participate here in which case, it's a nice example of someone, she might not be really nga one of those kasi sabi nga namin iyong PCHRD identified ng pool ng list namin na ibibigay, we are open actually to anyone who has claim that they are health researcher, even if they are not recognized by PCHRD by that being part of this consortium. So open siya. The social scientist who is doing some research as long as she is willing to actually put her information. Now kung iyong social scientist na iyon, sinabi niya, ayokong magparticipate doon, wala akong magagawa doon kahit gumagawa siya ng health research, ayaw niyang mag participate, we cannot force that. So iyong kung sinong may gusto at meron namang interest, later on, sabi ko nga, once the reckoning comes to the reporting to PHCRD, that's the time that we will have to review. And there are many ano pa, may mga processes pa that is going to be involved here as far as we are concerned with the reporting. Our main intention, actually, is we get this information and then we will compare this, we will consult the regional coordinator. And submit this list, please, tingnan niyo nga ang listahan na ito, verify niyo kung totoo, o medyo totoo, o hindi. At kung meron kayong na identify diyan na bago, it might be to your advantage na may bago at nagpakilala sa inyo at di niyo pa nakilala, kami iyong unang nakakilala, ipapakilala namin sa inyo. Those things, we will really undergo the process of checking everything noh. So, let us try to separate siguro the idea of the research output here and in fact because we have the database that can make possible research outputs here, sa totoo lang noh. From my point of view, will I consider it my research? Siguro because I have to comply with some initiative procedures in UP Manila, from my point of view, medyo kailangan mo siyang i-convert as series of research, pero not in the real sense that I am the one who pointed out the question and I'm going to be the one really interested in all of this because I'm just really serving a particular client which is the PNHRS. Sila iyong nagdidikta sa aking kung ano ang dapat na gawin doon. Ang aking delivery lang, sabi nga nila, is that, it was the report. Iyong report na iyan, I think it will be coming out of a discussion in the future, ano ba ang gusto nilang ireport ko doon? Eto na iyong database, eh pag-uusapan pa namin iyon. But definitely it's going to be a survey and then there are many

possibilities there. But, ma'am, thank you very much. I hope, the others who are listening to the discussion, iyon na nga eh. What we are afraid of is that you might not see yourself as if na para bang importante ba sa inyo ito. This is really where exactly we ask you to contribute because sabi nga natin, hindi tayo makakuha ng magandang programa. Now, what about the content of the data? What if, let's say, the data is so bias. And ang mga nagpaparticipate lang dito, ay iyong mga may problema, very specific, *"Is that useless information?"* I don't think so. It could still be as long as there is a large mass of people who might be a bias group of people but they have this specific demands na useful na rin sa kanila kasi sinasabi nito maraming tao ang nangangailangan nila ng tulong, kahit hindi siya representative, eh useful pa rin iyon. At meron pa ring magagawang tulong para sa ganoong klaseng tao.

Dr. Remedios Habacon: Just to add I think we should not feel bad kung sa assessment tool, wala tayong maisulat. That is precisely exactly the work of the Capacity Building Committee so we would be able to identify kung anong level na po kayo, so PCHRD through PNHRS will be the one to help you. Kung zero talaga, wala tayong magagawa, zero, eh. That's why we will help you to make it 1, to make it 2, to make it 3. And eventually be the Center of Excellence. It does not mean that we will look down on you. Gusto naming makita kung ano ang level of research you have at the moment. Thank you!

Ito iyong motivation at konting dagdag sa social scientist. Motivation. DOH is a member of the PNHRS, nilipat na ang kanilang research funds sa PCHRD. So we completed 40 projects. We're processing 50 projects ngayon. May parating na naman na mga 50 to 70 projects. Alam niyo lang iyong experience ko, iyong mga proponents ko, sila at sila at sila at sila din. Ngayon if you make yourself known, pumirma kayo dito, sumagot kayo doon then, pagka-ano, lalo na ngayon, may parating ulit, 50 projects. Anyway, meron kaming pagkukuhanan ng listahan. So make yourself known, eto na po, Eto naman iyong issue ng social scientist hindi totoo Ma'am, kasi we have projects, violence against children, IPs, universal health care coverage, informal sector, hindi quantitative lahat ma'am. We accept qualitative and we publish kasi iyong mga problema, social problems, importante Ma'am. And we need to disseminate that, so walang exclusion. Sabi nga ni Sir, lahat tayo ng nagreresearch sumama na tayo because we need the health scientist, we need social scientist, we need environmental, climate change.

But we are not captured in the questionnaire. That was the point.

Good morning po sa lahat! I'm Joshua Ababa, I'm a staff of PCHRD. With regards to the database, we have I think, three databases in place. And I believe some, if not most of the participants, is familiar with HERDIN? What I'm thinking about is, is it possible to extract information needed for the assessment? Because we already have these things in place and we have already capacitated a lot of institutions to using HERDIN. Individualized na po iyong content nila and also the possibility if you have very specific content that you need to capture. Maybe we can synchronize or streamline so as to avoid double collection of information.

Dr. Jesus Sarol, Jr.: That's a very nice point. And again, just to share to you iyong aking ambition iyong idea about this database that is one aspect na kailangan namin, na iniisip namin na pwedeng mangyari which is to compare the content of our database with the databases of HERDIN. Now if in our database, wala si HERDIN doon, then ipapadala namin sa kanila iyan. Eto pang isa, of course wishful thinking siguro ito. Ang isa pang iniisip namin andiyan na iyong database. Ngayon may isang institution nag-offer ng training course, tapos sinubmit iyong mga listahan ng participants. Iyong form, iyong submission na iyon, pwede namin, kami na automatic na maglagay ng mga pangalan doon sa individual persons na kasali doon, idadagdag namin doon, doon sa inyong portfolio. Iyong mga ganyang sources kung makacapture namin iyong iba-ibang pinanggalingan na information na pwedeng ipasok sa database at isusubmit dito sa ano, eh ano iyan kaya nga kasama iyong nagsubmit sa HERDIN. Iyong nagsubmit sa HERDIN potentially pwede din sigurong ipasok sa amin iyan. I know that with regards to the existence of databases, iyong issue about, being open and usefulness. I don't know actually kasi we can compare it to the situation right now. I know that PCHRD also has some other databases. I'm not really sure whether they are open to the public such that I know that there's a database about iyong mga on-going researches. May nagsusubmit ata doon, doon sa database online. I'm not sure whether if I submit that binibigyan nila ako ng authorization at saka access eh and I think kung hindi ako nagkakamali if I'm going to be using it makikita ko rin iyong researches ng ibang tao doon. Tama ba? Hindi lang iyong aking sinubmit na research ang makikita ko doon, iyong research din ng ibang tao. And in this particular manner, I thought medyo may pagkasimilar iyong ginagawa namin and iyong situation na meron ngayon. Kaya, of course, eventually pag ginamit na nga iyong database for a research project and maybe in that particular situation, siguro kailangan dumaan iyong proseso na iyon magkaroon ng ethical review at ethical board review approval. Pag ang isang tao ay nagkaroon ng intensyon na gagamitin iyong database for a research activity, eh siguro talaga iyon ang

kailangang medyo ano. Pero, kung ang point of view ng PCHRD kailangan nila ang data na ito upang makagawa sila ng quality control, etc. I don't know about the need for the ethical clearances.

Closing Remarks

Dr. Jaime C. Montoya
Executive Director, PCHRD

First of all, I don't know, magandang umaga, magandang tanghali sa inyong lahat! Di pa naman hapon. (Maayong udto! I'll practice that later). First of all, I'm overwhelmed by your presence here. Because, I think, there's so many. I was expecting only, well, not that we want it only to be a very exclusive group, but I was thinking that people who will be interested in the assessment will be relatively a small group of people. Altogether, I'd like to thank all of you. Palakpakan natin ang ating mga sarili. Thank you very much for sharing your valuable time and your presence during this morning's session.

First of all, marami akong gustong sabihin pero I don't want to keep you from lunch. Pero hindi na kayo makikinig sa opening so hindi ko muna sabihin lahat ng gusto kong sabihin. Well, first of all, I would like all of us to medyo share the excitement. You know and the happiness that we have particularly for this PNHRS meeting because for the first time, this is the first PNHRS after the passage of the law. This is a dream come true for all of us kasi we worked so hard. Alam iyan lahat ng familiar faces here na noong time na kami ay kinakatok lahat ng Congressman, Senador, lahat na, name it. We worked so hard for this and eto na, nandito na. And so the critical part here is, *"What do we now do after the passage of the PNHRS law?*" And napakalaki ng pasasalamat ko, unang-una, of course sa mga congressman, sa mga senador and most especially kay President Aquino really because napag-alaman ko rin, noong ipinasa ito, sinignan ito finally into law, marami siyang vineto. I think almost 40 laws were vetoed. You probably heard about that na inakyat ito sa kanya, mga 40 bills, buti na lang hindi ito kasali sa 40 na vineto because he saw the importance of having the Philippine National Health Research System in place. And now because it is in place, it is institutionalize, now meron na tayong K - Karapatan, Karangalan, Kaligayahan, name it, lahat ng K meron na tayo para makipag-usap, sa lahat ng dapat kausapin, para mapag-ibayo natin, and we can rejuvenate, re-energize the Philippine National Health Research System. And let me just emphasize particularly in this National Assessment of Health Research Capacity which is spearheaded by the Capacity Building Committee. I would like really to recognize Dr. Habacon who worked so hard. Alam niyo, lagi kong sinasabi, iyong pasasalamat kasi namin is only up to the level of face value with more emphasis on the face kasi wala kami talagang maibibigay in terms of monetary so kaya nag-uumapaw ang aming pasasalamat sa mga taong who really worked so hard despite the fact that they're not getting anything for this. It's really their love for research and their dream that we really would come to a point that we can say that the Philippine National Health Research System has come to being. So, nagpapasalamat ako Ma'am, sa inyo, doon sa mga members, kay Dr. Gonzaga, kay Dr. Feranil, Dr. Estrada, Dr. Garcia, from CHED, si Mimi kasi, Diyos ko noon pa, eh kasa-kasama namin kayo for lahat ng mga advocacies natin while we are working on the passage of the law. Of course si Alan, kahit umalis na siya sa PCHRD, si Dr. Belizario, wala siya. But of course, you will see Jun because he is an awardee so you will see him later. Maraming, maraming salamat po. And of course, iyong mga nakikita ko lang ngayon, si Dr. Marita, of course, has always been an inspiration to all of us. And lagi kong sinasabi, iyong regional health research development consortia nagtransform na iyan eh. Before we used to call them *the helm* of the Philippine National Health Research System pero nagreklamo sila. Hindi helm. O, sige, backbone of the Philippine National Health Research System. Ayaw din nila ng backbone. Gusto nila heart, puso, ng Philippine National Health Research System. And true enough, as the heart determines the existence of the human person. True enough, the heart, without which, the system will collapse and not exist if not for the regional health research development consortia. So I'd like to recognize all of you, this is actually your meeting. It is not our meeting, this is your meeting. Because it's the meeting for us to come together, share experiences both good and not so good so that we can learn from each other. And then from this, for us to move forward.

Napakarami nating plano and in fact, I'm so excited because we have the strategic organizational meeting in Tagaytay a few weeks ago. Ay! Alabang pala. Tingnan niyo nga ang aking ano. Originally it was Tagaytay but because of Glenda, iyon pala ang nangyari, kasi Glenda so we have to move it to another venue kasi nagbagsakan pa iyong mga puno. Dr. Blas, I noticed you, thank you for coming. Ako talaga, I'm overwhelm, natutuwa na. And of course, before I forget, I'd like to congratulate Region 7, RHRDC Region 7. Ngayon pa lang, I already congratulate you. I think this is a very good success, one of the successful, if not, the most successful

and of course, under the leadership of Dr. Gruet, who was formerly a member of our Governing Council and of course, now very active in the RHRDC. So maraming, maraming salamat po.

Having said that, napakarami natin dapat gawin na, I'd also like to mention that na si Dr. Galvez-Tan kasi laging ginagamit na word iyong *"awash with cash"*, ayoko namang sabihin iyon na *"awash with cash*" noh kasi bang parang wala na tayong problema sa pera. It's really more of we never really have so much support for health research, never had this much. And it's also because we are given so much, it is our responsibility to deliver also. And remember, this is people's money. This is the money of the Filipino people so we have to deliver based on what was given to us. This I think, I'm very confident, we will be able to do because of the support and the participation of everyone, of all of you. Kaya, ako'y nagpapasalamat talaga sa inyo. Iyon lang masasabi ko and so may konting, di ko lang alam, siguro sa opening pakikita iyan, ten years of making life better. That is how old the PNHRS is. So we prepared a nice video of looking back to 2003 where it all started. And then, where we are now and then where we want to be in the future as far as our health research. Ah, ito na lang pala, para you can also be a little proud of yourself, of yourselves. Do you know that tayo ang only sector that is truly integrated as far as research is concerned? Palakpak po diyan. Oo, research, tayo lang. At ang pagkakaalam ko, gagayahin tayo ng ibang sector. In fact, they're talking about a similar bill to be placed in congress but we are the first and we started everything. I believe that is something to be proud of kasi now we are setting the example for all of the sectors to follow suit. Agricultural, hindi pa sila integrated. Industry, energy, hindi rin sila integrated pa. Tayo pa lang ang sector na truly integrated. But as I said, simula pa lang ito, we should not rest on our laurels. In fact, this is a call for more responsibility and for more work which I hope you will share with us as we journey towards making this health research system truly a success.

Lastly, merong mga international meetings. Siguro, ime-mention ko na ngayon. The first one is the Forum for Ethics Review for Asia and the Pacific which is the first Philippine Health Research Ethics Board National Meeting, FERCAP Conference to be held in Tagaytay from November 23-26, 2014 so ethics people, experts, bioethicists will be coming over to the Philippines. So that's one thing that you should remember. But a bigger meeting that we're really gearing towards is the Global Forum. The Global Forum for Research in Health and Innovation 2015 is going to be held at the PICC, Manila, August 25. Kaya ko sinasabi iyan this early, we want a very strong presence from the regions. Not only in terms of your physical presence, participation but also paper presentation. Pakita natin sa kanila na talagang the Philippines is the place where you should be where health research is concerned. And we have many things to be proud of, the system, the ethics framework. Marami tayong kailangan ipagmalaki o pwedeng ipagmalaki but your presence will be doubly important. So please, mark this in your calendar. This is the Global Forum, but another unique sa Global Forum, they changed the name. For the first time, it's always called kasi Global Forum for Health Research, but since the COHRED, the Council for Health Research and Development in Geneva and the Global Forum for Health merged into one, they now changed the policy that is, the host country, will dictate the program. It's no longer the international. So that's one. So we changed the name to the Global Forum for Research in Health and Innovation, that's the complete name. And I think the theme is, *"People at the Center of Health and Health Research."* That's the theme and it is the first biennial meeting of the Global Forum. Why do I say biennial? Kasi dati, it was every year. Then in the Cape Town meeting in 2012, they changed it to every 2-3 years. So tayo iyong una na after 2 or 3 years. So we are already told it is going to be a really big meeting wherein lahat ng sectors will be involved, funders will be coming, research administrators will be coming, research policy makers will be coming, research implementers will be coming and even NGOs and agencies will be coming. So we're really looking forward to a very big meeting and again, it could be a very big success if all of you will be there. So I hope for your support, all of your support and active participation. I think those are very good things to look forward to, a very busy year ahead of us. So again, sama-sama tayong magtaguyod ng ating panahon para talagang masabi natin na the Philippine National Health Research System has really come to being.

So again, maraming, maraming salamat sa inyong lahat at magandang tanghali sa inyong lahat!

Opening Remarks

Dr. Leonardo D. de Castro
Chair, Philippine Health Research Ethics Board (PHREB)

Maraming salamat Dean Marita, Chancellor Marita. Hindi ko na alam kung ano ang itatawag ko kay Dr. Marita Reyes kasi naging Dean siya pagkatapos Chancellor. Anyway, kahit maging ano ka mahal ka naming lahat. Maayong hapon kaninyong tanan! Maikling Opening Remarks lang ang aking gagawin at gagawin ko ito talking about two things. The first one relates to the recent Typhoon Haiyan (Yolanda). Pagkatapaos noong Typhoon Yolanda, nabalita sa buong daigdig iyong mga nangyari sa Tacloban at maraming mga taong nakarining tungkol doon. Pagkatapos noong bagyo, maraming nasira, maraming namatay, marami rin gustong tumulong dito sa atin galing sa iba't-ibang sulok ng daigdig. Marami din gustong magsimula ng research doon sa disaster areas. Merong mga ilang kaibigan ko na kasama sa research ethics network sa ibang bahagi ng daigdig. Ni hindi nga nila nakuha yatang makiramay sa atin, nagtanong na lang, *"Pwede ba kaming mag research diyan?"* Di ko malaman kung ako'y matutuwa. Naalala ko ang Pilipinas na pati yata iyong mga kaibigan ko na dapat sana nag-undergo ng training sa research ethics at sa mga sensitivities related networking sa disaster areas noong panahon na iyon sa excitement nila na makakagawa ng research ay sila mismo nakakalimot sa mga dapat alalahanin tungkol sa mga dapat pahalagahan. May mga nagsasabi rin na may nagpadala ng email either sa National Ethics Committee na pinamumunuhan ni Chancellor Marita at saka sa PHREB o Philippine Health Research Ethics Board. Merong nag-eemail galing sa ibang bansa nagsasabing, ako po si ganito gusto kong magresearch kanino po kami hihingi ng pahintulot? At ready na daw silang magpunta. Pero hindi nila alam kung anu-ano ang kanilang gagawin. Hindi nila sinasabi kung meron silang contact dito sa Pilipinas basta gusto lang nilang dumating. Ang naalala ko lang may medical tourist pero sa kaso dito, research tourism o disaster tourism. Well, hindi ko na patatagalin pagsasalita ko sapagkat ito ay tatalakayin ng ating mga tagapagsalita. Ang isa lang na experience na naikwento sa akin, isang kaibigan ko galing sa Canada at noong forum na iyon, nagkwento siya kung paano sila nakatulong sa mga Africans kahit sa kanilang research. Nakalimutan ko na kung anong bansa sa Africa sila nagpunta kaya tuwang-tuwa siyang ikinikwento na malaking tulong ang kanilang ginawa. And then, hinihinitay ko sa kanyang kuwento na sila ay naghingi ng Ethics Review Committee approval, wala akong narinig hanggang matapos siyang magsalita. So akala ko, nakalimutan lang niya. At noong matapos na siyang magsalita, siya ay napahiya at ako'y napahiya din sapagkat ayoko ko siyang mapahiya. Pero nagtatanong lang naman ako. Sa kagustuhan nga nilang makatulong, merong NGO na nakilala nila doon sa Africa, sabi ng NGO, sumama ka rin sa amin dahil marami kaming contacts pero wala silang pahintulot na magsagawa ng research. So dalawang halimbawa ang nagpapakita sa atin kung papaano kung mga taong gustong-gustong tumulong sa kagustuhan nilang tumulong kung minsan ay nakakalimot na merong tamang paraan ng pagtulong. Iyan ang maririnig natin sa mga tagapagsalita. Ako'y natutuwa na halos puno ang ating session hall dito sa parallel session na nagpapakita kung gaano karami ang intresado sa aspeto ng research.

Public Health Research in Disaster Areas

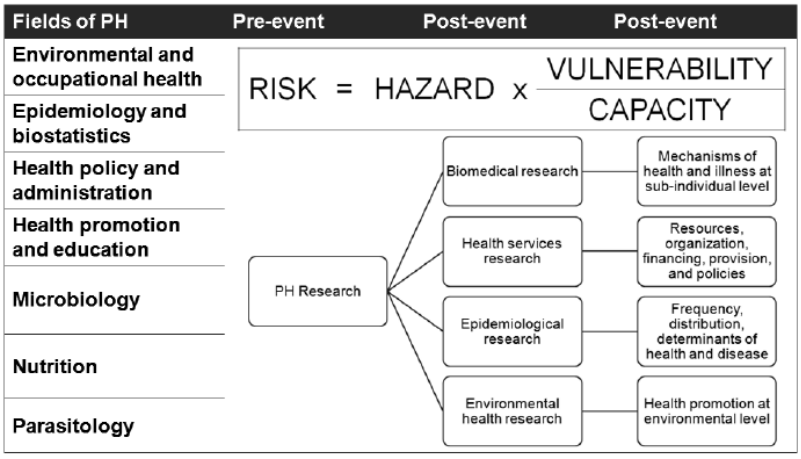
Dr. Carl Antonio Abelardo
Department of Health Policy & Administration
UP Manila College of Public Health

Discussion

Good afternoon! Kanina po noong binulungan ako ni Dr. Marita Reyes sabi niya, *"Pagpapalitin natin iyong sequence ng ating presentation."* Hindi na po ako naka-hindi sapagkat siya ay aking guro at ang sagot lamang sa guro ay palaging "Oo" kaya po ako ay naka-oo na rin. Pagpapaunlakan niyo po sana in the next 30 minutes, I'd like to present especially on the "*Ethical Issues in Public Health Research in Disaster and Emergencies"* and I'd like to start by showing, I broke down my presentation to three parts. First, I'd like to look at the disaster situation in the Philippines just to situate and to contextualize the presentation and then move on to what are the fields in public health research as it relates to disasters and emergencies and finally, what are the ethical issues that surface from this particular research interest or research topics.

Siguro po ito ay alam nating lahat na tayo ay magsisimula at manggagaling doon sa perspektiba that, "The Philippines is one of the most hazard prone countries in the world." In fact, we are actually number one globally in terms of the number of disasters that are reported in each country. There's actually a suitable cause for the number of disasters that we're seeing. Unang-una marami po ang apektado at marami rin ang nasasawi dahil sa disasters na ito. If you'll notice 12.6%, on the average, about 12% of the populations are affected by disasters. So

if we are already 100 Billion as of last month, it's about 12 billion Filipinos. But on top of that, we are actually seeing a high mortality that's 2.1 per 100,000 mortality rate in terms of disaster events. And if we compare ourselves with other countries, we're actually in the top 10, I think we're in number 5 based on the 2011 report. And there's economical cost of about US $1.3 Billion. One of this is driven primarily because of our geographical location, we're in the Pacific Ring of Fire. Mahabang coastline and therefore we are actually exposed to a lot of hazards, earthquakes, volcanic eruptions, floods, typhoons but those are the natural types. But we also see man-made disasters aside from armed conflicts which we see in some parts of Southern Philippines, we also have floods brought about by poor urban planning in some of our major cities. We also see some trash slides which was the first time it was documented all over the world, isang gabundok ng basurang gumuho sa napakadaming tao. Therefore, we, in the public health sector are interested in conducting research in this particular field as we fulfill a mandate which are basically in the fields of public health. The first one is to prevent disease and the second one is to promote health and the third is to prolong life. I'd like to present a framework situating public health research in terms of emergencies and disasters.

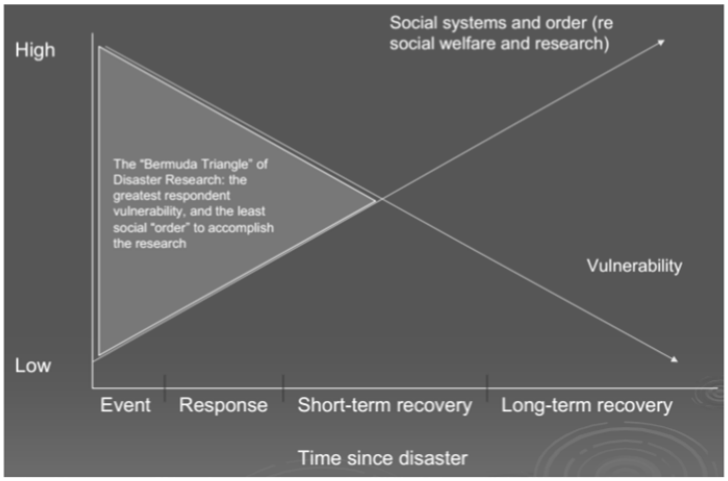


Department of Health. Public Health and Emergency Management in Asia and the Pacific. Facilitator's Manual. Manila: Health Emergency Management Staff, Department of Health; 2014. Shi L. Health Services Research Methods, 2nd ed. Australia: Delmar Cengage Learning; 2008.

I tried to fuse the different domains and different disciplines of public health with respect to the anatomy or the framework of disaster preparedness and response. So the first column, you will see the context of public health and there are seven. The bottom part if you'll notice, we look at the microorganism. We look at the sub-individual level but as we go up, we contextualize the occurrences inside the body and interaction of the person with the external environment in terms of human behavior, in terms of its policy and in terms of its impact to the environment. Now, public health research actually can occur in the three phases of disaster. It can happen before the event, during the event and after the event. The objective of public health research is to address the interaction between the hazards that are present as well as the communities. That is to say, one, to reduce the risk to particular disaster by preventing a hazard or mitigating a particular hazard, reducing the vulnerabilities of populations and increasing the capacities of these communities to respond to a particular disaster. And therefore, if you look at the lower part of the table, I gave some examples on the type of research that we actually conduct. We are actually interested in looking at the mechanisms of health and illness at sub-individual level. For instance, during the time of the flood brought about by Habagat two years ago, there was a research conducted in the College of Public Health that characterize the different species of *leptospira* that was found in the patients who developed leptospirosis during that period. We're also looking at health services research addressing the questions or concerns regarding the resources, organization, financing, provision and policies around health services. Somehow, we are actually interfacing the social sciences and the different methods and economics of psychology in conducting these different types of research. Also, we are doing research to identify the frequency, distribution, determinants of health and disease and that's actually the domain of epidemiology. And finally, we would like to look at how we can promote health at the environmental level to find out what are the touch points between the person and the community and the external environment. So dito po umiikot lahat ng public health research in terms of disasters and in the pre-event phase, the ethical considerations are not very much different from the ones that we know of that is applied to normal situations because these is before the disaster occurs. However, as we move towards the event and the post-event phase, dumadami at lumalago po ang ethical issues na lumalabas. Particularly because during the event phase, we actually transcend the vulnerabilities which are found in the ethical guidelines. Sinasabi na kasama sa vulnerable population ay ang mga bata, iyong mga matanda, may mga kapansanan. Ngunit sa panahon ng disaster, it could be the entire community that is very vulnerable. And this is because of the nature of a disaster event which is a serious disruption of the functioning of

a community. You take out all the systems, you take out all the organizations that is functioning with that particular community during a particular disaster situation.

I am borrowing this slide from Abramson in a presentation in Columbia University.



Abramson D. The ethics of disaster research: IRB issues from a researcher's perspective. 2007 Apr 24. Accessed 12 Aug 2014. Available from http://www.columbia.edu/cu/irb/education/2007_Conference/2_IRBpresentationEthicsofDisasterRsch.pdf

The proposition is that it's actually during the acute phase of the disaster when individuals, when communities are most vulnerable simply because that's also the time when there's so much social disorder, there's so much chaos, you bring down the lifelines, you take out all the systems that is supposed to protect all the individuals. And at that point, people are actually looking for interventions that will alleviate the current condition. Sa panahong iyon hindi na maiiba kung ang ginagawa ba sa kanila ay research or tulong based on the established interventions that we know of. However, after some time, the community will recover, the systems will be restored and vulnerability will start to go down.

I borrowed this from one of the articles that came out from the Asian Bioethics Review citing some ethical issues in disaster situations.

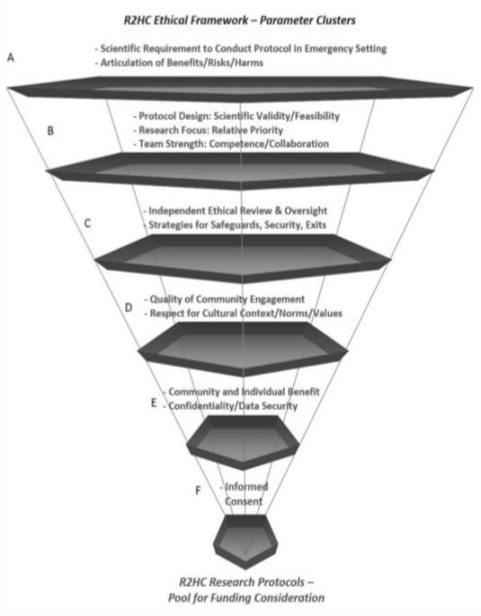
Scientific rigor and professional competence	Quality and adequacy of ethical review process	Undue inducement
Unequal burden	Distributive justice	Dissemination of results

Chuan VT. Prospective ethics review in infectious disease emergencies. Asian Bioethics Review, 2009; 1(3):299-303. Siriwardhana C. Windows of opportunity after a disaster: The case of Sri Lanka. Asian Bioethics Review, 2010; 2(2):148-151. Sumathipala A et al. Ethical issues in post-disaster clinical interventions and research. Asian Bioethics Review, 2010; 2(2):124-142. Citraningtyas T et al. A second tsunami? The ethics of coming into communities following disaster. Asian Bioethics Review, 2010; 2(2):108-123

For most of it is the issue of scientific rigor and professional competence. I heard from the speaker earlier saying that during the time of disaster, biglang nagdadagsaan, dumadami ang gustong magconduct ng research. In the literature, we call them, *"parachute researchers"* coming in and out of a particular country taking data, taking samples of human tissue to study for whatever purpose that there may be. In disasters and events, we may not have a functioning ethics review board. Maaaring sila rin ay biktima ng disaster. Maaring wala rin tayong mga community leaders to decide in this particular issue. And I recall one time prior to my stint to the university, I was working for a local government unit, my area specifically was a flood prone area. It was located beside the creek. After one of the rains that we had, Habagat, binaha iyong isang area, tumaas ang level ng tubig, lumubog ang karamihan ng mga bahay. I was a Health Center Physician. It was the second day after the event and we were busy distributing Doxycycline for leptospirosis prophylaxis. Biglang may dumating na estudyante sa aking Health Center kumakatok at nagtatanong, nagpapaalam na magsasagawa daw sila ng research doon sa aming area.

They want to find out first, the extent of the disaster. They want to find out the number of those affected, the characteristics of those affected and they also wanted to find out the coping mechanisms of these particular people. And these are fourth-year college students. So, the first question that I asked them at that time was, *"Do you have any ethical clearance from your school to conduct research?"* Ang sabi sa aking ng estudyante, *"Sabi po ng teacher namin, sabi po ng adviser namin, hindi daw po kailangan ng ethical clearance ang aming research."* So I said, *"Granting that you are exempted from an ethics review because you are going to do a survey and the National Ethical Guidelines says that you can't be exempt from ethical review from those particular individual using questionnaire."* So the next question, *"Are you competent to handle that particular situation, paano kung iiyak sa iyo ang nanay, papaano kung tatanungin ka anong gagawin sa anak niyang maysakit, papaano kung tatanungin ka kung paano inumin ang Doxycycline, how would you respond to that particular question?"* And the student was not able to answer me. And so I said, *"Please go back to your school. Tell your adviser that I won't allow you to conduct research in my area because of the issue of the competence of the researcher conducting that particular study."* So nagmamakaawa ang estudyante. Sabi ko, *"No, my community is already vulnerable, you can't come inside that particular community."* But of course, I understand students, they are trying to fulfill a particular requirement and inutusan lang naman sila ng kanilang faculty which now highlights two or three important ethical issues. One, aside from the competence of the students; the second is actually the readiness of our schools when faculty members send out their students to conduct research, there's always that notion that student research is exempt from ethics review and I can never find that in any particular guideline; the third important thing is the understanding as well, of the community with respect to the ethical guidelines for bringing research. Nagkataon at that time, I just completed my training in Bioethics from the National Institutes of Health (NIH) then alam ko ang isasagot sa kanila. But what about other areas, what about other places where the people are not even aware of the ethical guidelines in health research? Papasok ang tao, kukuha ng datos at aalis and it relates to the quality and adequacy of ethics review. Aside from those students, we have to understand that there's actually a certain timeline for the collection of data during a disaster situation. As much as possible, if it's part of the methodology, we collect it as near as possible to the event to reduce bias or sometimes, we may need blood samples and that's the opportune time to get those particular samples. And we know that ethics review takes time, in UP Manila, we, as Dr. Mantaring, and he said the average time is actually 2-3 months. When a disaster strikes now and we need to conduct the study tomorrow, we can't wait 2-3 months to carry out the ethics review and therefore, postpone the research. However, we are also not comfortable with the idea of fast-tracking the ethics review process at the expense of the quality of the review that is being conducted. Kung pipirmahan na lang para magawa ang research. Of course, that's totally unacceptable. The third one is of undue inducement, people come in the communities, those who respond after. The conception of the community individuals or members is that these people are coming in to bring help and aid to their community. Tapos may hahalo at sasabay, magsasagawa ng research. They're actually falling in line waiting for food, clothes, blanket and what you have is a questionnaire, a syringe to extract blood. At that particular point, people will actually find it hard to differentiate whether what you are doing is a proven intervention or is actually just an experimental intervention on your part. At that point, tatanungin natin, "*Sila ba ay may kapasidad upang magbigay ng independent judgment on whether they want to participate or not?*" Pumila na sila doon eh, baka kasi may maibigay pa tayong iba, may maibigay ng tulong. Baka kung sasagutin ang questionnaire, may magbibigay ng pagkain o kaunting pera upang tulugang maibalik mapatayo ang kanilang bahay. Of course, there's the unequal burden. Ang researcher sa community, kukuha ng datos at aalis. Sa kanyang pamamalagi sa komunidad, makikihati sa kakarampot na resources na meron sa community na iyon. In disaster preparedness, we teach the responders to be self-reliant. Dapat pagdating sa community, you do not become a burden to that community. But are researchers aware of that particular situation? Baka pupunta sila sa area, ang dala lang nila ay pera, wala silang mabibiling pagkain. Wala silang matutuluyang bahay, wala silang mapaggamitan ng credit card, and so what will they do? Will they compete for the scarce resources that are available in that particular community? And of course, the issue of distributive justice. Of course, we will not ask all the people to respond to the questionnaire. And supposing, the ethics committee says, *"Okay for every respondent you give this to them, either in a form of cash, or in kind.*" Pero nagrarandom sampling ka kasi. How about those that were not selected and they see that their neighbors are receiving something from you? What about the rest of the community? And of course, finally, the issue of disseminating the results. Especially if the researcher is coming from another country or is backed by huge sponsors. They published it in a peer-review journal abroad. Tapos hindi alam ng community involved kung ano ba ang pinag-aralan sa kanila. What were the findings that were sourced from that particular area? Now having said all of these, ang tanong ngayon sa atin is, *"How do we balance the need for immediate information?"* Because definitely, there is a need for research at that particular event and in that particular instance. But how do we balance the need for emergent information (from research) with ethical principles and considerations and the reality of the ethics review process? Hindi lang naman siguro sa Pilipinas matagal ang proseso ng ethics review. It is actually part and inherent to the system because we really need to

document that we have actually complied with all the guidelines that is in existence. So unang-una, kailangan nating tanggapin na ang lahat po ng bateryang prinsipyo in ethics in research still applies when it comes to research in disaster areas. We must still uphold and respect for persons, balance the benefits against the risks, and then we must also uphold justice. And I'd like to share with you this nice framework. It was published January this year. I'd like to propose this for most of us conducting research in disaster situations. As a guide on how to go about the ethics appraisal of researches.



R2HC Framework
Purpose of the Research for Health in Humanitarian Crises (R2HC) framework:
1) Guide development of research designs and protocols intended for implementation in humanitarian crises and complex emergency contexts to help ensure their ethical viability
2) Support ethical review of such protocols by independent ethical review bodies (REBs, IRBs), funders, and other organizations of interest
3) Serve general educational purposes and enhance public understanding of the issues involved in and ethical principles guiding research in such settings

Curry DR, Waldman RJ, Kaplan AL. An Ethical Framework for the development and review of health research proposals involving humanitarian contexts. Project final report. 2014 Jan. accessed 12 Aug 2014 from link

If you notice, it looks like a pyramid. It actually highlights the inter-relationship of the different clusters as well as the priority that we give to each cluster.

Cluster A: Emergency Context Requirement/Benefits-Harms-Risks

- Why must this research be conducted in a humanitarian crisis or emergency context – in short, explain why the expected evidence and benefit cannot be gained from implementation of the protocol in more stable (non-emergency) settings?
- What are the known and potential harms and risks to individuals and the subject population overall by involvement in the proposed research?
- What are the relevant analyses of harm-benefit "ratios"?
- What mitigating strategies and associated costs (planned and potential) have been defined and projected?

Cluster B: - Protocol Design: Scientific Validity/Feasibility; Research Focus: Relative Priority; Team Strength: Competence/Collaborative Structure; Declared Interests

- What is the relative importance/priority that this protocol should enjoy in the larger context of evidence-building for humanitarian response?
- Why are the institutions and individuals involved in the proposed team – including local (in-country) researchers and supporting staff – uniquely qualified to conduct this research? What are the weaknesses or "holes" in the team structure that might be strengthened before the research is implemented?
- How are the declared interests of all investigators and institutions involved in the research relevant to its conduct? Do any these interests represent "conflicts" that might compromise the integrity of the research, the team or the evidence sought?

Cluster C: Independent Ethical Review/Oversight; Safeguards/Security/Exits

- What ethical review processes and review entities (REBs/IRBs: institutional/internal, independent, contracted, local/in-country) will be involved in approving this protocol?
- What are the known and anticipated strengths and weakness of these review bodies, including their capacity to provide initial, continuing and summary oversight of the protocol?

- Are there any mitigating strategies around weaknesses and are there costs associated in addressing them?
- What safeguards, security, exit strategies, and associated costs have been developed with regard to research subjects (both those involved in the intervention and those in “control” groups) and the research team itself over the proposed duration of the project?

One of the recommendation is to have a bank of pre-approved protocols that are intended for use during disasters but which will be activated only for use during a disaster event. Unfortunately for that, most of our funders does not fund this particular types of researchers because this high-risk events. Sabihin natin, gusto kong mag-research on this particular event, Metro Manila will experience a 7.2 magnitude earthquake. Sabi nila it happens every 400 to 600 years. And we are on our 400th year, definitely, my funder cannot wait for another 200 years if I am going to develop a protocol. But taking off from the lessons from the previous disasters, may be it can be done. Alam natin na ang baha dumarating, ang bagyo dumarating, ang lindol nagaganap. And therefore, those who are interested in disaster research can have those protocols ready.

The other recommendation is for ethics review members to allow for a rolling review. A rolling review happens when only parts of the protocol is approved. And then, there are certain aspects that are not approved by the ethics committee. And so what can be done is for the ethics committee to work hand in hand with the researcher in carrying the gaps in the protocol. We are actually carrying it out in other parts na wala namang ethical issues.

Cluster D: Community Engagement; Cultural Context/Norms/Values

- What community engagement strategies have been undertaken to date, and what engagement actions are planned?
- How does the protocol address the unique cultural context(s), norms and values of the population(s) involved?

Cluster E: Community/Individual Benefit; Confidentiality/Data Security

- How will the research directly benefit – with reasonable immediacy – the community and individuals involved? If it will not, who will benefit and when? By what process were benefits presented to and affirmed by the research subjects and their community?
- How does the protocol address data confidentiality and security? What are the anticipated risks and mitigation strategies/costs?

Cluster F: Informed Consent

- What informed consent strategies and processes are proposed for subjects of the research as well as the research staff involved?
- Are these strategies credible, and is adequate documentation planned?

So what’s the bottom line? Unang-una, tinatanggap po natin at dapat po nating maunawaan that research in disaster situations and disaster events is very crucial especially as we face a lot of these challenges in our country every day. However, the second more important consideration is that, there are a lot of ethical issues that surface from this type of research. Therefore, not only must there be a competent ethics review committee pero kailangan din i-empower ang researchers but dapat alam nila at nauunawan nila na ito ang sitwasyon ng isang disaster area. We may have the good intention of helping them by producing and generating knowledge but in the acute phase, generation of knowledge may not be of value in that particular community.

With that, I would like to end my talk. Thank you very much for your kind attention.

Mental Health Research in Disaster Areas

Dr. June Pagaduan-Lopez
Department of Psychiatry, UP Manila College of Medicine

Discussion

Maraming salamat! Ako'y lubos na nagagalak at honored dahil ako'y naririto. Gusto kong batiin ang aking classmate, Dr. Ricky Gruet, convener ng conference na ito at si Dr. Jimmy Montoya na sampung taon ko nang hindi nakikita mula ng siya ay umakyat sa kanyang kinalulungkutan ngayon. Dati kami ni Jimmy, si Jimmy ang nagsimula ng community-oriented medicine sa UP College of Medicine.

Natutuwa ako ngayong hapon na ako ay naimbita sa napakalaking konperensya na ito dahilan sa ang mental health na maari nating tawaging *kalusugang pangkaisipan* o *lusog-isip*. Orphan, bakit? Ito ang bahagi ng ating kadalubhasaan na hindi nabigyan ng importansya at marami pa rin ang paniniwala at pagkakaintindi na ang mental health ay para lamang sa mga baliw. Di ba? Kaya pag sinabing mental health ang pumapasok sa isip natin ay Mandaluyong. Ngunit dahilan sa mga sunod-sunod na bagay na hindi natin inaasahan at labis na nakapagbigay ng pagdurusa ng ating mga kababayang Pilipino. Ang usaping *lusog-isip* ay siyang napaka-importante at binigyan na rin ng atensyon kasama ng ating media. Kung natatandaan niyo pa, bago dumating ang Yolanda, meron tayong Zamboanga siege. Sa kasawiang palad, hindi pa tayo nakakapagrespond sa Zamboanga siege, dumating ang Bohol earthquake. Naghahanda pa lang mag response sa Bohol earthquake, dumating naman ang Yolanda. Sa lahat ng dapat nating ayusin sa pisikal na larangan ng disaster, hindi natin masisisi na makakalimutan ang damdamin at kaisipan ng mga taong nasalanta nitong mga kalamidad na ito. And yet, we have to be so alarmed and scared. What are these all calamities and catastrophes add to the national disasters armed conflict, what are all these doing to our country men, what are all these doing to the way we think as Filipinos? You go to the far-flung areas affected by the natural disasters as well as armed conflict, ang lahat nakatunganga sa iyo. Ang unang tanong, ano pong dala niyo? On the part of us responders who are also tired, we cannot but say to ourselves, *"Ano ba itong mga taong ito, naging pala-asa na?"* Wala na silang magawa. Hindi na sila makatayo sa kanilang sariling paa. So we judge them as being passive. And it tears my heart for even our government officials do sometimes, hindi ko naman sinasabing lagi, who see these facilities in our people as an excuse to disempowering them more or to dismiss what they are thinking. Tama? Kaninang umaga, nasa session ako kung nasaan nagsalita ang aking kaibigan na si Nestor Burgos of the Philippine Daily Inquirer at ang gaganda ng mga tanong. At may mga survivors doon sa audience. First of all may tumayo, please stop calling us victims. And should we continue to influence our minds with all these stereotypes? Iyong mga haka-haka natin sa mga nangyayari sa ating mga kababayan samantalang hindi man lang tayo nakatuntong kung saan sila naroroon. And this is to me the first ethical imperative. Kilalanin mo ang iyong pinag-aaralan. Hindi lamang sa pamamagitan ng pagtatanong kundi sa pagsalamuha at pakikipag-usap sa kanila bago mo matanong ang iyong research question. Yes, it is true that mental health is the least of our priorities not only in research but also in disaster response.

A book that recently came out this thick on global health has three pages on mental health. Not even a chapter. Makaiyak di ba? And that's probably mental health to a lot of people is abstract, it cannot be quantified basically except if you want to count the number of people who are committing suicide, who are depressed, who are complaining of symptoms that are very obvious like psychotic symptoms. I go to Leyte, I hear from the provincial health office report, there are 30 psychiatric breakdowns in one area near Ormoc. Iyon madaling bilangin iyon, diba? Pero iyong sa 15,000 namatay at milyon-milyong namatayan, hindi importanteng datos iyon kung ilan ang nasiraan ng bait. When I asked for funding, not even for research, for psycho-social intervention for disaster, ang sagot sa akin, *"I'm sorry, hindi iyan ang priority kasi mahirap bilangin. Ang gusto namin nabibilang kung ilang rural health unit ang naitayo, kung ilang gamot ang napaimigay."* Pasensya na kayo kung para akong umiiyak sa frustration. Isa pang problema natin, iyong tinatawag kong ground zero mentality. May lumapit sa aking isang grupo, a big university in the United States, 3 weeks after Yolanda, wanting to conduct a Child Protection Workshop in Tacloban. Of course, tinanggihan sila ng Department of Health because it is a ridiculous idea, right? But naive as we are and as hungry as we are, we agreed to organize the Child Protection Workshop but in one condition, it's not going to be in ground zero. It has to be in Manila and you bring the responders to Manila. In those sense, it is our ethical responsibility to put our foot down because for as long as we have the CNN-syndrome, for as long as CNN talks about our disasters, we get money. And all these guys are really wanting to come to ground zero because why true to my suspicion, the first of these lives of this American spokesperson is the list of ground zero that they are paid. What does this mean? One reality we had to accept, as cynical as I may sound, humanitarian aid is an industry.

With that, I'd like to start. I'd like to start by showing a few pictures of San Jose, Tacloban, where we were started working with more than 2,000 casualties form Yolanda. So this is the Church where people put ribbons to commemorate the dead. And this is how San Jose looked in January and still looks the same way today, eight months after. San Jose is located at the tip of peninsula or hook. The reason why it is worst affected kasi napalagitnaan sila ng dagat. This is January when I went there to do needs assessment and from that needs and resource assessment we came up with this proposal, to do a Participatory Action Research in two barangays that are heavily affected with very high casualty in the area of San Jose. We call it *balik-kalipay*, in Cebuano means, return to happiness. What are the objectives of this proposed project: describe the psychosocial experience of the survivors in the aftermath of Typhoon Haiyan in terms of current needs and problems; factors that enhance resilience, internal strengths and external support; factors that increase vulnerability and hinder recovery. Also we want to elicit community parameters for evaluating interventions received during post-Haiyan. Most of the time when we evaluate what we are doing, we evaluate using our own eyes, we never ask people. You know hindi sila tinatanong, *"Ano bang epektibong nagawa dito sa inyo?"* Marami silang kuwento na hindi natin naririnig. Alam niyo ba ang isang intervention doon sa Leyte kung saan kasama sa relief goods ng mga teachers ay lipsticks? The bright people of Manila thought that maybe what is important to the teachers is maybe maibalik ang kanilang kagandahan, ang kanilang beauty, sa gitna ng Yolanda. And this is really, I think, hindi naman masama, their intention is to make teachers feel better, mabalik ang kanilang dignidad at humarap sa kanilang estudyante. Pero mangiyak-ngiyak ako noong kwento ng isang teacher na, *"Ma'am, nakakuha kami ng memo na gamitin daw ang lipstick at mag-high heels daw kami dahil darating si Secretary. Eh, ma'am, ni hindi ko nga mahanap ang aking panty."* The mindlessness of it all. That we do not ask people what they want and what they need. Therefore, in the midst of our idea of trying out a mental health and psychosocial support intervention we felt that we have to know from the people's owns eyes first. Their eyes, their own hearts and their own needs at hindi kami ang magdadala at magsasabi sa kanila na ito ang kailangan ninyong matutunan. We also want to train community health workers and other responders to elicit needs regarding to mental health. You know kailangan mo ring magturo at mag-educate ng mga tao na ang mental health hindi ibig sabihin na kabaliwan. So nahihiya sila. *"Ma'am, wala naman ho iyon sa amin eh. Bakit natin pag-uusapan iyan?*" But little do they know that their very facility is a mental health problem, their inability to get out of their depression because in one family I spoke with, 80 people died. How can you get up from that? So we want to evaluate an intervention that we will propose or design even from the people's perspective. So this project is going to use a lot of what the people perceive as the real measure of what is beneficial and what is not beneficial. So eto na, dadaan na kami sa ethics review. Totoo iyong sinabi ni Dr. Carl. Dadaan ka talaga sa butas ng karayom lalo na sa UP para makapasa sa ethics review. Pero hindi ito mali, pero kailangan lang itong i-adjust. Gaya ng sinabi niya if you are going to do this, hindi ka makapaghintay ng tatlong buwan dahil hindi ka nakapagsubmit ng iyong proposal six weeks before, which is the requirement. Bukod doon, in East Timor, when we went there 120 medical doctors before September 1999. 16 ang natirang doctor. Magkakaroon ba ng ethics board review sa 16 na iyon? Di nga sila makahanap ng bagong Minister of Health kasi wala nang may training, wala nang specialist kundi iisang surgeon. So in a disaster situation, you cannot be ideal because of the reality but this is not to say that we should really monitor ourselves. In the end, sinong ethics review board ang magbabantay sa atin in a disaster? Sarili natin, diba? Integrity natin. Kung alam natin kung hindi dapat, hindi natin kailangan ng ethics review board para sabihan tayo na hindi dapat. Kung hindi naman natin alam kung ano ang hindi dapat. Magtanong tayo. Mag-aral tayo. Otherwise, wala kang 'K' gumawa ng maski ano sa disaster situation.

What is PAR or Participatory Action Research? It's a process involving researchers and participants working together to examine a problematic situation or action to change it for the better. Underscore working together. In a traumatized community, they cannot be simply our subjects or objects. They have to be with us because the entire process of research is part of their re-empowerment. But if you do not engage them, you do not mobilize them even in the research process, then you can even add not only in to their little re-traumatization but further that is not empowerment because they are at the receiving end and people see them as not real partners but all the time receivers of our good intentions. So Participatory Action Research to me (this might be debatable) is the only ethical sound kind of research in a disaster situation. Why? Its aim is to be active co-research by and those active to be helped. And how do we concretize this? Why Participatory Action Research? This is the International Red Cross Code of Ethics for all humanitarian factors as caregivers and researchers working with highly vulnerable populations. We are ethically bound to provide treatment and rehabilitation to our survivors to the best of our ability and to the extent of our limited resources can provide. As researchers, we cannot escape this humanitarian imperative. Otherwise, we will be simply users. We must be guided by principles applicable to the practice of humanitarian assistance in general and work with vulnerable populations in particular. So we even have to identify who are most vulnerable. The UN-HCR and other agencies have cited a very alarming rise of gender-based violence in evacuation centers and health emergencies. As I was talking to some of the women in

Tacloban, my attention was caught by a young girl, maybe age 12 or 13, taking a bath in the open. No cover. Nagtatabo doon sa tabi ng water pump. So I simply has to say to the mothers around, *"Natural ba iyon? Bakit wala man lang tabing kung saan kayo naliligo lalo na iyong mga kababaihan."* "*Eh ma'am, iyong ginawa ho iyong tents namin, wala ho namang ginawang banyo.*" *"Eh anong ginagawa niyo?*" *"Eh nagreklamo na po kami at nag-aantay na lang po kami ng sagot ni Barangay Captain."* But you know what? After that talk, exactly February 14, because I woke up to a text message, it was from one of our contacts in San Jose, *"Ma'am meron na kaming may tabing na ligoan. Namulot ho kami ng mga tarpaulin,"* and send me an MMS. Sabi ko nga, inauguration tayo. Let's inaugurate that. Unfortunately, people don't use it. Kasi walang education. Mas gusto nilang maligo sa tabi ng tents nila. Eh shower stalls iyon eh, malayo sa tents nila. Gusto nilang maligo sa tabi ng tents nila. But it was one good result of simply asking people what they need. The humanitarian imperative – alleviate human suffering, preserve human dignity, protect and respect the right to receive humanitarian assistance and to offer it. The need for an impeded access to affected populations regardless of race, or nationality or political. Now this is more relevant to my experience in post-conflict areas including Mindanao. Na pagka-kinupkop o dinecide ng militar na harangan ang supplies sa isang komunidad, bayan, wala nang dadaan maski ano doon. Kasama ang pagkain. You can imagine how the civilians are affected to what happened. This is what happened to Pikit, Cotabato where we worked for four years, ironically called by UNICEF, the *United Nations Children's Fund* as Zone of Peace but it is where most clashes happened.

Primacy of clients. So what are the principles that we remind ourselves all the time? Primacy of client interest which includes beneficence, respect and autonomy. Respect and autonomy? Hind pa ito research ha. Sa pagbibigay pa lang ng relief goods. Nakikita ba natin ito? Iyong nakikita natin sa TV Patrol hinahagisan ang mga tao ng relief goods mula sa truck na parang mga hayop naghahabol, mga bata parang aso, maaring masagasaan. My heart was really broken when here's this old woman interviewed at the side of the road, *"Tingnan niyo po iyan Sir. Hindi lang sa mamamatay sa gutom at sa pag-alala dahil hindi namin alam kung saan namin kukunin ang ipapakain sa aming mga anak. Tinatrato pa kaming mistulang mga hayop.*" We have not learned. How many disasters have we been through? Why we cannot just be mindful, isipin ang ating ginagawa to retraumatize, natrauma na ang mga tao, eh, tinatrauma pa natin ulit. I spoke some teachers in Rizal, where we did a project plan after Ondoy, sabi nila, *"Eh Ma'am, kami kahit mamatay kami sa gutom, hindi kami pipila.*" *"Bakit?" "Kasi nasisira ang aming dignidad."* Heartbreaking. Distributive justice. I'm glad Dr. Carl mentioned this. It's very hard. We clinicians are very used to randomize clinical trials. We need to randomize our samples. Pumunta ka ngayon sa Tent City ng Tacloban, how do we randomize ni walang numero ang tent? Pumunta ka sa bundok, walang kalye. Pangatlo, tama iyong sinabi ni Dr. Carl, bakit sila napili, kami hindi? Pero depende sa topic. One time I did a research on domestic violence. Ang question sa akin ng hindi napili. *"Ma'am bakit niyo sila napili?*" So medyo chismosa, so hindi naman maitago na napili iyong kapit-bahay. *"Ay siguro, may na-rape doon."* Iyon ang hindi ko masagot hanggang ngayon.

Empowerment of the self. Research is supposed to be an empowerment. It is not research for research sake. It is not for data collection and it needs to end with prevention with care provision especially kami sa mental health na nagtatanong kami ng maseselan na bagay. Pag-alis namin doon, ang tanong sa akin, *"Ma'am anong katuturan ito, eh, pinaalala mo lang lahat ng trauma sa amin?*" And honestly, it is a question na nahirapan akong sagutin lalo na kung wala kaming dalang relief goods. Or may kameeting kayo may dumarating na truck, sa isang iglap wala ng tao sa harapan mo. So we need to give aftercare and we know not only for those our responders but also those members of the research team. Alam ninyo, nagkaroon ako ng isang research tungkol sa mga convicted torturers during martial law. Ginawa namin ito sa UP Center for Integrative and Development Studies. Ang kinuha ko mga batang manunulat ng Philippine Collegial na simple lang, interviewhin nila iyong mga military na naging torturer na in fact, na-promote pa pero convicted because we have the list from the Commission on Human Rights. I have to process research team just hearing these military soldiers talk and make fun of what they did. May isa na pinagyayabang niya na may isa siyang koleksyon ng mga gara-garapon ng tenga. Kinokolekta niya ang mga tenga ng mga kalaban. Kasi sabi niya, *"Ma'am, kung doon ka sa bundok, hindi kasama sa achievement ng bilang namin iyong bilang ng baril. Ang importante ang bilang ng patay na kalaban.*" So ang instruction niya sa battalion niya, kunin ang kaliwang tenga at iyon ang kanilang body count. At kinukuha niya iyon, kinokolekta niya, tinatago niya sa sala ng kanyang bahay. Hearing this, my students were just completely shocked but at the same time nakikitawa with the Colonel. But when we got back to UP, they all cried to me and felt so guilty that they managed to even laugh with the Colonel. Eh, baka kung hindi sila tumawa, baka hindi kami makalabas ng buhay doon. Nakakapagod, madaming kuwento talaga.

The Participatory and Community Organizing approach versus Passive Relief Aid. Kami sa Mental Health pinangangalandakan namin na ang dami-dami naming nabigyan ng psychological first-aid. Ano ba iyon?

Psychological first aid, iyong kinausap mo nang maayos habang nagbibigay ka ng tubig, pina-upo mo o pinahiga mo pagdating kasi hindi pa iyan nakakahiga nang deretso galing sa Tacloban. Hindi iyong pupunta ka, lalapit ka, pagbaba sa C130, *"Kumusta po? Ako po ay taga-Asosasyon ng mga Pscyhiatrist, gusto niyo po bang pag-usapan iyong mga nangyari sa inyo?"* Common sense. Psychological first aid is just what we do mindfully with the heart. Sabi nga ng isang foreigner sumagsag sa Tacloban after one week, *"Filipinos have psychological first aid in their hearts, in their genes".* I said, "*Hindi niyo kailangan i-turo iyan sa amin ano*." WHO magtuturo samin ng psychological first aid? Tapos makakarining ka ng report sa isang provincial health office sa isang probinsya, psychological first aid daw, 4,000 people. Ano kaya iyon? Ano ho ba ang ibig sabihin ng psychological first aid? Hindi ho, iyon po ang binigay na report sa akin eh, ang nabigyan daw po ng psychological first aid, 4,000 daw ho. Versus participatory and community organizing approach. You know for the social scientists like Dr. Castillo, bihasa, trained bilang community organizers. Kami, tayong mga doctors hindi naman tayo tinuruan ng Community Organizing diba? Sanay tayo sa four-walls ng ating mapuputing clinic. Tingnan niyo ang Organizing Approach. Kung nagvolunteer tayo, walang nakaka-isip na organisahin ang mga taong nakatunganga, ayusin man lang iyong pila, hindi magkarambolan, hindi magkakuyugin, diba? One time our medical students volunteered to distribute relief goods, na trauma sila, hindi pa sila bumababa ng van, kinuyog na sila ng mga tao. Bakit? People are desperate. Nobody is attending to how they feel, what are in their minds, why are they in a panic. Why are we in Manila, in Cebu and elsewhere outside of Tacloban very judgmental about the looting that happened during Yolanda? Did you know the situation? To many Taclobanons that was not looting. They were saving the goods kasi babahain din naman at pagkakuha nila pumwesto sila at pinamimigay nila. And what was covered in CNN? Looting. If there were people caught on camera taking away refrigerators, di ba, those were later organized criminals na. Noong narinig na ganoon, open nang open ng department stores, at saka na sila pumasok. May isang UP Professor nag sabi doon, *"Ma'am, nakakuha ako ng isang kahon-kahon ng fruit cocktail. Eh, paano naman ma'am, nakalutang lang doon. Eh, Christmas eve, gumawa ako ng fruit salad. Namigay ako sa mga kapit-bahay ko."* But if you don't know the context and we don't ask, these are the kind of things that we don't ask in research, why people do what they would? And they are the best documenters and not media, not outsiders, of what they went through.

Informed consent, good old informed consent. Dadaan ako sa kay Dr. Mantaring to have our project approved by the UP Manila Review Health Ethics Board. I ended up making three kinds of informed consent, seven pages each. Alam niyo bakit? I'd like to tell you, Google niyo ito: WHO Template for Informed Consent. Grabeh pero tama. Please look it over. It's a very good guide. I said research aftercare. Hindi lang doon sa mga pinagtatanong natin kung ano ang dinaanan nila, kundi kami ring mga nagtanong, kaming nagtatanong, natatrauma din.

Let's face it, aminin, huwag na natin ipagkakaila, we are still living in a donor-driven world. I can tell you I was a WHO consultant for seven years for sexual violence research initiative. We have US $200,000 a year to conduct global research on Sexual Violence Research Initiative (SVRI), FGM. You know what FGM is? Female Genital Mutilation which is a practice in the Muslim world and gets US $2,000,000,000 a year. Why? Because the whites hate the thought of the female genital mutilation. To a lot of people who accept it in their culture, it's clitoral circumcision. We allow male circumcision but we are scandalized about female circumcision. So you can see how the balance stills, depende sa kung ano iyong gusto noong donor. May mga bias for TB & Malaria, etc., unfortunately wala silang bias for mental health.

Gender-sensitivity. Maraming bagay in research especially when you go to a disaster area and want to find out about gender-based violence. Kailangan maingat ka and for the disaster management people, iyong mga banyong ginagawa natin. Kung maglalagay ka ng banyo, mga ilang metro ang layo sa evacuation center that is gender insensitivity. Respect for culture and custom. You know this is something nice. I saw in Pikit, alam niyo, may mga Christians and Muslims halo in one evacuation center. May areas na nilinis para makapaglagay ang mga Muslim ng kanilang mga rags para sa kanilang prayers. This is to site a very culturally-sensitive practice. We process victims of Yolanda in Aklan, Caticlan, 400 Atis. We asked them to have a food festival along with the psychosocial processing and this is to make them feel there is still something in them that they can be proud of. Maaaring walang-wala sila, pero meron pa silang mabubunot na mga camote. I remember we were given a dish, I didn't know what it was and eventually I found out because I saw the head in the dish. It was a dish of a turtle na galing sa ilog and very proudly given to us by the Ati. This is what we mean by bringing back their self-respect na maski walang-wala na sila ay meron pa rin sila. Promotion of appropriate organizational values.

Maintenance of a caring healthy work environment. This goes without saying within the research project team kailangan kayo magkakaibigan, hindi kayo nagtatraumahan sa isa't-isa. Meron kayong EQ, emotional intelligence, pagka-nagiging stress na kayo sa ibang tao. Kilalanin niyo rin pag na-istress na kayo, imbis na

bugbugin mo iyong kasama mo. Ethics of funding. This is not so much in the ethics of disaster. It's more in armed conflict. There was a time we refuse to accept donations from the United States Agency for International Development (USAID) or the National Defense of the United States because we knew especially Latin Americans and Filipinos are very sensitive about US sources of aid in the situations of war.

Ethics of Information Management. Ito napaso ako minsan, nagawa kami ng Nationwide Survey of Political Prisoners during Marcos' time who were still in prison during Cory's time. There were about 200 of them ginawan namin ng research. I very happily, proudly announced in the newspaper that 89% were depressed. Napatawag ako sa Bilibid, pinagalitan ako ng husto noong mga political prisoners, *"Kasi dinagdagan mo iyong stigma namin. Iyan ang gustong mangyari ni Marcos, ipalabas na tinorture niya kami para maipalabas na wala na kaming silbi sa lipunan."* So be very careful. Mula noon, I was only 20lbs younger when that happened and that really left a mark in me.

Professional Conduct which include relationship to clients, relationship to colleagues and relationship to the state. When you are doing something related to investigating human rights violations, conditions in peace and systems, which is now my job in the United Nations, we have to ask ourselves, where are the conduct enough?

This is still the way Tacloban looks. The disaster is far from over, people need to be empowered by being part of their own process of recovery. That is our ethical imperative. Thank you very much!

Social Research in Disaster Areas

Prof. Fatima Castillo
Member, PHREB

Discussion

Maayong hapon! Parang ang feeling ko, starting with Carl iyong emotional and intellectual excitement natin parang ganito iyong curve tapos pagdating kay June, wow, tapos baba ng sa akin. So please, I'm so happy Carl and especially June said some of the very important things that I actually have to say this afternoon and so I should only need about 15 minutes. That will give us time for open forum.

I think there is only one topic Chancellor Marita this afternoon that is actually social research, ethics in disaster setting because the two are actually social science. Public health is a social science, obviously June's research field is a social science field. So imperialist social science ako ngayong hapon.

I took this from Google. I just want to first point, I would like to talk about the disaster situation because I believe that it is very important we understand the particularities of disaster setting when it comes to ethics of research. So these are I think people waiting for their flight to get on the C130. We know of course, some were able to get on after 2 or 3 days, others after a week or so and we know of course that it mattered if you know someone in the military. Or if you know someone in the national agency, you get better chances of having some seat of these transport planes. That already is a matter of concern for social scientists to study. But the World Health Organization calls the Yolanda situation as *Complex Humanitarian Emergencies (CHE)*. This term captures the confusion, the distraction of many structures that communities have been using – infrastructures, community structures, sources of communication and support. And one of the biggest source of confusion I heard from people in Leyte, like five days after Yolanda was that they were so afraid because they did not know if anyone is coming to help them. They did not know. The confusion is so complex and people are in need of help simply just to survive. People are in need of food and shelter and medicine and the question is therefore, will you do research in a CHE? Is it ethical to collect data? Is it ethical to do research where everybody needs help to survive? And I think this is covered by Carl and June. However, according to an article from the Asian Bioethics Review, it could actually be unethical not to do research. This is not a simple question, it is complex but there is no easy answer so many things need to be known for us to make a decision to do research or not to do research. One of this is timing. When are you going to do research? Perhaps, in clinical research, perhaps for research to prevent emerging epidemics maybe you need that as soon as you can. Perhaps a social research can wait a little longer but researchers would really like to see, be there, when the action is taking place, we don't want to wait.

I just would like to clarify, disasters could actually be, aside from the natural catastrophe, it could be human-made catastrophe like the Bhopal in India many years back and many of those who suffered from the gas explosion have not yet been remunerated or given justice, acute epidemics and of course, armed conflict.

Yolanda is a very good example of a disaster that attracted all well-wishes. Almost everybody who can give, who can help wanted to give and/or to help. The entire world descended to Tacloban, wanted to help, that's good because it reaffirms our humanity but at the same time, such the road to hell is paved with good intentions. That kind of passion to help can create a second wave of disaster or third wave of disaster. When Tacloban was two days after Yolanda, there was nothing at all, you have the CNN crew and the Taxi Driver. The taxi drivers are among my favorite key informants. From the Mactan Airport to the hotel yesterday, he told me about he drove the support crew of Anderson Cooper and he felt so proud and of course, the BBC would not have want to be left behind and resources and time and attention got diverted. So the second tsunami according to our authors in the Asian Bioethics Review, they were writing about the tsunami in Indonesia, 20014 in Indonesia.

Before I forget, Dr. Jaime Montoya, Executive Director of PCHRD and the inspiration behind PNHRS, I think June said a lot. Many things that we should continue to remember and see that it should be inputted into PNHRS. This kind of paradigm shift about research also about ethics. Commonly social researchers are interested in: Interactions, interconnections of people, people & systems; cooperation, conflicts; power, governance, systems; and meanings, meaning-making & behavior. Currently, from the Asian Bioethics Review Journal in 2010, at that time there was no ethical regulation on research in disasters in Complex Humanitarian Emergencies. But there are some approaches that have been offered: CIOMS 2009, Tri-Council Policy Statement Canada, Working Group on Disaster Research and Ethics 2007 (Global Health Trials).

In 2011, the PHREB National Guidelines actually has a chapter on ethical guidelines for research on special populations and one of the sub-chapter is on disasters and emergencies. So notice natin, actually ang mga ethics guidelines sa lahat ng research pare-pareho lang iyan eh. Pero may mga particularities, may mga particular demands on CHEs.

Research ethics in disaster situations: baseline assumptions

- Research needs to be initiated quickly to be meaningful for the study community (but know your study group)

  For you to decide whether you do research now or you do it two to three months from now or a year later, is to know the people who you will study. If your interest is to know the dynamics in humanitarian aid, the politics in humanitarian aid, in a situation like that in Tacloban so you have to do it as soon as you can while they are still there.

- Must be submitted for ethical scrutiny
    a. Relevance to affected community – benefit must clearly outweigh harm
       Example of harm: security/confidentiality of data on corruption

  I will set an example of importance about security of records and confidentiality of data. A friend of mine, Tet Arsenon, headed a big program in Tacloban for productive health services. And he told me that he learned of cases where some aide providers provided aid in exchange of sex. So this is very sensitive information. Now, if for example, you were able to get data from those sexually abused in exchange for aid and you will not be there always to protect them and if this would come out, this would mean, this girl and her family will not anymore get the services. Isn't that possible? Is that possible? Yes. In Congo, where our co-investigator did his study on supply and distribution of medicine in evacuation centers, he found from his key informant that iyong pagnakaw ng gamot, plaster, lahat na lang na pwedeng mabenta sa black market, nangyayari. Does that happen in other disaster areas in the Philippines? Yes. We heard. Now, you come across data about sexual abuse from people with power, who are in the position to, like the humanitarian aid. You come across data about the one in Congo. The question is, is this illegal activity? Correct? Illegal iyan eh. But there is a law in this country that you must divulge. You must tell the authorities if you come across data like this of illegal activities. So what do you do? Well, there is no total solution for that but what we suggest is, we must inform the potential respondent or participant about these things. You tell me data like theft or illegal activities, by law, I am bound to report it. Well the respondents, might say, *"Okay lang ma'am basta huwag mo lang banggitin iyong pangalan*

ko." Or maybe hindi lang pangalan or other things that can identify the person because there are persons which can be identified not only by name.

Example of benefit: how to return of study to participants when they are gone

Sa social research, hindi naman kami nagbibigay ng health care. Wala din naman kaming perang pangbayad. So recently, the Helsinki said that one benefit in social research is that you return to the people who participate in the study the results your findings. And you discuss these things and how they can be useful. But in a CHE, situations can be so fluid. What you have today, might be gone tomorrow. The people that you interviewed or focused group today might be gone tomorrow, in armed conflict situation or in a flood situation. So sino? Kanino mo ibalik iyong results ng study?

- Documentation (confidentiality; security of records)
- Ethics of Research assistants, field assistants
- Harm for Research assistants, field assistants
- Observation, privacy and dignity

There is no privacy in many situations in CHEs. Wala nga eh, walang bahay. Iyong kinukwento ni June na walang tabing. Sa evacuation centers, walang privacy. Dapat iba, iba iyong understanding natin at treatment natin na tinatawag natin sa CHE. What is privacy? It may not just be physical definition. Kasi wala kang walls so there's must be a way of coming up of a more contextualize definition of privacy. So when you observe, when you observe in an evacuation site situation, what do you observe? In social science, in ethics, you cannot observe since you have violated the privacy of the people in your study. It must obviously be a public scene. Is an evacuation center a private or a public scene?

b. Free Prior Informed Consent (FPIC)
   - Disclosure of risks, many of which can't be anticipated – highly fluid situation
   - Know specific vulnerabilities and dynamics
   - Questions of freedom and capability of participants
c. Participatory processes?

Actually, sa tingin ko. Hindi naman sa lahat ng beses nagcocontradict ang pagbigay ng services at pagsagawa ng research. Ito iyong pinuntahan namin sa Mangyan community. Kasi sabi naman, lahat na lang ng attention nasa Tacloban, wala nang tumitingin doon sa Mindoro. May mga Mangyan communities na nasalanta at sa Capiz at sa Northern Palawan. So pumunta kami sa Mindoro at nagdala kami ng some help at ito, pumipila ang mga Mangyan. Pero alam ba ninyo, ang nag-organize ng distribution, lahat from step one to the end ay ang Local Federation of Mangyan Tribes? Sila ang nagdetermine paano i-distribute, sino ang kokontakin, paano ang paghati-hati, sila lang lahat. I was very proud of that project in November up to February. On the other hand, I went to Capiz in November, nasalanta din, maraming nasalanta, ginamit ang organization ng mga Indigenous People sa Capiz, ginamit nila iyong okasyon para mag-organisa nang napakalawak na meeting. This was 2 weeks after Yolanda. Ginamit nila para organisado ang mga communities. Ito iyong pinagkakaiba ng organisadong community sa hindi organisadong community. There was no government presence for many days in these areas in Capiz. Dahil organisado ang komunidad, organisado ang pagresponde. So ginamit nila ito para magmeeting, pag-usapan, ano ang ating gagawin at hindi lang para maka-survive kundi anong gagawin para makarecover, magrehabilitate. At dito pinag-usapan ang mga national issues, mga Hala-urdang at kinonek nila ito sa damage, sa destruction na gawa ng Yolanda. Ang galing noh? So makikita mo pag-organisado ang community, napakadali sa mga researchers ang mag-connect at magiging maingat. At less ang chances na magkamali ka, maging unethical ka.

The same ethical standards and principles apply in CHEs as in other studies, but I think, whenever and wherever people are suffering from simultaneously occurring intense vulnerabilities coupled with simultaneously occurring critically unmet needs, ETHICS MUST BE MORE RIGOROUS, and MORE VIGOROUS. *Médecins Sans Frontières (MSF)* says ethics review must be timely and flexible but also MORE STRINGENT due to a higher degree of vulnerability of study communities

This is one very big question also. WHY? Local ethics review may not be functional; usual community organizational structures collapsed (door/gate keepers) (no doors, no gates); capability for genuinely

autonomous, meaningful consent absent; disaster could worsen actual, potential conflicts; research could divert much needed resources. Is research feasible? Can it be completed (respondents gone tomorrow; schedules awry, research facilities non-existent)?

Pag hindi mo matapos ang research parang hindi rin naman ethical na simulan mo. Marami kasing possibility na hindi mo matapos dahil hindi lang fluid ang situation, kung hindi, nangyari din sa mga researchers na imposible na rin ituloy. Nangyari din iyan minsan sa amin doon sa Aeta community during the Pinatubo eruption kasi our study was used in the book written by Dr. Letrigo and Dr. Perlas, from victims to survivors. And tiningnan namin, may mga rituals sila. Ang isa doon ay A*nito.* It's a ritual ng mga Aeta na galing sa itaas ng bundok and naghingi kami ng pahintulot to observe and to participate and they allowed us. Balita ko itong ritual na ito, healing para sa kanila, healing talaga because of the sense of solidarity and community that the ritual was able to mobilize. The sense that the community is connecting to each other. So drawing on their tradition, their customs, their beliefs and their norms, they survive as a community. In the process of conducting the study, we were informed by the community leader that the situation has become a problem in terms of the security because some military operations are being done in nearby areas and the community suggested that we must pack up and go. So that's a very distinct possibility in a CHE.

Summary

- Explicit, definite identification of benefit (no vague promises) and risks
- Clearly identify the beneficiaries, users of data
- Describe clearly how benefit will be received by participants
- Know the specific vulnerabilities of every participant, researcher
- Know the risks of methods (social observation, group methods)
- Know security risks of data
- Innovate Free Prior Informed Consent (FPIC) processes

Madamu guid nga salamat!

Open Forum

I am Dr. Franco Teves, from MSU-Iligan Institute of Technology. I was in Iligan during Sendong and although I am in awe in social research because it is not my field, I have a couple of questions may be it can shed light on. The first, right after Sendong when a person who is not trained in social research and even in handling such kinds of situations would like to help, like in my case when I saw people in very bad condition and some parents holding on to dead kids, not letting go of dead kids for example and just staring blankly. If we want to help, how should one approach because nobody cares for them just sitting down, squatting the roadside, people busy with their own activities and you see these people also needing help? But the sad thing is you do not know how to help. But I'm just very curious if there can become ways where an ordinary person can help? Second question, when people are now talking those experiences about the disaster and they related some experiences that are improbable, are you going to record this? Like for instance, I don't want to exaggerate but close to hundred people who have experienced Sendong claimed that they saw a black ship going upstream from the mouth of the river in Iligan, Bayug river, not just one two, three, giving the same testimonies. It's hard for a scientist to believe in things that's improbable but at times there could be such things that are happening. Are these people suffering from mass hysteria? I cannot explain these phenomena. I don't know. Are we not going to include this or simply discount these things? Thank you!

Dr. June Lopez: I think that's a very useful question. For the first question, ideally, this is not commercial, ito iyong dahilan kung bakit naiiyak kami na hindi integrated iyong mental health and psychosocial support sa mga ginagawa natin sa mga pagresponde natin at sa iba't-ibang bahagi noong disaster kasi bawat timeline ng disaster, we know the guidelines for the timeline, pre-, acute and recovery phase may mental health issues na dapat sagutin. Ngayon, kung fragmented obviously without psychosocial consciousness ang response sa disaster, mangyayari iyon. Makakakita tayo ng may nakatulala at gagala-gala at marami kaming nakita sa Leyte na nag-exacerbate iyong mga psychotic syndrome. Not to say it was because of Yolanda, partly because they have not taken their medication, namimiss iyon kasi wala tayong integrated approach. And napaka-useful iyong binibigay ng World Health Organization na guidelines in terms of specifying kung ano iyong mga interventions bawat timeline. Iyong basic services na security is number one sa acute disaster. Anong ibig sabihin noon? Bibigyan ka ng pagkain, tubig, shelter pero may psychosocial aspect iyon. Ibigay mo iyon sa mahusay, maayos na paraan, hindi ka nangbubyaw at kung merong naghahanap ng anak, missing, maituturo mo kung sino ang in-charge sa nawawala. So these are the activities in the very acute phase of disasters in a community. The second

point, the basic family support, eto iyong mga nakaraan na, isang buwan na siguro pero nakikita mo sa community, nakatunganga pa rin, pero hindi kumikilos, this is where another kind of intervention comes in. But I think the crucial thing is iyong lessons from Yolanda. There was such a surge of volunteerism and that I am very proud pero ang dami ring hindi alam ang gagawin. Now we partnered with National Commission of Culture and the Arts as to give them guidance on how to handle psychosocial issues. They had the funds because they will have a *Dayaw Festival* in Tacloban a week after Yolanda. So ang ginawa nila, ginamit nila iyong pera to have *mini-Dayaws* but they incorporated psychosocial support, mental health education into the *Dayaw.* So for the last eight months, we have been working with artists. Before that, they were doing some art therapy na bigla na lang nagbubugso iyong galit kasi pinadrawing nila na hindi nila alam kung saan dadalhin iyong dinrawing. At the same time, we learned from them how to use culture as a healing. There must be integration with the engineers, with the hard sciences, we can be part of the team.

Dr. Marita Reyes: *Are you saying June that as an individual who has not been trained for psychosocial intervention, we must not go in there and try to help?*

No, it's not what I mean. Iyong dahilan kung bakit integration is important kasi we will be together in a team. Hindi natin alam kung ano ang makikita natin in the field di ba? So, there is, among us, a system of referring. Kung meron kang nakitang para bang wala sa sarili or hindi na nagsasalita or a child who is looking for the mother, the social worker, the psychologist, psychiatrist will work hand in hand with the engineers with those more involved with the infrastructure recovery or assistance. Iyon ang madalas nakakalimutan.

Dr. Marita Reyes: *When in trouble, Dr. Teves, refer.*

Iyong sa black ship, i-sama daw ba iyon sa data ng researcher? Sa social science, yes, because that is a reality. So iyong approach dito ay phenomenology.

I'm Servando Halili. I'm a survivor of the Zamboanga siege. I'm from Zamboanga. I just have questions about ethics because I have some practice that I have observed during the siege and after the siege. One of which is heavily related to culture. One of the victims kasi, the siege was a group of people called the Badjaos. The rebels actually slip into Zamboanga into the areas so sila iyong unang nag-evacuate. Now, hanggang ngayon, nandoon sila sa boulevard. Now during the first days of the siege and I find this very disturbing, maraming nagagalit sa kanila kasi hindi kinakain iyong mga pagkain na pinamimigay. Because I study culture, I went around to their vicinity and asked questions, and simple ng answer ni Manang, "Sir, magsakit among tiyan magkaon kami manok." It's only fish and it's cassava. And all the donations that come in, actually kung may binibigay sa kanila, binebenta nila. And people judged them because of what they did. Now later on as the siege went on, there were so many donations coming in. I was a volunteer working in the kitchen and many other places, noong dumating iyong mga shipment. Alam niyo, nakakainis, ang ibang donations kasi may nagbibigay ng winter clothes. It's a siege. It's a war. Hindi naman kami lumipad sa North Pole. May nagbibigay ng mga gown, iyong mga nighties and so on and so forth. I would like to say, that is, although we are talking about what research in ethics is here, that is very unethical of the part of those who are giving and of course iyong media. I think the reporting was very unethical. There was this guy who was reporting and he was daw in ground zero. Totoo po. He was at ground at Garden Orchid. Hindi siya ground zero like Sta. Catalina. That for me, is an example of irresponsible journalism. So here we are talking about ethics, talking about disasters. What steps do we take? You know because I'm not hoping for another disaster but in case it happens, what are the proper steps? Kasi hanggang ngayon, there are things that are not distributed, they cannot be distributed. Iyon lang po.

Dr. June Lopez: Ang sagot doon. Mindfulness versus mindlessness. Di ba? Common sense lang naman and this is not only for Zamboanga and the Badjao. Obviously ang mga Badjao, iyong mga naka-usap namin sa Tacloban, hindi nila kakainin iyong 555 Sardines. At bakit sardinas? And for the Pinatubo, the Aetas did not eat the canned goods. So this is the height of cultural insensitivity. For them, especially the IPs, indigenous peoples don't consider canned goods as food. And yet we saw, as I mentioned in Malay, Aklan, where we processed 400 Aetas, we asked them to bring whatever they want to bring and they brought camotes, etc.

Dr. Marita Reyes: *But the question June is, if it happens again and we receive these donations. Ano ang gagawin natin? Kasi iyong mindless ay sa kabila hindi naman sa atin. Ang mga donors ang mindless.*

Dr. June Lopez: I think those donations pass our government. We didn't take it in the middle of the war. We were getting teddy bears, thrown from the truck.

So ano ang dapat gawin ng ating gobyerno?

Dr. June Lopez: Dapat sinosort out. By the way, my last point, is I met someone only last Sunday. He is into the disaster kitchen camp. You know what they did? This is from Manila, he's a Chef. Nagdala ng frozen ginataan para ipakain sa mga tao.

Dr. Marita Reyes: *Alam mo June, pag-nakita nila na iyong donations sinosort out nasa headline naman tayo. Donations not distributed. Donations pinapalitan ng kung ano-anong pagkain.*

Dr. Carl Antonio Abelardo: Going beyond the research component, I actually also am a trainer in public health emergency management and there is a National Guideline on Donations. There is already a national policy in taking that it should actually, the government can only receive donations for the appropriate, for a particular section and tama po iyon, may central clearing house. The donors will pass through that and then you tell them, ito iyong donations namin. And the guidelines are very explicit. You can't even give things that are labeled in a foreign language. It must be in English. If it's a foreign language, you should send them back to wherever it came from.

Dr. Marita Reyes: *So the solution, you send them back by the central clearing, isosoli natin very nicely, very graciously, that these are not the things needed by our people maybe some other area who needs it. Okay. May guideline na pala.*

Dr. Jaime Montoya: Not to interrupt the discussion, I think one of the things which I would like to suggest is that whereas I was informed that there was already a public health response manual or something, I think it lacks kasi the psychosocial and mental dimension. It's like you know you want to protocolize something that you know for a fact cannot be protocolize. How do you say that? It's not in the Webster's dictionary, probably. But what I'm saying is that, we are trying to make an S.O.P out of the things that cannot be because it loses the sensitivity to culture, to the situation, to the gender, all of these. Ang suggestion ko ay maybe, what we should protocolize or standardize is the basic steps that should be followed to address the psychosocial and metal needs of those people affected. And I mentioned this, because I remember when Secretary Cabral was the head of the Department of Social Welfare and Development, she requested me, specifically the PCHRD to conduct a training for the social workers on research methods but we did not deal with the ethics part because ang thinking namin, nandoon sila, nagrerespond, might as well kasi ang thinking namin noon, we keep on repeating the same mistakes whenever we are confronted with a disaster. Might as well generate the information there and learn from it so that it can improve on how we will respond later on, that was our intention. But little did I know, hindi lang iyon ang purpose noh. Tinuruan namin sila and true enough they were really hungry but I think it gave me the idea that first, we should actually have an audience with the National Disaster Risk Reduction and Management Council because they are too, as I said, very standardize, masyadong directed into infra, sites, they're losing the human dimension when in fact it is the human dimension which is the one that lingers on and on. Infra kasi madali lang tayuan iyan, magtayo ka lang ng building pero iyong mga taong natraumatize. Can we do that probably another symposium or a workshop? I think that is something that is palpable and we can really use. Para hindi na paulit-ulit itong mga experiences na nangyayari, I think we should really do that.

Dr. Marita Reyes: Okay. That's one recommendation. Peachy?

I'm Peachy Romualdez, I'm a member of the Ethics Committee that takes six weeks before you can be reviewed. So, I'm a lay member so hindi ako health worker or a medical professional. Maybe we can suggest or if you think it will be alright, maybe you can write a letter to your protocol that says, this is of utmost importance or these are the things and has to be done immediately. Baka naman pagbigyan kayo ng priority because kami in the ethics committee, we would like also to do this right away. Eh iyong six weeks na iyon kasi we also have many protocols that we have to do na nakapila. Thank you.

In fairness to the UP Ethics Review Board, pinakinggan nila iyong recommendation ng Dean na this is to be given a priority.

I'm Teng Tuazon, I'm with the UP Manila College of Nursing. I'm actually the Chair, Chairing the Secretariat for the Asia Pacific Emergency and Disaster Nursing Network. I didn't want to talk because of my voice but I can't help it parang I'm reacting to putting everything in context. In fact, I pick up the word integrated. Pero let's put things in context, like the number one that we're seeing – the organization, the management. So we're talking

about integrating psychosocial care when in fact they're so magulo, diba? So kailangan ng lahat ng iyon, pero kailangan natin i-address iyong system and the training in the guidelines. We talked about the guidelines and the standards. Do we all know that at the very least so that we do not cause harm. Parang ethics to di ba? May karapatan ka ba? Are you trained to get in there? If you find yourself there, that's different. But do you go in there and compete with resources and utilities with whatever? Ang experience namin, in fact, we are planning, we are now at the midst of the preparations of the Meeting of the Asia and the Pacific and we're actually being tested by the World Health Organization to try and push, mag-advocate tayo, maybe dito na rin, let's be more knowledgeable and trained in the basic guidelines whatever those guidelines are so you come ready. Ang comment ng World Health Organization people who came in with good, good, good intentions but people did not know how to work within that. And then iyong system natin, may trained pero iyong mga politicians did not use that system and then iyong sinabi nating mga donations, it should go to a clearing house? They come in straight and people come in straight. They don't report to the incident commander so it's a public health kailangan iyong system guidelines and all that.

Dr. Marita Reyes: Talagang may problema ang Pilipinas sa sistema.

Meron tayong problema. I was just reacting na listening to all parang we've gone way beyond sometimes of what we are referring to in terms of mental health not being integrated – medical scientists, public health, social scientists. I'm just cautioning the group if this is an ethical ano. We've gone beyond a little bit can be improve. What I mean is, we've been doing collaborative research and we've been working interdisciplinary. The research I learned is very different from what we do now and when it was asked if who the social scientists were. I didn't know if I was going to raise my hand. Then kami'y nagbubulungan, di ba tayo rin? Di bale, baka nagkamali tayo sa definition. Baka mapagalitan ako ni Fatima. But we've gone a long way. We also have to identify those progresses and then we solve some of the others. Iyon lang po.

Dr. Marita Reyes: Mabuti naman at meron naman pa lang nangyayari sa atin. Tama ba? In fact social science has really since PISA I think since mula noong Health Social Science ay malaki na iyong in-growth na nagawa ng social science health research. I think we should be happy over that, eh, nangyayari naman despite the chaos.

May dagdag lang ako, doon lang sa ethics review committee. Kasi nandito iyong mga big bosses ng National Ethics Committee (NEC) at saka PHREB, importante kasi iyong representation ng interest ng study community doon sa ethics review committee. Kasi kung walang ethics review infrastructure sa Zamboanga, baka dito nila ipareview sa Manila. Sino ang nagrerepresent ng interest ng mga Badjao, halimbawa. I think nasa ating 2011 National Ethical Guidelines iyan Ma'am, eh pero siguro pag nagbigay na ng trainings ang ethics review committees, siguro i-emphasize din natin iyong ganoon.

Dr. Marita Reyes: So baka hindi na nasusunod, noh?

Good afternoon, I'm Veronica Reoma from Southern Leyte Faith University Region VIII. I am talking in behalf of the State Universities and Colleges (SUCs). I think there are more than 200 SUCs in the entire Philippines. I'm not including the Higher Educational Institutions (HEIs) especially the private institutions. SUCs in the Philippines wherein in 2020, I'm not so sure with the date, the Maintenance and Other Operating Expenses (MOOE) will be cut off totally, more on IGP na ang mga SUCs ngayon. The research priorities are more on ICTs, peace and development, product development and more on production to processing to marketing. Now, my question and challenge to the PNHRS specifically to the speakers and moderator this afternoon is, how could we, as PNHRS and health research advocates and social research advocates encourage and conduct and integrate human and gender and development to these priorities in the SUCs research and development projects?

Dr. Marita Reyes: Palagay ko si Jimmy ang dapat na sumagot niyan, eh.

Dr. Jaime Montoya: Parang hindi ako makakatanggi kay Ma'am. Anyway, Diyos ko napakabigat ng tanong na iyan, anyway, we are trying our best. Siguro, one of the things that we are trying to do, I have already talked informally with the social scientist group na magkakaroon ng agenda setting with the social scientist group but with that I have to admit, ano bang social scientist group ang pinag-usapan kasi diba ang mga social scientist, hindi na magkaintindihan. Side comment ko lang iyon. Anyway, gusto lang namin para malaman niyo ano iyong prioritization sa social sciences and for you to look at the National Unified Health Research Agenda (NUHRA) and see how the social dimension can be incorporated. Siguro, that's the only thing I can think of as of now as something that we can really do within our control. Ito lang ang masasagot ko sa tanong mo because this is

within our control but with regards to the budget, sorry to say, wala kaming ano diyan. Baka sa Commission on Higher Education (CHED), we can make representations sa CHED kasi part sila ng core agencies sa PNHRS.

Actually, most of the SUCs now are lobbying, collaborating, linkaging with funding institutions like the Department of Science and Technology (DOST). Ang ano ko lang, doon sa research study na napresent kaninang umaga, how many percent is the research conducted by all the research institutions ang about social and health research? Iyon lang. How could we advocate more on the user of the research rather than the product output of the research?

Dr. Marita Reyes: Parang tanong iyon kay Aying. Parang sa ano iyon, sa instrument na ginawa ni Aying. I think this is the direction of concern noted by the capacity building group. And that they will try their best to address these concerns, right Aying?

Dr. Jesus Sarol, Jr.: Yes ma'am.

Reaction sa sinabi ni Jimmy sa tanong na who are social scientists dito. In this situation, we cannot help but be social scientists as well. As clinicians, as doctors, we are social scientists.

Dr. Jesus Sarol, Jr.: *I don't know actually if this question, kasi pinag-uusapan, situation but I'm just really trying to imagine of the feasibility of doing a prospective or concurrent research in a situation in a disaster. Kasi para bang feasibility wise, you have to conduct an ethics approval for the research you did with people. Unless there are no contact, observer ka pero if you are going to deal with patients and if you're thinking of doing a research at that point in time, ginagawa mo iyon, pero hindi ka nagpaalam sa isang ethical review committee.*

Dr. Carl Antonio Belardo: Actually, Sir, the suggestion, if you are going to look at the literature is to form because we are already anticipating that there are a lot of disasters that will happen, researchers can already have their proposals pre-approved. So that it's already on stand-by, para pagdating ng disaster, roll-out na lang po.

Because, I think most of the issues that are being discussed with regards to doing a research has something to do with a process like Standard Operating Procedures (SOPs) like the provision of psychosocial care, talagang SOP na iyan pagka meron kang disaster tapos ikaw ang social worker, it's really part of your work to provide that and get information on that but at the time when you're doing it, you're not really acting like a researcher but more of a worker providing a service. Iyong actual na paggawa ng research is mostly going to be done retrospectively when everything is now calm and you collect all the information you collected that's the time you think are going to do research. But at the height of a disaster, mahirap yatang ipasok or to give even a higher priority of doing a research work when there are people who are really needing something else.

We are going to consider that also.

Magandang hapon po sa ating lahat. I'm Virginia Arseno from National Economic Development Authority (NEDA) Cordillera Administrative Region. Ang tanong ko po kasi Ma'am, sa amin po kasi Ma'am nag-eevaluate po kami ng project proposals to match with our donor countries. Usually pag umabot iyong project sa Regional Development Council (RDC) o iyong highest policy making body in the region, ang itnanatanog lang sa isang project kung dumaan siya sa Environmental Compliant Clearance (ECC) or Free Prior Informed Consent (FPIC). Ang isang project usually may kasamang component about research. Tama lang ba na isingit din iyong ethics doon sa project as an evaluation to approve that project. Kasi ang sinasabi po sa members, e dumaan na iyon na sa Free Prior Informed Consent. Iyong sa National Commission on Indigenous Peoples (NCIP) ho, iyong free prior informed consent. Kasi dumadaan siya, hindi ba paulit-ulit, kasi tatlong beses dadaan iyong project sa ECC or environment compliant clearance and FPIC tapos for project component ng research dadaan siya sa ethics review committee?

Dr. Marita Reyes: Dapat din po. You are evaluating proposals, in that proposal, there's a research component. So it's not a research actually, it's a whole program and one part is research. And that research is described as?

Like for example, about determining the accessibilities of health facilities in the community. So that's one part of the project.

Dr. Fatima Castillo: Kasi sabi sa guideline basta gumawa tayo ng research involving human participants kailangan talaga ng ethics review and approval. Meron kasi tayong IPRA or Indigenous Peoples Rights Act na nirerequire na kailangan dumaan sa National Commission for Indigenous Peoples (NCIP). Ang NCIP ang siyang magbibigay ng certification na iyong study group ninyo ay binigyan ng community ng pahintulot. So iyong, dadaan ka sa NCIP. Maliban sa NCIP, may mga ibang project areas na may environmental issue so kailangan mo rin kukunin yon. Pero, pero, kailangan pa ring dadaan sa ethics committee.

So, klaro na po sa amin iyon. Kasi ang Cordillera po, based on the 2012 POPCEN, 99.4% are IP. They really require the FPIC, akala nila pag dumaan na siya sa FPIC hindi po lumalabas iyong issue na dumaan na siya sa ethics review.

Dr. Marita Reyes: Maybe what we should clarify ay iyong FPIC ay informed consent lang iyon. Eh, ang ethics review, hindi lang naman informed consent, marami siyang tinitignan na elements.

Dr. June Lopez: Kaya may confusion dahil iyong ang nirerequire, ang FPIC so akala nila dahil pumasa na sila sa FPIC. May FPIC na ay nasusunod na.

Dr. Marita Reyes: Pero hindi rin, hindi lang naman informed consent ang pinag-uusapan eh.

Thank you ma'am.

Dr. June Lopez: Gusto ko lang mag-react kanina doon sa niraise ni Dr. Sarol tungkol sa proseso ng pagrereview ng mga research proposals na kung papaano natin ito ma adjust at hindi pwede i-apply natin iyong traditional or what is conventional. Pero may dilemma kami for example, iyong sinasabing pre-approved. Kung Participatory Action Research, that is the anathema of PAR because the very essence where PAR is coming from is that it is on participated in from the beginning even from the generation of the agenda, the design and utilization of data kasama ang community. So dilemma iyon na ang solution ay isang pre-approved proposal.

Dr. Marita Reyes: May sagot kanina si Dr. Karl doon, iyon iyong step-wise approval, every step of the way nag-aapprove kayo so as you develop the protocol through a participatory approach, eh, pina-pa-approve na ninyo sa ethics so hindi the whole protocol.

Dr. Leonardo de Castro: Nakikinig ako ng husto kanina noong binabanggit ni Carl iyong mga options. At saka iyong pinapalinawag ni June tungkol sa Participatory Action Research. Sa nakikita ko, walang conflict. As a matter of fact, ang dapat natin makita siguro pag-aralan natin sa pagrereveiw ng guidelines ng national guidelines iyong mga situation na kinakailangan ng ganoong options sapagkat mayroon talagang mga emergencies na puwede sigurong mayroong pre-approved templates pero kahit may pre-approved template na, kailangan mo pa rin for a particular situation mayroong specific details. Iyong Participatory Action Research actually refers to a lot of things. Una iyong involvement even before research pero kahit na sa ordinary ethics review, kailangan irequire natin iyon bago ka pumasok sa isang community. Kung wala kang kaalam-alam sa isang community, bakit ka papasok? Ano iyong irereserach mo? Ano iyong karapatan mong mag-research? So kailangan iyon from the beginning. So kailangan ng representation. Sa madaling salita, kailangan tingnan natin ang mga features na iyon at nang sa gayon pwedeng kung sakaling, isang option, merong tentative approval ng Ethics Review Board or Ethics Review Committee na maibibigay say in one week, tentative approval on condition na meron structure within the community involving researchers and members of the community na sila iyong nagpro-provide, nag-oversee. So hindi mo binigyan ng plan check si ethics review sapagkat mayroong oversight, conformity participatory action research.

Dr. Marita Reyes: Gigi, paki take note, sa 2015 Edition ng National Guidelines, eh mayroon na tayong ganyang isusulat.

Good afternoon. I'm Marietta Sumagaysay from UP Tacloban College. The experiences, the results shared by our speakers are really what is happening. I'm from Tacloban. I live and work in Tacloban. There are two things I have observed so much of these principles in ethics in research have been violated. One, may informed consent ba? Number two, usually, locals are employed or are hired to do the field interviews. Do they really know how to conduct the FGD, the KIR, the surveys? Being able to conduct an FGD is different from being able to conduct an FGD among survivors just like conducting an FGD with children is really a different skill. So ito ang worry ko pa, iyong mga photo documentation din, do they know na hindi dapat nakaharap iyong tao? But I have seen a lot of

presentations with all the faces of the survivors, do we have the consent? Anyway, this is my worry, classes have started. And any Yolanda-related topic is a very convenient topic to do for thesis for whatever scientific writing and so on for students. And based on our theme in this conference, "People at the Center of our Research", we do not want to re-traumatize our people, is there a way by which PNHRS can help mitigate these types of researchers among neophytes who are not trained to do research not mindful of ethics? How can we mitigate the re-traumatization of our people? And number two very related to that the Yolanda survivors are already survey-fatigued. They are survey-tired and every time somebody comes, they always conduct Post Disaster Needs Assessment (PDNA), PDNA, all over and over and over again. Is there a way by which PNHRS help in the coordination and information sharing of health research results so that we don't re-traumatize the survivors? Now today, the survivors are very discriminatory in answering questions and participating in researches – researches for academic purposes is a no-no anymore. They will just answer to the government agencies and the direct providers of livelihood, shelter and food. They have learned their lessons already. In fact, summer convergence has already got together because they have observed these things together. They just need a coordinative body. They just have to have a hand in how things are going in the locality. Thank you.

Dr. June Lopez: May I answer that in very complete terms because we are going to do a research project in San Jose, Tacloban, in two barangays which are worst badly hit by Typhoon Yolanda and I appreciate points you have taken. This project is in cooperation with UP Tacloban and therefore, this partnership is very crucial to our understanding of the situation of the survivors and also we have been there prior, in fact, this project has not started. We are going to do training of enumerators or interviewers because it is truly an important aspect of the research project that the people who are interviewing would know how to interview and also know how to handle situations that are not expected. That goes without saying that the project team, we, psychiatrist and psychologists in the team are trauma specialists and therefore we are in the position to catch or even prepare the re-traumatization. But what is the benefit of the community and that is the crucial question. Why will they be subjected to recalling or remembering what they went through? What is in it for them? Our project is not even to recall what they went through, our question is how did you cope, what did this experience mean to you, all in the spirit or objective of the capacity building, we are training no less than 30 members of the two barangays to become not only interviewers but also facilitators and eventually we are going to create mental health and psycho-social teams in these communities through a capacity building intervention. So this is why, we cannot just go into the community wishing to simply collect data and this is why I say, this maybe a controversial statement that Participatory Action Research I think is the only time that research design that is ethically sound. Meaning you are not just collecting data, you are building capacity and you are creating something for the community and you are working with the community.

I'm sorry, I'm not questioning the paper and in fact I appreciate. My worry was anybody, classes have started, any teacher, so many colleges, in Tacloban can always have a Yolanda topic for the students. So I'm worried about how PNHRS help mitigate the violation of ethics.

Dr. Marita Reyes: Dr. Sumagaysay, you're presence in your institution, you should be the lead person to teach your co-faculty and your students how you are going to do it.

I'm Marlene Eduspan, I'm with PhilHealth Risk Management based in Central Office. I just like to point out a few statements, very significant statements said by Dr. June Lopez. I'd like to commend Dr. June Lopez, this is for me one of the very productive sessions. I have attended a lot of seminars but this is the first time I've seen a forum where ethical issues are raised and I like to commend the PNHRS for hosting such conference. I'm not familiar with your charter but I'd like to come up with a few recommendations later. Like I've said, I'm with the Risk Management of the PhilHealth Central Office. There was a mention of psychosocial interventions not being a priority kasi ang priority ang number of RHUs constructed, etc., probably it's high time that the organization come up with innovative research dissemination activities or workshops or whatever during which forum for example, you can take up very significant findings in your studies on health, for example you said, meron tayong mga pinag-usapan tungkol sa disaster like sa Manila, every 200 years nagkakaroon ng earthquake, the West Valley Faults, etc., there have been a lot of studies and a lot of these studies have been fragmented in different fora, therefore sana, ma-invite lahat and we come up with one or two national conferences para ma-disseminate ito para lahat ng concerns sa risk management, disaster management and emergency responses could get valuable information and use it para makatulong tayo sa mga taong nangangailangan. I have been to devastated areas to Bohol noong nagka-earthquake doon, to Tacloban, I was there two weeks, nagpunta din ako sa Northern Ilo-ilo, and one thing among other is common, noong naging victims, ang mga stories ng mga survivors natin would tell us, for example, that after noong these events have occurred – they feel one – that is

hopelessness, hopelessness is a common factor naexperience nila and that is also body soul and spirit. If iyong nasusuffer sa kanya is physical madali lang iyon. Pero kung social, which only God can truly cure, hindi natin pwede sabihin sige okay ka na diyan. So if we could have a forum like PNHRS which can present these valuable health-related studies and findings na makakatulong sa lahat ng organizations into disaster management or crisis management, sana malaking bagay iyan. Kasi sa risk management, dalawang bagay iyan eh, iyong silo-approach, kanya-kanyang bagay iyan, we don't have, we have not truly adapted integrated approach to risk management. Magkaproblema tayo kasi we don't have an organized structure or system, probably, this is an innovation. This can be innovation of your organization, if I may recommend you na pwede namang magparticipate ang maraming organization para makatulong sa mga naging biktima ng mga disasters. Again, let me commend the organization, Dr. June, in particular, for the beautiful, inspiring and very noteworthy topic.

Synthesis and Recommendations
PHREB Chair's Report

Dr. Leonardo D. de Castro
Chair, PHREB

Ito iyong pinaka-hindi magandang trabaho sa lahat, iyong magsasalita ka at iyong mga tao'y sawa nang makinig. Dapat nga i-highlight ko ang mga napag-usapan. Una, hindi ko makalimutan iyong statistics na nagsasabi sa atin talagang sentro tayo ng mga disaster. Ang number one of reported events, pagkatapos 2.1/100,000 mortality pero nagustuhan ko rin iyong formula, sabi ni Carl, risk = hazard x vulnerability/capacity or capability. Siguro, isipin niyo, iha-highlight ko iyong vulnerability pero iyong nasa ilalim ang gusto kong i-highlight sapagkat lagi nalang hina-highlight iyong vulnerability samantalang ang dapat natin bigyang pansin iyong capability ng mga survivors. Kaya nga, importante rin ang binanggit ni Dr. Lopez na capacity development ang focus ng areas. Isang paulit-ulit din nabanggit ang pangangailangan para sa competence of researchers sapagkat sabi ni Teng, the second tsunami because if you put the survivors in the hands of researchers who are not capable, second tsunami ang magaganap. But kasama diyan sa competence ng researchers iyong pagkakaroon ng establish referral network. Di ba importante? Sapagkat the researcher is expected to provide everything that the local community need so itong network for reference. Paulit-ulit din na naha-highlight iyong consultation with the community, kaya siguro kailangan din natin sa community ang concept for research iyong Participatory Action Research at iyon ay kahit naisip sa National Ethics Committee o sa Philippine Health Research Ethics Board, iyong participation ng mga research subjects. Example doon, sa patuloy na gumamit ng term na research subject kontra sa rekomendayson na gamitin ang term na research participant, bakit? Sapagkat sa tingin ko hindi naman natin napro-promote iyong status ng research subjects just by using the term participant instead of subject. On the contrary, if we use subjects as the term, we keep reminding ourselves what they should not be and we should be working para talagang sila ay maging full-pledged participants. Research as an empowering exercise, isa iyan sa mga slogans at concepts na paulit-ulit na nabanggit. Kaya nga sinabi ni Teng, it is unethical not to do research in disaster areas, talaga naming kailangan tayo ay magsagawa ng research. Dalawang bagay na lamang tungkol doon sa community involvement. Kaya ko sinasabing iyong Participatory Action Research kailangan bigyan din natin, in connection with ethics review, sapagkat kung ang magsasagawa ng research ay si Dr. Lopez o si Dr. Carl o si Teng, eh, panatag iyong loob natin na hindi sila magsasamantala sa research subjects or participants. Kung iyong mga *parachute researchers* ang darating at sasabihin nilang we are engaged in PAR, eh, nakakatakot naman yata ilagay lamang sa kamay nila ang ating tiwala kaya kinakailangan nandoon pa rin ang oversight na maaring maibigay ng Ethics Review Committee. Kaya naman, nirecommend natin kanina na pag-aralan ng NEC at PHREB kung papaano makapaglagay ng structure sa ethics review system natin that takes those concept into account. Isa pang tungkol doon sa presentations, last na bagay, isa sa mga case studies napunta sa aking attention minsan ay iyong nagsagawa ng research sa mga sex workers sa isang disaster situation. Nagtagal kasi iyong isang disaster at iyong mga dating sex workers doon sa community ay bumabalik na. Actually, isinagawa na iyong research. Napansin lang ng nagreview ng publication. Sabi niya, *"Hindi yata tama iyong pagsagawa."* "*Bakit?" "Sapagkat, merong panlilinlang na ginawa, deception, sapagkat iyong ginawa, iyong mga researchers nagpanggap na sila ay mga kliente. Nagpanggap silang kliente, pagkatapos ini-interview nila ang mga sex workers para malaman kung sila ba ay vigilant sa paninigurado na iyong kanilang mga client ay gumagamit ng condom kasi tumataas ang incidence ng STD at HIV."* Sabi noong nag-review ng publication, *"Eh bakit iyon nililinlang? Bakit merong hindi pagsasabi ng katototohanan doon sa kababaihan?"* Ang suggestion noong isa noong tinake up iyong kaso, kailangan meron kang representative ng mga sex workers bago mag-umpisa iyong research. Sino iyong representative nila? Ang sabi, *"Ang mga bugaw".* Sapagkat iyong mga bugaw, sila ang nagtatake ng interest noong mga researchers sa kanilang ginagawa. Tama ba iyon? Hindi! Sapagkat,

ang mga bugaw ang interest nila ay ang commercial lamang sa cliente at para sa kanilang sarili. Kaya ako nagbigay ng halimbawang iyon sapagkat marami din ang nagpapanggap to gain interest of the community in their hearts. Di ba? Delikado na iyong nilalapastangan mo pa ay pinagkakatiwalaan.

Biomechanical Properties of an Improvised Monoplanar External Fixator for Transverse Metacarpal Shaft Fractures AO/OTA 77-A2.3

Dr. Juan Agustin D. Coruna IV
Corazon Locsin Montelibano Memorial Regional Hospital

BACKGROUND: In this prospective, randomized controlled trial, our objective was to compare an innovative external fixator assembled from pins and tuberculin syringe worth less than 300 pesos with a commercial one used in tertiary centers costing 15 times more in three-point bending and tension.

METHODS: This is a basic science research, a controlled experiment on fresh porcine bones. Twenty-four medial metacarpals from pig fore hooves were dissected to bone, received transverse osteotomies, and were randomly assigned to treatment groups (A) commercial fixator, (B) tuberculin syringe, (C) double stacked tuberculin syringe. Three point bending and tensile stresses were performed with a universal testing machine. Single factor ANOVA was used to find differences among the test specimens and to determine which was the strongest construct among the three in bending and tension.

RESULTS: Group C has the highest mean of 1.3 kN maximum load to failure in three-point bending. The maximum force of 0.90kN withstood by Group A was the minimum of Group C. Single factor ANOVA at 95% level of confidence revealed statistical significance at a p-value of 7.6x 10-6. In tension, Group C was the strongest and failed at a maximum force of 0.54 kN. These findings were found to be statistically significant at a p-value of 0.00082.

CONCLUSIONS: Group C was the strongest among the three designs, withstanding a load of 2.6 sacks of rice before failing in three-point bending, and half that load in tension. The innovative external fixator using a tuberculin syringe is cheaper, superior biomechanically to a commercial external fixator.

LEVEL OF CONFIDENCE: Therapeutic Level I

The Effect of Time and Cord Clamping on the Outcomes Among Term (ETiC-COAT) Neonates Delivered at a Government Tertiary Hospital: A Randomized Controlled Trial

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Ateneo de Zamboanga University

BACKGROUND: The choice between the delayed and immediate cord clamping is still debatable. Recent studies on cord clamping provided no strong evidence for the superiority of either which led little agreement among professionals about the optimal time of clamping. Despite of this, the WHO recommends the cord not to be clamped earlier than is necessary and would normally take around three minutes. The WHO itself graded this as weak recommendation with low quality evidence.

OBJECTIVES: This study aims to determine and compare the effect of Early Cord Clamping (ECC) and Delayed Cord Clamping (DCC) on the outcomes among term neonates delivered at a government tertiary hospital.

DESIGN: A prospective Single Blinded, Randomized Controlled Trial

SETTING: The study was conducted in a tertiary hospital. The respondents were recruited first on admission at the Emergency Room. The actual documentation of type cord clamping was conducted in the delivery room for NSVD, PBE and OFD, Birthing Clinic for NSVD and Operating Room for CS. The central hematocrit reading was conducted at the Laboratory Department of the same institution.

RESPONDENTS: A total of 199 neonates were included in the study. Majority of them were delivered via NSVD with cephalic presentation. Others were via CS, PBE and OFD.

METHODOLOGY: The cord was clamped upon delivery according to the assigned time. Initial data were entered into the observation sheets were kept, and the entry was revealed to the researcher at the end of the data collection. Each neonate was assessed by the sole pediatrician-observer (SPO) using the neonate outcome sheet.

RESULTS: Low hematocrit levels were noted among ECC (p=0.011). High hematocrit levels were noted among cord clamped in 2 to 3 minutes (p=0.013). One minute cord clap showed lowest hematocrit level at 0.46 and a maximum of 0.63. Neonatal outcomes like plethora, jaundice were found in DCC group (p=0.000). Tachypnea at birth was noted among DCC (p=0.013). More neonates were admitted in DCC group for IV hydration (p=0.005).

CONCLUSIONS: Anemia was significant in ECC group. Polycythemia, plethora, jaundice and admissions were significant in DCC 2 (2 minutes) and DCC 3 (3 minutes). The optimum time for cord clamping was one minute from the delivery of both shoulders.

RECOMMENDATION: It is recommended to use DCC at one minute for optimum cord clamping from the delivery of shoulders.

Gastric Helicobacter Infection Detection in Selected Philippine Pet and Food Animals: Implications for Veterinary and Public Health

Dr. Gerry A. Camer
University of Eastern Philippines

The postulated zoonotic potential of Helicobacter infection has become a focus to humans as well as veterinary medicine. Helicobacters are spiral shaped microbes with a number of recently identified species known to cause gastric ulceration, gastritis and gastric carcinoma in animals and humans. To demonstrate the occurrence of Helicobacter organisms in non-human host in the country, 10 dogs, 20 cats, 10 carabaos, 7 cattle and 20 pigs from Northern Samar, Philippines were tested for the presence of Helicobacter species by invasive methods using urease test and brush cytology. Variable positive urease activities and brush cytology were discerned Helicobacter-like spiral organisms were noted. All the gastric sites and the fundic, cardiac and the pyloric regions yielded variably positive results. Two samples from the cattle and 3 samples from pigs yielded positive result (15% and 28%, respectively) while 8 dogs and 3 cats yielded positive results (80% and 30%, respectively). None of the carabaos sampled yielded positively. No appreciable gross change was seen. Some positive samples were further tested and confirmed for Helicobacter species identification using polymerase chain reaction method. Amplified DNA extracts yielded positively to Helicobacter species identification that corresponds to a 1,099 bp product. Current findings indicate the endemic presence of Helicobacter organisms that are of veterinary medical and public health importance. This index study is the first to confirm the presence of Helicobacter species in selected pet and food animals in the country.

Climate Hazard Effects on Socio-Environmental Health and Adaptation Strategies in Two Coastal Communities in Palawan Island

Dr. Patrick A. Rogeniel
Palawan State University

The purpose of this study is to identify and assess the effect of climate hazards such as flooding, storm surges and incidence of disease in two coastal communities facing Honda Bay in the island of Palawan and to generate options for adaptation. This research conducted from July 2011 to January 2012, draws upon mostly primary sources including ocular observation, informal interview, key informant interview, focus group discussion and household survey. Results indicate more pronounced climate effects to agriculture, housing and human health in the two coastal communities generated adaptation strategies to counteract the effects of hazards due to climate change. Implementation plans favor cost effective and doable strategies.

Prebiotic Potential of Ubi Flour (Dioscorea Alata L.)

Dr. Lotis Escobin-Mopera
University of the Philippines-Los Baños

Prebiotics are non-digestible carbohydrates commonly found in some foods that selectively allow the growth of beneficial bacterial in the gut that confers health benefits to the host. The prebiotic potential of flour from two commercial varieties of Ubi in Laguna was evaluated. Culture media was supplemented with these varieties of ubi flour as sole carbon source. The growth of selected Lactobacillus spp. And E. Coli were evaluated as representative of the gut microbiota. This study showed that the flour selectively inhibited the growth of E. Coli

and favored the growth of Lactobacillus spp. which is known as beneficial bacteria in the gastrointestinal tract. Increase in cell density in control and treated culture media and pH were used as indicators of the fermentation of the ubi flour. Both varieties exhibited a positive prebiotic score in the in vitro analysis. Chemical analysis of the flour indicated in the presence of high amount of both dietary fiber and resistant starch. These two components were implicated in the ability of the ubi flour to favor the growth of the beneficial bacteria in vitro analysis contributing to its prebiotic potential.

Metals in the Sediments and Waters of Cagayan de Oro River: Baseline Data for Metal Determination

Ms. Bethe M. Jumalon
Liceo de Cagayan University

This study generated baseline data on the metal content of the Cagayan de Oro River. The river stretch covered was from Balulang to Estuary. The whole area was divided into three sampling stations. Sampling was conducted once a month for a period of three months. The metals considered in this study were lead, copper, manganese, zinc, iron, chromium and nickel. These metals were analyzed through flame atomic absorption spectroscopy. The two-way ANOVA was used to test any significant differences in levels of concentration of metals among sampling stations and periods. The findings of the study revealed that in the water samples, significant difference in the levels of concentrations of lead, cobalt, iron, manganese, and chromium existed considering the sampling period while no significant difference in the levels of concentrations of all metals existed considering the sampling stations. In the sediment samples, a significant difference was observed in the levels of concentrations of lead, copper, and cobalt considering the sampling periods while no significant difference was observed in the levels of concentration of nickel and iron. Given the water and sediment quality standards, the concentration level of nickel in the water samples exceeded the limit while the concentration level of copper in the sediment sample was at critical level.

In the Eye of the Storm: Being a Victim and a Responder

Dr. Aileen Espina
Eastern Visayas Regional Medical Center

Discussion

I would like foremost to thank my mentor, my Nanay, Dr. Thelma La Rosa-Fernandez for inviting me to share my experiences this afternoon and to the organizers of the PNHRS Week Celebration for making my presentation possible. So let me share with you our experience with Super Typhoon Yolanda or internationally known as Typhoon Haiyan. It is the biggest disaster typhoon-wise in the history of mankind. With about 16 million affected; 6,201 official deaths (this will be refuted later on probably by the next speaker, ito lang po iyong official count, because as we all know, dead bodies with no names are not dead people); with more than 2,000 reported missing; 25,000 people recorded injured; 4.1 million displaced; 1.1 million houses damaged and roughly 40 billion worth of damaged infrastructures and properties. We are no strangers to typhoons and calamities. All known disasters are known to my region (Region VIII). On August 2012, we had a 7.2 earthquake which thankfully is not like the one in Bohol. Then in 2013, we had the typhoon. I grew up with typhoons. It's just like an ordinary thing for us. I remember when I was in Cebu with my residency training, there was one night and there were strong winds and rain. And my co-residents who were from Cebu City were telling me that it was a typhoon. And I said, *"No."* For us it was just ordinary rain. For us, a typhoon is one where roof in the houses are blown away and all the trees are knocked down and we will have no electricity for a month. So iyong nangyari sa Manila during Glenda where they were panicking because there was no electricity for two days, three days, normal lang ho sa amin iyon. No big deal.

This is EVRMC. As you can very well see, Eastern Visayas Regional Medical Center (EVRMC) is located by the bay. Likod ho namin, dagat. Sana kung maging boulevard siya, maganda siyang bay walk tulad sa Manila. EVRMC is a DOH-Regional Hospital. It is a teaching training hospital with 7 accredited training programs and 11 clinical departments. It has a bed capacity of 350 beds. It covers the population of the entire Region VIII, covering 6 provinces, 12 congressional districts, with a population of 4 million. What I will share with you this afternoon is not just my story but this is a story also of the Eastern Visayas Resilient Medical Center. Why do I say resilient? Because we are proud to say that we were the last hospital standing in the City of Tacloban, in the whole of the region, in the aftermath of Typhoon Yolanda.

This is the geohazard map of the EVRMC. The hazard scoring was part of the disaster preparedness planning. All hospitals of the Department of Health has a Health Emergency Management Staff or the HEMS. One of the training that we have for HEMS is the hazard analysis. So for a typhoon, it's only Category 5. Ang pinakamalaking problema namin is fire. Our buildings are code and we have a lot of fire hazards in the form of papers and a lot of documents. Actually, mas takot kami sa apoy than sa bagyo. That's a reality. Then when we learned of Typhoon Yolanda as early as November 2, there were already warnings that it is going to be a Category 5 storm with maximum winds of 315kph with expected storm surge. The attitude in the hospital was, *"Okay, fine. There will be a storm."* There was no big deal. We did not really understand what a storm surge was all about. They were all saying, I think it was discussed early this morning, in another session about NOAH. Sa totoo lang, if you are going to ask people here from Region VIII, if then, last year in November, if we had a clear understanding of what a storm surge was, most likely a strong *"No."* But now, if you ask us what a storm surge is, we will describe it to you in full detail, may action pa, may sound effects pa because we have not just understood but experienced what a storm surge is and what it can do. And part of the routine, contrary to what they said, we prepared. We raised a Code White Alert. Pag sinabi ho naming Code White, all of our staffs, in preparation, from 48 to 72 hours of operations are already in the area – sa ward, sa OR, ER, etc. So naghanda po iyong hospital. And in November 7, nagdeclare na po na there will be suspension of work. So that we could all go home so we can prepare our own homes and our own families. So what was left, who were left in the hospital were the 24 hours duty, skeletal force na lang. Tapos, may mga text brigade pa kami, may nagFacebook pa, just so we can tell everybody to prepare. And then, Typhoon Yolanda came.

I remember, in the evening of November 7, I was busy watching the coverage on Janet Napoles. It was a very quiet day. In the afternoon, it was already Storm Signal No. 3 but the sun was shining brightly, mainit. It was so hot. We were actually questioning, *"Talaga bang tama iyong PAG-ASA?*" Or again just like when we were young, whenever PAG-ASA says it's gonna rain in our place, it will not rain. So we were really wondering if indeed the storm surge, the storm and the super typhoon was coming.

Early morning of November 8, the winds started to howl. So we said, *"Oh, Yolanda is here!"* Then in the morning, around 5:30, umuulan na. It was really raining heavily. And I got a call from the residents in the hospital and they were asking me for food. And I said, *"You just go to the dietary, ask for food. Do not go out, you might get trapped."* And I said, *"Be careful,"* then the line got cut. Then from that moment on, we did not have any communication with the outside world anymore. At that moment, Typhoon Yolanda made landfall in a town nearby in Tolosa but it actually sustained greater damage in the neighboring towns of Tanauan, Palo and in Tacloban City. For your information, Tacloban City has been reported to be one of the fastest growing city in the country before Typhoon Yolanda that's a newly created highly urbanized city and you could really see the infrastructure rising, business was coming in and the city was booming. But all of that, ended when Yolanda came. Life, as we knew it, ceased to be. Everything was gone in a minute. So it made landfall in six different areas in the country and they were saying that it brought with them winds 378kph and storm surges to as high as 4 to 6 meters. I don't know if I would believe the stories that the hardest hit barangays are San Jose where they say that it reached up to the second story of the houses in San Jose and there were stories of soldiers in the airport. There is a base there, wherein they were *naanod*, they grabbed on the gasoline for the aircraft tapos naanod sila papunta sa ospital namin. They arrived at the hospital with chemical burns of the gasoline. Siguro totoo kasi they were fished out lang at the back from the dagat. And they were saying, they were the ones who were better off because there were more severely burned soldiers who didn't make it because it was not just actually a storm surge. They were saying that the sea will rise, bringing with it water. If you ask them to describe it, it was a combination of *Ipo-ipo* or a *buhawi* with a tidal wave. Sino iyong may washing machine sa bahay? Raise your hand. Napanood niyo ba iyong ikot noong washing machine? It was how they describe the water inside the houses. The waters that were going inside the house umiikot and it will be sucked up tapos binabalik and the sound they say was like an atomic bomb and it happened they say three times. Ito po iyong bahay ko and we were inside that house few minutes. That is our room, we were there with my children and we barely had enough time to get out before the roof was blown away. The trusses they also went down the stairs along with the ceiling. This is the first time that I had encountered a storm so strong that it was able to rip off doors of my cabinet and my clothes that were stuck inside hinugot at binaliktad pababa sa hagdan. My daughter was saying, *"Why is Yolanda doing that? Is she looking for clothes to wear?*" Because the clothes were raining down our staircase. So we stayed inside a room in the first floor for four hours just my children and me. And my son, up to now, whenever it will rain, he will say, *"It's raining again."* Children nowadays in Tacloban, whenever it rains, they will say, *"It's raining again,"* and they will start to count and account for people, is everybody home, is everybody safe because they are probably afraid that something might happened if not everybody is in the house.

Unknown to me, ito pala iyong nangyayari sa ospital. This video was taken by one of our residents. So iyong likod ho ng building na iyon is dagat. So our three-story Out Patient Department (OPD) building acted as a dam kaya iyong storm surge, we didn't get the full impact of the wave. So the buildings at the back and the squatter colonies leading at the back served as a barrier so the hospital got this kind of damage. Our ambulance got damaged. That is our Tropical Infectious and Disease Unit, it had patients inside. But nobody died, thankfully. This is one of our wards and this is the back of the hospital. This is our lifelines. The entire first floor was totally covered with water in different levels from chest high to waist high to knee high. There was current inside the hospital. The building with a red and blue flag is our OB ward and they have to carry babies to the second floor and my nurses were saying, *"Mabuti na lang doc, we didn't ran out of name tags otherwise, magkapalit-palit iyong babies because we placed them in a basket."* Five babies in a basket because they can't carry the babies one by one, they might slip. They got the bassinets and placed the babies inside then carried the bassinets. They were saying, *"magMaria Clara kami if magkapalit-palit iyong mga bata."*

This is the damage sustained to our structures. As you can see, our generator set was totally damaged. We have two generator sets and the damage of the structure was only 15%. It was flooded so our generator was totally drowned so we didn't have power in the hospital, we didn't have power until Day 12 when generator set arrived from Manila, a 500 kVA generator. We only have minimal power starting on Day 2 when a 10 kVA generator came.

According to the WHO Manual, a safe hospital is one that is responsive and functional and it continues to provide its services as a critical community facility when it is most needed during and after a disaster. One thing that I could say about this is that usually, we are trained to be responders or to be receiver facilities but we lack training in being both the site of a disaster and a responder at the same time. We are trained to respond or we are trained to be receivers of disasters but I think this is the first time that the hospital is the site of a disaster, the hospital is damaged and has to shift to a responder mode within a few minutes after the disaster. We have to forget, we have to shift from being victims to being responders. In fact, at the height of the storm, nagpapaanak pa po ang

EVRMC. This is documented in a Rappler, there was a baby born at the EVRMC Chapel at the height of the storm. This mother was supposed to delivery by Caesarian section but since naabutan na siya ng bagyo, "*Ingun pa diri sa Cebu, mapugngan pa man ang baha, pero ang pagpanganak, dili jud."* We call the baby, Baby Boy Yolando. He was doing okay the last time I heard.

But anyway, the patients came and they came in droves. There were patients everywhere. So after the storm surge, we had a surge of patients. We had a problem with supplies because our supply section was located at the back of the hospital, by the sea. So iyong mga stocks within the ward were the ones that were saved. Sa pharmacy, Central Supply Room (CSR), those in the supply section were all washed out. So iyong narining ninyong looting kasama po kami doon. There was a depot of Euro Med that was ransacked and it had a lot of IV fluids so when we learned about it, that it was already opened, naki looting din kami. We went to the site with our ambulance that was still running and we got the IV fluids. There were people who looted Mercury Drug, who looted Gaisano, who looted Robinson's who came to the hospital who gave us the medicines and the food because we had 331 patients at that time and about a hundred staff and no one will feed them. That was the problem. Babies were being born left and right. That is our chapel. *Mura sila ug giharay didto, murag mga offering ba.* Now, we even have to put up a sign in our driveway that said, "PLEASE DO NOT BRING THE DEAD BODIES ANYMORE TO THE HOSPITAL," because we wouldn't know what to do with them anymore. In the hospital alone, we found 18 dead bodies, washed ashore from the back. We even had a problem with that because we had to prove to the NBI that and SOCO that they were victims of Yolanda. That was a problem. This is our census. *Nianam siya ug kagamay* on the second week because people were going out of Tacloban. There was already shortage of food, medicines, we still did not have power etc. I think the first agency to issue an order was Department of Health. It was issued on November 25 and this was our first ManCom meeting. The all victims man-com meting and about 95% of our staff reported and it was then that we knew that stories of the staff. We were able to account how many died, how many lost a friend, how many lost a relative, how many have lost a loved one. We have one nurse who died along with 7 of her family members, we had one doctor who lost her 11-month old son, we had a clerk who died, a security guard, among others.

But life goes on and why did we stay? This is our HEMS Coordinator. She would do this every day back to basics, either you walk or you ride a bicycle. I am showing this picture because essentially it summarizes the feeling of the people on why they stayed why the victims became a responder. That's me. I was not there the entire time. I, too, had to escape. I had to go out of Tacloban because I had to bring my two children out and I could have stayed on in Manila. This is our subdivision. This is the reason why I have to go out. It was very chaotic. A week after it was still like that. There were still dead people on the streets. There were still debris on the streets, there were no food, there was no water, there was no fuel, there was no gas, and there was no medicine. And so people especially the elderly and the very young would not exactly survive in that kind of situation because I said, I cannot continue working if my children would stay. So I came back. When I came back, my first order of the day was to clean up the place. We cleaned up the place. Thankfully we didn't have to do it alone. There were other responders. Our first responder was from the LGU of Calbayog followed by the Team Albay and foreign medical teams. That's from China. These are from different countries because the hospital became the Operation Center (OPCEN) for the help cluster. We would conduct the meetings there every day and frankly it made it a little bit chaotic because it's difficult to run a hospital side by side with the operations cluster and health management for the entire region, at least, for the Province of Leyte. So everyday ganyan po ang histura ng opisina ko and so when everything is settled down we did a Critical Incident Debriefing to find out why we continued reporting and what were the lessons learned.

These are our lessons. And for those hospitals who may wish to learn from our experience, we would like to recommend for you to invest a very good communication system because communication was one of the biggest problem. How can you call out for help when you have no means of doing so? Invest on satellite phones, two-way radios. I think government should, considering that we an archipelago, invest in a transportation mechanism that is not relying only on three available C130 of the Armed Forces of the Philippines. Kasi nag-aagawan ho, lahat gustong sumakay doon. Tapos wala silang mechanism of prioritization, iyong National Disaster Risk Reduction and Management Council (NDRRMC) to who should ride first, who should be loaded first. They were bringing us medicines natetenga sa airport because there was no way to bring it from the airport to the hospital. So I think we should review our logistics. The hospitals should ensure the sustainability of the lifelines meaning generator for power, water, oxygen, generator because those were the things that are essential in sustaining life during those critical times having a good incident command system and an Operation Center (OPCEN). And I would like to add a page on victim responders. I hope to see a page or a research being conducted on how we can best address responders who are victims themselves. I have not read in any manual about sino ang

magpapakain sa health workers sa hospital during that time. Kasi Ma'am naranasan po namin that we were only eating alphabet soup, iyong kumanta ka lang ng Alphabet, then you drink water. That's it. Really food and water for the health workers was really a problem kasi mas inuna namin iyong patient but at the end of the day, how can a health worker be able to work efficiently if they are not well nourished? In the values alignment that we had, we found out that aside from our core values, integrity, compassion and excellence, we wanted to add resilience, teamwork and sacrifice as the reasons why we were able to sustain. We intend to build back better and EVRMC is going to be transferred to an area near Cabalawan, far from the sea but near a fault-line. So it's another disaster, so, salamat po. Maraming salamat po for all the help that you extended to us and for listening to me this afternoon.

Open Forum

I'm not here to question but rather to salute you Dr. Eileen. I also come from Tacloban and I work in Philippine Science. My daughter is with us. Our driver passed away also together with the wife. All the roof of our buildings have been totally removed. From my end, it was very nice that EVRMC was around standing tall being able to provide the needs of those totally being damaged and all the other victims who came. Resilient after all.

Earlier, I attended the session on the National Assessment of Health Research Capacity. I'm looking at research indicators and there was this observation that seems to be nakikiling sa quantitative research. My point here, I would like to second the motion doon sa nagcomment. I have the same feelings for you Dr. Espina and your team and all the other unsung heroes in this national disaster. But in line with research, this is a classic example of iyong kasabihan na, "Not everything that counts can be counted and not everything that can be counted counts." So parang sinasabi ni Doc kanina na iyong numbers, these are not official. At this point, after listening, after hearing people talk about experiences, mga ito naman, hindi mo ito ma count. These are things that you describe, you understand. And I think it's the beauty of how we really understand and appreciate. What you have done will never be counted in numbers, it will never be captured on how many you have treated, how many dead people you have buried with respect, etc. It's basically in the entire experience that you had described this afternoon. And for that, thank you for sharing your experiences with us.

Just to let you know, the Department of Health through the World Health Organization (WHO) is coming up with a book about stories on resilience. They have been interviewing health care workers. They already came out with a book on health facilities and they have commissioned a study on different points like the incident command system, logistics management, patterns of illnesses seen after the storm and also on foreign medical teams and also on preparedness. For those who are interested, there is I think a budget on research on this and I think WHO is financing grants on this particular area of interest.

Good afternoon, I am Dr. Tess from Bicol University, Albay. Thank you Dr. Eileen for sharing your experience with us. We are also in the same area, typhoon-rich. Anyway, what caught my attention was what you describe as the reaction of children like when it rains they will mention, "Ah, it's raining again." Because that is what we saw and also heard with the children who are also victims of the most recent Glenda where Albay was most hit. And apparently, it can be an area for research where the experience of children becomes traumatic. Probably, it could be one of the things that can be explored. I remember when we were doing exploratory research in the same area, qualitative research of the effects of Millenio, we did our study in 2010. We realized that the trauma that the children have four years before was still present in 2010. It could be a challenge to our researchers to look into this matter because in psychological terms that the treating will be supposed to be one or two years but apparently it's beyond that. The association of rains, howling winds, it really becomes a matter of concern especially those who are victims of typhoons.

Tacloban has been with the experience since 1918, the data from the local government units and iyong link ninyo with the government units on how to respond to disasters.

Sir, iyon pong sinasabi nilang 1918 na documented storm that allegedly was similar to Typhoon Yolanda, remains to be validated. Kasi how accurate po iyong recording that was conducted then and how does it compare to the degree of damage sa nangyari ngayon? Kasi magkaiba ho iyong lifestyle ngayon sa lifestyle noon. Dati wala namang kuryente, dati wala naman hong mechanical ventilator, diba. So iyong ngayon, namamagnify lang. So for a medical facility like us, it was very hurting na nakahilera ho iyong respirator ko. I have four respirators, nakatengga lang siya sa ospital which I could not use because I didn't have power. In 1918, wala pa hong kuryente, wala pa hong hospital. 1916 po itinayo ang EVRMC and it was just a 10-bed hospital. It became a 25-bed hospital in 1935 so I don't think it is fair to compare that event with the event now in terms of the magnitude

and the degree of impact. But it could be a lesson in the sense that if it happened once, it could happen again, it might happen the third time. And this time, we know better. That's why Sir, in the hospital, based on what I have shared. For example for our lifelines, we now have two big generators. We have 500kVA and a 350kVA and we have small generators. You know why? Because we realized that we need to secure the generator for small segments of the hospital wherein power is very essential like to OR, the laboratory, the ER, the DR, the NICU. And kung dumating po iyong point because one of the problems of Tacloban after the storm was the supply of fuel. Nasira po iyong depot ng Petron at Shell. Dumating ho iyong fuel Day 7 so kung patatakbuhin niyo po ang 500kVA generator, it will consume 1,000 liters of fuel every day. Di mo naman kailangan ilawan ang admin offices, the ward sa umaga. Pwede pong isegment mo na iyong 50kVA mo nalang doon sa OR, DR at LR (labor room). Iyon po ang paganahin mo. Iyon po ang principle namin na building back better which we already instituted. Secondly, our dissemination plant na nawash out, napalitan na po iyon. We were given a donation from the United Nations Children's Fund , UNICEF, but this time around, our dissemination plant is in a container van, which we can close off. Kahit bagyuhin iyong labas niya, hindi na siya mawash out. We have a lot of learning points from the storm which we could share. In fact when I saw the sessions from this morning about Lessons from Yolanda, I wanted to sit in and give them my thoughts because if you ask me to share to other hospitals iyong lessons learned, marami na po kaming pwedeng maishare. Like for example, when a team would come in. This is what I appreciated from Team Albay, usually when we send out a response team, we send doctors, nurses only. Dapat ho ang disaster team like Team Albay may karpintero, electrician, cook, logistician. Kasi ho iyong doctor at nurse ninyo, hindi na po iyan magluluto. Dapat may cook silang kasama para si cook iyong mamamalengke, magluluto para pakakainin po iyong Doktor. Kasi nakakainis po iyong disaster response team na pagdating sa area, tatanungin iyong biktima, *"Saan kami kakain?"* Wala na nga kaming pagkain, manghihingi ka pa sa amin ng pagkain. Iyon po iyong mga nakita naming. Halimbawa, may dumating na OR supplies, may suture, may OS, wala namang dalang disposable gown. Wala kaming panlaba, walang tubig, we have no water. So we are thankful from PCS Cebu, Dr. Rosen, he arrived in EVRMC with disposable gowns and linens and we were able to perform surgery. So those are things na natutunan po namin ngayon which I don't think were experienced in 1918.

Ma'am, follow through. Tacloban is located in a unique typographical na parang na enclosed kayo, ang tubig ninyo ay para bang magrapid. May information ba kayo provided by the local government units on this? Parang seemingly, hindi kayo nakalink sa LGU or ano. Some LGUs are very active, preventive. May zero casualty target iyan na before typhoon comes in but I don't know with regards to Tacloban. Topographically, may information ba tayo, may link ba tayo with the government units, with Mar Roxas, kasi siya iyong andoon? These are political as well as organizational factors that should be more or less factored in.

I don't want to go the political colors but let me just summarize it in one sentence. Yolanda was too big. It was a Category 5 storm. Hurricane Katrina was only Category 3. And even the biggest superpower, the United States of America was not prepared for Hurricane Katrina, how much more for Tacloban City? Thank you and good afternoon!

Disaster Victim Identification and Super Typhoon Yolanda's Dead

Dr. Raquel del Rosario Fortun
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Discussion

Good afternoon! First for my disclaimer, I am not the first Filipino Pathologist. It's just that I am the first to come back. Ako iyong baliw na umuwi. That was 18 years ago. Alright, let's talk about the dead. Actually I was listening to the discussion and something was mentioned about the 1918? Allegedly, there was a similar storm. I was actually interested in the death count kasi parang sinasabil nila, its comparable, kasi marami ang namatay. Ang iniisip ko lang, at that time, hindi kaya in denial ang Presidente at kanyang administrasyon sa patay? Kasi iyon ang napansin ko dito. Alright, I am going to share with you my experience there, it was very, very brief. If you have been following the news, you will understand why. I am going to discuss about Disaster Victim Identification (DVIs), what will happen to the dead? Super Typhoon Yolanda really was very challenging at least for the living. Please don't forget, maraming patay. And I really hate this term, we should really dump it, we should not be really aiming for zero-casualty because it is impossible. Drop it! I don't really see that in first-world discussions on disaster preparedness and when we speak of casualty in the first place, kasama na doon ang injured, eh. Injured or dead. Hindi pwede na walang mamamatay. Ako, nasa Bacoor ako noon eh, I knew it was coming.

Nagmomonitor ka ng internet and you have the international scientists and everybody saying that it is going to hit us and it is going to hit us hard. And you know what was going on in my mind? I was already doing a mental estimate of patay. May mamamatay. Now, comparing our response to the dead, actually, mas maganda sana compared sa buhay. And there are some classes, like we knew it was coming, right? And sa dami dami ng disaster na dumarating sa Pilipinas, alam mo, dapat expert na tayo pagdating sa patay. We should have everything in place and therefore it was just a matter of mobilizing. And remember, between the dead and the living, the dead are more patient. They can wait. And alam nila na number two sila sa priority. Really, seriously. Ang priority mo talaga iyong buhay. Pero kung, isang linggo, sampung araw, wala pa ring nangyayari, there is now this clamor, ang dami-daming patay, ang baho baho, and take note, that is very, very distressing for the living. Hindi totoo na nahahawa ka sa patay, hindi sila ganoon ka harmful. It's just that the sight and the smell that is particularly hard on the people left behind. Okay so what do we do? So you have to anticipate dead casualties. And this is standard preparedness – collection, accommodation, examination and disposal of the dead. Look at that in large numbers, you expect that. And that's why we call this, mass disaster, marami or multiple casualty incident. Meron ba tayong sistema? You know for individual deaths, we should have what first world countries have, death investigation system o mas kilala nating *Medico legal*. But what we have now is not a system for a small deaths what more if you have mass disaster. There is no such thing as really working DVI plan for the Philippines, right? So you have dead bodies around and you had an idea earlier. Dr. Espina, she was telling me also, hanggang ngayon, may nakita din sila sa hospital, way way after months, immediately after anong gagawin mo sa patay? I think there was an attempt. Okay, collect, itabi but these are done by those victims themselves in turn naging survivors na. So anong ginawa, tinabi. Tapos na mention ni Doc na dinala sa ospital. That's a no-no. You should never bring dead bodies to the hospital. They have no place there kasi iyong ospital, pang buhay iyon. Incidentally, this is EVRMC. Andoon pa iyong sign na iyon when we went there about ten days after and look there is an attempt also to locate the missing. So ganoon ang problema. Actually mas swerte itong bata na ito eh. Umikot iyan eh, sa Facebook, sa internet. May naghahanap sa kanya. Pero iyong information na binigay, may nunal, ganito iyong edad niya, namatay apparently iyong parents. Therefore uncles, lolo't lola ang naghahanap sa kanya. Imaginin mo, paano mo kaya makokonek iyan na missing doon sa patay? And I tell you kung wala kang sistema, hindi puwede. Hindi kaya. And you got these pictures circulating in the internet, isang option apparently is and this is classic in the Philippines, sinong tatawagin? Punerarya. Who do you call? And any funeral parlor biktima din iyan eh, nasa lugar din iyan cannot accommodate. In fact iyong usual *Medico legal* system nga, mali eh. It's dependent on funeral parlors. Mali iyan, okay, mali iyan. So anong ginawa? Next, sementeryo. This is in Tacloban, iyong Basper Cemetery. This is an area shot also from the net and you will see this is the cemetery, what is left? There's no space. Wala! Ang ginawa nila, naghukay, naghukay doon sa remaining space tapos tinambak doon. Tapos, iyong Manong (nameet namin siya, eh) na taga-hukay, wala man lang direksyon na binigay sa kanya. You know as to how long, how wide, how big. Tingnan niyo naman iyong configuration niya. Tapos tinambak lang. Wala ka nang magawa and the worst is to do a mass burial. Come on, can you not do an organized, systematic burial? Paano mo babalikan, halimbawa iyong batang nawawala, hindi mo man lang alam ang panglinis sa bags na ito. Walang sistema at all, alright? Nag-overflow na iyong sementeryo. Siyempre, wala na talagang space. So etong kalye na ito, nakalatag na diyan. Well the good news is, may body bags. Napansin niyo ba iyon. Beterano na ako ng mass disasters sa Pilipinas eh. The first one was Ozone Disco Fire, 1996. Walang body bags doon. Ngayon, meron na. Pero even that, iyang idea ng body bags, off pa rin tayo eh. Iba't ibang klase ng body bags iyan, may Red Cross, nakalagay pa nga doon, "FOR DEAD BODIES ONLY." Kasi iyong iba, ginagamit na pang sleeping bag, totoo iyon. Tapos, may DOH, and I saw some Armed Forces of the Philippines (AFP). But you wonder, eh sino ba talaga ang naghahandle ng patay? National Bureau of Investigation (NBI)? Philippine National Police (PNP)? Also for non-mass disasters ano? I have never seen a body bag of NBI or PNP, ba't ganoon? When deads have to be investigated? And these are the classic issues of every violent death. And of all these forensic issues, it is identification of a dead body in case of a mass disaster. Doon nagkakagulo-gulo. Manner of death, this is a typhoon related natural disaster, ilalagay mo iyan as accident. So walang problema iyan. Pero iyong eroplanong bumagsak sa Ukraine, that's a homicide. Iba iyon. Now, you think, sino ba dapat ang in-charge? You know sa DOH, buhay patay, it's a health concern. DOH iyan eh. Over the years, pinaglalaban ko iyan eh, dapat kayo iyan. And buti na lang, in November, actually there was an initiative to form a forensic team and that was how I was able to get in. And these are the ruins of their Regional Office in Palo and in one of the rooms there, nakakita ako ng Manila paper. Tuwang-tuwa ako, nirecognize nila. MDM, Management of the Dead and Missing.

Take note that is how it should be. You manage the dead bodies and the missing people. Eh wala namang nangyari because what we have on paper is this 2007 Administrative Order (AO) issued by DOH. Well you can source it easily. I'm sure you've seen this. The background, the rationale, you look at the guiding principles, medyo matino. Kaya lang, kung ako tinanong mo isa-isa diyan, madaming tanong diyan. Like nakalagay, number

6, victims shall never be buried in common graves. Actually, what's the option? So hindi siya realistic, parang ano pa rin ito eh, in progress. I think they're reviewing it, operational framework, how do you operationalize this? Pero pwede na man ano, this was 2007, it's already 2014. What has happened during the past years? Wala! Paulit-ulit lang ginagamit itong Administrative Order. And may part sa Section 7, about identification of the dead, pag isa-isahin mo iyan, there's a lot of dependents on the LGU and there's a lot of dependents on NBI and PNP, hugas kamay ang DOH. Wala. Hindi sila involve. Pinasa lang nila. And the presumption is, kaya ng NBI and PNP. If you look at this, very simplistically, it says if it is a natural disaster, it's NBI; if it's a human-generated or man-made, it's PNP. Tinanong na ba nila ang PNP at NBI, do they have the resources, the personnel, the equipment? Eh kaya naman, typically, in Yolanda, merong mga SOCO doon na pumunta. Some of the bodies, there's some sort of examination that as on-going. NBI by the time we were there had not set-up anything yet. So iyon iyong attitude kasi, it seems to be okay. We have assigned people but then it is not realistically doable. Now please take note, basic components of DVI would be you have to examine the dead that's what we call post-mortem examination and that would be detailed or sa akin, what is doable because this is a mass disaster. You have to know information about the missing and therefore you will have to get this from the survivors na nakakaalam or you might have some relatives na malayo. But remember, ang pinakamaganda dito sana iyong kasama but this raises this problem buong pamilya and Dr. Espina mentioned this, buong pamilya, buong barangay, anybody who knows or who knew this person is probably dead, too. But you know this should be done concurrently, sabay. Maybe i-set-up muna ito but at the same time, other people, other groups should be sitting down with the survivors already, interviewing them. Eh ang gulo, diba nga nagpuntahan na ng Maynila, etc. And naku ito iyong pinakamahirap na part, you have to match information of the dead and information on the missing.

I'll just walk you through how it should be done. Dapat iyan, iyong examination of the bodies, meron kang factory, parang ganoon na systematically dadaan siya sa different sections, so routinely per body, you will have photographs, checking of personal effects, examining the body. You don't do an autopsy in a mass disaster like this, wala kang resources eh. Maybe in the Ukranian crash and you identify that this is body of the pilot, the co-pilot, etcetera, iyon ang i-autopsy mo. But for this case, hindi kaya iyan. Now, take note, where do you keep the bodies? We have container vans, refrigerated truck or a mortuary truck, that's ideal. Refrigeration buys you time and then you will have specialists working on the identification and in the end, you need a piece of paper, the Death Certificate to issue for each dead body with a certain name. So briefly, you will have to know in the first place what I am dealing with, potentially how many bodies, in what condition are they in, where are they and look it requires money. Where are you going to get the money? Sa LGU? Hindi ba, na wipe out na nga iyong LGU. So dapat, *"Do not expect the response from the affected area."* Somebody has to come in. So iyong budget ng taga-labas ang papasok. Who's going to do it? Isa pa iyan. You cannot expect the Municipal Health Office (MHO) of that locality kasi nga unang-una, biktima din siya. The other is, the priority is the living. Do we really depend on Manila? Magpapadala ng NBI, PNP, etc. Not realistic kasi may trabaho din iyan sa Manila, eh. Pangmatagalan ito eh, hindi ito sandali lang. Do we depend on, people were harping on the INTERPOL that were coming, hindi rin, eh. Kasi kung ganyan ang attitude mo, we will never develop anything in terms of mass disaster response. So bodies were there. We started with 6 people, 3 morticians. Na mention kanina, I think it was the Albay group eh, nagpadala ng 3 morticians. Imagine that! Kailangan talaga namin. So 3 kami, 2 forensic pathologist, 1 UP archaeologist, and the 3 morticians. We started, wala kaming gamit, we were examining them out there. Because this was already Day 9 (it was Monday after). Wala pa ring gumagalaw when it comes to the dead. And do you have an idea how difficult it was? Init ng araw, minsan umuulan, wala man lang kaming masilungan. Alam niyo kung sinong secretariat namin? Iyong mga bata-bata dito. This particular guy was very sharp, very intelligent, siya iyong taga-label noon. Ano ang baon namin? Nagdala lang kami ng mga index cards and self-sealing bags. We just have to start something, a system. And that was the point basic examination of the dead and then systematic burial. So handling of bodies at the scene? Well ideally, you would have to document. In the Yolanda case, what we were after was at least man lang iyong mga nagrerecover and by that time it was the BFP (Bureau of Fire Protection, isa pa iyan eh) sino ang kukuha? Sana sasabihin nila anong part ng city (this is only Tacloban ha) anong Street. If it's in a residence also, although sabog-sabog na, giba na lahat, ang maganda sana, alam mo anong address. This is a good example, internet picture. You have a male adult with two kids with him. Dapat iyan, hindi mo sineseparate because chances are they're together. Siyempre, hindi pwedeng isang body bag lang iyan. Hindi iyan kakasya. So iyong mga ganoon, recovery must be also systematic and properties associated with them, hindi dapat tinatanggal. Removing and transport? Again, you must avoid loss, contamination, switching, kailangan labeled. So dapat nga may body bags. Ito ang saan mo ilalagay? This is a must. You must set-up, what we call, a temporary mortuary facility but you have this still there? Wala. Kailangan magset-up ka and this is the basics of what you need.

Eventually, with the help of Mayor Romualdez, I talked with him. Actually first day, nagpunta siya. Sabi ko, *"Hindi Sir, hindi po puwede iyong sementeryo for the collection, examination and burial. Talagang hindi pwede."* So he identified this place in Suhi and DOH team, by that time, we need more help. He mobilized the locals, gave them jobs, they actually were helping us carry the bodies and so on. So medyo nag-improve. May tents, may gamit na, may tao at that time. This went on until Day 5. We were already set-up and we were already doing 100 bodies a day and we were projecting in Tacloban, mga 2,000 bodies, we were projecting we will be finished before Christmas. But then, on the 5th day, NBI took over. When examining remains, synthesis is critical. We just get what we could very limited. Because this is what you are going to see and get. So we would open each bag, lalagyan ng number, we would get, let's say this woman, face down, we would clean (wala kaming tubig ha) as best as we can para ma-improve ang photography. We are very much dependent on photography. So we know she was wearing this dress, up-close wala kaming nakitang footwear by the way. We should be doing a study here. People in their houses, most likely, naka-house clothes, like that. Panty pero wala ka namang makuha diyan. So think about this, iyong mga panty niyo siguro lagyan niyo ng initials so we can identify. Iyong bra, ideally, tatanggalin namin iyan, lalabhan, iche-check, idodocument iyong size, etc. Wala kami niyan, hindi namin magawa. Merong mga helpful eh. Like for instance, this was a male, T-shirt, jogging pants, naka-diaper. May mga details na kung meron kang this kind of documentation sa patay baka sakaling may mapipick-out kung may nagrereport ng missing. We were getting things like, lalaki na merong double amputee, putol. Ilan kaya ang namatay sa Yolanda na lalaki na previously amputated? Merong isa na merong craniotomy so mga ganyang clues ang minamatch mo dapat sa patay. We were searching for identifying marks pero hindi namin mabuo so we just went to buttocks, chest and iyong mga usual sites of tattoos. Look at this. That's his tattoo naswertehan namin, nakikita pa and remember, pagpinatagal mo iyan, pagmasisira iyang soft tissue, mawawala iyong tattoo. Sabi sa amin, baka ano daw to, jailed. Remember, marami ang nakalabas and you have to account for them kasi may mga kaso iyan and for all you know they have died. We were getting things like, ano ito eh, that's in decomposition, a toe-nail that's painted red. Ang daming singsing, maraming singsing, naghahanap sana kami, diba may mga wedding date iyan, pangalan ng asawa, something like that, eh wala naman kaming panghugas. So we just documented as best as we could with pictures like this.

What do you think we did with these items? You don't take them kasi wala rin naman kaming mapaglalagyan so binalik namin iyan sa katawan. Eto, tenga, merong earring. Ang problema mo sa ganito. Sino ang magsasabi na meron sila niyan? How do you make this useful kung wala kang mai-cocompare? This is an anting-anting, a bullet, and apparently it did not work. But these pictures, actually, you can post somewhere at kung meron kang hinahanap na biktima pwede mong matingnan iyan eh, baka sakali ma-identify. Take note, kahit na ma-identify, sabihin niyang, *"Kilala ko ang may ganyan,"* you don't just release the body and then name them. What do they have in their pockets, walang IDs. Pwede bang magsuot kayo ng IDs if impending death na? Walang laman iyong mga purse nila, pera but meron siyang USB dito, meron siyang tatlong sim cards. You know Yolanda should be a strong point for Sim Card registration kasi potential po iyan. We were saying. This is young. This was a young woman with two cellphones tapos meron pa siyang personalize key chain. We were banking on teeth. Walang fingerprints eh, kasi mahirap gawin, i-print sila. So we were thinking teeth muna and then later on DNA but we were not routinely getting bone for DNA sample. Hindi kaya at hindi rin practical. Kasi iyong tissue mo, saan mo itatago? Tapos forensic evidence pa iyan so we did not do that so we just took a lot of pictures. Hindi rin namin malinis kasi wala kaming tubig so we just cleaned as best as we could. Because are you aware that pictures of you smiling, in lieu of dental records, pwede kang maidentify? Itong may pustiso baka may dentista iyan pwede kang maidentify. So for adults, medyo marami kaming masabi but imagine how difficult it was, much more, in children. Kasi wala eh. Eto nakapambahay lang siya. Iyong ngipin niya, it's not that helpful except that we can age him better with teeth. So in Typhoon Yolanda's death, what were we faced with? They were remarkably decomposed and I can imagine, when we left, the soft tissues na nakita niyo must have been gone. So what are you left with? Skeleton, skeletalized remains, tapos ngipin. This would have been helpful. Again, there was no system of search and recovery. This was our beef with NBI, they were insisting that they were in-charge. Kasi natural daw to eh, sila daw in-charge pero when were in Manila pa lang, agreement with DOH was sige, you do your thing, we do ours, anyway, we will be assigned to different places. I just wonder how come when we were in Tacloban, we were already set-up that was the time they came and took over Tacloban. They could have gone somewhere else or we could have gone somewhere else. And please take note, the DVI done for Yolanda victims, it was only in Tacloban. Wala sa iba. So ano iyan for show? We did not do this, we could not have done this, iyong fingerprinting.

Now preserving remains, wala iyan, refrigeration. And I swear I tried, I really tried. Tuesday morning, I went to his meeting and I raised the issue of refrigerated trucks and he practically dismissed me. *"Ayos na iyan, huwag mo nang tanungin iyan,"* or something like that. So I went back to the cemetery and then as I said, later on as I said,

we identified this. There were trenches, BFP (Bureau of Fire) people, they were not wearing protective gear and they were the ones who were carrying. So we would lay the bodies down. Naka map-out iyan 1, 2, 3, 4, 5. Noong una, lima lang sana, eh, kaso, kukulangin kami ng space sa dami ng patay. So naging 1, 2, 3, 4, 5 tapos 6 to 10, tapos 11 to 15. Ganoon sana iyong sistema namin. So at 3 months, ito na sana iyong na interview mo, to get the following for ante-mortem information. And in the end, you should be issuing a Death Certificate.

Now the problem with the Philippines is I'm not sure if a dead body should be issued with a Death Certificate with just a reference number. Because that is a dead body. Minention ito ni Doktora kanina eh, and that was also my problem with the administration. Bakit ganoon? An unidentified dead body is not dead? Ang labo noon. Kasi dapat iyan counted iyan eh so dapat kasama iyan sa ating census. Now the identification process as I keep mentioning, dapat meron kang definitive and look comparing ante-mortem with post-mortem information and of the different methods, I think we could have used, teeth first, and maybe later on DNA. Ang limitation ng DNA especially in the Philippines, it is expensive. But yes, it can be done. And I'm pushing for UP, DNA Analysis Lab. So in a nutshell, DVI in Super Typhoon Yolanda, I said the three components would be: post-mortem, ante-mortem, matching. This is the number I get. I think they stopped counting at some point. I think this is from the internet. Counted iyan ah but of these, how many were actually examined? Eh iyong NBI, nagpunta lang sa Tacloban. What about ante-mortem information. I was told that they're doing it now. Look at the number 1,785 ang nakuha ko sa internet. What does that tell you? This is bad, very bad. That is so far from the recovered bodies and that means wala na yatang natira to report people that's missing. But at least, iyong reported missing mo, could they be included in the recovered bodies? And that is the point. I don't know if there is anybody doing actual matching which is hard when in the first place, we really never did a systematic searching. A lot of bodies are still there. Ang aking guestimate, tens of thousands ito definitely more than 6,000. Ang dami pa diyan, for instance ang nasa barko. And what is the attitude of the Philippine government? The burden of removing these ships, they're on the owners. Sila ang magtatanggal. I don't know what happens if mareerecover ang mga remains diyan. And imagine what condition they are in. So I hope, well it's really morbid but it's a reality to deal with the dead and Super Typhoon Yolanda. I hope we aren't going to make a disaster and another disaster in our response because it is also disastrous again in itself. Thank you very much at that!

Open Forum

What I have observed in the Philippine government is that we seem to neglect the fact that death is something that we have to accept. Parang culture ng Pilipino na, the negativism, that we don't want to consider the inevitable, the death that is coming. And what we have noticed is that, when you presented the Administrative Order and all those things, we seldom have some facilities in the regional and provincial areas na tutok when it comes to Forensic Pathology or in Autopsy man lang, to address that fact. Kahit special cases like criminal investigation and all those sorts, like for us who come from the provinces, we need to bring the body for that person for the NBI regional offices to examine for autopsy. Why do you think we have that philosophy of negativism? But looking into the advance countries, they really have these centers for the dead, where they can deposit the bodies there especially when there are questions about reason or the death of that person.

Dead bodies are not a priority here. You mention the word, advanced. In other countries, yes, we deal with dead bodies better. You see how Amsterdam welcomed the remains? So much pump. It has to do with, yes, attitude but I think even a bigger than that would be money. This is a general trend. You have forensic science flourishing in other countries that are rich. We are not rich. Well at least, maybe we are, except that a lot of people steal from the money that we should be using for these dead bodies. So hindi siya priority but again going back to Yolanda. Nakita niyo naman eh, ano bang response meron para sa buhay? Palpak diba? Eh, lalo na sa patay. There was really no rescue at all. A lot of these victims could have survived except that right after Yolanda, there's nobody there to help them. Maybe some of them were under a debris, still alive. Some of them were injured. I'm hearing stories of tetanus infections. You know these are preventable injuries. So bottom line is, we are not up there when it comes to forensics. It's because we don't see how important the dead are. And please take note, it's not just about disposing of the bodies. You know out of sight, out of mind, out of your nostrils. They have a lot of impact on the living, particularly the survivors. Namention ni Doktora na mga closure, kailangan may body ka, you go through the notions of, *"Talagang patay na siya."* And there's also some practicalities there, too. The Death Certificate. The piece of paper, helps a lot when you're dealing with, *"Ano ba byuda na ba ako?" "Pwede na ba akong kumuha ng SSS, GSIS, insurance, those things?"* And this is what proper management should help you with. You have a dead body. If they can put a name to that then that gives help to, relief to the ones left behind. And also kasi at the same time, ang patay kasi, nirerespeto din. Unlike animals, sige lang patay na iyan, bayaan mo na iyan. Ang tao dapat maayos. Hindi iyong pwedeng iwan-iwanan mo na lang. Ang daming sensibilities here when it comes to the dead in humans.

Any comments, baka gusto niyong malaman kung kailangan na ba nating magpatattoo?

Kung magpapatatto, maganda iyong exposed para maraming nakakakita. Ante-mortem information. Pero pwede rin namang iyong tattoo mo, documented in some way. Like, i-post mo sa Facebook or if it's an intimate part of your body, dapat maraming nakakaalam. Hindi lang si lover. Kasi kung wala si lover, magkasama kayo, sinong mag-iidentify? So think morbid. How can you be identified?

I'm from Southwestern University. This conference is sponsored by the government, isn't it? So, Dr. Fortun is not from the government. So hopefully, there should be people from the government who is taking notes of the suggestions that we are not ready for the identification of our dead when it comes to disaster. So, probably is there somebody from the government taking notes? So I also heard other talks in the other parallel sessions and still there are suggestions from private sector. I hope that this would be taken into consideration from the government because this is supposed to be the purpose of this symposium.

Dr. Daisy Palompon: Thank you. PCHRD is taking notes of what is transpiring this afternoon. Si Melissa iyong itatanong natin kung nairelay niya ito sa DOST Secretary and dapat i-network na ito sa DOH and whatever agencies in the government that needs to know what recommendations have been given by our experts.

(So we would know who to blame next.)

Hello, I am Melissa of PCHRD. I am the Project Officer for Dr. de Ungria's project with PCHRD regarding the Human Remains project and Rapidly Mutating (RM)-Y-Chromosome Short Tandem Repeat (STR). We have po an on-going project with UP-Natural Sciences Research Institute and Dr. Fortun is in fact is one of the consultants hoping to improve the forensic identification. I think Ma'am, one of the directions that the project will take probably is, if I'm not mistaken, the possibility of coming up with more practical procedures, for example a kit, if it's not far-fished because diba they are considering samples, identifying samples which are easier to collect, compared with the bones because it is impractical to use during mass disaster. *My question is, are there instances like this, like in other countries, na on-site, na very easier procedures apart from the bone examination that they are already using?*

The good news is we are trying our best to improve things like, that's it, in a mass disaster scenario, iyong main na automatically test for DNA but you cannot automatically sample. Ang problema pagka iyong patay, iyong nakikita niyo, hindi ka na puwedeng mag-usual swabbing, extraction of blood, hindi naman kami magbubukas ng autopsy na kukuha sa loob like we used to do for some small scale disasters. We use to get DNA samples and just to demonstrate to you, ang hirap niya. Kukuha kami ng distal thigh bone that means ang kapal niyan, hihiwain mo, pagkatapos lalagariin mo iyong thigh. Iyon ang gusto nilang sample kasi. And pag buto, maganda. Ang hindi, ay decompose na iyan, mahirap iyan. So hindi namin magawa iyan. And that was our quarrel also with NBI. Nag-iinsist sila, kukuha daw. But you know, this is only DNA sampling. I don't even know if they are going to do DNA testing. And besides, why test? Why get a post-mortem profile of these bodies when, ano iyong elemento na kulang, you have to compare with someone? So what's the use? And tapos, how do you manage the samples? But right now, instead of removing the thigh bone, what I have not talked with Dr. de Ungria yet but I have allowed the method now of removing the kneecap. Ang dali-dali niyan, kasi maganda iyong yield nila. Kaya nila sa knee cap and that's a lot easier than opening the leg, the thigh, lalagari ka. And remember, hindi ka puwedeng nagco-cross contaminate, isa pa iyon. So iyong lagari mo, ano, bagong lagare, bagong blade for every sample? So we are working on the science part. Kaya natin eh. We have experts here. Iyong ibang countries nga wala. You know what the bigger problem is? It's the politics. Doon ako talong-talo eh. I've been here 18 years and I can feel walang improvements that much. And one big problem especially for me, in Ivory Tower, technically I'm not in government, but I am. I'm with UP. We are in Ivory Tower and we cannot come in unless we are asked and that has been a problem for me, disaster after disaster. I know what to do, I train. In fact, it was the Filipino people taxpayer's money used to send me out and I went back, I cannot do anything. So for Yolanda, the frustration was, finally kinuha ako ng DOH and I went. I was asked to go. I dropped everything. Ang sabi sa akin, *"For love of country."* Go naman ako. Naghatak pa ako Si Dra. Lim hinatak ko, eh pagdating naman doon, nakaset-up na kami, inagaw pa sa amin, iyon ang hindi ko maintindihan. Hindi ko maintindihan iyong part na iyon so I went back, I just went home and started ranting about it. Very, very frustrating.

The View from the Top: Development of a Community Awareness System in Preparation for Disasters

Hon. Alfredo Arquillano, Jr.
Vice Mayor, San Francisco, Camotes, Cebu

Discussion

Good afternoon! First of all, I would like to thank the organizers for the invitation to be part of this conference. Sa nakita natin sa dalawang presenters kanina, tatlong sunod-sunod na disaster that happened in our country. Natatandaan ko lang, iyong pinuntahan ko was Typhoon Sendong in 2012 or 2011, almost 2,000 died and half of it were children. And then in 2012, Typhoon Pablo, in Davao Oriental, almost 2,000 again died. Iyon masasabi natin, matindi iyong magnitude ng devastation. Iyong dalawang sunod-sunod, almost every year, tapos last year in 2013, in Tacloban. So lahat ng tatlong disasters napuntahan ko. So masasabi nating matindi iyong tama. The magnitude of devastation was catastrophic. Typhoon Pablo, Typhoon Yolanda. Pero, huwag nating kalimutan na actually there's no such thing as natural disaster. Disasters are man-made. What is natural is the hazard. Kasi kung tutuusin natin, kung walang tao, walang disaster. So we can predict, we can mitigate and we can prepare for disasters. We have the tools. We have the instruments to be resilient. Kung may evacuation, wala na iyang issue. So kung mayroong relocation, wala ka ng i-evacuate. So kung ang bahay nakatayo sa safe na lugar and was built safely talagang maiwasan natin. But sometimes, there are situations that's beyond our imagination. Ang kaso lang, iyong makita natin, iyong basic attitude ng tao is iyong kumpiyansa. So what happened sa Typhoon Pablo, two months after, lahat ng school buildings, simbahan, municipal halls, lahat, sira iyong bubong. So that was the lesson learned pag ganoon pala katindi, iyong mga light structure material pero iyong design, hindi siya designed to stand ganoon katindi na hangin so those were the lessons learned sa Typhoon Pablo. So dito naman sa Typhoon Yolanda, pumunta ako two months after para tingnan kung gaano katindi iyong tama, maybe we cannot avoid death but we can reduce. Ang nakita ko doon when I talked to the survivors, malalaman mo na hindi nila alam. Sa madaling salita, paano natin madeliver iyong information na dapat malaman nila, tapos masuportahan ng pamahalaan on how they can build resilience because there are instruments na available. Masasabi natin na we can reduce or wala talagang disaster na mangyayari.

So in my case, so aking personal na attitude, hindi ko kayang tumingin ng patay kahit vehicular accident man lang. Hindi ko masikmurang makakita ng patay so I am really focused on how we can predict. So during my incumbency, maski sa Municipal Health Officer ko, ang palagi kong sinasabi is we should focus more on prevention. Like for example, proper nutrition, regular check-up, immunizations, doon nakafocus iyong department natin. Iyong mga may sakit, ipadala na natin iyan sa mga specialists to the hospital. We should focus more on the walang sakit para hindi magkasakit. So iyon ang naging approach ko kasi marelate ko iyan when I was managing my business as far as the maintenance is concerned, daily, weekly, monthly maintenance. So ang nangyari, when I applied that to the local government, sa motor pool namin, lahat ng heavy equipment namin iyon palagi ang sinasabi ko sa department, you should focus more on the preventive maintenance. Iyong sira na heavy equipment or truck, i-job out na natin iyan, we will focus sa mga sasakyan natin. Ang nangyari, half-way pa lang ng taon, ubos na iyong fuel namin. Why? Kasi lahat ng sasakyan tumatakbo eh. So iyan ang naging kaibahan. Makikita natin at sa obserbasyon ko, disaster risk reduction is not a priority. Kaya every year, meron tayong disaster na nangyayari na in spite of the fact na every year may 20 typhoons, kalahati noon, naglalandfall. Hindi natin alam kung sinong matatamaa pero alam nating may tatamaan. Pero the question is, are we prepared for the eventualities? Actually, marami tayong dapat na pwedeng umpisahan na hindi tayo kailangan ng millions of pesos to educate the essential information na dapat sanang mapaabot sa tao because talking of resiliency, being resilient should be per household. Iyong pamilya, alam niya ang dapat niyang malaman at alam niya ano ang dapat niyang gawin. Iyon ang role ng local governments at iyon ang dapat ma-establish natin. So in our case, meron kaming nadevelop na sistema, and we call it, *"Purok System."* That system is an avenue to educate our people, disseminate essential information tapos iyong sistema na iyon, talagang naka focus on addressing the vulnerability of every community in the barangay in creating and mobilizing local resources and creating local, logical, practical solution that addresses the needs of every citizen. So kasi ang naintindihan ng lahat, if may support ang government, ang tao alam niya na it is part of his responsibility to secure iyong family niya. Ang ginagawa namin, if you look at the big picture, ang mga challenges is how to promote local development goals and how to advocate citizen empowerment. Ang ginawa namin, first, nag-resource mapping kami para maintindihan anong meron tayo. Ang pag-identify namin sa priority is, number 1, ang tao. Tapos pangalawa, is life-support system or life source, like how they can protect the environment. Pangatlo, how they can generate income revenue to improve our primary service. Pagkatapos, so na develop na iyong Purok System by organizing the community pero iyong challenge is ang mga attitude ng mga tao. Talagang matindi. So what we did was we started small. After organizing, we established communication. After then is the delivery of the

primary, the basic service. So nagkaroon ng trust, pag nagkaroon na ng trust, we deliver the basic service in that particular community. In my case, me as the Mayor, madali lang tulungan pag isang community lang. In my experience in the private sector, you have to show results. Kasi ang attitude ng tao, *"Pamulitika lang na ni Mayor."* Hindi nila ma-increase ng initiative. We start one community, ibibigay lahat ng support, and pag macreate na iyong relationship after the project then we start the changing paradigm that they will be a responsible citizenry and how we can cultivate initiatives for inclusive local development. The good thing, mayroon tayong indicator to measure the success of the system and that indicator is the solid waste management. Because sa totoo lang, solid waste management is about education. If naintindihan ng tao, how to manage their waste, wala ka ng waste. Ang kokolektahin is only the residuals because sila mismo, they segregate the trash. Pero matindi rin, it took us 5 years to 6 years to see the results. Matindi ang attitude ng tao kung paano mo baguhin. Sa umpisa, mga 50% ang nagcomply, 60%, 70% hanggang naging 95%. May 5% na hard-headed. Ganoon talaga iyong tao. So that's my experience.

Talking of education, with that system that we have, napaabot talaga namin sa tao kung ano ang dapat nilang malaman at dapat nilang maintidihan. So on disaster risk reduction, it is also about education. Maintidihan at malaman ng tao if at risk ba siya or hindi. Kung alam niya na at risk siya, ano ang dapat gawin niya? In our case, we started in one community, now there are about 120 Puroks that are functional so sila mismo ang magplano ano ang dapat gawin nila, sila rin ang magplano and mag-identify kung sino iyong vulnerable and it is the local government's responsibility to inform them of the things they need to know. For example, geo-hazard mapping saan iyong flood-prone area, landslide area, storm surge area, iyon ang role ng government to inform them of the important things pero the people should be able to identify their needs. In our case, to really build resilience, dapat per household. Hindi puwede iyong itaas lang ang gagawa ng paraan. It should be per household tapos ideliver natin iyong dapat malaman nila and provide them instruments kasi available lahat ng kailangan for resiliency. We have a framework and that is all available. Only, hindi lang siya priority ng local chief executives and that is our challenge, how we can really influence local leaders? In changing mind sets, change must take place in leadership positions, in decision makers. Ang problema natin, we easily forget. Tapos na ang Yolanda, wala na. Just this year we have Typhoon Jose and that was more than 300kph only, the typhoon was going to Japan. That is the new normal. Typhoon Yolanda is the benchmark, ganoong bagyo ang dapat nating paghandaan. Although, as what the 2 speakers, sila Doktora have mentioned a while ago, dapat din tayong maglagay ng mga experts pero in my part, I'd rather focus on how we can really prevent disaster. At least pinaka-minimal, how to reduce the risk? But dapat lang in place iyong response team, psychosocial team, in every local government but, if walang disaster, walang trauma. Again, we'd rather focus on how we can prevent. It's a matter of making it a priority and everyone should have a role. I have prepared a short video about the Purok System so you can all appreciate it.

So ngayon, ang ginawa namin sa Cebu is how we can collaborate with local governments and we can share and move forward on how we can build resiliency. Thank you very much!

Open Forum

My name is Cecille Genove. I come from Dumaguete po, Vice-Mayor. Vice Mayor, unlike Dr. Fortun, who is very, well the word disgust is a heavy term, over the nonchalance of government, kayo po Vice Mayor, very inspiring and politics did not rear on its ugly head. Thus Vice Mayor, I'm quite curious, how were you able to sustain this without any hitches? I know there are hitches but you seem very successful in San Fran and in the entire Camotes Island.

Of course, we engage our children, our youth sector because the ownership is important to make it sustainable. Dahil sila ang gumagawa. And as far as the sustainable program is concerned, I made it sure also na ang sumunod na Mayor, ang kapatid ko.

Totoo? The incumbent mayor is your brother? But I do not wish to believe that that is the only reason po Sir. However, it may help. But, it was mentioned earlier that the Filipino culture, indeed it is true, "ningas kugon." Perhaps the residence of Camotes is really a league of their own, walang "ningas kugon."

Isa sa nakita ko para masustain, in the case of San Francisco, iyong pride ng tao, with so many learnings, maraming nagpupunta doon na mga local governments, mga barangays, nagkaroon sila ng place na dahil sa ginawa nila. Dapat pala itong i-continue sa ginawa natin, people became proud. So they learned also na dapat pa lang isustain nila dahil maraming nag-appreciate, maraming bumibisita sa kanila. Nakita ko na to make it sustainable, for example, mayroon silang Purok Hall. Ang sinabi ko lang sa umpisa, apat na pillars, tapos maski

coconut leaves for the roof tapos bench para maupuan para maka meeting tayo monthly. Pero, what did they do? Parang bahay. Ang idea ng tao, we should never underestimate. Pero siguro, if sinabi ko gawa kayo ng ganito, sasabihin iyon, *"Saan kami kukuha ng pera para itayo iyan?"* But simple lang iyong sinabi ko, di ko akalain ganon ang ipapatayo nila, may kitchen, may toilet. Pag i-challenge mo pala ang tao, mas maganda siya. We should never underestimate. Not a single centavo did I gave para maipatayo ang mga Purok Hall nila. I cannot imagine na nagawa nila, na cultivate iyong resourcefulness and initiative. So I also have my own policy, the NO DOLE OUT POLICY. So you have to earn it. We have an incentive. Iyong incentive hindi ko binibigay deretso, may incentive kaming Php20,000.00 pero, you have to comply. Mayroon ba kayong backyard garden, did you segregate your waste? Did you meet every month? Those are basic requirements tapos at the end of the day, sila pa rin ang naka-benefit but it's a very long process. The good thing, kompleto talaga. Slow process but concrete. That's why it took us 5 years to see the results and it was the results that attract. Mahirap ang attitude sa tao to change the mindset so we had this never give up attitude, so tuloy-tuloy pa rin, nakita iyong resulta.

Mayor, can you invite us for a field trip? In terms of good governance, resilience, I think Camotes in Cebu is truly an epitome of true resilience of the Filipino.

Before, we only have pump boats available to cross Camotes. But now, we have Roro that transports cars with the capacity of 18 cars to reach our island. The progress, hindi na masyado mahirap makarating sa Camotes. Mas maganda if you go there during summer.

We will take note of that Mayor.

We also have white sand beaches and very beautiful lakes. It's closer to nature.

Good afternoon everyone! I would like to commend our speaker, Vice Mayor, for the very nice sharing. I just would like to ask if pareho lang ba na ang imong giingon nga Purok Sitio sa Cebu City.

Yes, actually, Purok is based on the geographical location, ang distance ng pamamahay ba, merong mga sitio sa amin na dalawang purok. Iyong masyadong malaki, basically sitio iyan, only mag matter lang sa distance ng pamamahay. Kasi, ang nakita nako is not the size but how strong the organization. So kung maliit ang organization, mas madaling i-manage. So iyon ang ginawa natin.

Purok naman siya, it's under the barangay. Will it not be a duplication? Mahuhulog bang wala ng function ang barangay officials?

No. Ang nangyari. Iyong Barangay Council Member, siya ang Chairman naka-assign sa bawat purok. Siya ang link sa barangay. In fact, na appreciate ito ng barangay. You know why? Kasi wala ng masyadong problemang dumarating sa kanila. Kasi si community leader pa lang, ina-address na niya except lang sa mga bigger issues na mahirap i-address, iyon ang mapupunta sa barangay. Tapos kung hindi naman kaya sa barangay, saka na aabot sa akin. Parang na centralize mo iyong community mas madali siyang i-manage. Kasi ginawa namin, iba-iba iyong schedule ng meetings nila para iyong mga coordinators ko, may maka-attend sa bawat meetings. Kasi sila ang link from the barangay to the mayor.

So, pag ganyan, lesser lang kasi ang burden. Okay ra ba sa inyo Mayor if I will duplicate? I am planning to run as Barangay Captain.

Yes. In fact, mas maganda.

I'm Dr. Palaganas of UP Baguio. Thank you very much, Mayor, Vice Mayor for that very inspiring sharing that you just delivered. I just couldn't help but go back to memory lane. I was telling Ma'am Weng here na bakit bigla kong na miss na magcommunity work? Because when I started as a health professional in the 70s, I was a Nurse Community Organizer in Cagayan Valley. I basically did these kinds of things and Dr. Acuin is there and she would know that this is the Primary Health Care Approach we were doing in the 70s. This was what we were doing we were really empowering the communities at the purok level, village level and we were having a lot of success stories. But what happened was, Primary Health Care Approach was very empowering, well of course, if DOH is here, alam na man na iniba iyong approach ng Primary Health Care, naging service siya at hindi siya naging approach. Ngayon, andito, ang isang success story, sabi nga ng isang proverb, "No matter how long the night, the day is sure to come." Ang tagal, di ba sabi ni Sir, well 5 years is not very long. May success story diba

so it can happen. So what I'm trying to say is, andoon lang iyong patience, operations and I think, over and above and that is what I would like to commend is trust in the people because if you don't trust in the people, nothing will happened. Again, thank you Mayor for sharing us the story of trust in the people and the things that can be done with and for the people.

Thank you. A very good model of governance, Vice-Mayor Arquillano.

Here comes the issue now. The issue concerns sustainability. Meron na bang municipal resolution that institutionalizes this system. Because ang scenario ngayon, assuming wala na ang mga Arquillanos, somebody will take over the leadership of San Francisco, paano iyan masustain? Second, you are assigned in the municipal level. Ano iyong difficulty mo with regards to iyong replication mo with other municipalities in Cebu kasi na tap kayo ni Gov. Davide eh. So ano iyong struggle mo ngayon?

Sa nakita ko lang meron tayong template, we know where to start. Paano tayo magsimula? With the template although it cannot be done overnight, I know ganoon din ang mangyayari kasi nagawa ko na ito. Pareho tayong lahat mga Cebuano. What is needed is the willingness of the Local Chief Executive. Kung wala tayong support sa Mayor, medyo mahirap. So what we did now, kung sino iyong willing, doon kami mag-umpisa. Iyong hindi willing, saka na lang iyon because it is the result that will attract. For example, the biggest challenge in any local government is the solid waste management. Until now, it is still a challenge. I am happy to say that in the 2010 Evaluation of the Department of Environment and Natural Resources (DENR), it is only San Francisco (SanFran) who was able to comply with the law, the ecological solid waste management law, in the entire province of Cebu so we need an indicator to measure the success. Kasi kung ma-address mo iyong waste management that means gumagana iyong leadership, na-educate iyong tao. So lahat naman ito education. For example, Dengue, simple lang iyong Dengue. Kailangan malinis ang paligid, kailangan walang stagnant water, simple. Tapos part of that education campaign, anong mga symptoms kung matatamaan ka ng Dengue? Kailangan malaman iyon ng mga tao. Tapos anong dapat mong gawin kung tinamaan ka ng Dengue? Iyong mga information na iyan, mapaabot mo lang sa tao, at least iba siya. Also we have nutrition. What I'm trying to say is, it's not the money but the drive to solve the problem. Mayroon kaming initiative dahil na promote na iyong backyard gardening. What we did na umpisahan na sa Central School, sa PPC meeting, nagdemo iyong leafy vegetables, nilagyan naming ng banana, para siyang smoothie. Tapos i-blender namin. It's the private sector that provides the blender. Tapos gidemo namin sa parents, nagustuhan ng parents. Ngayon it's a continuing program sa Central School tapos may documentation para makita na effective iyong program that addresses malnourished children. Again, depende siguro the drive to solve the problems you have.

I am from DOST Region 1. Nakikita po natin dito iyong gobyerno na para sa tao, ng tao at galing sa tao. Congratulations Mayor, Vice-Mayor sa inyong pagpupursige na mapaunlad ang buhay sa ating kanayunan. Gusto ko lang ipaalam sa inyo na sa amin po sa Kagawaran ng Agham at Teknolohiya, meron po kaming programang na ang pangalan po ay Community Empowerment through Science and Technology (CEST) kung saan po, kami po ay nakatuon sa pinakamahihirap na komunidad sa buong bansa at nagbibigay ng tulong. Magandang ehemplo iyong nangyari sa Camotes Island dito sa Cebu na tularan o pwedeng i-pattern doon sa Community Empowerment through Science and Technology (CEST) na makakuha kami ng konting kaalaman tungkol po sa Community Organizing kung papaano po i-mobilize iyong ating mga tao sa barangay, sa purok nang sa ganoon hindi po sila aasa ng todo-todo sa gobyerno sa tulong na pwedeng ibigay ng gobyerno. Dahil po sa ginawa ninyo, sila po ay naging self-reliant sa kanilang mga pangangailangan sa kanilang sariling purok. Expect po Mayor, Vice-Mayor, na kami po sa Ilocos o saan mang parte ng Pilipinas, gagawa po siguro ng paglalakbay sa inyong lugar upang makita namin ang inyong ginagawa sa Camotes Island. Maraming Salamat po!

Thank you very much po.

Mayor, I just would like to share because tinagurian po kayo, iyong last typhoon na nangyari, which Camotes Island was also included kasi naging known kayo na zero death during that particular calamity. So in relation to what we are celebrating in this 8th Philippine National Health Research System Week, I'd like to request if you can share with us what happened then and what did you do? Bakit naging zero iyong mortality during the time of the typhoon?

When Yolanda came, iyong na achieve namin na zero death, it was years of work. There's a saying, *"The harder you work, the luckier you get."* So we were lucky. In spite of the over 1,000 houses that were totally destroyed

and more than 4,000 were partially damaged, walang namatay. So we were lucky. But still a lot of work needs to be done. With that magnitude of devastation that happened in Tacloban, Leyte, mayroon pa tayong dapat i-enhance. Sa case namin, on my part, I provided information. The day before Yolanda came, I stayed in PAG-ASA to have the first hand and more reliable information. Because I understand PAG-ASA has this new Doppler, sariling information natin na mas detailed na maprovide sa weather bureau. I stayed so I can get the updated information with regards to the forecast. So, I was able to relay that information to the Disaster Risk Management Office (DRMO). Sabi ko sa kanya, *"Ito na ang pinaghandaan natin! Ang kinakatakutan natin, parating na!"* Lahat na ginawa natin dapat nang ma- exercise iyon. In 1982, we had Typhoon Bising, iyong Municipal Hall namin, wasak. 1990, Typhoon Ruping, there were casualties. So ang ginawa natin para hindi malimot ang mga tao, every March 25 we had a municipal wide typhoon drill because in March 26 tinamaan kami ng Typhoon Bising, then every November 10, another municipal wide drill because Typhoon Ruping hit us on November 11. Awareness talaga, kasi iyong tao, madaling malimot so kailangan i-commemorate namin na past experience namin na typhoon to increase the level of awareness. Mas advantage siya with regards to how we can prevent against disaster. Thank you!

I'd like to pick out from the sharing of Mayor a while ago, iyong concept of ownership. Tanong ko lang ho, nakatraining po kayo ng bridging leadership?

Actually, wala.

Okay, because you are actually a model of a bridging leader. You have practiced ownership, co-ownership and co-creation. So you have your own innovations. Sabi ni Dr. Geni a while ago, andiyan na iyan, iyong Primary Health Care but however, you did something to improve the implementation of that concept. Another trade secret na sinabi niyo sa amin is iyon pa lang historical significance. Kasi talagang tumutusok sa puso ng tao na pagsinabi mong March, ito ang nangyari sa atin, November, ito ang nangyari sa atin, let's do the drill to commemorate those events which I have not heard of from the Municipalities of Cebu. Thank you very much for sharing your trade secret. We really appreciate the honesty and the generosity you shared with us for today as our resource speaker.

Workshop on Organizing Response to Emergency and Health Care Delivery

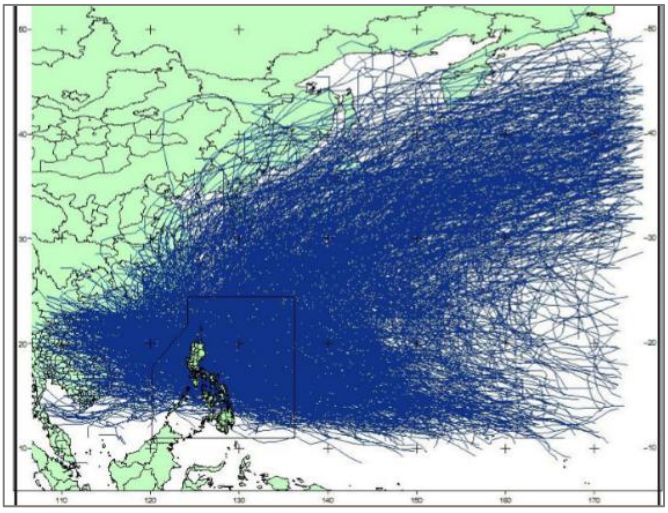
Ms. Riza Joy Hernandez
Office of Civil Defense, Region 7

Discussion

Thank you so much Sir Jake. Good afternoon everyone! For this afternoon, our topic for this afternoon, we will know the risk profile of the Philippines, walang kamatayang "Ring of Fire" plus we have to have this building emergency evacuation plan on earthquake scenario. Allow me to read some definitions before we proceed with our topic. Disaster is defined as a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts which exceeds the ability of the affected community or society to cope using its own resources. Ang haba ng definition but simply, disaster means loss of lives and properties and destruction of our daily activities. So that is disaster. Then hazard, a dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihood and services, social and economic disruption, or environmental damage. What if I say Typhoon Henry? If si Henry hind naglalandfall, how would you call that? Disaster or Hazard? Hazard. So Henry which hit Japan, killed around 10 people already in Japan. Vulnerability is the characteristics and circumstances of community, system or asset that make it susceptible to the damaging effects of a hazard. Who are those vulnerable during disaster? All of us. Vulnerable and marginalized groups are those that face higher exposure to disaster risk and poverty including, but not limited to, women, children, elderly, differently-abled people and ethnic minorities.

So let's go to the Philippine situation. The hydro-meteorological hazards. The Philippines lies east of the Pacific Typhoon Belt. The typhoons originating from the Western North Pacific generally moves easterly or north easterly and most often enters the Philippine Area of Responsibility (PAR). This explains why an average of 20 typhoons enter the Philippine Archipelago every year of which five are said to be destructive. This explains why we have at least 20, 20-22 cyclones in a year. Five of that are destructive. Lately, we attended a forum on Met. We have an expert on other countries and they said that the Philippines will experience fewer typhoons. The question was, papayag ba kayo na ang 22 magiging 10 na lang? Of course, papayag tayo. But the pros and cons. If kokonti na lang siya, mas stronger. So new normal na according to the Philippine Atmospheric, Geophysical and Astronomical Service Administration (PAG-ASA) ang na-experience nating typhoons. So lahat na papasok na typhoons especially iyong papasok sa PAR most probably will have damages. So for the geographic location of our country, the Philippines is vulnerable to almost all types of natural hazards because of its geographic location. Where are we situated? Sa walang kamatayang, Pacific Ring of Fire. Ever since, when we were still small, we already knew the so-called Ring of Fire. What is this? This is the area where two major tectonic plates (Philippine Sea and Eurasian) meet and is highly-prone to earthquakes and volcanic eruptions. The Philippine Archipelago occupies the Western rim of the Pacific Ocean (Western Segment of the Pacific Ring of Fire), a most active part of the earth that is characterized by an ocean-encircling belt of active volcanoes and earthquake generators (fault lines). This explains the existence of earthquakes, tsunamis and around 300 volcanoes (22 are active) in the country. These active volcanoes are equally divided from Luzon to Mindanao.

As located in the Pacific Typhoon Belt, this explains the existence of an average of 20 typhoons visiting the country every year (5 of which are said to be very destructive). These are the tracks of tropical typhoons:



Tracks of Tropical Cyclones in the Western North Pacific Period from 1948 to 2010. ((Source: Japan Meteorological Agency)

That's why we are considered as the exporter of typhoons. Di niyo ba napapansin, pag ang typhoon papasok sa PAR, it will go to Taiwan, Japan and other countries. Climate Change is define as the increasing global temperatures and rising sea levels further leads to worsening occurrences and impacts of disasters. As they say, we are just like a restaurant. Name all the restaurant, we can offer it to them. This picture explains the global warming. Global warming is a problem but the solution of that is for us individuals to participate. Because we did that, therefore, we need to solve that problem. Human induced-disasters. Since time in memorial, the Philippines is affected by wars, civil strife, internal conflict and terrorism. Hazards, whether natural hazards or human-induced incidents, abound in the Philippines. The impacts of natural hazards are further aggravated by climate change. Examples of human-induced hazards: Examples: SARS outbreak in 2006, Stampede (Wowowee incident, 2006), Hostage taking (Quirino Grandstand Hostage Taking Crisis, 2010), Terrorism (Zamboanga Crisis, 2013) and different fire incidents around the country especially in highly urbanized cities where the barangays have houses that are prone to firing incidents. The other day lang, Cebu experienced three fires in a day. So we have a lot of displaced people because they were affected by fire.

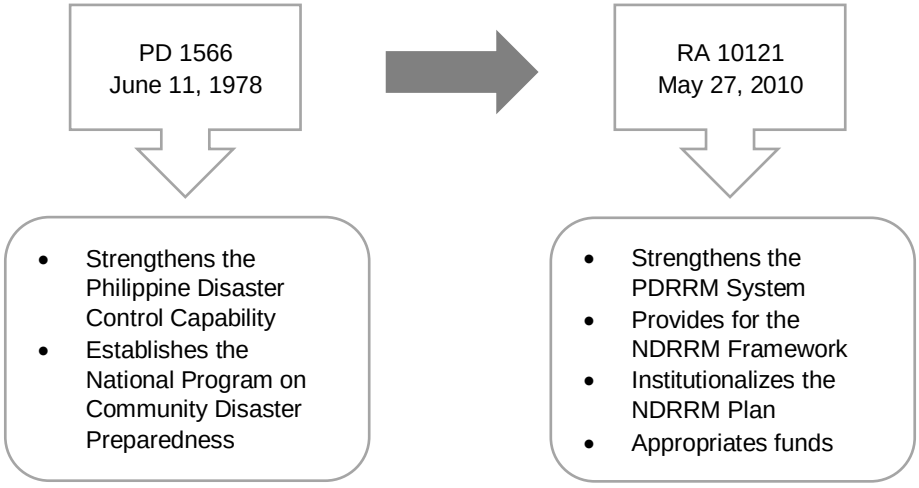
For natural hazards, number one is flood, followed by typhoons and storm surges, earthquakes ngayon is trending, volcanic eruptions, climatic variabilities (La Niña/El Niño). May good news tayo, according to PAG-ASA, if until December, wala pang El Nino, then wala na talaga. Then landslides tsunami and ground subsidence. This is the Philippine Hazard scape: 20 typhoons a year, 5 of which are destructive, prone to earthquakes because it is lying along the Pacific Ring of Fire, around 300 volcanoes of which 22 are active, 36,289 kilometers of coastline that makes it vulnerable to tsunamis. Plus in the past 20 years, at least 31,835 people have been killed and 94,369,462 have been affected by natural disasters. So our capacity, disasters, especially those caused by natural hazards cannot ultimately be controlled and avoided. However, the underlying vulnerabilities can be managed by increasing capacities. That's why we will be capacitating our local government units because they are the frontline during emergency situations and we are the partner of the LGUs. This simply shows how capacitated the local government units are. For this particular slide, I will show you that there are three barangays prone to hazards. The hazard is this big boulder up there but the three barangays have their own initiative to make their barangay safe. Barangay Bocil is the most unsafe one because if this boulder will go to their barangay, most probably their population will be affected. So what did the Disaster Risk did to the barangay? So we created a barrier that would protect them. But they have the initiative, but they have this monitoring to see. This is a part of their security like an early warning system plus the resources. So this barangay is very capacitated when it comes to disaster preparedness and mitigation. So they will transfer to their constituents so they will not be affected. So ang problema lang ng Kapitan, wala na siyang botante. Applying the DRR Formula, we have: R = H x V/C, where R = risk, H = hazard, V = vulnerability and C =capacity.

$$\mathbf{R} = \quad H \times \frac{V}{C}$$

Vulnerability are also the evident problems brought about by the vulnerabilities which increase disaster risks. What are these: poor construction of houses, non-compliance with the building code, inappropriate location of houses along the coastlines, fault lines and land slide-prone area, fast growing population, urbanization/ environmental degradation, pollution, poor enforcement of Disaster Risk Reduction and Management (DRRM) and Climate Change Adaptation (CCA) policies and regulations and unwillingness of some people to cooperate. To reduce disaster risk, we need to invest on increasing capacities of the communities using structural and non-structural approaches. For structural approaches: relocation of informal settlers. The question where will we relocate, can our government afford to relocate? We relocate these people, tendency they will come back kung saan sila makakahanap ng hanap-buhay. For example, in Talisay City. Talisay City is a storm surge area even without typhoon. So the government will relocate the people, sa bundok lang naman but unfortunately, when you relocate, you will give them money and they will come back to the areas where they can earn a living. We also do fortification of buildings or we do retrofitting of houses and other infrastructures, construction and installation of localized early warning systems, increase access to critical facilities such as hospitals and medical centers and establishment of evacuation centers and warehouses for relief goods. We will identify or pre-position our goods because ito iyong problema during the Typhoon Yolanda and during the earthquake in Bohol, problema talaga ang pre-positioning of goods plus the assets, the search and rescue team that we will pre-position that they will be ready all the time. This is one problem that we are going to ask from the government to solve. For non-structural, we have mainstreaming of Disaster Risk Reduction and Management (DRRM) and Climate Change Adaptation (CCA) into all national and local development plans and programs, training of disaster managers and responders, regular conduct of drills and exercises in a quarterly basis, enforcement Disaster Risk Reduction and Management (DRRM) policies and ordinances and promoting Disaster Risk Reduction and Management (DRRM)

awareness and education at the community level. We have ladderized training for Incident Command System (ICS), actually here in Region VII, one more and maka-come up na kami ng team that will respond during emergency. We will have this community-based disaster risk and management system to the barangay as they are the frontline during the disaster.

Disaster risk reduction is about helping people become less vulnerable to disasters. They are the most vulnerable sectors when disaster strikes, the children. Remember in 20014, the earthquake and tsunami in Indonesia? 12 countries affected, 300,000 people died, 3/4 of that are children. That's why we are encouraging schools especially elementary schools to conduct what to do before, during and after a certain calamity. So what are the many challenges being here in the Philippines? First, disasters remain a major challenge to achieve a disaster-resilient & safer community in the Philippines by 2015, natural hazards abound: typhoon, flood, landslide, earthquake, tsunami, volcanic eruption, drought, etc., climate change remains a potential risk to the country, poverty, a vulnerability condition, prevails and fast growing population, increasing population densities, urbanization, environmental degradation and pollution increase disaster risks. So what are our legal basis? So our legal basis, we have PD 1566 which is more focused on disaster management anchored in this Presidential Decree. All about preparedness and management. So we have the RA 10121, which was made on May 27, 2010 that strengthens the Philippine Disaster Risk Reduction and Management. So meron na tayong ginagawang reduction action. This RA 10121 appropriates the 5% calamity fund during disaster.



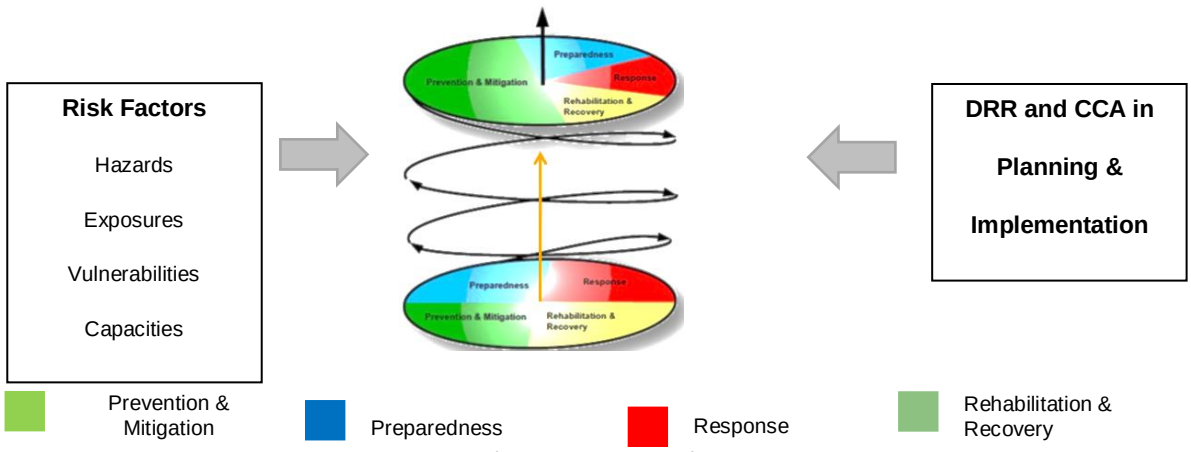
A short background of this, this RA 10121 is 21 years in the making. Si Ondoy lang ang nagpalabas nito bilang isang law in 2009. That's why, in 2010, this was enacted to become a Republic Act. Then, 6 congresses, 4 Presidents for that 21 years. Paradigm shifting from disaster relief and response to disaster risk reduction and management. Dito, bottom up and participatory process. So makikita natin ang kaibahan niya. Lahat tayo magparticipate para ma-realize itong plan na ito. Whereas here, we will just wait for the disaster to finish before we activate our disaster relief. Relief lang ang alam natin noon. From reactive to proactive disaster management. Then expanding membership, so we have an expanded membership before. The old NDCC, 19 with the new one, 44 members. We included the two financial institutions, the Government Service Insurance System (GSIS) and the Social Security System (SSS) kasi kasama na dito ang mga insurances during mitigation, the quasi-government agencies, the Philippine Red Cross and 5 LGU leagues and of course, we involved the Civil Society Organizations and 1 Private Sector Organization which were not included in the NDCC for disaster management.

Expanded Membership	
Old NDCC: ***19 Members***	New NDRRMC : ***44 members***
Chairman: Secretary, DND	Chairperson: Secretary, DND
Members:	Vice-Chairpersons:
Secretary, DILG	Sec, DOST – Prevention & Mitigation
Secretary, DPWH	Sec, DILG –Preparedness
Secretary, DOH	Sec, DSWD – Disaster Response
Secretary, DSWD	DG, NEDA – Rehab & Recovery
Secretary, DA	Exec Dir: OCD Administrator
Secretary, DepEd	

Secretary, DOF Secretary, DOLE Secretary, DTI Secretary, DOTC Secretary, DOST Secretary, DB Secretary, DOJ Secretary, DENR Director, PIA Sec-Gen – PNR Chief of Staff, AFP A,OCD: Exec Offr/Member	Members: 39 • 14 Depts: DOH, DENR, DA, DepEd, DOE, DOF, DTI, DOTC, DBM, DPWH, DFA, DOJ, DOLE & DOT • 12 gov't agencies: OES OPAPP, CHED AFP, PNP, OPS, NAPC, PCW, HUDCC, CCC, PHILHEALTH & OCD • 2 Gov Financial Inst (GSIS & SSS) • 1 Quasi-government agency (PRC) • 5 LGU Leagues • 4 Civil Society Organizations • 1 Private Sector Organization

So we have this framework for disaster which is anchored in the PD 1566, where we were focused on disaster management. Equally divided itong four framework of disaster but it goes up now with RA 10121 where one-half of the pie is focused more on prevention and mitigation. Why? Because the preparedness is divided into three along with response and rehabilitation and recovery. Bakit ganito ang nangyari? If disaster comes, if we prepare, therefore we can go back, we can build back better for our Local Government Units. Also, we integrate the Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) in planning & implementation to come up with a safer, adaptive and resilient Filipino community toward a sustainable development. Ito na ang bagong framework natin for disaster.

Safer, Adaptive and Resilient Filipino Communities Toward Sustainable Development



The DRRM Framework

The National Disaster Risk Reduction and Management (NDRRM) Plan for 2011-2028, we have prevention & mitigation, preparedness, response, rehabilitation and recovery and safer, adaptive & resilient communities to a sustainable development. Then we have this efforts, the prevention and mitigation efforts: development of alarm & early warning systems. Some of this, from PAG-ASA, the multi-million Doppler Radar. Actually 1 Doppler Radar was placed in Guiuan, Samar but unfortunately it was devastated by Yolanda. That cost around Php100-M. So ang nangyari, nawala iyong ulo ng radar, ito na lang natira. This is now assisted by JICA; it costs Php69-M for reconstruction of the Doppler Radar. We also have the nationwide flood forecasting & monitoring. Now, we have advised all Local Government Units to monitor their areas especially flooded areas. We also have the geo-hazard mappings by the Mines and Geohazard Bureau, one of our efforts. We also have comprehensive land use planning, building & safety standards, engineering interventions and flood control structures. We have the DOST Project NOAH, National Operational Assessment of Hazards. The geo-hazard maps includes landslide susceptibility map by the Mines and Geosciences Bureau (MGB) of the Department of Environment and Natural Resources, rainfall return flood simulation by the Philippine Atmospheric, Geophysical and Astronomical Service Administration (PAG-ASA) and the active faults & trenches by the Philippine Institute of Volcanology and Seismology (PHIVOLCS). Another Disaster Risk Reduction and Management (DRRM) efforts for preparedness are: the contingency planning, prepositioning of equipment & supplies, enhancement of operation & coordination centers, organizing, training & equipping responders, organizing & mobilizing community volunteers and conduct of disaster trainings & drills. For Disaster Risk Reduction and Management (DRRM) efforts on response: search, rescue & retrieval operations, humanitarian aid, relief and health services, provision for temporary shelter, water,

sanitation & hygiene, financial assistance to calamity victims and management of evacuation centers. For Disaster Risk Reduction and Management (DRRM) efforts on recovery & rehabilitation: early recovery & rehabilitation, reconstruction of damaged houses & buildings, resettlement, provision for livelihood and restoration & improvement of destroyed facilities. The objective for rehabilitation is to "Build Back Better." Just recently, President Aquino signed the Post Disaster Needs Assessment (PDNA) worth Php11.2-B. The PDNA is spearheaded by the Office of the Civil Defense to conduct PNDA on the ground.

These are the challenges we are faced with. For prevention and mitigation: nationwide identification and assessment of hazards, common understanding of forecasting terminologies and systems, appreciation of risk factors at the local level, strict adherence to building codes and construction of flood control structures. For preparedness: integration of hazards assessment into the Comprehensive Land Use Plan, completion of local Disaster Risk Reduction and Management (DRRM) plans, organization of community volunteers, training and equipage of responders and enhancement of coordination centers. For response: immediate establishment of Incident Command System (ICS), deployment of trained and equipped responders and rationalization of humanitarian assistance and raid needs assessment among National Government Agencies and LGUS & International Donor Agencies. For recovery and rehabilitation: rationalization of access to calamity funds. Another challenge is on policy considerations: rationalization of access to calamity funds, creation of Local Disaster Risk Reduction and Management (DRRM) Offices, plantilla positions for local Disaster Risk Reduction and Management (DRRM) officers and personnel, clarify provisions of Sec. 22 of Republic Act 10121 vis-à-vis General Appropriations Act (GAA) reutilization of National Disaster Risk Reduction and Management (NDRRM) funds, completion of standard local Disaster Risk Reduction and Management (DRRM) plans, "laymanizing" Disaster Risk Reduction and Management (DRRM) technologies and rationalization of geo-hazard map scales.

As I have said, we have the Building Emergency Evacuation Plan (BEEP) during the time of the previous President GMA. We need to conduct earthquake drills. In the past, we have encountered the following earthquakes: (1) August 16, 1976; Intensity 7.9 8,000 dead (Moro Gulf) Mindanao; (2) July 16, 1990; Intensity 8 1,666 dead – 3,500 injured P11B cost of damage in property P1.2B in agriculture; (3) February 6, 2012; Intensity 6.9 58 dead – 1,500 injured and (4) October 15, 2013; Intensity 7.2 208 dead and 5,000 + injured. So earthquake is a reason to prepare, trending na ito. The other day, we have an Intensity 2 earthquake, the epicenter is in Mindanao, Davao area. Why do we experience earthquakes? Because we are located west of the Pacific Ring of Fire. This area is very much famous for its very active volcanoes and very active faults. Earthquakes occur within the Philippine Archipelago every now and then mainly because our country is situated along two major tectonic plates of the world – the PACIFIC PLATES and the EURASIAN PLATES. Our earthquake generators are the faults and trenches. With 300 volcanoes, 22 of that are potentially active. Volcanoes that are not active are further classified as either potentially active or inactive. The problems if we had those volcanic eruptions will include of course, our flights will be hampered because of the ashes. The recent earthquake events. All of these are within the Asian Region (Pacific Ring of Fire): Japan, Fukushima, New Zealand, Christchurch Sumatra - Dec. 26, 2004, Chile, Haiti, Philippines: July 16, 1990 Northern Luzon, Philippines: February 6, 2012 Negros Oriental, and Philippines: October 15, 2013 Bohol. In our country alone, we experience 5 to 20 earthquakes a day. So earthquake recurs and has been experienced by our country since January 1990 up until January 2014. So ganoon kadami ang earthquake pero hindi mafefeel iyong iba. We have earthquake prone areas. So shall we wait for these events to ever happen again? So this is why I choose this scenario on earthquake for you to work on during the Workshop to prepare us for particular disasters. This is where I end my presentation this afternoon. With that, we cannot prevent natural hazards, it's God's way of reminding us but we can prevent their effects from becoming a disaster. Therefore, preparedness is a must. We have to act now, why wait for tomorrow. Thank you and good afternoon!

Open Forum

Good afternoon. I am Stacy from Cebu Institute of Medicine. Hi Ma'am, thank you so much for your talk. I'm just curious. It's a very formative talk and I believe it's very important for everyone to know the creation of the team and all the preparations we can do for the establishment in school. If there is way to access some information found in your presentation and for the people here and for all the rest of the institutions present here.

I will leave my presentation for all of you. For those schools, actually my area is the entire Province of Cebu as the Provincial Coordinator. Here in Cebu, we are encouraging all institutions especially the high rise buildings to have with them an emergency evacuation plan. So Velez is one of that, we have trained the EMT of Velez.

I was thinking for example, if you have a website for everyone to access so that if we would be working on something like that.

Lahat po ng mga presentations of all the sessions can be found in our website, please visit www.pchrd.dost.gov.ph. Lahat po sila ay i-uupload sa aming website, downloadable po siya.

I'm Lloyd from Baguio City. May I know if you have standards with regards to the evacuation area for the population of our school?

Thank you Sir. For the standards, if wide enough naman po iyong evacuation area, we have one square meter, 3 people ang pwedeng mag-evacuate. But for highly urbanized cities, for as long as maka-evacuate ang mga students at safe na siya sa kanila. For as long as makalabas sila sa kanilang building because dito sa atin Sir, we don't have spacious evacuation areas. But the standard Sir is 1 square meter is to 3 persons.

That was a very good discussion for earthquake preparedness, I hope we will also have a similar one for flooding. Can we access?

Ma'am, you can visit po our office. Since you are from Davao, please visit our office in Davao, Civil Defense located po at Camp Lira po in Davao, Region 11. They are also conducting series of training similar to what we are doing here in Region 7. We have the same trainings coming from the national office.

Good afternoon. I am Jofy from Cebu Institute of Technology University. I'm just curious like you mentioned earlier like forming groups per institutions. I'm just wondering how intense is that and also monitoring because we have this mentality sometimes that okay we are good in creating something. But with regard to performing the task, we get very much excited on creating that something and we miss the more important aspect in sustaining it. I'm just curious if the government is doing something for its monitoring like for example, if we have the disaster group in every establishment, are they required to submit regular report for the update on what has been done and the training or sad to say, more often than not, the position has become very ministerial.

Thank you very much Ma'am. CITU is one of my client in Disaster Risk Reduction and Management. I talked with engineer that was four years ago and they strongly want to have a disaster risk reduction and management team especially the emergency response during the evacuation. Why? Because even if the government will not monitor the establishment to do that, it's your responsibility to secure the safety of the students. Therefore, even if the government will not mandate that, as safety, therefore we are obliged to do that. Safety of the students, inside the school, inside the hospital. We are requiring but not imposing if it's not realized, konsensya na po kasi iyan because this is a commitment on how to help other people in times of emergencies. Putting this emergency disaster team will prepare us during emergencies. This will be automatically activated. But nevertheless, we encourage institutions to make their own mandate for these responsibilities but we will not be forcing anyone.

Good afternoon, I'm Dr. Jess Empasis, the former President of the Philippine Nurses Association (PNA). I shared this with the other group. Last year, when there was an earthquake, during the Yolanda experience and the ship collision in Cebu, PNA voluntarily assisted. We provided psychological first aid. We fielded out 63 nurses after the disaster. And so, I have seen that the organization has the manpower resource that can be utilized and are trained to respond to a disaster. So my question is, how can PNA become an active member of your organization as an NGO so that when disaster comes, you can utilize the organization?

Our law is still young, 5 years pa next year, we are the repository of the accredited volunteers and it's our work to check the capability of our community. The Civil Society Organizations (CSOs) and Non-Government Organizations (NGOs), like your people or organization Ma'am, can submit to us the names. In year 2015, we will set-up a review. Our law still have lapses especially on the mechanism on the community disaster volunteers. The Office of the Civil Defense (OCD) is in-charge for the volunteers but we will still revisit the law and we will clarify the mechanism of the volunteers. Like during Yolanda, we have a lot of Civil Society Organizations (CSOs) who volunteered and worked during the disaster operations so the law missed that part. Hopefully we can come up and include that in our Implementing Rules and Regulations (IRR).

Actually, what we did last year, you know we just cannot come inside a community without a network, without a recognized organization. So what we did, we went to the Department of Health and offered our help. It was the Department of Health who facilitated for us to go to Bantayan Island to provide the necessary relief. But you

know, I have that feeling that we have to voluntarily come and offer our help, whereas if PNA is officially an accredited organization, out rightly you can tap us in times of disaster and emergency without waiting for bigger organizations to tap us. I can see that nurses are very powerful force that can provide services during disasters. We are so useful and there are many of us. We are just waiting for you to tap our resources.

Thank you Ma'am. As the Department of Health is one of the member of the National Disaster Risk Reduction and Management Council (NDRRMC) and we recognize all your efforts. Good po ang inyong action Ma'am.

Good afternoon. I am Dr. Anelyn Celocia from Cebu Institute of Medicine. I'd like to thank you for the very comprehensive lecture. But I'd just like to ask because most of the organization for emergency or disaster risk reduction are in schools, in establishments and in institutions. But do we have something for the community or those in the barangays levels that are not in establishments?

Actually, we have Disaster Management Committees in each barangay headed by the Barangay Captain wherein they will form the same group. They call it as Disaster Control Group and they have the teams in their barangay to be activated during emergencies. Years ago, we have trained people in the ground to have a community-based disaster risk reduction and management to involve hazard mapping, risk assessment, vulnerable sectors and come up with a contingency plan.

Is it on-going?

Yes ma'am. It is on-going, yearly. If they are existing, we check for their contingency plan. If the heads have already retired, we revisit their plans and their plans become a working plan during emergencies and disasters.

I'm Maris from the University of Cebu. My question is, are there any bills passed in the Senate about the environmental refugees? The environmental refugees I'm referring are the victims of disasters, earthquake, and tsunamis. So are there any bills?

Actually, even before there were no bills, the challenge of the Local Chief Executive is paano nila mabigyan ng safety ang kanilang constituents. In the presentation, it states that if the Local Government Unit is prepared, the barangay, mga tao, constituents. Siguro no need to have that bill.

Regarding the bill, I would like to know if we have laws for that. Because in Japan, as what I have read, they're using the term environmental refugees for victims. For example, if a disaster happened in Leyte, let's take the example that happened in Leyte where there were evacuees. The prisoners broke out. Because of the disaster, some of the victims even reached to Bohol. Are there any laws being passed? Since there were prisoners and they managed to escape prison. So are there any laws that are passed if they reached Bohol, are the officers or the police, will they intervene with the prisoners or something like that?

So your concern Ma'am are regarding those who have escaped?

The term environmental refugees pertain to the victims of disaster. Are there privileges for them being passed on the Senate? Example, can they transfer in one place for a duration of time and after that if they are okay, can they stay for good? Do we have something like that since our topic is all about disaster?

Just like what happened to Yolanda, the victims went to Cebu, Manila. It is actually the responsibility of the local government units. No need for a bill regarding that one.

According to the news, in relation to the prisoners, what happened was, they were offered number of years if they will go back to jail. Those who did not surrender were captured anyway. You know, they were released because they have to save the lives. The offer is, if you come back, you get five years less or 10 years less. It was the prerogative of the LGU. It's not a law.

RA 10121 is the law and acts as a bible for our disaster risk reduction in the years to come.

Good afternoon! I'm Loriza Francia from the University of the Philippines Manila. I would just like to ask what kind of framework we have now regarding coordination and collaboration in terms of emergency and disaster because in the past during the time of Typhoon Haiyan, many organizations, local, international, LGUs, NGOs wanted to

help but there was some sort of lag in the delivery of services. So what kind of services do we have now to ensure the timely delivery of services during emergency and disaster?

As far as my understanding on this framework is concerned, we are actually linked with international organizations wherein during disasters if it is very difficult, we can make an appeal to the international organizations. We have the AHA, the Hyogo Framework for Action that we anchored. So these linkages, we have partner agencies and we have protocols on how to activate that one during emergency situations and there's actually a process in seeking assistance from other countries during disasters. It's just that I cannot elaborate much on it because I'm not well versed with it as it's our leaders who attend those so ang umaabot lang sa amin ay ang cascading down to the barangay level and on how to capacitate the LGU in times of disaster. But iyong higher na Standard Operating Procedures (SOPs) baka magkamali ako. But we have those SOPs and linkages with other countries.

Good afternoon, I'm Nico from Cebu Normal University. What is your protocol if when the local risk reduction management team cannot be mobilized because they are also a victim of a disaster? Because this is what we observed during Typhoon Haiyan. And can you please show us a picture of what happened during Typhoon Haiyan?

For RA 10121, we have a section of who is in-charge during disaster operations. If one barangay, it's the barangay captain that will oversee. One or two barangays, it's the municipality or the Mayor who will oversee the operations. If one or two provinces, it's the regional office. If two or more regions will be affected, it will be the concern of the national office, the National Disaster Risk Reduction and Management. So hindi natin masasabi na maging helpless because we will cascade sa taas and they will be the one who will help us in the ground. The information will be fast-tracked going to the national and from the national going to the local. Ang nangyari lang sa Haiyan, na overwhelm sila sa disaster because they did not anticipate the disaster that would enter the area because the problem there was storm surge. I grow up in Leyte and even during Signal No. 1 or Signal No. 2, naliligo pa kami niyan sa dagat. That's how we were in Region 8. It's just that they did not anticipate for the storm surge. So we urge to *"laymanizing"* the terms from PAG-ASA to prepare the people better.

Workshop: Organizing Professional and Non-Professional Emergency Response Teams

Rizal is a municipality of approximately 10,000 people in Bonifacio Province which is located at the southern portion of Region 18. It serves as the hub for much of the economic and social infrastructure of the area. The downtown area houses Rizal's government offices and commercial businesses. The national highway passes through Rizal and serves as a key transportation route for moving people and goods through the province. The Ridge Primary School and Valley High School serve students from Rizal and nearby barangays. Rizal General Hospital, located in Rizal, provides medical services to the community. It is 10:00 in the morning on September 15. About an hour ago, the southern area of Region 18 was struck by what felt like a moderate earthquake. Damage is being reported in various locations specifically in the municipality of Rizal but there is no current accurate assessment on the overall damage.

Police officers on the scene reported damage on buildings in the downtown district. It appeared, however, that the most severe damage is in the southern and eastern areas of Rizal. Initial reports received stated that the earthquake triggered a landslide in those areas. Several reports also indicated that there was a damage to Ridge School. Police who have arrived at the scene reported that some students may be trapped in a partially collapsed building at the school. Communication, water and power supplies have been disrupted in the southern and eastern part of the municipality. There were also reports of landslides in multiple locations on the national highway, east and west of Rizal, effectively closing the highway and access in and out of the municipality. Many residents in the southern and eastern parts of Rizal were digging through the debris of collapsed houses looking for family members and neighbors. Some government employees have voiced their availability to respond but many are preoccupied with the whereabouts of family members and others who cannot be located.

The Municipal Disaster Risk Reduction and Management Council (MDRRMC) has been convened on short notice and is discussing response needs and options. Council members realized very quickly that the scale of the damage exceeded their capacity to respond. However, with the closure of the national highway, they will likely be on their own for at least three days. The MDRRMC has activated the local EOC and requested members of the Municipal Incident Management Team (IMT) to report to the Municipal Hall, which was not damaged and will serve as the Incident Command Post, in 2 hours. The MDRRMC has also requested assistance from the

Province. The Provincial DRRMC agreed to mobilize assistance but warned that assistance may not arrive for 3 to 5 days. The MDRRMC has named the event the Rizal Earthquake.

You are the Municipal Incident Management Team and you are requested to respond to the incident to assume the incident management role. The MDRRM Officer tells you that one Police Superintendent is currently the Incident Commander but he is overwhelmed and would like to transfer command of the incident to you. The Municipal Mayor gives you the following priorities for your response actions: (1) save and sustain lives, (2) assess disaster impact (3) ensure that infrastructure and utilities are maintained and restored. The following resources and supplies are already on scene in Rizal, responding to the earthquake:

- 4 Police Units with 2 officers per vehicle (PO-1, PO-2, PO-3, and PO-4)
- 1 Police Superintendent (PS-2)
- 3 Ambulance (AMB-1, AMB-2, and AMB-3)
- 2 Dump truck with operator (DT-76, and DT-24)
- 2 Earth Movers (EM-63, and EM-14)
- 1 Front loader with operator (BH-63)
- 20 Community volunteer laborers
- Construction Supplies
- Food Supplies (Rice and Grain to feed 200 families)

The Municipal Mayor has also placed an order for the following additional resources from adjacent municipality, which should arrive in 24 hours:

- 1 Police unit with 2 officers (PO-5)
- 1 Fire engine with 4 firefighters (E-1)
- 1 Fire Superintendent (FS-1)
- 1 Emergency Medical Task Force (1 doctor, 4 nurses, 5 EMT)
- 1 Ambulance (AMB-5)
- 3 Structural engineers
- 3 Search and Rescue Team (20 persons) (SAR-1, SAR-2, and SAR-3)
- 3 Construction Foreman
- 200 Dignity Kits
- 200 Family Emergency Kits

The Municipal Mayor has also ordered the Provincial IMT that should arrive in three days.

Instructions

Topic Activity 2-1: Incident Command System (ICS) Organization Chart
Time Frame: 30 Minutes
Materials Required:

- Pen or pencil
- Scenario Exercise
- Easel, flip-chart paper, marking pens
- ICS 201 Form Activity Instructions

1. Working as a team draw an ICS Organization chart for the positions needed to be filled in the first 24 hours.
2. Identify the structure of your Operations Section.
3. Start the process of filling out the ICS 201 (The Sketch Map of Rizal, where the earthquake occurred)

Presentation

Group 1: We're from Cebu Normal University. We tried to do the activity with the instructions given. According to the scenario given, there are three priorities: first is to save and sustain lives; second, to assess disaster impact; and third, to ensure infrastructure and utilities that they should maintained and restored. The first instruction was to create the ICS organization chart for the first24 hours. Here is what we prioritized. First, there should be a leader and the scenario already said that we're going to be the Incident Commander. The first instruction we concentrated on the operations team. We found it important that during the first 24 hours, what is important is mainly the first aid team, evacuation team under which is the search-and-rescue team should be established and also the communications team. According to the scenario given, the statement that, *"there was a report that some students may be trapped,"* that's why we had to prioritize the first aid team and that the evacuation team should be created first. And then, also, the communications because the scenario presented the situation where the overwhelming feeling, they didn't know where their family was, what happened to them. So the

communications team that we created here was more for the internal communications since the municipal hall will be the house of communications both internal and external. Internal meaning there would be a list of victims as soon as possible that could be listed down. That's the priority for the first 24 hours. Also, the situation gave us a list of resources and supplies. We have the food supply team. And also to maintain the security among the damaged area, we also mobilized the security team just like in Typhoon Haiyan, the loss of security was also a great threat. What we're trying to avoid here is the physical threats from the residents of that place because this is all survival of the fittest.

What we did for the ICS 201, with the list given to us, all those resources and supplies, we distributed it among the different teams given. Example, under operations, we have the first aid team, emergency task force. We allocated 2 ambulance units, 10 community volunteers. Also for the evacuation, security, search-and-rescue team, we have 2 ambulance units, 1 fire engine and the operator, two earth movers. For the communication, we allocated 10 community volunteers.

Group 2: We came up with this organizational chart. We started out with our Incident Officer, Mayor because we think, he knows about the place more. He knows how many people are there in a certain area so that's why we placed him as the Incident Officer headed with the Police Superintendent, police units and structural engineers. Because in the situation, we found out that the east and west areas of Rizal cannot be accessed due to the landslide. Our first agenda was to clear out the highways so that help can be given to the affected areas and then we broke down, we had these resources, for the search-and-rescue team, structural engineers, police units and medical taskforce. We categorized them according to specialization. Under search-and-rescue team, we had firefighters, fire engines, construction foreman with the construction supplies. We also categorized for the structural engineers, for the dump trucks, the earth movers, the front loaders and the construction foreman with police units. The medical taskforce, the volunteers 200 emergency kits. We just categorized them by the resources and the people who can address the problems using the given situation. We listed our ICS organizational and we used the resources and organized it.

Just a few explanation on what these people will do. First is save lives, may na-trap sa schools. Evacuation is the most important thing to do there to move these people from the school to the north. Then, proceed to west. Because there is no communication, we need to know what's going on there. Police units, ambulance and dump truck we need to clear the pathway so that operations can go on. For east and south, dump truck, front loader operator, ambulance, and 2 police units. Then under that, we have the construction and community volunteers.

Group 3: Within the 24-hours operation, we need to activate the following in the ICS. First is the Incident Commander, which is the City Mayor or Municipal Mayor or the local chief executive. Then we need to have the safety officer to look into the safety of the responders and volunteers in the community. The Liaison Officer who will do the coordination with the external NGOs, GOs, and other stakeholders. The Information Officer should also be activated for the fact that the information officer will be the one to give information to the media. Then, we need to only activate the operations and logistics. Because the Operations will be the one who will do the movement within the ground, logistics also for the logistics within the ground. For the operations, we have first, our medical team. In the scenario, the following resources arrived at the scene: ambulance but there is no medical task force. Beyond 24 hours, it will arrive. For the search and rescue, we can use our community volunteers. Then we have our police officers to help in the search and rescue. We also need the security to look after the safety of the volunteers and responders. Then lastly, the engineering as we noticed, in the scenario the roadway is not accessible. So the engineering will look into the clearing of all the debris for easier access of logistics within the community. Lastly, we have here the map. In the map, you have to label here the location as to North, East, West and South. In the scenario, it was stated that the most damaged is the East and South portion. It was also stated that the Ridge Primary School was damaged and it was located in the Southeast portion. We have the houses damaged. So this is the highway, with landslide. We have electrical posts that were also damaged. Stated in the scenario, the Municipal Hall was not damaged. We placed it in the Southwest portion of the community including the national high school and the hospital. The Municipal Hall will be used as the emergency operations center. We need to have a staging area for all those resources that will come in within the community. So we placed here a staging area near our operation center. Then, we can utilize the high school that was not damaged as our evacuation center.

Group 4: Good afternoon everyone! Regarding the situation, we have the Rizal Earthquake Scenario. We have this organization. For our incident commander, we have the Police Superintendent. Then for, our planning, we have this first, disseminate police units, ambulances and other supplies. So for operators, we have divided into

four divisions. Our four divisions, we have used the following resources. We have named Division 1 as south part of the Rizal community, Division 2 is east part, Division 3 is west part and Division 4 is the south part which includes the highway. Let's start with Division 4. Since we only have one front loader with operator, we placed this one in the national highway due to the landslide in order to clear the highway. It is assisted with Police Officer 5 for 24 hours. For Division 1, since we have 4 police units with officers, we divided the three police units- PO2 in Division 1, PO3 in Division 2 and PO 4 in Division 3. PO 1 will serve as the information officer to assist the incident commander. Since we have 3 ambulances, we assigned them to the south, west and east part since the three areas were the most affected ones. Then we have this dump truck with operator, we placed them in Division 1 and Division 2 since both divisions, south and east parts have family members looking for families so they are in need of supplies. We utilized the 20 community volunteers and divided them for Division 1 and Division 2 since they are most affected. The food and supplies only have the capacity to feed 200 families. We have divided them to Division 1 and Division 2. We also have construction supplies and divided it among the four divisions to facilitate the areas. Since after 24 hours, another help has arrived through the help of the Municipal Mayor. With this new resources and supplies, we utilized them. The 200 dignity kits and 200 family kits, we gave to Division 1 and Division 2. If we remembered, since Ridge School was damaged in Division 4, we have Valley High School, we used them as the evacuation centers. The Municipal Hall was also used as an evacuation center for all access of communication since it was not damaged. We placed PO 5 at Municipal Hall. For the logistics, we assigned one fire engine and the Superintendent. They will also be utilized and the water and power supplies which affects the other part of Rizal. Since the other hospitals were destroyed, we used the Municipal Hall as the temporary hospital. The emergency task force was placed in the municipal hall and we also assigned the ambulance. Then for the structural engineers we assigned them to Ridge School and to the other divisions that were destroyed and the three construction foreman was in Ridge School and at the highway. For the search-and-rescue team, we divided them into southern and eastern parts since there are family members looking for their families and we have also given one unit to the Ridge School as they have found that a group were trapped in school.

Group 5: Good afternoon! From the data given, what we synthesize is that the southern and the eastern part of Rizal are the most affected areas. And we prioritize the action based on the objective. The first was to save and sustain lives, and we prioritize into four categories. Number 1 is search-and-rescue and our main goal is to search-and-rescue the people in the collapsed building and to make use of community volunteers and police force available along with the security that the people are calm and the security in place for the local people. We will use PO1 and PO2 followed by the ambulances as the medical assistance unit to provide medical care for people who are rescued from the building. We also have the food supplies for emergency supplies who don't have access to their own homes and those homes that are damaged. The second priority to assess disaster impacts, we will make use of the available resources like dump trucks, earthmovers, dump trucks and any of the community volunteers to try and assess the area of the disaster impact. And since it was the 24 hours after 24 hours, when the help arrives, we'll prioritize to use the resources they have for the maintenance of the resources and infrastructure.

Group 6: Good afternoon! We will now discuss our organizational chart. We will present to you our organizational chart. We will first talk about the first aid. Since there were two variables, the on-seen logistics within the first 24 hours. So for the on-seen, we gave three ambulances, first aid, search-and-rescue, rapid assessment especially on infrastructure and relief operations. So three ambulance. Within 24 hours so the other logistics have arrived. Search and rescue, four police units with two vehicles and then one police unit, two officers, one fire engine with fire fighters, superintendents and three search-and-rescue teams. Rapid assessment: two dump trucks with operators, 2 earth movers, one front loader and construction supplies and afterwards, three structural engineers and construction foreman. Relief operations 20 community volunteers and 200 dignity kits and 200 family emergency kits.

Group 7: Good afternoon! This is the chart we made. We think that the Incident Commander is the Municipal Incident Manage Team Head since it is said in the problem that the Police Superintendent is hesitant because he is so overwhelmed. Due to that fact, we placed him as liaison or officer in charge since he has the ability to communicate any information to the police. So for our safety officer, we assigned the PO1 to take the safety with regards to the roads, buildings as well as of the people. We have here the Information Officer is a police officer because we believe that if there are problems with signals, they will have handheld radios. For the first 24 hours, we believe that all the parts here must be filled up for conservatism purposes because we must have anticipated more losses or more damages. We are going to highlight in the operations. We have here the firemen and emergency medical taskforce, police officer, search-and-rescue team, we also have the ambulance. Under this

one is a community police officer, PO4 as we believe that the police officer will have a good source of communication for this kind of situation. Under the first aid, we have here an ambulance and we've put a civil volunteer of five, as well as fire, the security and evacuation. Our community volunteers have been divided proportionately into the four divisions. Here in the evacuation, we think that more manpower is needed because there are more recipients on this end. That would be all. Thank you!

Group 8: This is our organizational chart. First of all since the Police Superintendent is overwhelmed with his job as an Incident Commander, we chose the Mayor as the Incident Commander. For the first 24 hours, (black text) for the meantime, we have limited people and resources this is the allotment of resources. We have additional resources and people after 24 hours (red texts). So the Mayor is the Incident Commander and the Police Superintendent is still in-charge of the three tasks because we want to be able to combine tasks since we have limited people. For planning and finance, we have one police officer and for persons in logistics, we have the police officer, the dump truck and operator. Our first goal is to save and assist lives and put bulk of the volunteers and the medical team on the search-and-rescue and evacuation team. And afterwards, that's where we add the other volunteer and the other resources that have arrived after 24 hours. So those are the allotment of resources after 24 hours basically we have to focus on the search-and-rescue operations on the eastern and southern part. We will probably divide volunteers and the officers there. Since Ridge School is damaged, most of the evacuees and survivors will be placed in Valley High School while the rest of the supplies will be in the municipal hall since the downtown area has been safe. The survivors will also be sent to the hospital since it's not being stated here that it is damaged so we could still use that to save and help out the survivors.

Group 9: Based on the incident, we are given the following resources so since the Mayor is not around, we placed the Superintendent as the Incident Commander. And we are given the following resources, four police units so we divided it so 2 police units for the safety officer, liaison and communication and we placed 2 for the safety. There are 20 community volunteers, those people we divided those and assigned to the following areas: 3 volunteers under planning, 10 under operations, 5 under logistics and 2 under finance and administration. The 10 community volunteers under operation are responsible for first aid, evacuation and food and water supply. There are other people who are coming like the structural engineer, search and rescue team and they will be placed under the operations. The 5 community volunteers are responsible in identifying the number of affected individuals and families and also identifying the casualties and injured people.

Comments

All reports are considered an initiative for us. How many of you here have encountered disaster operations? Yolanda, earthquake, ship collision. Well in our scenario, the Police Superintendent is overwhelmed with the situation so he turned over the task to us, to you, being the Incident Commander. So you, us, as the Incident Commander, how would you draw, how would you know the incident if you don't have the map? Because if you are unfamiliar with the place, you will not be familiar with the situation. Like for example, you are the incident management team sent by the national office or from the region and the incident happened with Bohol. Are you familiar with Bohol? So before anything else, you have to draw the map to identify the locations of the incident. The Incident Commander, anybody or anyone, who has first-hand on the disaster-stricken area for the meantime. But the Incident Commander can transfer the responsibility to a person who is more knowledgeable. For example, the incident is fire, so therefore, the Incident Commander is the fire officer then the responsible official is the Local Chief Executive because he will provide resources in support of the Incident Commander. It's a two-way process. Then for the structure, since we are the first step, we will activate only those that are operational, no need to activate down to the line, depending on the escalation, depending on the complexity of the situation. For the meantime from the Incident Commander, down to the general staff and the operation staff. So we will activate only the operations down the line during the 24 hours. Second, logistics. After the 24 hours, there will be a planning meeting for the next period. That would be escalating depending on the complexity of the incident. We don't need to fill-up all the charts. I hope for this afternoon you have learned a lot and you will have something to share and the next time around, when we will see each other, rest assured, I will introduce another presentation. With that, in behalf of our Regional Director, I would like to thank you for inviting me this afternoon. Daghang salamat and maayong hapon!

Following Instruction to Authors

Dr. Jose Ma. C. Avila
Editor-in-Chief
Acta Medica Philippina

Discussion

Good afternoon everyone! I'm glad to be here again in Cebu. Actually, this is my first time to be here to lecture on materials related to research. The last five times I was here, I was speaking on pathology. It was a completely different thing. Let me first introduce myself, just call me, *Joey*, and I am an editor of this journal, Acta Medica Philippina. I am an editor of this journal for nine years, since 2005, since the time Jimmy Montoya started asking me to revamp the journal and with budget, of course. You cannot do anything here without money, believe me. But I have been to this journal since 1990, can you imagine that? I think I was a first-year faculty member in UP Pathology. I don't know why but I was a staff member and we were only five or six. There was an Editor-In-Chief. What we would do is, we would collect articles from the University College of Medicine and when we got the articles, it would be divided among the five members, the five staffers. If there would be ten articles, we would be assigned two each and we were asked to edit it. And most of the articles that were assigned to me, I knew nothing about. It was about surgery, it was about optha, what do I know of that? So, this is what we were doing years ago. But I was shocked to learn that that's what some of you are still doing, maybe ha. Because you know, I'm still the President, member of the local journals editor group, and some of the editors are still doing that. They assign people to edit in their own staff, within the room and that's what we call *Internal Peer-Review*, which is not encouraged by the International Committee of Medical Journal Editors (ICMJE). For them, a true peer-review, is an *External Peer-Review*, which is independent and has no bias for any faculty in your room. Because if you're from the same school and you are internally reviewing people, you'll be very biased. When you hate this guy, di ba you're not going to react kindly to his paper and things like that. So, I think if you're going to come up with a journal or you are in a journal now and you are editing papers as a group or you're dividing papers among yourselves, I think that's not doing good and we stopped doing that in 2005.

And that's why we went through a lot of difficulties but I think a lot of respect is gained by doing *External Peer-Review*. That's the first thing I learned when I became an editor of this journal. We are indexed internationally. This caucus is a big organization, owned by Elsevier, it's very similar to ISI and all major libraries in the US subscribe to it. This journal is seen with full text around the world now. That's why we are deluge now with article submissions and in the past, we are rejecting only about 10%. But now, we have to reject about 50% because there is just too much and most of the problems are from this. People do not follow *Instructions to Authors.* It may seem so simple and so trivial but it is such a huge problem that I get high blood pressure. Well, I'm stable for the past fifteen years but it is really a cause of high blood pressure. People do not know how to follow authors and reason is because we do not have a culture of publication and I will explain that a little more as I go through this talk. What I'm going to do for this lecture is that I'm going to talk about instructions to authors, of medical journals in general, but of course I'm going to focus on my journal, Acta Medical Philippina and my view point as an editor, as a writer.

And I said, Filipinos do not have a culture of publication but Filipinos have a culture in research. Ang hilig-hilig nating magresearch. Ang dami-daming research nakatambak sa mga kwarto, sa mga opisina. Ang dami. Iyon ang tinatawag sa international, it's G*rey Literature.* I don't know why it's grey. Maybe it's covered in dust, it's greying already. But that is such useless material. Any Grey Literature is not worth anything. Even if pinaghirapan niyo iyan ng dalawang, tatlong taon, kung hindi niyo napublish, it is completely useless. Nobody respects that. Nobody has seen that. The Peer-Review which is so important for publications is the quality seal of approval. Alam niyo iyong quality control na nakikita niyo doon sa mga appliances? This is the approval for medical publication or any publication for that matter. It is a quality seal of approval. Without that, it's worth nothing, no matter how good it is. So you have to have it published, it has to be exposed, people have to comment on it. So, some people will say na, *"Oh ang dami naming papers." "Ang dami naming research."* Na-publish ba? Kasi kung hindi napublish iyon, eh bale wala talaga iyon. Itapon niyo na lang because nobody will see it, nobody will respect you. Forget it. So please have your papers published. And this is one of my problems because as an editor, I have seen a lot of papers now. But since we don't have a culture of publication, nobody follows directions, nobody but nobody. And it's a big, big headache. And I will go through that as I go along on what are the areas that cause big headache, it cause delays of things especially in the computer age. We're internationally indexed, imagine our bibliographies published in Acta is run by professional software, by Elsevier, and they will detect any error in that bibliography and alam mo kung Pinoy, especially residente, if you ask your residents (if you're a resident, sorry ha), or your fellows. Alam mo kung minsan, iyong residents, when they do the bibliography

nakakalimutan talaga iyong page. Pagbabalikan na iyong page, *"Ano nga bang page iyon?"* Eh, mag-iimbento na lang siya. Naku, hindi pwede iyon! Kung nahuli tayo na ganoon, wala na, sa international publication, it's completely useless and nakakahiya. Sinong unang tatamaan? Iyong editor. See? Ang hirap talaga noon, it's a very difficult thing to experience. And there are people who have experienced that, online pa and there are accusations floating. So we're very, very careful, and this causes a lot of delay. And this is not a lecture on how to write a good article for publication but a lecture on how to prepare well for one. I can't teach you how to write, I think you all write well. From the years I have received articles, I think it's all good but they are not well prepared for a good publication. And that's the main problem.

What is the Instructions for Authors? I think it's about what the journal expects of you and from you, the writer and author for a publication of a journal. Now before you submit your article, no, before you start writing your article, you have to read the Instructions to Authors of your *target journal* that you have in your mind. Ganito mag-isip sa America and Europe iyong mga serious researchers. Bago sila magsulat, may journal na, may journal nang iisipin. Tayo hindi. Tayo magsusulat tayo, requirement ito, kailangan i-submit ko ito. Pagkatapos noon, *"O, submit mo na sa journal."* We have to think to think of a target first. What is this journal that I am going to submit this article to? And that is very important because different journals have different perceptions of science as well as differing opinions on how articles should be written. And I know some of you, most of you who have been writing and submitting to journals know that. May mga journals, I call *maarte*. Marami silang gusto, gusto nilang iyong mga high quality research, sobrang iyong mga tipong you never have read like it before in your life. Ito iyong mga science, nature, iyan ang mga high-brow journals. Siguro kung magsusubmit kayo, high-brow din dapat iyong article mo. Or if you're in the New England Journal of Medicine, your paper has been outstanding. Eh kung mga gusto mo lang, iyong mga regular good journals, baka pwede na iyong article mo. It's not important also to have a secondary target journal. In other words, you have a second choice. And maybe a third choice. Okay example, target natin, Acta Medica, kung hindi pwede sa Acta, PJIM, kung hindi pwede, iba naman. Nowadays, the fight is in the Journal Impact Factor. The Journal Impact Factor is based on the number of times an article in the journal gets cited. And there's a formula to get this. Your journal must be about four or five years actively exposed internationally before you can get an Impact Factor. Of course if your article is not its caucus, or is not in ISI, or is not in Pub Med, it will never become Impact Factor. Because it's not exposed at all, tayo-tayo lang iyong nagbabasa, eh. So it's so important to have journals internationally indexed. And that's what I have seen and I'm so glad that we got it because it's so hard now to get even inside its caucus. You know one of the big journals now, which I am starting to help get in is JAFES, Journal of ASEAN Federation of Endocrine Societies. There's so much money in the journal. I think the problem that is why they were rejected because they were not looking very carefully at the format and at the bibliography and these things that we are going to talk about now. It's not really the content kung hindi masyadong maganda iyong content, pwede na. But if you don't follow the correct bibliography, pattern, if you don't follow good titles, good abstracts, it's going to be rejected and that is what happens.

So Journal Impact Factor is very important. And usually you would want to publish your article in a Journal Impact Factor of let's say, the highest is about 12, iyong mga nature, iyong science, iyong mga 3 or 4, pwede na but you're going to be published in one of those. The Journal Impact Factor of Acta is 1, at least its visible. But we were only exposed internationally in 2012. Siyempre hindi pa nasa-cite eh, hindi pa tapos magsulat iyong mga nagcite siguro kasi 2 years pa lang. It takes that amount of time that people will research and look for articles and will start quoting you. Of course check the editorial board, nationalities, etc. If the editorial board has a lot of international people or people from the third world, then there's a bigger chance that your articles from the Philippines might be accepted. We have an online version of Acta. Please check it out if you haven't seen our online version. It's a little bit unusual but we wanted it to be unique. You can Google Acta Medica Philippina. We have a nice layout there. This is our online version of the Instruction to Authors. Let me just go through the instructions.

"The Acta Medica Philippina is a peer-reviewed general medical and health science journal that is published four times a year by the University of the Philippines Manila and the Department of Science and Technology of the Government of the Philippines and publishes original scientific papers in the field of basic and clinical medical or health-related research. It has complete editorial independence from its publishers. The editor-in-chief of the Acta is Jose Maria C. Avila, MD. The articles it accepts for publication may be in the form of collective and current reviews, original papers, case reports, lectures, essays, editorials, abstracts or letters to the editor. Original scientific papers and articles of a medical or public health nature are preferred and the Acta shall accept journal articles from publications from anyone, provided criteria are met. The Acta is the most widely circulated professional health publication in the Philippines and likewise reaches key medical libraries in Asia and the world.

It has been in continuous publication since 1939. All manuscripts, correspondence and editorial business should be sent to Acta Medica Philippina, College of Medicine, University of the Philippines, 547 Pedro Gil Street, P.O. Box 593, Manila 1000, Philippines. However, email submissions are also accepted. Manuscripts are received with the understanding that they are not under simultaneous consideration by another publisher. Accepted manuscripts become the permanent property of the Acta Medica and may not be republished without permission from the Editor. These manuscripts are subject to editorial modifications to bring them in conformity with the style of the journal. Statements or views expressed by an author or authors are not the responsibilities of the editor or publisher."

Sometime ago, I got a paper from India as we are, of course, international. The paper was about the atmosphere or how the moon interferes with population growth or something. I said, never mind this. You see I get weird stuff like that. We prefer also original articles of case reports. You know why? Because case reports are not usually cited. Nobody cites case reports. We publish also a maximum of two issues, if I can. We do receive case reports. Of course we modify your paper as we seemed fit.

I mentioned this earlier, the Editorial Policy. It describes the journal, its audience, its purpose or objective; journal ownership, editor and/or publisher; types of articles it accepts for publication (or what it does not); and may have a statement on some ethical policies. We also require a cover Letter. Now the cover letter should have the author's full name, listed down. *"A covering letter must accompany all manuscripts with one author designated as correspondent, providing his complete mailing address, telephone number, e-mail address and fax number. In order for a manuscript to be considered, reviewed or edited, the following statement must be signed by all the authors: "I/We have been sufficiently involved in this work to take public responsibility for its validity and final presentation as an original publication." Whenever applicable, there should also be a written declaration that the article had written/informed consent for publication from the involved subject/s, had conformed with ethical standards and/or had been reviewed by the appropriate ethics committee. The transmittal letter must include the statement "This paper has not been published and is not under simultaneous consideration for publication elsewhere. I/We hereby confer all copyright ownership/s to the Acta Medica Philippina in the event that this work is published in this journal."*

Now the cover letter, you have to write the corresponding authors. There would be authorship issue, ethics clearance. All papers have to go through ethics board. All co-authors sign the cover letter and indicate roles as co-author. Some journals require that. We require that also in Acta. Some journals require a statement on the importance of the study and the reason it should be considered for publication by the journal. That's good. I suggest if you are going to apply especially to a large highbrow journal, you are going to include that if you want to get published in their journals.

Now let's talk about *Authors.* According to the International Committee of Medical Journal Editors (ICMJE), ICMJE is composed of the Editors-In-Chief of the highbrow medical journals in the US. So the editor of Lancet, New England Science, mga 5 or 6 journals and all the editors of those came up with a definition of an author. An *author* is a person who has made a substantial intellectual contribution to a submitted manuscript and accepts public responsibility for its content. But *substantial* contribution means ALL of the following: must have a role in the conceptualization and design of the study, and/or acquisition of data, and/or analysis and interpretation of the data; drafting and/or critical revision of the manuscript; and final approval of the version to be published. You must have all three to be an author. If you are an author and you have not seen the paper. Then you don't deserve to be an author. Or if you didn't approve anything, then they put you in, then you are not an author. That is according to the ICMJE.

The *Corresponding Author* is the person who holds all communication with journal editors from submission to publication, keeps co-authors informed and involved during the review process, corresponds with members of the scientific community after manuscript publication. Some journals also has guarantors. A *guarantor* is a person who takes responsibility for the integrity of the work as a whole, from inception to published article, and publish that information. But in Acta, we don't have a *guarantor*, just a Corresponding Author. But most journals now require a guarantor because of falsification and unethical practice. Example, the BRAIN, neurology journal, they require:

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Another example, they have, *"If you are an author, check the blocks that you did to become an author"*: I participated in designing the study, I participated in generating the data for the study, I participated in gathering the data for the study, I participated in the analysis of the data, I wrote the majority of the original draft of the paper, I participated in writing of the paper, so on and so forth. And then you sign your name. The, *"I bought pizza and food for the authors."* Hindi kasama iyon. Kasi iyong iba sinasama nila iyong nagpapakain, sinasama iyon (I'm not kidding).

Other declarations include: authors declare that they have no competing interests; all authors declare that they qualify as authors based on ICMJE criteria; each author has sufficiently participated in the work and takes public responsibility for the contents of the article; each author acknowledges that the final version was read and approved; all authors take responsibility for relevant documentation of records, slides, data, archival material for the study; all patient identifiers are suppressed in the data.

Now, there are many problems with authorship. As an editor, I don't have to deal with that. But eventually, I deal with it because they ask a lot of questions about it. Large groups and multicenter studies. Sometimes they have a lot of authors from different institutions, paano ba i-aarrange ito? Do we alphabetize, 30 authors, who's going to go first? Are we going to put groups there? Kunyari the Cebu Institute Group, paano ba iyon? Who will be the first author, second author, etc.? The first author is going to be important because he is the lead author and ikaw iyong pinakamaraming na-contribute, actually dapat ganoon. There is also what we call *Senior Authors*. Kunyari you are the one with the name and when they see the journal with a famous guy, no matter who the other authors

are, they will publish you. Usually the *Senior Author* is the last author. This is practiced still in the US. *Gift authorship.* Example, *"Oh, that's my Chairman, I will give you a gift, I will make you an author.*" Balita ko in the Middle East, ginagawa nila ito eh. Kasi they demand, if you are the Chairman in the Department, dapat kasama. What you should do to avoid problems like this? You discuss among yourselves, prior to the study, who will be the first author, second, third. There may or may not be rules in authorship.

Ghost authorship, example is, may radiology or pathology discussion, fields that require expertise and usually the pathologist or radiologist writes notes, kinokopya iyon. Pero hindi ina-acknowledge iyong pathologist or radiologist, very common iyan sa mga Case Reports. Those are called *Ghost authorships* and it's not a good thing. There have been complaints on this, on-line. The editors should be at fault because the *Ghost* authors were not identified.

Ethics Issues. If you're forming an ethics committee, you can look at this recommended guidelines: (1) Tri-Council Policy Statement on Research involving Human Subjects (TCPS2) Section A. Research Requiring REB Review; Article 2.1 and (2) Good Clinical Practice: Consolidated Guideline; ICH Topic E6 Article 4.4 Communication with IRB/IEC/REB (Research Ethics Board, REB). This is the list of research requiring ethics approval before beginning:

- Research involving human subjects
- Research involving human biological materials (embryos, fetuses, reproductive materials, stem cells)
- Research involving observation of people in public places; IF there is any kind of intervention (interviews); IF individuals expect a certain degree of privacy; IF dissemination of results could possibly identify participants
- Research involving secondary use of data – health records, computer listings, banked tissue; IF data linkage of recording or dissemination of results could generate identifiable information

These are researches that do not require ethics review:

- Research relying on publicly available information legally accessible to the public and protected by law
- Observation of people in public places without intervention
- Research relying on secondary use of anonymous information or anonymous biological materials as long as dissemination of results does not lead to identification of individuals
- Quality assurance or quality improvement studies
- Creative practice activities
- Scholarship based on personal reflections and self-study
- Data collection for external and internal organizational reports
- Public health surveillance that is legally mandated
- Research for a critical biography not involving living participants
- Case reports based on the clinical notes of an individual patient with informed consent

Plagiarism policies. Some of the Introduction to Authors indicate plagiarism polices. In Acta Medica, we screen plagiarism routinely but we do not use a professional software because we don't have the money to do that. It cost so much. What we do, I ask my copy editors to screen for possible plagiarism and what they do, they use Pub Med. Anything that looks plagiarized or any articles that looks really copied, sometimes they plagiarize the whole title or the whole abstract. Easy naman to suspect. If there are inconsistencies in the paragraph, baluktot iyong first paragraph and the second paragraph has perfect English, magduda ka na. You'll be surprised. We were in Johnson & Johnsons, I was talking to a group like this, college students who were working for J&J to write stuff and I talked about journalism. I talked about *cut-paste journalism*. I told them, *"You cannot copy and paste and put it there especially if it's one paragraph. You cannot do that. Maybe if it's one sentence, you can but put quotation marks and you put you copied it from this journal or from this book. But you cannot copy and paste in verbatim. Even if you copy and paste, and you later changed the words, the order, that's still plagiarism. You have to use your own words.*" And they got shocked. They all thought that was allowed. What I always tell students you take down notes then you close that down then start rewriting what you remember, in your own words. For sure, it's not plagiarize. When you start changing, rearranging letters. That's still plagiarism. In the Philippines, University Ethics Boards and similar groups have yet to have official policies regarding plagiarism. They say that they don't tolerate plagiarism but they don't have policies. It's about time that universities have polices on plagiarism.

Plagiarism Policy

(from Journal of the Pakistan Medical Association)

1. The journal follows the authorship guidelines of the International Committee of Medical Journal Editors (ICMJE) (http://icmje.org/).
2. The Journal follows the standard international definition and description of plagiarism and according to the guidelines provided by the Higher Education Commission of Pakistan (http://www.hec.gov.pk) (http://facpub.stjohns.edu/~roigm/plagiarism/Index.html)
3. The Journal assigns equal responsibility of intellectual integrity of the manuscript to all authors whose names appear on the manuscript/article. When submitting a manuscript, the Journal requires that all authors sign a statement accepting this responsibility.
4. This statement must indicate that no part of the manuscript has been plagiarized.
5. Any such material should be made accessible to the Editor and should only be used with referencing according to the guidelines of authorship. This may otherwise form the basis of a redundant publication/duplicate publication/"salami slicing" and appropriate action may be taken by the Editor which may range from rejection of the manuscript to debarment of the author(s) from further publication in the Journal.
6. Any such material should be made accessible to the Editor and should only be used with referencing according to the guidelines of authorship. This may otherwise form the basis of a redug17ndant publication/duplicate publication/"salami slicing" and appropriate action may be taken by the Editor which may range from rejection of the manuscript to debarment of the author(s) from further publication in the Journal.
7. It is emphasized that the Journal considers self-plagiarism as equally unethical as plagiarism in any other form. If material is to be used from the authors' previous work, standard referencing guidelines must be followed.
8. All manuscripts submitted to the Journal will be checked for plagiarism. If a manuscript submitted for publication (or a manuscript accepted for publication or an article that has already been published in the Journal) is found to be based on plagiarized material, the Editor will be obliged to write to the author(s) seeking an explanation. The corresponding author will be required to respond with an explanation within 30 days of receiving the letter from the editor.
9. Any such manuscript for review will be held up till the matter is resolved.
10. After receiving the author's explanation, if considered necessary, the Editor may also send a letter of information to the Head of the Institution or any other relevant authority at the author(s) institution. A similar letter may also be sent to the Higher Education Commission of Pakistan and the Pakistan Medical and Dental Council for information and possible action.
11. In case an acceptable explanation is provided by the author(s), the Editor may recommend appropriate changes after which the review process for the submitted manuscript may commence.
12. In case of failure of author(s) to either respond within the stipulated time, or in case they are unable to provide a suitable explanation, the Editor will convene a meeting of the Plagiarism Committee of the Board of Editors of the Journal to consider further action.
13. Further action will depend upon the nature of the offence and may include rejection of the manuscript from publication along with possible debarment of the author(s) from further publishing in the Journal. The period of debarment will depend upon the nature of the offence and may range from a period of a few months to permanent.
14. Information regarding this action may be published in the forth coming issue of the Journal on a numbered page.
15. In case of confirmation of plagiarism on an already published article, the Editor will be obliged to withdraw the article from the journal website, Medline and Pakmedinet.

Plagiarism, if detected and proved, would be considered a punishable offence. Immediate and unbiased action will be taken by the Plagiarism Committee.

General Guidelines

One original and two duplicate manuscripts should be submitted. An electronic copy must also be submitted on a compact disc or sent by email. If the manuscript is sent by email, the original and duplicate manuscripts need not be submitted unless asked for. The manuscript should be typed double-spaced throughout with 1¼ cm (½ inch) paragraph indentation, using only one side of each 22 x 28 cm (8½ x 11 inch) opaque bond paper with 3-cm margins (1¼ inch) all around. Preferred font styles and sizes are: Times New Roman 12, Arial 11, Tahoma 11, & Verdana 11.

Title Page

The title should be as concise as possible. Include only the full names of the authors directly affiliated with the work starting with the first name, middle initial if any, and last name. The highest educational attainment or title of the authors should be included as an attachment whenever appropriate; name and location of no more than three institutional affiliations may be included. If the paper has been presented in a scientific program or convention, provide a footnote giving the name, location and date of the meeting. Some recommendations, the title page of the manuscript should include:

- Concise and informative title (less than 14 words), don't give long titles
- Complete by line, with first, middle and last names of each author
- Complete affiliation for each author, with the name of department(s) and institution(s) to which the work should be attributed. Name, address and telephone number and email address (necessary) of one author responsible for correspondence about the manuscript
- Clearly identify the corresponding author
- Source(s) of support in the form of grants equipment, drugs, or all of these
- Disclaimer, if any
- Word count of abstract with 3-5 MeSH words
- Word count of main article, excluding abstracts and references.

The titles according to Jamali and Nikzad, 2011, there are three types: declarative (main findings and conclusions stated), descriptive (subject of the article without conclusion) and interrogative (subject in the form of a question).

This is the APA (2009) Guidelines (you may or may not follow it, you follow what the journal wants): avoid long titles (<12 words), use a colon to add additional information to titles, do not use acronyms without spelling them out and avoid irony, puns, humor in title. You know students, they love cinematic titles. I was a judge in a research paper contest a few years ago, the paper was about penile fracture, and the title of the paper was, *"When the Cock Refuse to Grow."* Ano ito? Pelikula ba ito? Anong klaseng title ito? But, anyway, I think you should avoid that. Humors, puns, that's a big turn-off sa scientific audience. So please don't use those things. Here's an example of the title with colon (from Lancet, latest online edition): Trilateral retinoblastoma: a systematic review and meta-analysis.

Abstract

For original articles, the abstract should contain no more than 200 words and should have a structured format consisting of the objective, methodology, results and conclusion. For case reports, the abstract should be from 50 to 75 words and need not be structured. At least 3 keywords, preferably using terms from the Medical Subject Headings (MeSH) list of Index Medicus, should be listed horizontally under the abstract for cross-indexing of the article.

In a structured abstract, introduction or background, *why did you start?* You summarize in one sentence the current knowledge or state of the art related to the work you are representing. Objectives, *what did you try to do?* State they hypothesis, methods, *what did you do?* Don't put too much detail. In few short sentences, give the reader a good idea of the study. Then results, give the main results of the study in the form of some real data. Conclusions, one sentence would do, abstract lang naman eh.

Examples of unnecessary content in an abstract: details about the laboratory and other assessments conducted as part of safety assessments (this is because such tests are routinely performed in clinical studies), unless there is a specific need to highlight these in the abstract; details about the statistical methods employed and the software used, unless there is a specific reason why these details are necessary in the abstract; socio-demographic details, unless there are necessary for the proper interpretation or generalization of the findings; details about the value of the statistical criterion for a test and its degrees of freedom (e.g., Chi-square=7.49, df=1, P<0.001); it is sufficient to merely indicate significance in the sentence or state the P value in parenthesis after describing the finding.

For MeSH terms, you can consult IFA before selecting keywords, MeSH on demand (from an abstract, for example) or NLM text indexer (to find MeSH terms), MeSH browser. But the best thing is you search Pub Med to find articles on similar topics and review the MeSH headings assigned to these articles.

The manuscript should be arranged in sequence as follows: (1) Title Page (2) Abstract (3) Text (4) References (5) Tables (6) Figures & Illustrations. A manuscript for an original article should not exceed 25 typewritten pages (including tables, figures, illustrations and references). The text for case reports should not exceed 10 pages, including the visual aids and references. All manuscripts not complying with the above shall be promptly returned. References should be selective and pertain directly to the work being reported. All the sheets of the manuscript should be labeled with the family name of the main/first author (all in capital letters) and page number (in Arabic numeral) printed on the upper right corner.

References

1. References in the text should be identified by Arabic Numerals in superscript on the same line as the preceding sentence.
2. References should be typed double-spaced on a separate sheet. They should be numbered consecutively in the order by which they are mentioned in the text. They should not be alphabetized.
3. All references should provide inclusive page numbers.
4. Journal abbreviations should conform with those used in Pub Med.
5. A maximum of six authors per article can be cited; beyond that, name the first three and add "et al."
6. The style/punctuation approved by Acta Medica conforms to that recommended by the ICMJE, which is the ANSI standard style used by the NLM.

Examples of format as follows:

For journal articles, list the first six authors, et al. Hoshimoto-Iwamoto M, Koike A, Nagayama O, Tajima A, Uejima T, Adachi H, et al. Determination of the VE/VCO2 slope from a constant work rate Exercise test in Cardiac patients. J Physiol Sci 2008; 58: 291-5.

Dalby MA. Epilepsy and three per second spike and wave rhythms; a clinical electroencephalographic and prognostic analysis of 346 patients. Acta Nerol Scand 1969; suppl 40: 1-30.

For books and chapters, follow these examples below:

Drury I. Activation of seizures by hyperventilation. In: Luders HO, Noachtars, eds. Epileptic seizures: pathophysiology and clinical semiology, Philadelphia: Churchill & Livingstone, 2000; pp 575-9.

For newspaper articles:

Carynrabin R. When the Surgeon is infected, how safe is the surgery? New York Times 2007 July 3. Journal article in electronic:

Jonas J, Vignal JP, Baumann C, Anxionnat JF, Muresan M. Vespignani H, eta al. Effect of hyperventilation on seizure activation: potentiation by antiepileptic drug tapering. J Neurol Neurosurg Psychiatry. Published Online First: 20 June 2010 doi:10.1136/jnnp.2009.200329.

Monograph in electronic form

CDI, clinical dermatology illustrated [monographs on CD-ROM] Reeves JRT, Maibach H. CMEA Multimedia group, producers 2nd ed. Version 2.0. San Diego: CMEA, 1995.

Conference proceedings

Kimura J, Shibasaki H, editors. Recent advances in clinical neurophysiology. Proceedings of the 10th International Congress of EMG and Clinical Neurophysiology, 1995 Oct 15-19, Kyoto, Japan. Amsterdam: Elsevier, 1996.

Dissertation

Kaplan SJ. Post-hospital home health care the elderly's access and utilization [dissertation]. St. Louis (MO): Washington Univ., 1995.

Volume with supplement

Shen HM, Zhang QF. Risk assessment of nickel carcinogenicity and occupational lung cancer. Environ Health Perspect, 1994; 102 Suppl 1:275-82

World Wide Web page

Beckleeheimer J. How do you cite URL's in a bibliography? [online] 1994 [cited 2000 Dec 13]. Available from: URL:
http://www.nrlssc.navy.mil/meta/bibliography.html

World Wide Web page (no author)

Educating America for the 21st century: Developing a strategic plan for educational leadership [online] 1994 [cited 1999 May 15]. Available from: URL:
http://ww.curtin.edu.au/

Digital Object Identifier, or DOI

A Digital Object Identifier (DOI) is a unique alphanumeric string assigned by a registration agency (the International DOI Foundation) to identify content and provide a persistent link to its location on the internet. The publisher assigns a DOI when your article is published and made available electronically. All DOI numbers begin with a *10* and contain a prefix and a suffix separated by a slash. The prefix is a unique number of four or more digits assigned to organizations; the suffix is assigned by the publisher and was designed to be flexible with publisher identification standards. We recommend that when DOIs are available, you can include them for both print and electronic sources. The DOI is typically located on the first page of the electronic journal article, near the copyright note. The DOI can also be found on the database landing page for the article.

Example:

Case Report: **Metastatic mesothelioma to the thyroid**
Sarika N. Rao, Archana Swami, Ahsraf Khan, Madhavi Toke, Giles Whalen, Andrew Fischer, Mira Sofia Torres
CytoJournall 2014, 11:11 (22 May 2014)
DOI: 10.4103/1742-6413.132984 **PMID:** 24987442

Research Article: **Authors attain comparable or slightly higher rates of citation publishing in an open access journal (CytoJournal) compared to traditional cytophatology Journals – A five year (2007-2011) experience**
Nora K. Friech, Romi Nathan, Yasin KAhmed, Vinod B shidham
CytoJournal 2014, 11:1 (29 April 2014)
DOI: 10.4103/1742-6413.1317399 **PMID**: 24987441

Tables

Cite all tables consecutively in the text and number them accordingly. Create tables preferably using a spreadsheet program such as MS Excel with one table per worksheet. Tables should not be saved as image files. The content of tables should include a table number (Arabic) and title in capital letters above the table and explanatory notes and legends as well as definitions of abbreviations used below. Recommended font is Arial Narrow size 8. Each table must be self-explanatory, being a supplement rather than a duplicate of information in the text. The use of too many tables is discouraged.

Figures and Graphs

Figures or graphs should be identified by Roman Numeral/s with titles and explanations underneath. The numbers should correspond to the order in which the figures/graphs occur in the text. It is recommended that figures/graphs also be submitted as image files (preferably as .jpeg or .gif files) of high resolution. All identifying data of the subject/s or patient/s under study such as name, case numbers, etc., particularly in case reports, should be removed.

The Basics

- Illustrations/figures submitted as separate files; in the typeset, PDF figures placed appropriately within the text, as close as possible to their first mention
- Tables should be included in main manuscript file
- Author-provided figures never redrawn and published “as is” in most cases
- Figures should be numbered in the order they are first mentioned in the text
- Responsibility of the author to ask permission from copyright holder to reproduce tables and figures that have been previously published elsewhere; permission indicated in figure legend and original source included in the reference list
- In figures, included text must be legible; all fonts embedded

Examples

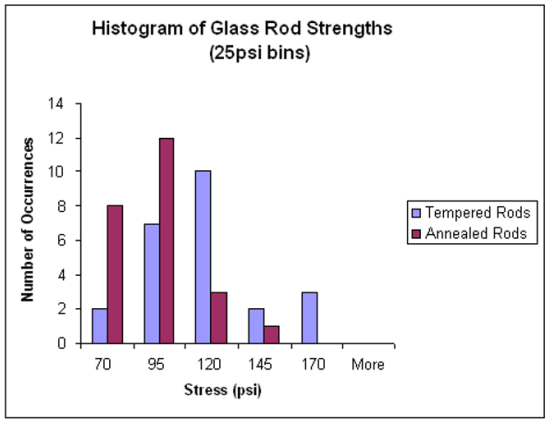


Table 1. Histogram of Glass Rod Strengths (25 psi bins)

	No. of Occurrences	
Stress (psi)	**Annealed**	**Tempered**
70	8	2
95	12	7
120	3	10
145	1	2
170	0	3
More	0	0

In What Way is this Table Well Formatted?

- Table data are all in individual cells.
- Table title and footnotes are NOT in cells.
- There are no extra rows or columns within the table.
- Data are not aligned using tabs or spaces.
- The column head spanning three columns is correctly set up using Word’s Merge Cell function.
- Table is an editable Word table, created using MS Word’s table function.

Example

Table 1. TextTextTextTextTextTextTextTextTextTextTextTextTextTextTextText TextTextText1.[1]

	Column head spanning three columns		
Stub	One	Two	Three
A			
◦1[2]	1.01	2.01	3.01
◦2	10.02	20.02	30.02
◦3	100.03	200.03	300.03
B			
◦1	1.01	2.01	3.01
◦2	10.02	20.02	30.02
◦3	100.03	200.03	300.03
C			
◦1	1.01	2.01	3.01
◦2	10.02	20.02	30.02
◦3	100.03	200.03	300.03

[1]TextTextTextTextTextTextTextTextTextText
[2]TextTextTextTextTextText

In what way is this table incorrectly formatted?

Unnecessary, but does not delay processing

- Table label formatted to be boldface text.
- Table column heads centered and formatted as bold text.
- Resizing rows to have extra vertical space between rows.

Delays processing

- Table title is inappropriately placed in a table
- Extra empty table columns are used to add space between columns or adjust alignment.
- Table footnotes are inappropriately placed in cell tables

Example

Table 3. TextTextTextTextTextTextTextTextTextTextText.[1,2]												
Stub column				**Column one**			**Column two**			**Column three**		
A												
◦a					1.01			2.01			3.01	
◦b					10.02			20.02			30.02	
◦c					100.03			200.03			300.03	
B[5]												
◦d					1.01			2.01			3.01	
◦e					10.02			20.02			30.02	
◦f					100.03			200.03			300.03	
C[5]												
◦g					1.01			2.01			3.01	
◦h					10.02			20.02			30.02	
◦i					100.03			200.03			300.03	
[1]TextTextTextTextTextTextTextTextText.[6]												
[2]TextTextTextTextTextTextTextText.												
[3]TextTextTextTextTextTextTextTextTextTextText.												
[4]TextTextTextTextTextTextTextTextTextTextTextTextText												
[5]TextTextTextTextTextTextTextTextTextTextTextTextText TextTextTextTextTextTextTextTextText												
[6]TextTextTextTextTextTextTextTextTextTextText												

Incorrectly Formatted (Not a Word Table)
This table was not created using Word's table function and will require reformatting.

In what way is this table incorrectly formatted?

- Table was aligned using the tab key, not the Word table function, and will be reformatted before being typeset.
- The horizontal lines in this example were inappropriately inserted as images using Word's line drawing feature.
- It is unclear which columns the spanner head should span.

Example

Table 4. TextTextTextTextTextTextTextTextTextTextTextTextTextText.[1, 2]

→→→Spanner head set with tabs

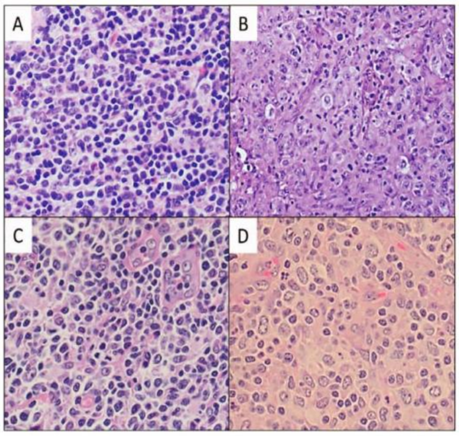
Stub	→	One	→	Two	→	Three
→A	→	1.01	→	2.01	→	3.01
→B	→	10.02	→	20.02	→	30.02
→C	→	100.03	→	200.03	→	300.03

[1]TextTextTextTextTextTextTextText.

[2]TextTextTextTextTextTextTextTextTextText.

Illustrations and Photographs

All illustrations/photographic prints should be submitted in duplicate and placed in separate envelopes. Black and white glossy prints, unmounted, for photographs and photomicrographs are preferred. However, digital photographs are also accepted, and they should at least be 800 x 600 dpi. Computer-generated illustrations which are not suited for reproduction should be professionally redrawn or printed on good quality laser printers. Photocopies are not acceptable. All lettering for illustration should be done professionally and should be of adequate size to retain even after size reduction. The principal author's last name and illustration number should be placed at the back of each illustration/photo print in soft pencil. An arrow on the gummed label indicating the top should be drawn. For photomicrographs, the stain used (e.g., H & E) and magnification (e.g., x400) should be included in the description.



Morphologic appearance of original and transformed lymphomas. Hematoxylin-eosin–stained slides from patient 1 (A and B) and patient 2 (C and D). Both original lymphomas (A and C) consisted of small, irregular lymphocytes with scant cytoplasm. The transformed lymphomas (B and D) were composed of large, anaplastic cells, with open chromatin, single central nucleoli, and abundant amounts of eosinophilic cytoplasm. No significant residual population of small abnormal lymphocytes was present in this specimen for either patient (original magnifications ×400 [A through D]).

The Basics

- Photographs, scans, X-rays: high resolution bmp (jpeg, tiff, png) with original resolutions (at least 300 dpi)
- If photograph includes text, may need to convert original file to ppt or pdf or word (overlain)
- Photographs, x-rays or scans of patients body parts: must have written/signed consent for publication from patient or guardian
- Obscure identity of patient in photograph/x-ray, edit in photo shop
- If using micrographs: details of magnification, stain used, microscope, camera, software manipulation, etc. must be indicated in the figure legend or text (methods)
- Electrophoretic gels and blots: must have positive and negative controls

You might wonder, some of you may want to publish online only. I tell you this. We only have 100 copies of Acta Medica. You know why? Because it cost so much. However if we publish 1,000, we pay only Php180,000. For 100 copies, we pay Php100,000. It's Php1,000 an issue. What happens if you do online only? If you do online only, you run the risk. If your journal is bad, it's going to die a very quick death and people can see it everywhere and they will condemn, believe me. And you don't want that to happen. I suggest you practice with hard copies first, in our country, third world, bago. Kung okay na, pwede nang magshift to online.

You have to publish your work so your peers can see it. It is very important for quality control of your work. Also, make sure that you follow instructions. If you don't have the time, hire people to check your bibliography, to check your stuff. You can pay people to do it. You can pay people to check your English.

Lastly, let me just add this, universities are ranked based on number and level of publications. Your school doesn't get ranked anywhere in the world if you don't publish because they rank according to visible documents. So if your school has zero documents, you will remain in the bottom. Thank you very much!

Open Forum

I'm Dr. Gloria Casabal from the University of Bohol. Suppose the article in the journal did not pass the ethics review, will those articles not counted in the journal?

Well if you're talking to me as an editor and you submit your articles to me and it has no ethics review which requires an ethics review, I won't publish it. You know why? Because if you publish it, and everyone will see it, they are going to ask. And they will put your attention to that. And that has happened many times already. So be careful when it comes to ethics.

I'm Dr. Vicente from Davao, Region 11. One of the issues raised with publications is, once you published it, it becomes public and therefore if there's a need to have that portion or that article to be patented, your discovery can no longer be patented. Is that right?

What you should do there is have it patented first then you can have it published but it belongs to you still if you haven't had it patented. If you discover it first, it's yours. It's your original work.

Yes, it could be your original work, but your original work may be copied without patent, intellectual infringement.

Then you can sue, you can file charges against them. But here in the Philippines, I suggest, have it patented first then you write the article. That's the suggestion.

Ms. Merl Opeña: You just have to register, apply in the patent office. The idea is first to file or register. You don't have to wait the answer of the patency office, just file your application.

How much do you charge for submission?

We don't charge. You just have to apply for membership. Membership is Php500 for a year, four issues. When you're a member, you can apply it online. If you're in Cebu, you can pay via PayPal. We are secure as we are approved by the government. You just have to pay via PayPal and it opens through pdf. So you can download as pdf, any article that you're choosing including archives. The archives is not yet available because we are trying to archive up to 1939, nasa 1970s pa ata kami.

Doc, the Php500 is it individual or institutional?

There is an institutional fee. Kasi sa institution, you have to subscribe. We are going to give you a print copy and online also.

How much?

I think it's Php2,000 per year.

Good afternoon! I'm Dr. Walden Ursos of Silliman University, Dumaguete City. I'm the Research Coordinator of the hospital, the training program and the medical school. So, every end of the school year or every end of a batch of residents, we already have pool of research papers but not all of our output has an equal chance to be published. We have our own school journal, Silliman University Journal, our librarian is right here beside me. I was asking if we have a subscription for Acta. My question is not all our papers are being presented just like what we did this morning or this afternoon but we have our own research presentation because it's our requirement for our students to graduate and I think most schools are doing that, all medical schools. Can we just send these entries directly to you?

You can. Actually, if I may suggest, if you want to see your articles, your research get published, you screen them and check our submission requirements. If you see that you qualify, then you can send them. But you just pre-screen first, the quality, etc.

Yes, because we have our own IRB, our own peer-review.

The main concern would just be the plagiarism, failure to check bibliography and other technical part. That's the main problem. So before you submit, you have to check those kasi we would have problems if you don't do that kasi these are students or residents. They are always in a hurry because they are on a deadline and if there's a deadline, they will plagiarize, believe me.

I haven't encountered in your presentation the policy on putting a quotation or bibliographic citation from an internet source. What's your policy about it?

Actually, you can cut and paste. I think that's a whole topic. The rule is whenever you are going to quote verbatim, you have to put the quotations and you put a source. But you can only do that for phrases or one sentences. But if you are going to quote something like one paragraph, that's plagiarism. You cannot do that. If you are going to quote a whole paragraph, you have to change the words. If you don't, it's plagiarism, even if you put a quotation there.

Kahit na may citation?

Yes, you have to make your own paragraph, use your own words.

Good afternoon. I am Dr. Hilarion from Ilocos, Region 1. I am the Chair of the Ethics Review Committee. I am worried with the residents who are in a hurry always. It's true. I turned down a lot of papers, the problem is most, if not all medical societies are also in a hurry to have their papers published. The Ethics Committee turned down a lot of papers and lo and behold, their papers become ethically cleared for publication. Can you comment on that Sir?

Last month, I was with the POGS-OB group, they had a huge conference. I was there. They invited me to talk about plagiarism. Because the head of the committee felt that a lot of the OB training officers feel that plagiarism is okay. As long as you put a quotation and you cite. And they wanted me to emphasize that that is wrong and it cannot be done. And I also mentioned people are in a hurry. All the training programs of OB have paper requirements like yours. And their solution was, they're going to require one or two papers, pero iyong deadline two or three years. They require one paper or two papers but they have three years to do it. And at every stage, there is going to be a mentor who will monitor the progress of that paper. So that is the solution to that. So iyong ethics na sinasabi mo,

Sir iyong ethics kasi minsan, nakakalusot sila kahit hindi ethically approve ng institution. Hindi ko alam kung saan sila nagpapaclear.

Well you know, sa akin kasi, kung merong paper na sinubmit sa aking na walang title page na saying na may ethical clearance. We ask our ethical committee. Have you approved this? Pag hindi, di hindi. I realized that sometimes, they would lie about it. Kasi naaprove ng ethics committee. And that's a big problem.

It gets published Sir eh.

Yes and that's a big problem. If somebody will notice that and you are peer-reviewed and you are widely circulated. It's going to be a big problem.

Hi. Good afternoon. I am Dr. Queddeng of the Region 1 RHRDC. I have three queries actually Sir because we are having problems with our journal right now. First is that, in higher education state universities, we need a published refereed journal so we can be evaluated as professors. Problem is, who will certify that your journal is a refereed journal? That's the first question.

Did it pass CHED Evaluation?

Not yet, accredited. Because if you have to pass for CHED Accreditation, it has to be refereed.

Yes, CHED is very strict about that. They will require you to submit the peer-reviews of the journal.

But the point is, for professors, they can accept if they get published in a refereed journal. The question is, is it needed or who can certify that that publication is refereed? Is it the Editor-In-Chief or the head of institution?

Acta Medica is an Externally Peer-Reviewed Publication. A true refereed journals are the one with peer-reviews, external editorial board and from outside of your university. Wala tayong magagawa, sila ang magcecertify na peer-reviewed iyon.

For the last one, we had an Editor-In-Chief. Then he died. Example the journal started in 2011, an untimely death. If I'm the next Editor-In-Chief, I will continue that, right Sir? Since, those external referees can no longer be found so I have to resubmit that for external refereeing for external referees. The point is, since CHED Accreditation requires consecutive publications, if it is the research done in 2011, can we publish those research at the 2013 and 2014? Since doon na continue iyong refereeing?

That is actually the dilemma. What you can probably do is relaunch the journal with you as the new Editor-In-Chief. That's worst eh, with a gap of two years? That's not very good. Anyway, wala ka nang magagawa sa gap doon. What you do, you relaunch it in 2014 with you as Editor-In-Chief and then you continue. Then you do our own stuff.

For the consortium for example, we don't have continuous output for research. For example the R1 HRDC, I am planning because I am the Chair of the Research Utilization Committee that those funded research outputs to be, please help us if we want to establish a refereed journal, it will take two years for the research to be finished, because of the funding requirements. Can you assist us Sir?

You're talking about the time it will take for research to be finished? Then what does that have to do with your journal?

For a refereed journal, does it need to be continuous?

Yes, for a refereed journal to be accepted even in the Western Pacific Region, it has to be peer-reviewed and it has to come out on time. So if you're publishing bi-annually, you have to publish. The minimum requirement is twice a year. It has to be at least twice a year, not once a year. What we are doing now, is if you only come out once a year, we are putting you on probation until you start to publish at least twice a year.

So the minimum requirement is twice a year?

Yes. That's the minimum. But we don't accept if it's not refereed. But if you can submit your journal, we can make a preliminary evaluation of it then if it's okay, we are going to put you on probation. You have to come up in the future to publish at least twice a year. Right now we're helping other journals get launched. We can help you. You can drop by our office, we can give you all the forms if you want to come up with your journals. Or if you want to have a peer-review easy for you, we can give you everything.

Good afternoon! My name is Dr. Mauro Allan Amparado from the University of Cebu. I'm a nurse by profession. There's this annual conference among nurses spearheaded by eight countries, which are also spearheaded by their respective nursing associations. Just to name a few, there's Thailand, Singapore, Philippines. What's nice about the East Asian Forum of Nursing Scholars is they are able to tie up with a peer review international journal called the Asian Journal of Nursing and the International Journal of Nursing Intervention which publishes all participants' abstracts automatically in the journal. My question is, is it ethical to publish in another journal in an article form?

Yes, it's okay to do that. If you publish only an abstract. It's okay to publish in another for an article.

Good afternoon. I am Dr. Montoya of the organizing committee, Melfer Montoya, not the other Montoya. I'm from Cebu Institute of Medicine. I'm interested to know because our medical students are using experimental animals in their studies. I'm interested to know if there is really a need for an animal ethics review committee for that particular paper to be published in a research journal.

I think there are rules for animals which are entirely different from humans. I'm not familiar with the guidelines but I was listening with the Student's Research Oral Competition and that was an issue. They were using rats and there are rules for the ethical treatment of rats. But you should follow the guidelines.

My question, for these papers, are they going to be published or not?

Well, if you have statements that stated that the standard ethical policies for animals were followed in this particular paper. If you have that disclaimer and you are going to submit it to me, I'll publish it.

While I was discussing this, my seatmate was also asking do we have an animal ethics review for fish?

Hi I am Romeo, from Cebu Doctor's University College of Medicine. I am currently doing a paper on animals, and usually it's the IACUC, Institutional Animal Care and Use Committee and is based in Southwestern University. The guidelines that they gave to us is for as long as it's an invertebrate, then they don't do IACUC Certification. For vertebrates, they need ethical review.

That's a valid point. For vertebrates and invertebrates. Are there any questions regarding human studies?

Sir, can you comment on the use of photos? For example, we have a lot residents who use the photos of patients. They usually asked for an informed consent, which is, by the way, not a form, it's a process. They usually cover the eyes. Now, the ophthalmology group is complaining, paano naman kung sa mata?

You can use close-up pictures for that, yes. But you don't have to necessarily identify the person. But of course, they have to ask for the consent. I think you need to ask, with consent, na gagamitin ko iyong mata sa picture ninyo but hindi ko kayo i-iidentify at iyong mata niyo lang ang makikita at hindi kayo.

Strategic and Systematic Approach for Disaster Preparedness

Dr. Lester S.A. Geroy
Team Leader, WHO Cebu Field Office for Post-Haiyan Recovery
WHO Philippines

Discussion

Good morning! I'm here to present as team leader of WHO Philippines, Cebu. So this topic is focused on emergencies and disasters in the Philippines especially looking at how we will be strategic and how we will have systematic approach to this. What we will have in the next twenty to thirty minutes is the outline or lessons in disasters and how these influence policy development and how we incline to do this. In the same way, we will also introduce *Emergency and Disaster Risk Management for Health (EDRM-H)* as a framework to strengthen research and ensure translation into policy and behavior change. Very quickly, we will find some lessons learnt from Yolanda, research activities and the studies that have been done and we are going to take a look at their framework and try to see how we will look things forward.

So on February, March 2014, the Department of Health, World Health Organization and other organizations had a series of review and evaluation on the successes, implementation and challenges on Typhoon Yolanda. And these evaluation and discussion have brought four certain key areas for enhancements which are: (1) logistics and finance capacity, (2) resilience of hospitals and health facilities, (3) policy and planning and (4) Incident Command System (ICS) at all levels. These are the key areas that we wanted to enhance, to improve this year and in the next years. However, we also wanted to show you that these lessons have already been identified as key areas for empowerment and study in the last few years. A few years back in history, we have Typhoon Frank (2008), Typhoons Ondoy, Pepeng and Santi (2009), Typhoon Sendong (2011), Typhoon Pablo (2012) and came Typhoon Yolanda (2013), which was bigger and affected 2/3 of the country's political and social system. So these experiences in the last few years have actually provided innovative and strategies for us but there are also areas that need to be reviewed and acted upon. So yes, in a sense, we have policies in place. We prepared and response, in general, was good. However, we often ask ourselves and we try to rationalize, we say for Yolanda, the magnitude was great, there were policy gaps, poor implementation and conflicting ideas and in stakeholders both at the national and local level. And because of these, we find that the magnitude and the effect of Yolanda that caused the injuries, the impact of healthcare and health systems were really great. And we ask ourselves, *"Are we really prepared?" "Could we have done better?"* And we also see fingers pointing trying to point, trying to blame who was really at fault, the national government, the local government, was it because the link between the national and local government was so difficult? So we begin to ask ourselves, *"Did we see and learn really from the last three disasters?" "Or did we really applied what we learned?"* We really understand our situation. Our country is made of islands and we have lots and lots of volcanoes and we are an earthquake fault country and geographically, we have typhoons coming every year so we have a lot of risks already in the country. And this has given us a lot of disaster history and experiences. How do these experiences we have reviews, the Department of Health, academe, national and local governments have reviews on what happened and we try to improve and how we could move forward. And then supposed to be these reviews would help us develop policies and will bring about implementation, change and improvement. But then, we ask ourselves especially when we talk of researches, policies, *"What went wrong?" "Why is it?" "We could have done better but we could not.*" And so we begin to have questions. The country already had a long history in health emergency management and research. And this time, we will take a quick look on what we have achieved for the last three years. Sometime between 2004 and 2007, the World Health Organization supported several researches on Philippine emergencies and at that time, we started several programs including disaster preparedness in schools and mobile technology for health emergency information. At that time, we had already good history of events after the earthquake in 1991, we have Quezon floods (2004), Guinsaugon Landslide (2005), Southern Leyte Mudslide (2006), Albay and Camarines Sur Typhoons (2006), damage to health facilities by typhoons (2006), mass gathering emergency (ULTRA Stampede) and the Guimaras oil spill (2006).

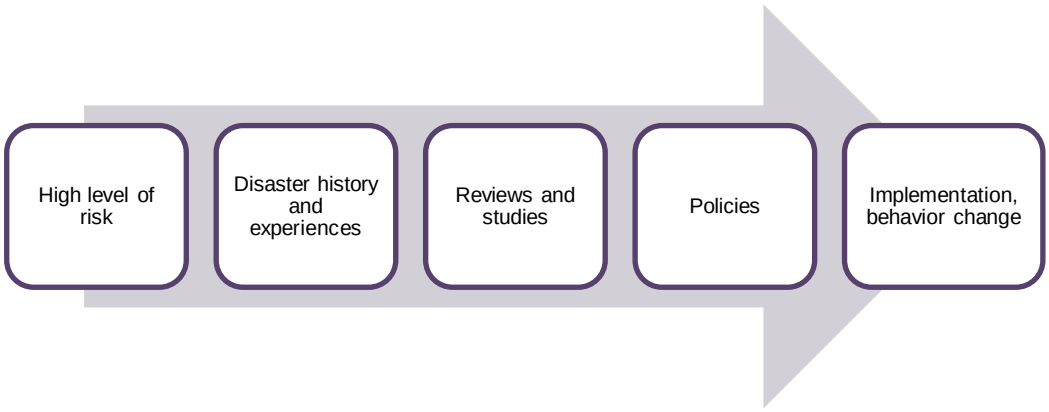
Around 2006, the National Institutes of Health (NIH) made a collaboration for health emergencies and disasters and it was supported by WHO and PCHRD was there and the DOH and several research proposals were developed. So as early as 2006, eight years ago, many of the health research priorities we have now, have already been identified: database of disasters, assessment of emergency preparedness and response in the health system, assessment of disaster preparedness training, review of existing policies and development of appropriate regulations, survey on Knowledge, Attitude, Practices (KAP) of community on preparedness and response, health promotion needs assessment, analysis of direct and indirect costs of disaster, cost effectiveness of preparedness and response activities and assessment of capacity in EPR of chemical incidents.

We can see already some familiar words in the research proposals they had at that time – health systems, preparedness, policies, health promotion, and costs. So we ask ourselves again, *"Do the research at that time move forward?" "Have all these research being studied?" "What are the policy outcomes and what happened?*" In 2007, we had the Advisory Committee on Health Research (ACHR), 48th session in Manila under the World Health Organization and there was a sub-committee on the use of evidence in emergency situations. At that time, two presentations from the Philippines, one from the Department of Health (M. Beltran): EVIPNET Project in Southern Leyte: Use and Translation of Evidence and Research in Response to Health Emergencies and another one from the WHO (A. Pesigan): Research on Emergencies in Western Pacific Region. The studies from this time were all coming from literature reviews and the study of disasters in Asia and the Pacific. Around this time, we already had several topics that we are teaching on schools and on training programs. And these are the following: disaster planning, response, coordination, rehabilitation, risk analysis, management policies and politics, psychosocial issues, hospital and pre-hospital activities, public health issues, statistics and risk communication. They are also familiar to us now. So yes, there is already increasing knowledge at this time of what to do, what not to do and how best to do things. We were moving forward.

In 2007 also, we identified gaps for research. These included clinical case management, assessment tools for mental health, management of nutrition problems, guidelines for temporary settlements, risk communication and health facilities planning. At that time, there were also recommendations to establish stronger research agenda in the whole region and therefore academic institutions in the Philippines and nearby countries to collaborate. Research should at that time provide evidence to develop policies and operation guidelines and then we need to develop capacity building strategy, tool kit to guide field researchers and World Health Organization collaborating centers across several countries around the Philippines and the Philippines itself. From 2008-2009, there was a focus on safe hospitals. So we had studies in the Philippines on hospital best practices in preparedness and response. At that time also, we started trainings on safe hospitals. The concept of safe hospitals is that hospitals should be safe in earthquakes, in typhoons it should function and it looks not just on the structural but also the equipment that we have, the medicines, the human resources and the function that should continue during and after an emergency or a disaster. At that time, we also have safe hospitals assessment tools and we try to assess the capacity and the quality standards of hospitals in all regions in the Philippines. So yes, at that time, we had a build-up of knowledge towards policies and standards on safe hospitals.

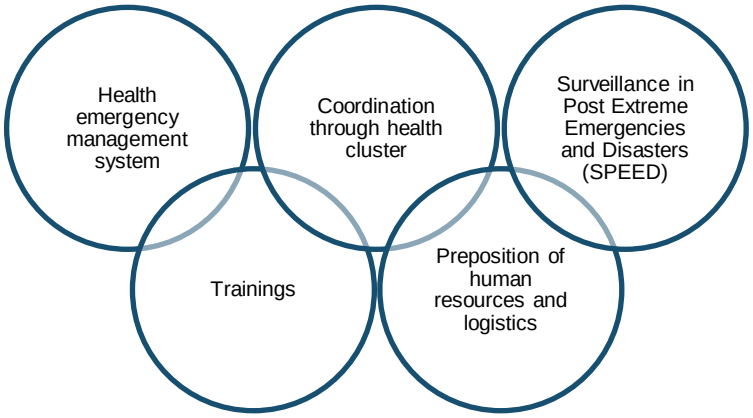
In 2009, we also had studies after the typhoons Ondoy, Pepeng and Santi (OPS), the World Health Organziation and the Department of Health also in partnership with other partners, other field tanks, the National Institutes of Health. We had studies on several areas that were important after the floods which included review of cluster activities, donations practices, estimation of cost of health sector interventions, rapid assessment tool for estimating damage to health facilities, assessment of health services, use of the World Health Organization tool kit in impact assessment, analysis of training programs conducted and the Department of Health policy review. Since around 2004 to 2009, WHO supported the evolution and the development of research in the Philippines in the areas of emergencies and disaster and it has gone through several fronts as we have discussed including forums, evaluations, studies, publications and others. The WHO contributions are: 2006 HEAD, PCHRD, WHO Forum and development of proposals, post-OPS studies funding and PIE, various post-incident evaluations, safe hospitals campaign, EVIPNET support with PCHRD, publication of special issue of Southeast Asian Journal of Tropical Medicine and Public Health on health emergency management and Yolanda reviews. We had several observations, one is when a disaster happens, which is almost every year, there would be interest and the support would peak. People would come – public health practitioners, medical students, doctors would come and join and would be interested not just in the response but also in research and the trend is we have, because of the funding that comes, we have increase in pool of researches and knowledge. Many of these studies were also response-oriented what happened right after but less on recovery and less on preparedness. On the other hand, despite the strengths we have, we find that despite our rich experiences and rich capital for these, we have minimal formal studies/research output in degree programs. Our peer-review journals and publications are not that many probably because our research culture in the country is not yet that strong or mainly because English is only a second language. And then we ask ourselves, *"What were the impacts of these research and studies on operations, health systems, if they really improved?"*

So again, we go back to the Philippine situation that we know well of. We come from a country with high level of risk especially natural hazards. We have disaster history and experiences and then we have reviews and studies and then we expect to develop policies and have good implementation after this.



So this is where we are in and this is what want to know. Yes, we also understand that we have several success stories and we are proud of that. And we are recognized internationally as a leader on innovation on health emergencies. So we have for example, the Health Emergency Management System, we have the Department of Health with it and we have a dedicated office specific to emergencies and then we have coordination through health clusters which happens not just during emergencies but even before. We have also developed training programs for health managers at the local level, at the national level and these training programs are also trickled to universities, academes and all related to health emergencies. We have the Surveillance in Post Extreme Emergencies and Disasters (SPEED), I'm not sure if you are familiar with this. It is a mobile-based surveillance system where every day, health workers, nurses, midwives will send a text message on their existing diseases present in the locality and we are happy for SPEED. It was developed by DOH through the WHO. Also because of SPEED, our outbreaks after Typhoon Ondoy, leptospirosis, after that, we had minimal outbreaks or no outbreaks at all because of SPEED or the surveillance system. And then we had preposition on human resource and logistics. So there is a system, the Department of Health has a system but before the emergency we should already preposition people and supplies and funds especially at the local level and in areas where the emergency should happened. So we have all the systems and we have these quick wins and then we say, *"Why is it that despite everything, things are still not very smooth, there are still lots of deaths?"* In fact, all these wins are still developing, improving. They are still being smoothened out. We want to improve this over and over and integrate it to normative work. For example, SPEED should be integrated to the day to day system.

FILIPINO WINS



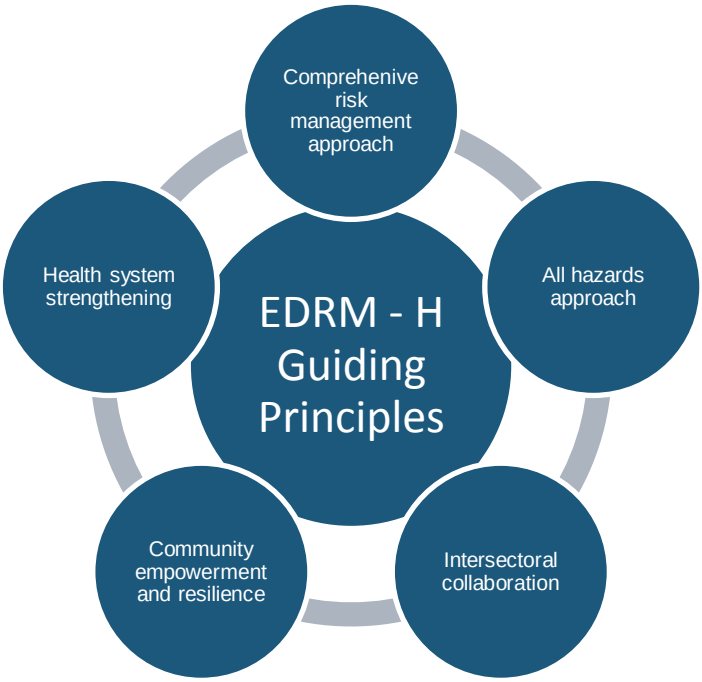
So, yes, the Philippines is a leader and innovator in health emergency planning and we are recognized worldwide for that. And in many emergency and disaster conferences, there are always many Filipino experts going around and that's also because of our rich experiences in disasters. But, yes, we also believe that we can do more. We introduce today, now, this is the last part of the discussion. The *Emergency and Disaster Risk Management for Health (EDRM-H).* It's a more comprehensive framework that we want to think about. You don't have to necessarily follow it but the idea of something that is more comprehensive and encompassing. It's important.

Emergency and Disaster Risk Management for Health (EDRM-H)

Vision: Improved health outcomes for people at risk of emergencies and disasters

Expected outcomes: Countries and communities with better capacities to manage the health risks associated with emergencies and disasters

It is also a new paradigm. Although in the end it's not very new because we are only combining and integrating things that we already know, that we have already learned in the last years. So it's a risk management approach and it bridges health and multi-sectoral so not just the health sector but different groups of people and areas of study working together and draws on emergency management, disaster risk reduction, IHR, which is more on the outbreak side and health systems. These are some guiding principles of the Emergency and Disaster Risk Management for Health and you will see that all the concepts and all the words are actually familiar and we know of these already. For example, the comprehensive risk management approach says that the approach should not just be response but it should come from the preparedness, response, recovery, mitigation and prevention. So it's all the different stages in emergency and it looks at the whole cycle again it's preparedness, response, recovery, mitigation and prevention and we all know that. Another important principle for the EDRM-H are the six building blocks of health and everybody can memorize the six blocks of the health system, studying the governance of health, human resources, financing, service delivery, medicines and logistics and health information system. When you say all hazards approach, it means we prepare for everything – earthquake, typhoon, floods, conflicts so it's a whole package and we adjust our actions based on the risks, based on what will happened. So that's the all hazards approach.



And of course, important and familiar to all of us, community empowerment and resilience. This is where we include the concept or the importance of grassroots, equity, human rights, including primary health care which is still necessary even now and empowerment of local leaders at the barangay level and LGU. And finally, inter-sectoral collaboration. We're beginning to understand in the health sector that if you want improve health, it's not just health, we need to work together closely with social welfare, infrastructure sector, with security, with finance, with politicians and everybody else. So it's seems so complicated yet comprehensive approach. So these are the main guiding principles. So combining all those five concepts, we end up with these key components: policies, legislation and strategies, human resources, financial resources, planning and coordination, information and knowledge management, health infrastructure and logistics, health and related services and community *Emergency and Disaster Risk Management in Health (EDRM-H)* capacities. So all these are combined and necessary to move forward. So this is just a framework, a tool, we don't have to follow it to the dot but what's important is we understand the concept and based on where we are and our local contexts, we applied this. So moving forward are three main things that we would like to promote. So we have framework, a strategy or

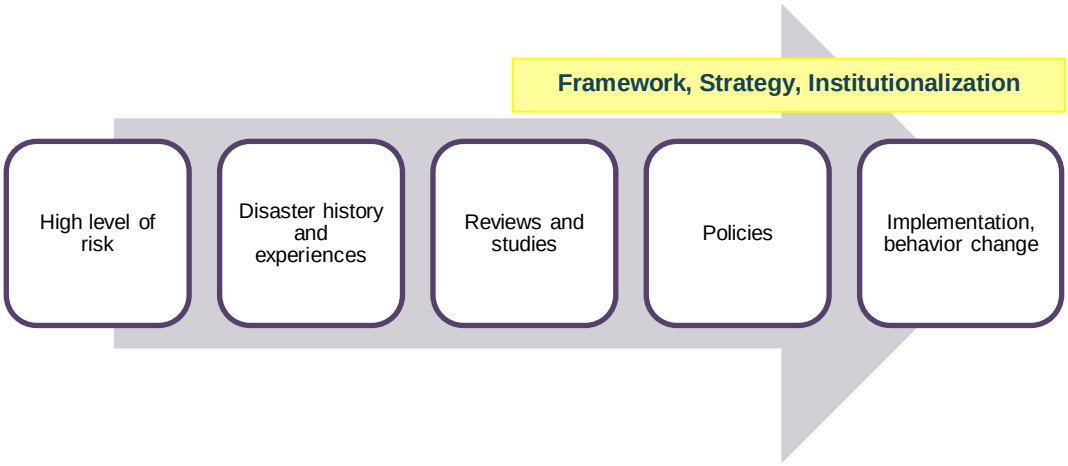
institutionalization for a more environmental support to move forward. Framework, so again, we have discussed the *Emergency and Disaster Risk Management in Health (EDRM-H),* which is again more comprehensive looking at emergencies and the area that we have study in a comprehensive way not just in terms of time and chronology but in terms of people involved in the whole system. And putting that framework into an agenda.

Annually, we have the National Unified Research Agenda (NUHRA) and you have also annual research agenda, research plans for example the Department of Health, CHRD, the National Institutes of Health, Philhealth and so on. So based on priorities and contexts that we have, we try to prioritize what is needed on the agenda. And we have existing institutions, I have just enumerated them. We also have schools and universities who are helping us. So there's a lot of groundwork already. A lot of capital to finish this forward on the research framework and putting it into the agenda. And then we go to strategy. All of us know that when we do research, it's not just students researching something, doing surveys and reviews. It's not just researchers being paid to just do this and then that's it. It should be more of that. There should be a very close link between researchers and policy makers. Researchers and decision-makers both at the local and national level. So, that link should be clear and always on the mind of researchers as well as leaders and decision makers. As part of the strategy we need to have state of the art review, *"What do we know and not know?"* So several topics, several agenda have been done before and we already know these things and yet, what else do we need to know to move forward. And part of this question what else do we need to know, we have discussed that it should be comprehensive. There should be studies on time frame like preparedness, recovery, response as well as clinical side, public health side, the policy side, the finance side of health. So in order to come up with ideas, to come up with the comprehensive plan and strategy, we need to have that state of the art review where we can identify what we already know and what else do we need to know. And once we have done that, we go to the operationalization, how do we do these things effectively? Is there a system for submitting proposals, monitoring the implementation of studies and then seeing how studies are developed and are used into policies and are integrated in plans at the national level and the local level? So the question is, *"How do we sustain it?" "What do we need?*" Again, it's not just a matter of researches having been done but it's also a matter of linking researcher and researches with people, with decision makers, with champions, with advocates. And so, we also ask ourselves, *"Who are these stakeholders?*" And once we start research, we should already think of stakeholders, who are the people involved so that we can ensure that the studies that we are doing, the projects that we are doing becoming part, integrated into the health system, the health sector.

We're almost done and we're showing you here the value of the institutions, environment and research culture for *Emergency and Disaster Risk Management in Health (EDRM-H)*. And it looks again at the health research perspective so we have resources, do we have enough resources in the country? Yes we already know that funds are increasing but how much of these are concentrated on health, on research? And yet, we have now understood that even if we have lots of money, we need people, we need brains to work on these researches. So the next question is, yes we have funds but do we have the technical capacity to do research? We have very limited number of people who do research and it's an area we also need to improve. And once we had protocols, for example under the Department of Health, with the Philippine Council for Health Research and Development-Department of Science and Technology (PCHRD-DOST), with universities. Are these supported by a strong research for health? The Philippines, as I have shown you, is a leader in innovation. We have done a lot but we can also do more. Publications is an area that we can strengthen, of course, and as mentioned earlier, the need for champions and advocates to link research results with policies. In some countries, one innovation they do is when there is a disaster, whether in the same country or abroad, part of the deployment team is not just responders but also researchers. Researchers who would be there at the time of response and at the time of recovery. Academic support, we already have institutions with very strong knowledge and capital on health emergencies for example, Department of Health – Emergency Management Bureau and then we have universities, National Institutes of Health (NIH), already doing a lot of research. Are these enough? Are these sufficient? Or do we need also an institution or sub-institution that would really focus on emergency situations?

In other countries, there are institutions with a very clear mandate to focus on disasters and it's an all-encompassing institution and disaster as a whole and health is one aspect and being a high-risk country, it's not a bad idea. In fact, it's a very good policy direction to have a specialized institution to focus on disaster and emergency health. We also have existing Master's Degree in Public Health and International Health. We need to produce more knowledge, more studies, more dissertations related to disasters and proportion of studies in academic programs should also be dedicated to Emergency and Disaster Risk Management in Health (EDMR-H). We don't know yet what is there and us in the World Health Organization, we don't know exactly if in schools and universities, how much of their researches are focused on disasters? And then we can have recognition,

awards, we can have forums focusing on disaster risk management, disasters, emergencies especially in the field of health. So there's a lot of meaningful improvement in strengthening and we have also shown that in the last few years, we have learned a lot from the disaster experiences and we have produced many successful policies, innovations, strategies that are already being recognized. So we go back to this simple diagram:



Again, our country, with this high level of risk we have experiences and we can have that into studies and policies and implementation. But in order for us to be strategic and systemic in translating our experiences into policy, into change in behavior, we need to have a strong framework and being strategic also when we do research and how we do research, the stakeholders and looking at the sustainability of our studies. And we institutionalize it to affect a culture among Filipino educators, among Filipino institutions that are strong in research especially in the areas of disaster management and more and more young Filipino public health experts that I know of are now focusing into areas of disaster risk management, emergency management both at the clinical side and public health side. And there are more and more Filipinos becoming interested globally if there is a demand for experts on emergencies and disasters. So it's a good time to move forward and to build what we already have to build also from our own pool of knowledge and human resource. And we also need to be pro-active and systemic in all of these things. So thank you for the time and for your attention.

Utilizing Nutrition Research in Assessing Disaster Consequences

Dr. Cecilia S. Acuin
Food and Nutrition Research Institute

Discussion

Magandang umaga po, good morning, maayong buntag sa inyong lahat! First I'd like to thank the Philippine Council for Health Research and Development (PCHRD) and the Philippine National Health Research System (PNHRS) for giving me this opportunity to share some of our works at the Food and Nutrition Research Institute (FNRI), innovation to disasters. In the beginning, I was just asking for a small parallel session (yesterday during the pre-conference) because we wanted to disseminate the results of the National Nutrition Survey since this is the audience that is not usually reached by the nutrition dissemination circles so I thought this was a good opportunity to share the National Nutrition Survey results. But then, I don't know for some reason they decided put me in the plenary so now I'm really grateful, now I have a bigger audience. But now I realized, when I looked at the program, this is going to be the only session on nutrition which I felt that I have a heavier responsibility on my part to go beyond just the National Nutrition Survey and some of the things that they do at FNRI that might be relevant to disaster work. So I thought I would touch on three areas that we do work on. One is within the context of food as a very basic need especially when disaster and emergencies strike but I don't know if many of us are familiar with our law exactly what kind of food should we be giving during a disaster and emergency. And during the disaster context, it is a time when the urgency of the situation is magnified so people may not be in a position to define priorities at that stage so you should be defining your priorities ahead of a disaster. So who should you be reaching first? Who need the most help? So this is where some of our data from the National Nutrition Survey might be useful. And then in the third context, will be the prevention of serious consequences. We know that if

people are deprived of good nutrition then of course, they will be more vulnerable to illness and other consequences of under nutrition. So I'm going to share with you some of our on-going work regarding with that.
So first let's tackle the issue on what kind of food. This picture I took from the Inquirer, this was Day 2 or Day 3 from Yolanda and this was a man who was waiting at the airport for relief. You can see the desperation and the starvation look on his face. So in these situations, during the first few days of any disaster, the first food you should give would be for immediate relief. This is different from let's say, from a prolonged emergency situation, because over time we need to be giving different kinds of food otherwise magsasawa naman iyong mga tao, people will get tired of the food we are giving. But during the first few days, you have to give something that's quick, that's easy to serve and that has high energy because these are people who are closed to starving. And so the kind of food that is usually given. This is what the World Food Programme gives on a global basis. These are high-energy biscuits. They are high-energy meaning, that for every gram of the biscuit, the calorie density is much higher than your ordinary biscuit and are also higher than what you might get with the same gram of rice. So mas maganda talaga ito and they are also nice because they are fortified with different vitamins and minerals. What's the problem here? Biscuits are not a meal to Filipinos and we heard many complaints during disaster, *"Ay Ma'am, they only give us biscuits,"* and they felt that it was an inadequate relief. It was an inadequate response. They do not realize that these are special biscuits and we have to explain to them that these are really special biscuits designed for disasters and emergency relief. Why biscuits? Because you don't need to cook them. You don't need water. You can just give them, distribute them without any paraphernalia requirement. So in situations where there is no land because everything is flooded so you have no stoves, you have no fuel, you have no clean water to cook with and that's why they give biscuits. Of course, it's hard to explain when they are just air lifting food then just dropping it. Perhaps some prior information, like during this time, when things are calm wala namang disaster at the moment. This is the time you explain to them, to explain to the communities that these are the type of food that are given because they are quick, they are easy to serve and they are high-energy. Also that they fit the needs of a wide variety of age groups.

But then what do you give to complementary feeding children? This is a special group of the population. They may not necessarily be able to eat biscuits yet because they may not teeth yet. Or they may not be able to consume enough biscuits in order to make the requirements. By the way, the World Food Programme biscuits, I believe can meet up to 1/3 of your daily requirements. So if you have three servings of this, you will be able to beat your daily requirements but you will not feel full because you're Pinoy, you're used to rice or corn. So don't expect that. But at least, you will have your nutrient requirements to sustain you during the emergency period. But for children, especially those with complementary feeding, this is a real challenge because they normally even without any disaster or emergency, they are already difficult to feed and you know that. They cannot normally consume what they need just through the usual kind of feeding so you really need to give them, even under ordinary circumstances, you have to give them something that is already energy and nutrient dense because they cannot consume a lot. So because of this, the relief packets for them are usually the blends. So mga corn-soy blends or wheat-soy blends, so these are foods of these nature. What is the problem with these? You need water in order to feed it to these children because they come in powder form so they need some water. I think the more recent development for these kind of supplements, you may need not to cook them anymore. But you still need water kind of like your complementary food, your commercial complementary that's available. But still you need water and that can be a precious commodity in an emergency situation. So this is an issue that FNRI has been working with.

So with the help with the World Food Programme, FNRI developed, we call it *Momsie*. This is very new. We just completed the initial research for *Momsie* but this was just launched last month so mainit-init pa. So this is just hot off the press and *Momsie* is packaged in sachets like the one that you see here. And the contents is like *peanut butter.* If you open it, sorry I wasn't able to bring samples, but if you open it, it's like peanut butter inside but it's fortified with vitamins and minerals. It is very energy-dense. It has high-content of oils and sesame seeds aside from peanuts and soy blend. So meron din iyang konting soy blend, meron din iyang powdered milk na kasama. So it's a very high-energy and nutrient dense food. Now, I am showing it beside *Plumpy Sup*. I don't know but some of you might be familiar with *Plumpy Sup*. *Plumpy Sup* is the World Food Programme, it's not for emergencies and it's for the treatment of moderately acute malnutrition. So it's also in sachets like you see here. The formulation of *Momsie* is very close to the formulation of *Plumpy Sup*. So you can see that if you look at the nutrient content and the energy content of these two products, they're very similar. The difference is in the packaging. *Plumpy Sup* comes in 92-grams sachets which we found, at least from the FNRI research, was too big for children under 1 year old. They could not finish 1 sachet and so that's why for *Momsie*, we packaged *Momsie* in 25-grams sachets so that it would be easier for the children to consume. And if they want more, you just give them a second sachet. It's not prohibited to give them more especially in the emergency situation where

the metabolic demands are high so you can just keep giving it to them. Now, since this is just of hot off the press, we are going to be still conducting efficacy trials on *Momsie*. That means, we will be testing *Momsie* as a therapeutic food like *Plumpy Sup* for moderately acute malnutrition. But for emergency distribution, for the usual child, I think they can already position *Momsie* as an energy food. This is one of the researches that are being done in FNRI.

And I have to tell you something about breastfeeding during emergencies. This is after all August, this is breastfeeding month. This is an issue that has been a very contentious issue and those of you who are in emergency and disaster relief, I know you encountered this because there are many people, many companies who want to donate infant formula during times of disaster. It's a very logical donation because people need food so you give infant formula but there are dangers to doing that. This is a research that comes from the experience of Indonesia during the earthquake of 2006 and I wish we could have a similar research done here in the Philippines. So if any of you are looking for a research topic, please consider this because we need this kind of data for the Philippines. So what happened was during the immediate relief after the earthquake people were donating the usual things. So they donated infant formula, a lot of it. But what did they find? I boxed the pertinent findings in red, *the consumption of all breast milk substitutes was significantly higher among those who received donated commodities regardless of age. Post-earthquake diarrhea incidence among those who receive donated infant formula was 25.4% and this was doubled compared to those who do not receive infant formula with a relative risk of 2.12. The rate of diarrhea among those 12-23 months was around 5 times the 3 earthquake rate.* And this is the danger when you give infant formula in emergency situations. Why? There's no clean water. Where will you mix the infant formula? How will you clean the bottles? How will mothers wash their hands before they prepare the infant formula? And that's why it's essential to maintain the breastfeeding. Because many people tell me, *"But Doktora, you know the mothers are already harassed because they are in an emergency situation."* That's why the policy now of the Department of Health is during emergency situations mothers and babies should be placed in a separate tent or in a separate corner where things are a little more quiet so that the mothers can breastfeed in relatively peaceful circumstances even despite the emergency that is going-on around them. So this is the reason why you need to maintain breastfeeding even during emergencies and as much as possible do not give donated infant formula to babies who are breastfeeding. Babies who are not breastfeeding, of course, they will need this but then you will have to monitor them very closely to ensure that they get clean water and that they get clean feeding bottles and that mothers are able to wash their hands. Let me tell you that's a more difficult task than just allowing the mother to continue breastfeeding. So this is the reason why DOH has a policy to restrain the donation of infant formula and to allow it only very controlled circumstances. So that's about what kind of food to give.

So the next issue is who do you give it to or who do you give priority to? So from this, I will give you the results of our National Nutrition Survey and the posters of this survey are actually placed outside of the hall if you want to look into more details because I'm only going to show highlights that are related to the topic we have today. A short historical background, FNRI has been conducting this National Nutrition Surveys since 1978 and at that time, the population of the Philippines was only 45 million. So the survey itself was only consisted of 2,800 households and about 17,000 individuals. So, fast forward to 2013, the 8th National Nutrition Survey which we conducted last year, the population of the Philippines was already 97.4 million. There was a doubling of the population but if you note the coverage of the National Nutrition Survey increased ten-fold. So from 2008, more than ten-fold to 45,000 households and 172,000 individuals that's how extensive this survey is. The survey increased not just in size of population but also in complexity. So in the beginning, it was just a measurement of anthropometry, some basic biochemistry like anemia prevalence, some clinical information and dietary information. But over the years, many components have been added to this survey so now it is more than just a nutrition survey, it is a National Nutrition and Health Survey. There are many health components here and you will see in the posters, for example, smoking prevalence, hypertension, diabetes prevalence which I'm not going to talk about here because they're not related to our topic but feel free to browse the posters. Now, I'm going to share a little about the sampling design and this is in response to some of my colleague who said we don't talk about the methodology, that the methodology of the National Nutrition Survey seems obscure. If actually if they will read what's on the website they will know that it's not obscure since FNRI is a government agency, we follow the procedures of the Philippine Statistics Authority. Now in 2013, they were still divided into four units. So the National Statistics Office actually gives us or provides us with a master sample and we utilized a multi-stage stratified sampling design that follows government standards regarding sampling. So we used four replicates of the master sample and this is a hundred percent of the 2009 Labor Survey Households. You can see that the results of our survey can be linked with the other government surveys. That's the reason why we used a common master sample and a common sampling design. So from the four replicates that allows us to determine provincial

estimates so for last year's survey we will be able to provide provincial estimates at least for anthropometry and for selected indicators. We still cannot provide provincial estimates for the laboratory because that's very expensive to do but if there are LGUs who are interested to have lab tests or lab samples included in their LGU survey we can do that. We can oversample at their level. So we follow the standard government procedure.

So this was for the 2013 National Nutrition Survey if you will notice usually the surveys take only about 4 to 6 months, but last year the survey was conducted during the time when the Zamboanga siege took place in September and then the Bohol earthquake took place in October and then we had Yolanda in November so tinamaan talaga lahat ng mga areas, of course, because it's nationwide. So in some places, we were lucky. We completed the survey before the disasters struck. In some places, we were not so lucky and we completed the surveys after the disasters struck. So I will show you later what the implications of this on the results of the survey. First, let me share with you the over-all results. And I will be only taking about the results of the children surveys. I don't have time to discuss all of them. So for the prevalence of malnutrition so you see here different forms of malnutrition both over and under so the under nutrition side we have underweight (the red line), we have stunting (the blue line), we have wasting (the grey line) and we have overweight for height (the green line). So what do you notice? One is that, our under nutrition rate have not changed in the last 15 years. We have not done anything. I'm not going to say that we have not done anything substantial but nothing that would change the underweight prevalence as a country. So this means, the implication of this is that we are going to miss Millennium Development Goal 1 which includes a 50% reduction in underweight prevalence of children under 5 so we are going to miss that because we have not been able to substantially reduce our underweight prevalence. That's the red line. What we have been able to do over the last 2 years or 3 years, is reduce stunting, that's the blue line, that's the one on top. So if you noticed that line, the 2013 Survey shows a reduction in stunting by about 3 percentage points and that is significant but it is the first substantial reduction of stunting over 10 years. So ang tagal talaga. We lost a decade where nothing happened in terms of our under nutrition prevalence. The other thing that you will notice here is that wasting, and that's the grey line, has been going up. Wasting is actually the most serious indicator here because it is most closely related to mortality. Wasted children, this is a form of acute malnutrition or acute under nutrition. Wasted children have very high risk of dying and every hour prevalence of wasting has been increasing over the years. Slowly but surely and significantly. So this I think a cause for alarm because these are the children who can die and this nutritional condition that could prevent us from achieving our child mortality goals because after a while, if we are not going to address wasting we will not be able to reduce our child mortality any further just using immunization or Vitamin A or treatment of childhood illness. We have to do something about our wasting if we want to achieve our childhood mortality goals. There's also a slow increase which is also significant in overweight. That's a different problem. I will show to you later what the implications of that are. So these are the pertinent results of the National Nutrition Survey for children. I'm showing this as a background to some analysis that we did relating nutritional analysis to disaster occurrence. Just a little more about wasting, these are the regional prevalence of wasting. So overall, for the Philippines it's 7.9% and you can identify your own regions here. The prevalence of wasting is highest, at least for 2013, in the Ilocos region, in MIMAROPA, in Western Visayas and in ARMM. I think the Eastern Visayas data here might be misleading because we finished Eastern Visayas just before Yolanda, in October. So kaka-alis lang noong team noong dumating si Yolanda. So this is a little misleading for the current situation of wasting in Eastern Visayas but for the rest I think this is, also one note about Western Visayas. The northern part of Western Visayas, we were not able to survey before Yolanda. We survey them after Yolanda and that might be the reason why wasting rates in Western Visayas are high. So we also have to understand that context, remember? When I started out I talked about the disaster context, it affects our National Nutrition Survey.

So, who is at most risk for under nutrition? If you look at the red bars, these are the poorest. So if you do a cross tab of wealth versus the different forms of malnutrition, the poorest are at highest risk except for overweight where it's the other way around. So these are the populations that are already at risk even without a disaster. So what happens if you have a disaster? So this is hot off the press also, my staff worked on this day and night so they sent it to me only last night. So this is unadjusted and I haven't really seen all of their calculations but I'm sharing it with you because I think the directions are correct. What we did here was to get the mean of prevalence of wasting, stunting, underweight in children from provinces who were exposed to calamities at least six months before the survey and those which were not exposed. And if you look at the differences, you will see that those who were exposed all had higher rates of under nutrition compared to those who were not exposed. And the difference was significant particularly for stunting. So I think this is something that we can take note of, that we can use the National Nutrition Survey for these purposes because it can do cross tabs with exposures of the different events in our country. And if you look at that for adults, the story is the same. For adults, we call it Chronic Energy Deficiency and for those who were exposed to calamities, the rates of Chronic Energy Deficiency

are significantly higher compared to the provinces that were not exposed. You might say that why are the rates much lower for adults than for the children? And that is because if we will look at the over-all prevalence nutritional status among our adults, and you can see that in the poster outside, Chronic Energy Deficiency is actually going down in the country among adults but the rates of overweight and obesity are significantly rising. At this point, we are now at 31%, 1 out of 3 Filipino adults are overweight or obese and this is based on weight alone. If you count waist circumference and waist-hip-ratios and those are in the posters, for women I think it is almost 60% or 70%, 2 out of 3 women are overweight or obese if you look at the waist circumference and waist-hip-ratios. Again, these are also alarming trends and that's the reason why I wanted to present this data to you because you are the health practitioners and you are the ones who will act on this. There are very few nutritionist in the country, maybe a ratio of 1 is to 4, 1 is to 3 nutritionist to doctors and of course, much more for nurses and midwives. So, this is something that I think the health practitioners should know about and do something about. So we have a double burden of malnutrition in this country, we have undernourished children and over nourished adults. So the task needs to be more targeted, we cannot give a blanket prescription that we need to increase food consumption. We need to increase food consumption for children but for adults, we need better quality diets not quantity. So that's the second point that I'm trying to share with you this morning.

The third point is about identifying who are vulnerable? So we have an on-going study and in this study we are trying to assess household vulnerability as an indicator food and security resulting from climate change. This is a study where we are utilizing the dietary consumption part of the National Nutrition Survey but we are using the 2008 because the 2013 is still being processed as we speak. So we will be sharing the 2013 dietary survey data maybe towards the end of the year. So in this study, these are the methods that were done. First, was a construction of the shocks. The shocks are defined according to climate change. I will talk about that in a little while and then the climate shocks were matched or linked with the National Nutrition Survey data. We identified vulnerable households and then we modeled the vulnerability versus food security for profiling and policy simulation. So this is how we defined the shocks, these are climate changes, levels of change in temperature and rainfall in year 2008 because that's the one closest to the National Nutrition Survey versus the 20-year average over the last 20 years. So we compared the trends within 2008 compared to the last 20 years and identified more extreme changes, what we called level changes in temperature and in rainfall in 2008. And then we linked these climate changes in terms of economic profile and per capita energy intake from the National Nutrition Survey. So what were the determinants of food consumption? So we found that age and the schooling of the household head were positively associated with food consumption meaning that the older the household head and the more schooling he has, the higher the food consumption which is a logical association. But the relationship is inversed when it comes to household size. The bigger the household size, the lower the food consumption because you have to share with more people in the household. Same thing with wealth index, the higher the wealth index, the higher the food consumption. Again, these are expected results. Now when we put in seasonality index in the model, meaning the seasonality index is a measure of more volatile or more drastic weather changes, we found that there was a lower food consumption when you put in higher seasonality index in the model. But when you disaggregate the seasonality and you only look at the rainfall, if the rainfall pattern is light, if that's the variable you put into the model, then there's an increase in consumption but when the rainfall is heavy, then there's a decrease in the food consumption. But you might say, *"But of course that is what the case is."* But you know that this is the first time that we have data to show that all these logical assumptions we have are actually supported by nationwide food consumption data. So what are the associations naman with vulnerability? Well we found that households engaged in other culture are more vulnerable then we think that is because our culture are our farmers and fishermen that's because the kind of work that they engaged in is highly affected by climate change. The wealth index, of course the lower you are in the wealth index scale, the higher the vulnerability. And then high seasonality we found to be associated with vulnerability but only with the group that is most vulnerable, for the rest, seasonality was not as highly associated with the less vulnerable.

So this is the result of the vulnerability analysis. This is the probability that dietary energy consumption will fall below on threshold and the population was divided into four groups. We have the chronically food insecure, so this is the group where with or without assistance, they will continue to be food insecure. And then on the other hand of the scale, you have the permanently food secure even without assistance, they will remain secure so these are the two extremes. But in the middle, there are people who are temporary insecure or temporarily secure depending on the availability of assistance which again is logical grouping of people. And as you might expect, the vulnerability is associated with wealth index. So the richer ones are the ones who are less vulnerable and the poorer ones are the ones who are more vulnerable and more likely to be food insecure chronically. So if you associate the two, the vulnerability and the food security, this is what we found. The proportions here are population shares and the numbers in brackets are the mean probability of vulnerability. Now what we found, if

people or households are less vulnerable, then they are more likely to be food secure. And it is good news that more than half of our population is considered to be food secure and less vulnerable. On the other end of the scale, the ones who are chronically insecure and most vulnerable are 31% of the population and these are the populations were with or without a disaster, they are going to be insecure. But of course, during a disaster, then they become even more vulnerable and they might even die because they are already insecure to begin with. The good news, at least in my view, is that the ones who are in between are a smaller proportion of our population about 13% to 14%. So these are the ones who change status during a disaster. They are the ones who might need some temporary assistance but once they are able to get back on their feet, they are okay. It is the 31% that we need to pay attention to and these are the ones we can identify even before a disaster so that we do not add to their vulnerability during a disaster. So alam ito ng mga Barangay Captains, the Barangay Captains know who these people are. They are able to pick them out and they are the ones who are brought to the evacuation centers right away, sila ang inuuna. But there might be others who can be identified through their nutritional status to be also vulnerable and therefore must be brought to assistance earlier than others. So when we prioritize the populations to give assistance to, I think this kind of information might be helpful so that we pre-plan the assistance ahead of time.

So I hope I have been able to share with you some technologies for interventions during disasters. There's a promise for *Momsie* to be an emergency food for complementary feeding. The National Nutrition Survey can help us identify who needs the most help and in assessing vulnerability to shocks and potential responses to shocks. Maraming salamat, daghang salamat, thank you very much! Please view the posters. The National Nutrition Survey results that I shared with you are available in our website so you don't have to wait for the Philippine National Health Research System (PNHRS) website to put them up. They're already there. I cannot share with you yet the *Momsie* data and vulnerability data because these are on-going work. We haven't even shared them with the funding agencies yet so I'm just sharing the information so that you'll know that your government is working for you. Salamat po!

A Leader's Science Toolkit for Disaster Preparedness: The Case of Albay

Gov. Joey Salceda / Mr. Abundio V. Nuñez, Jr.
Governor/ Division Chief, Plans and Operation Divisions
Albay Provincial Safety Emergency Management Office (APSEMO)

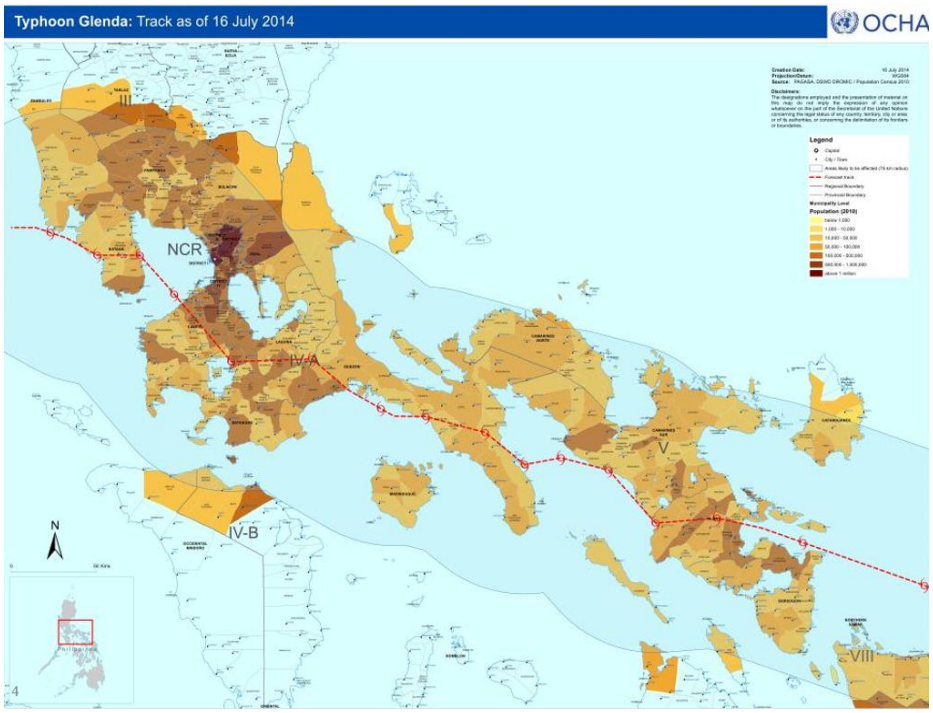
Discussion

Thank you! Good morning! First before I present my presentation, the Governor would like to extend his apology for not being in attendance to this activity as he has an equally important schedule in Metro Manila and he's attending to his father confined at Cardinal Santos Hospital. But he has sent me his presentation, siya po ang gumawa nito and I am the one authorized to present it. Although, this is 139 slides and I am afraid that I may not be able present it all but I have requested the organizers to give an electronic copy of the presentation.

I'll be skipping probably some slides especially the maps as this might not interest you. I'll be focusing more on the activities. I have two presentations: number one is Typhoon Glenda activities and the regular DRRCCA experience in the province of Albay. I'll be presenting here the *"Sectoral Perspectives Focusing on the Needs, Priorities and Best Practices"* of Albay as experienced.

Since Albay is geologically and geographically located in a, tinatawag nating "Pacific Ring of Fire," we still strategize cores in coming up with the disaster risk reduction and management programs. First, is the culture of reduction. We have to instill in them that since we are located in a vulnerable area, we really have to increase our resiliency in order for us to decrease our vulnerability. We have no risk, basically no response, there will be no damage and casualties. Next is, we are goals-oriented. We are able to achieve the Millennium Development Goals (MDGs) way ahead of time. We are able to achieve zero casualties several times and we improve the lives of the Albayanons. Of course, it must be rights-based. It is incumbent that all local government officials, not only in Albay but in the entire Philippines, that they are bounded by the provision of the general welfare clause and our strategy is a multi-stakeholder approach. We involve several social civic society organizations especially the Team Albay, which is composed mostly of different members of the Regional Disaster Risk Reduction and Management Council and the Provincial Risk Reduction and Management Council. Let us discuss first the activities undertaken by Albay in response to the threat of Typhoon Glenda. Please take note that Typhoon

Glenda lingered in Albay for 7 hours. Although kulang iyong tubig, still malakas po ang hangin. So iyan po, please take note na napakalapit niya sa Albay and nagstay siya for 7 hours. So much so that there's severe damage in agriculture, economy and infrastructure.



So because of the response activities undertaken by the Disaster Risk Reduction and Management, the Council, headed by Governor Joey Salceda, was able to achieve zero casualties for Typhoon Glenda. We have no missing, the roads were cleared of debris after two days and electric power supply was restored during the 3rd night but in some areas especially those in far-flung barangays has yet to be connected with electricity. And flights were back and hotels were re-opened. And these were the activities undertaken by Albay. So please take note that in number 1, even though Typhoon Glenda ay wala pa po sa Philippine Area of Responsibility (PAR), minomonitor na po naming iyan. It was Sunday when we issued the first advisory, Advisory 1, for all activities, we were able to issue ten advisories for Typhoon Glenda:

1. Posting and monitoring of Storm Tracks Joint Typhoon Warning Center (JTWC) starting Friday
2. Advisory 1: (Sunday noon) informing of Glenda and usual measures
3. Advisory 2: (Monday morning) Shock therapy. All Level Class Suspension
4. Advisory 3: PDRRMC full council Monday lunch with advice to C/MDRRMCs and BDRRMCs
5. Advisory 4: Evacuation Order for Floods, Landslide and Lahar
6. Advisory 5: Additional evacuation for storm surge and houses made of light materials
7. Advisory 6: Suspension of government work with advice to private
8. Advisory 7: Reiteration of no crossing of rivers and no sailing to sea
9. Inputting of advisories and SWBs to Smart Infoboard and PINDOT
10. Release of evacuation assistance 5kg packs and dispatch of trucks
11. Activation of 14 DRUs and 3 HEMs
12. Continuous radio interviews from Sunday afternoon to Tuesday evening

So these are sample of our advisories, properly authenticated signed by the Governor himself. In this last advisory, here's the automatic price freeze in the Province of Albay. This is vested under the provision of Republic Act 10121 that allows as part of the remedial measures of local government under their area that is declared as "State of Calamity." And because of this, we received several commendations, write-ups regarding the Zero-casualty achievement. And we were even mentioned during the State of the Nation Address of the President, *"Sa Albay na hinagupit kamakailan lang ng bagyong Glenda, walang naitalang pumanaw dahil sa bagyo, salamat sa mabuting pamamahala ni Governor Joey Salceda. At kung kaya itong gawin ng isang probinsya na siya ngang parang natawag na nga pong highway ng mga bagyo, bakit naman tayo magdududa na kakayanin ng iba pang hindi highway ng bagyo?"* And these are the damage report in the province of Albay during Typhoon Glenda.

PROVINCIAL DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL
ALBAY PUBLIC SAFETY AND EMERGENCY MANAGEMENT OFFICE
Provincial Disaster Operation Center
Legazpi City

PARTIAL DAMAGE AND ACTIVITY MONITORING REPORT – TYPHOON GLENDA
as of August 04, 2014

I – CASUALTIES:

Dead	0
Missing	0
Injured	38

II – AFFECTED POPULATION:

Families	136,825
Persons	711,490

III – EVACUATED POPULATION:

Families	100,396
Persons	500,506

IV – DAMAGED HOUSES

		Cost (PhP)
Totally Damaged	25,656	769,680,000.00
Critically Damaged	77,496	2,324,880,000.00
Sub-Total	103,152	3,094,560,000.00

V – DAMAGE TO AGRICULTURE FISHERIES

Type	*Affected Area*	*Production Loss*
Coconut (PCA est.)	9,417 has	1,300,000,000.00
Rice	104,420.47	178,712,643.34
Corn	1,333	31,455,716.00
Vegies, etc.	11,051.45	905,215,430.00
Fisheries	50	1,845,500.00
Sub-Total		2,417,229,289.34

VI – DAMAGE TO LIVESTOCK AND POULTRY:

Type	Heads	*Cost (PhP)*
Misc		4,942,175.00
Sub-Total		4,942,175.00

VII – DAMAGE TO INFRASTRUCTURE

		Cost (PhP)
DPWH	Public Infra	1,210,017,000.00
	Other Gov't Facilities	1,200,000,000.00
PEO	Roads	288,200,009.00
	Bridges	68,500,000.00
	Spillways, Riprap, slope protection	117,850,000.00
	Flood Control	282,850,000.00
	Water System	17,600,000.00
	Irrigation System	48,700,000.00
	Provincial Buildings	80,150,000.00
	City Municipal Infra Facilities	142,500,000.00
Oas	Misc facilities & Water system	2,150,000.00
Bacacay	Water System	15,000,000.00
Guinobatan		105,500,000.00
Polangui		190,000,000.00
Sto. Domingo		67,500,000.00
Ligao City		18,010,000.00
Legazpi City		100,000,000.00
Tabacco City		31,571,980.00
Camalig		9,050,000.00
Malinao		14,098,709.75
	Water System	570,000.00
Tiwi		14,625,000.00
Rapu-Rapu		50,000,000.00
Jovellar		9,725,000.00
DEPED	Totally Damaged	17,880,000.00
	Partially Damaged	43,150,870.00
PVS Facilities		2,122,500.00
Communication Equipments (base, HH radios, antenna, repeaters & other paraphernalia		8,700,200.00
Sub-Total		4,156,021,268.75

GRAND TOTAL **9,672,752,733.09**

Please take note that we do not have casualties and missing, however, for the damage of houses, we have statistics of 103,152 totally and partially damaged. For agriculture, livestock and poultry, all in all we have Php9B damages. And these are the evacuation reports of municipalities and cities. Please take note that we pre-emptively evacuated almost 100,000 households. Meaning to say, we evacuated them a day or two prior the impact of the disaster. Although this cost much with the Province of Albay as we have provided them with their entitlements, 5 kilos of rice per day per family, regardless of the number of family members. So we do away with the usual relief which is SMB, *Sardinas, Maggi at Bigas.* We provide the rice and it is up to the local government to provide the viands. And consequently, on the second day, it was on Tuesday. The government already issued an Executive Order creating the rehabilitation of the Province of Albay. It is called with an acronym, **PAGERR,** *Plan for Albay Glenda Early Recovery and Reconstruction* Program. It is composed of several sectors - economic sector; agriculture/agri facilities, food security; health and health facilities; housing, settlements and livelihoods; public infrastructure; and education; environment and natural resources, ecosystem restoration and enhancement of ecosystem services; DRR (Response, Resources and Capacities; and hazard review and update. We were able to also achieve the DANA, Damage and Needs Assessment on the third day. As monetarist approach for early relief, we were able to secure approval from the different financial institutions: Government Service Insurance System (GSIS), Home Development Mutual Fund (Pag-Ibig Fund), Small Business Guarantee and Finance Corporation (SB Corp), Land Bank of the Philippines (LBP), Social Security System (SSS) and expedite roll-out of infra projects. From the GSIS, they have approved six months moratorium on repayment of all loans in the Province of Albay and not only of the regular members but also of retirees or old age pensioners. For the Pag-Ibig, we are able to secure home improvement in the amount of Php100,000 and there's no need for the members of construction plan of their houses.

Also from the SB Corporation under the Department of Trade and Industry, we were able to provide with the amount of Php37M Enterprise Rehabilitation with the Province of Albay. But please take note, that we also have a share in terms of statistics. It was in 2006, please take a good look sa ibabaw ng red, which are the disastrous years in Albay. Tinamaan ng Typhoon Caloy, pumutok ang bulkan, tumama si Milenyo and tumama si Reming which are Super Typhoons. Kung titingnan po natin, may statistics din kami in terms of casualty. So because of those statistics, we revisited our response activities to risk reduction and we achieved the following outcomes: zero casualty in 18 of 20 years; 8,700 foreign tourists in 2006 to 339,000 in 2013; environmental protection: forest cover increased by 88% and Mangrove by four times; NAT from 177th in 2007 to 19th in 2012; UNICEF Philippine Institute for Development Studies (PIDS): 98% participation rate and dropout rate of 0.3%; College graduates from 34,000 to 188,000 with 77,137 assisted since 2007; Philhealth from 17,000 to 172,000; Maternal Mortality Rate (MMR) of 33 versus 224 national or only 9 mother deaths out of 26,826 live births; Population: +66,580 in 7 years from 1.2m to 1.26m or less than 10,000 pa; rice self-sufficiency from 73% in 2008 to 94% in 2013; 2nd highest producer of camote; and multi-awarded.

Albay pioneered the *Alis Excess* policy, providing free hospitalization due to calamities and disaster effects. Albay is the second producer of camote and the biggest exporter, largest pili hectare at 2,972 from 1,200 has and the "Geonet Capital of the World" seeking 30% or Php12B revenues versus current market leader, Sri Lanka. Geonet is the ones used to make for slope protection. The inventor of this is an Albayanon. There is also an increase in terms of mangrove reforestation. For the tourism, we are the center of influx of both domestic and international tourists. As a permanent solution to the problem, based on the principle of building back better, we have established relocation sites in the Province of Albay. And through the assistance from the funding agencies, from Japan International Cooperation Agency, JICA, we were able to secure assistance to fund construction of six emergency evacuation centers. The evacuation centers are gender-sensitive, rightly spaced and iyan lang po ata ang classroom na granite tiles ang gamit. And it has a separate water supply and generator. Assured iyong mga evacuees na safe sila doon and these are under the geo-hazard assessment of the Philippine Institute of Volcanology and Seismology (PHIVOLCS), the Philippine Atmospheric, Geophysical and Astronomical Service Administration (PAG-ASA) and the Mines and Geosciences Bureau. Of course from the Spanish Agency for International Development Cooperation (AECID), the Spanish government, we were able to get funding again for the six evacuation centers. However, apat pa lang ang nako-construct and this was visited by no less than the Queen of Spain. All these evacuation centers are geographically or strategically located sa mga danger areas. Nasa center po ang Bulkang Mayon. And out of the 18 LGUs, 6 na lang po ang kulang naming na evacuation center. And, the last remaining agencies, it was approved already in principle, sa Tokyo.

Since we, hindi po kami naaapektuhan, in the past 5 years, kami naman po ang pumupunta sa mga affected areas. We are doing this to reciprocate what we have received from the donors or other LGUs when we were hit by Super Typhoon Reming. So kahit wala man sa amin, andoon naman kami sa kanila. 1st Mission: Typhoon

Frank (Fengshen) Iloilo City on June, 2008; 2nd Mission: Typhoon Ondoy (Ketsana) Bagong Silangan, Quezon City and Cainta, Rizal on September, 2009; 3rd Mission: Typhoon Juan (Megi) Isabela on October, 2010; 4th Mission: Typhoon Sendong (Washi) Cagayan de Oro and Iligan City on December, 2011 [also includes Christmas Treat]; 5th Mission: 6.9-Magnitude Earthquake Guihulngan City, Negros Oriental on February, 2012 [also includes Valentines Treat]; 6th Mission: Floods due to Habagat (Southwest Monsoon) Marikina, Quezon City and Malabon on August, 2012; 7th Mission: Cholera & Diarrhea Epidemic Catanduanes on June, 2012; 8th Mission: Typhoon Pablo (Bopha) Davao Oriental and Compostela Valley on December, 2012; 9th Mission: Typhoon Maring (Trami) Laguna and Cavite on August 2013; 10th Mission: 7.2-Magnitude Earthquake Bohol on October, 2013; 11th Mission: Typhoon Yolanda (Haiyan) Leyte and Samar on November, 2013 and 12th Mission: Christmas Treat for Typhoon Yolanda Victims Marabut-Basey, Samar on December, 2013.

And because of the Albay experience, there were two laws that were enacted and were approved: (1) RA 10121 or *The Philippine Disaster Risk Reduction and Management Act of 2010* that mandates to institutionalize a Disaster Risk Reduction and Management Office aside from the Council and RA 9729 or *The Climate Change Commission Law of 2009.* As such, for the Province of Albay, we establish the Climate Change Academy (CCA) Disaster Risk Reduction and Management (DRRM). But now, because of the academy, the Office of the Civil Defense and the National Disaster Risk Reduction and Management Council has accredited or designated Albay's CCA-DRRM as its Training Institute (CCA-DRRM TI) as mandated in R.A. 10121 Sec. 9 "l" outside of Metro Manila. And part of the initial activities, they provided us funds to train Local Government Units (LGUs) from Region IVA to Region VIII. Of course, several foreign countries came in to the academy to have knowledge and learning study on Albay. The academy is located in a big university compound because they have improved partnership to the academe especially the President, Ma'am Faith, who happens to be here as our subject matter expert on DRRM Curriculum. We have provided "observation-based" skills training to seven countries (Laos, Myanmar, Cambodia, Vietnam, Kenya, Nigeria and Timor Leste), while locally: 7 regions, 26 provinces, 31 cities, 210 municipalities and hundreds of barangays; and in partnerships with Non-Government Organizations (NGOs) like CNDR provided training to firms and communities. Of course, the awards that we received: Senior Global Champion for DRR awarded by UN-ISDR during the AMCDRR; Best Province in Local Governance by Department of Interior and Local Government (DILG) in 2010-2013 by DILG; Most Outstanding Disaster Response Award (2013) for Team Albay from Publishers Association of the Philippines (PAPI) and Gawad Kalasag Hall of Fame Award (2012), for the Province of Albay for Best Disaster Risk Reduction and Management Council for three consecutive years (2009 to 2011). Hindi na po kami pwedeng sumali sa Gawad Kalasag as we've been adjudged as Hall of Famer last 2012.We also had Gawad Pamana ng Lahi, Galing Pook Award for the Province of Albay for its Health Strategy towards the Early Attainment of the Millennium Development Goals [MDG] (2011) and Galing Pook Award for the Province of Albay for its Outstanding Governance Program on Disaster Preparedness (2008). *"Hindi po nakakain iyan,"* sabi ni Governor. The citations, "DILG, Spanish Aid Agency Team Up to Replicate Albay DRR Strategy," and "DILG, AECID Team-Up to Replicate Albay DRR Strategy in 10 Provinces." These are the infrastructure projects initiated and prepared from funding sources, government agencies, and the international donors:

Major Provincial Infra Projects Initiated; Prepared FS, Secured RDC/CACOM Approval; Secured Funding And Budget Strategy		
1	Bicol International Airport	4.7bn
2	GuiCaDale Geostrategic Relocation	4.4bn
3	Almasor Tourism Roads	3.6bn
4	San Fernando-Oas-Daraga Road	1.8bn
5	Legazpi Urban Flood Control	1.8bn
6	Guinobatan-Jovellar-Donsol Road	1.4bn
7	Albay West Coast Road	878m
8	Cagraray Circumferential Road	600m
9	PRDP-Oas Cagmanaba Road	550m
10	Palarong Pambansa 2016 Facilities Upgrading	530m
11	BRTTH Modernization	500m
12	Daraga-Donsol Road	300m
13	Manito-Bocon Road	300m
14	Pioduran-Donsol Road	300m
15	Albay Agri Tourism and MRH	240m
16	ONE-STEP USAid-DOT-DSWD	210m
17	Kalahi-CIDSS PLGU	200m
18	BUPC Modernization	200m
19	Bicol University College of Medicine	75m
20	Albay Agro Etho Eco Village	75m
21	Rail Stations Modernization	50m

And what are the challenges? As I've said, we are in a multi-hazards situation, both climatologically and geologically. Of course, this has been aggravated as one of the factors, persistent poverty and the net resource hemorrhage. So ito po ang Profile ng Albay: land area of 2,566 sq. km., population of 1,233,432 (as of May 2010), 231,750 households, 3 legislative districts, 3 cities, 15 municipalities. Albay is the 2nd largest Province in the Bicol Region, 4 major islands (CRaBS) and has a total coastline of 364 kms with 149 coastal barangays and 128,751 people. These are our risks: 19 to 21 occurrences of typhoon per year in the Philippines of which 3-5 major direct hits on Province of Albay, about 198,000 houses threatened by wind destructions and at least 350,000 people have to evacuate, Mayon Volcano eruption threatens 3 cities and 5 municipalities, 127 villages or 11,000 to 12,000 families threatened by landslides, about 300,000 population out of 1.2M threatened by tsunami and eight municipalities and two cities threatened by floods. Kung titingnan po natin, we are called the *Laboratory of Disasters* or *Vatican of Disasters* except for the human induced hazard, name it and we have it. The ranking of Albay in terms of the risk:

Disaster Risk Ranking of Albay		
Type of Disaster Risk	Type of Hazard	Ranking
Climate Weather Related	(Historical) Typhoons	5th
	(Projected) Rainfall Increase	1st
	(Projected) Temperature Increase	16th
	(Historical) El Nino	54th
Geophysical (History)	Earthquake-Induced Sallow Landslides	1st
	Earthquakes	59th
	Tsunami	1st
	Volcanic Eruptions	2nd

This is our strategy: make it (zero casualty, MDGs, SDGs) goal, the rest follows, ordain policies, give it a budget, execute programs and projects, build institutions and nurture partnerships / mobilize resources.

☑ Make MDG a goal, adaptation follows
- Good goals
  1. socially desirable
  2. desirably ambitious

- Safe and shared development
  - MDG achievement
  - HDI improvement
  - Climate-proofed and disaster-proofed ((HFA)
- Zero casualty goal

☑ Ordain policies

- Body of SP Ordinances
- 2 national laws on DRR and CCA were based on Albay model (RA 10121 & RA 9729)

☑ Give it a budget

- Incremental budget on top of calamity fund
- Budget increase on Education and Health from 15% to 44%

☑ Execute programs & projects

- Disaster risk reduction
- Climate change adaptation
- Strategic shift to human capital formation (heath and education) from physical capital formation

☑ Build institutions

- **APSEMO –** Response, 1994
- **CIRCA –** Adaptation, mitigation and IEC, 2007
- **AMDGO –** Social Services / MDG, 2009
- **Climate Change Academy** – Knowledge Management, 2010

☑Nurture partnerships & mobilize resources

- P894m raised from 2007 to 2011, P39m from JICA in 2012andP39 from OCD

Vision:

Albay as most livable province known for good schools, good hospitals and good environment and Albayanos as healthy and happy, well-educated and well-trained people and taller and leave a better living conditions to future generations

- Low-rise, low-energy intensity = low carbon development
- Safe and shared development= sustainable and climate-resilient

Ultimate Goals:

- Life expectancy: 68.76 (Ph) to 74 (Thai) in 30 years beginning 2007
- Change in height: looking for the science

For the institution, we are the first to establish Disaster Management Office (DMO). In fact, not only in the Philippines but in Asia. Our permanent office is the Albay Provincial Safety Emergency Management Office (APSEMO). It was created in 1994 by ordinance in 1994 with regular plantilla of 25 including emergency research and disaster specialists. It is first in the Philippines and first in Asia and it has managed and survived disasters (including seven governors). Its sources of funds are: regular allocation from the annual provincial budget (IRA) separate from Calamity Funds (CF), access to calamity fund for the operations 5% of IRA and intermittent but steady flow of technical and logistical assistance from NG agencies, Non-Government Organizations (NGOs) and International Non-Government Organizations (INGOs) for capacity building and skills training. This is our office and we also created the Center for Initiative and Research on Climate Change Adaptation (CIRCA). It is created by ordinance in 2007 with regular provincial budget and implement MDG-FJP. It has a localized climate scenario, climate-proof Comprehensive Land Use Plans (CLUP) and integration of climate change into curriculum (Grade 4 to 4th year). CIRCA is an advocacy and knowledge management office the National Conference on Climate Change Adaptation (2007, 2009), Local Government Unit Summit (2010), Climate Change Academy and Disaster City as well as Climate sciences center at Bicol University. It sources of funds are: regular allocation from the annual provincial budget (IRA), P16m from MDG-FJP and intermittent but steady flow of technical and logistical assistance from NG agencies, Non-Government Organizations (NGOs) and International Non-Government Organizations (INGOs) for capacity building and skills training.

We also created the Albay Millennium Development Goal Office (AMDGO) for the social projects of Albay. They are the one responsible for the attainment of the Millennium Development Goals (MDGs). The AMDGO is created through an ordinance in 2009 with regular provincial budget. It functions as an oversight to Millennium Development Goal performance and secretariat to Millennium Development Goal Supercom, manages Millennium Development Goal projects (relocation programs and social assets programs especially livelihood like SEA-K, ETODA, CRABS or coastal and marine resources management and AIDS Council – HIV/AIDS advocacy). Its sources of funds: regular allocation from the annual provincial budget (IRA) and intermittent but steady flow of technical and logistical assistance from NG agencies, UNDP and other UN offices, INGOs, NGOs for capacity building and skills training. The AMDGO is also responsible for the rehabilitation of post-disaster activities especially in Albay. In partnership with the academe, the bigger universities, we established the Emergency Paramedic Training Institute. This project in initiated by Bicol University, DOH-BRTTH and Provincial Government of Albay. This is an organic unit of Bicol University and is funded by AECID-PGA. The institute conducts training of EMTs with certifications from Department of Health (DOH) and TESDA. The sources of funds include: training grants earmarked for EMT, the provincial government and the Department of Health. We have trained 350 paramedics in Albay, walang dayaan po ito. If they want to go abroad using the credentials, they have, fine. Hindi po ipinagbabawal iyan kasi iba din po ang iniisip ni Governor. Once the go abroad, they will remit money to the Philippines and the entire Philippines will benefit and not only the Province of Albay.

We also have of course, Team Albay. Ito iyong services that we provide: search and rescue and retrieval (half of cadavers in Yolanda), water filtration and delivery (1.4m liters delivered in Yolanda), camp management, health emergency services, operation of Pharmacy, operation of Hospital (Cateel), operation of Public Health Operations (Yolanda), post-disaster Health Intervention System, Advisory to Local Government Units on Post Disaster Needs Assessment (Samar) and Advisory to LGUs on ERRPs (Samar, Leyte). Saan kami kumukuha ng pera? Sa provincial Disaster Risk Reduction and Management Fund (DRRMF). Hindi naman po pinagbabawal iyon, nasa batas po iyon. And we also have to provide the budget, we need to increase the budget especially for the health and education. For the DRRMCA, 90% of our total IRA is being allocated to DRRMCA. These are other agencies who provide funding for the Province of Albay.

2011 ALBAY PROVINCIAL BUDGET: 9% earmarked for adaptation but whole budget is sensitized to CCA/DRR

PROVINCIAL GOVERNMENT OF ALBAY
2009 APPROPRIATIONS

Item of Expenditure	Amount	%
Personnel Services	302	38%
of which		
10% increase	27	3%
14th month + P12,000	24	3%
Regular Salaries	251	31%
Mem\Health PS	***139***	***17%***
MOOE	127	16%
of which		
Health MOOE	57	7%
Regular MOOE	70	9%
Jail MOOE	10	1%
Programs	337	42%
of which		
Counterpart to Bgys (P101T x 720 bgys)	73	9%
Counterpart to LGU programs (ARCDP, Kalahi)	30	4%
Scholarship	37	5%
Universal Philhealth	34	4%
Tourism Development	16	2%
CIRCA/A2C2	15	2%
Apsemo / Disaster Risk Reduction	16	2%
Calamity Fund	38	5%
Integrated Social Services	16	2%
Agricultural Production	24	3%
Other capex	38	5%
Debt Service		
Debt Servicing	38	5%
TOTAL	804	100%

The budget is best articulation of public policy and instrument for its execution.

Highlights

- 9% of regular budget for adaptation
- Entire budget is ADAPTATION budget
  - 24% for health
  - 2% for social services

Internal sources:

- IRA
- Royalties geothermal

External sources:

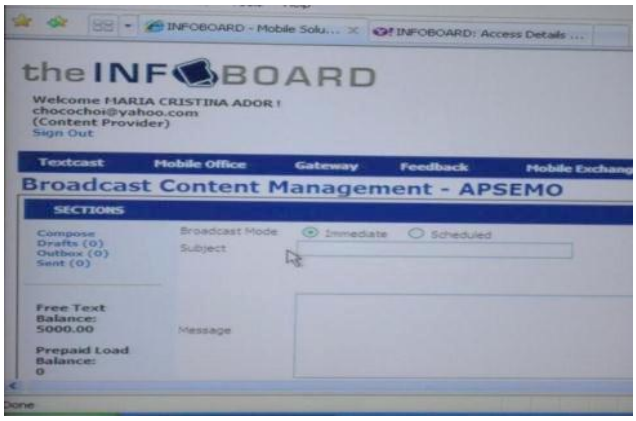
- UNDP/AECD – P16m
- BSWM – P5m

Albay mobilized Php894m from partners since July 2007 to December 2011. Dito po magaling si Governor Joey, sourcing out funds from other agencies. Highlights of the DRR/CCA Programs include: (1) risk mapping (Comprehensive Land Use Plans); (2) integration into PDP, PDIP, AIP, PPMP; (3) geostrategic intervention; (4) relocation; (5) engineering interventions; (6) social preparations (community-based warning and evacuation planning and close coordination with warning agencies); (7) capacity build-up (mobility assets and permanent evacuation center); (8) disaster response (pre-emptive evacuation and pre-emptive healthcare) and (9) cluster approach to early recovery. The pre-emptive health care is just a series of medical missions para malaman namin who among the community will be directly sent to the evacuation center and of course who will be directly proceeded to the hospital. In that way, we will prevent community acquired diseases in the evacuation center. This is the adaptation, increasing capacity so that development can proceed in the midst of risks. So in coming up with the PLUC we deliberate and we sit to it na doon sa mga areas na identified na high-risk, hindi na po mag-introduce ng new investors. These are the hazard maps – the Mayon Volcano hazard mapping, the lahar. Lahar is similar to mud flow, we call it mudflow. Lahar is just similar with Central Luzon. And for the community-based risk mapping, sila po iyong gumawa. We validated it. Sila po iyong gumagawa, in that way, they will have sense of ownership which they can easily interpret unlike if we give them scientific map with coordinates na hindi naman nila naiintindihan. And of course, for our continuing training and education. Planet-based po ang module namin. These are the components: household preparedness, community preparedness (first responder capacity), LGU preparedness (first integrator), skills development for government and volunteers, warning system communication protocol and evacuation procedures, evacuation and community kitchen management, mountain survival and compass reading, critical incidence stress debriefing, community risk mapping and contingency planning, education-on-air with local broadcast media, conduct of drills and exercises in schools, hospitals, hotels, malls and communities to pre-test the hazard specific contingency plan on volcanic eruption, earthquake typhoon and fire, continuous and periodic education and training. The sources of funds is the regular annual provincial budget. Kung sa school, school preparedness, kung sa family, family preparedness. These are examples for our training. So from the relocation site, we have identified 10,076 households and iyong shelter gap namin, below na po ito sa 5,000 because may mg on-going construction funded by the NHA, DSWD and NGOs. Of course, although, we practiced pre-emptive evacuation, we still train rescue team for the sudden on-set type of hazard, particularly vehicular accident, maritime disaster and earthquake. And we are compliant with the national mandate to conduct quarterly earthquake drill. And we even start to train them young and even hire clowns to do magic, magic. For our resources for preparedness include: (1) close coordination with warning

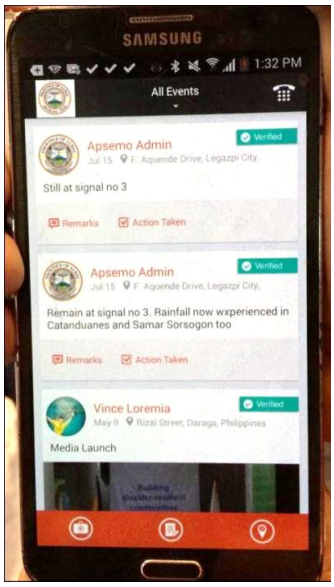
agencies (PAGASA is the sole authority, establishment of Regional Weather Bureau in Legazpi, Doppler radar in Virac); (2) community-based warning system (rainfall monitoring at village level, continuous training. Sources of funds: Provincial Government budget); (3) warning communications protocol (Facebook, Infoboard: assigned 15,750 SIM cards to village officials. Source of Funds: Corporate Social Responsibility, CSR of Smart) and (4) PINDOT (GPS-based, group mobile wifi. Source of Funds: Corporate Social Responsibility, CSR of Smart). In Albay, we practiced redundancy of communication. We practice at least 8 means of communication and one of our big partner here is the SMART Communications, Philippines. They provided us with Info Board. And now we have this **PINDOT**. This is an acronym that stands for *Provincial Information Network on Disaster Occurrences and Threats.* This is an application. In fact, the one that made the application is from Cebu, si Vince.

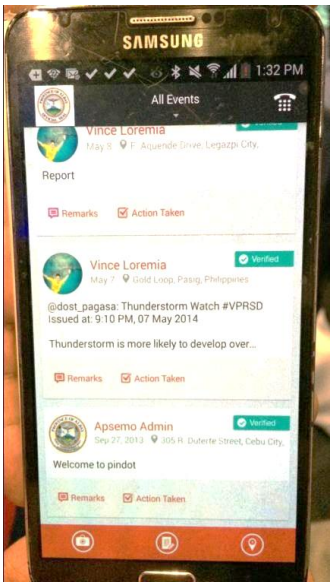
Basically, ang aming decision making is based on the warning agencies. Magbukas sila ng internet, ang daming websites. But we only base our decision in these government agencies. For the Hydromet, climatologic, the Philippine Atmospheric, Geophysical and Astronomical Service Administration (PAG-ASA), for the seismologic, the Philippine Institute of Volcanology and Seismology (PHIVOLCS) and of course, we have to add here MGB or the Mines and Geosciences Bureau. And this is what we practice, the six basic steps for our early warning: (1) prediction, (2) forecast, (3) detection, (4) decision, (5) communication and (6) mobilization. Please take note that the first three is from the government agencies. They predict, forecast and detect. Hindi po kami nagfo-forecast, sometimes we detect also with the LGUs and we will be the one who will come-up with the big decision, not them. Then we have to communicate them, the end-user, which is the community. And it is now the community that will mobilize because during evacuation in the Province of Albay, we look at evacuation not as evacuation itself but more on election. So alam nila kung saang school, di ba pagka-election din, alam ng tao kung saan. Of course, we have a Doppler Radar, installed at Virac, Catanduanes. At least that gives us two hours buffer. We provide them also with the basic communication. Bike, bakit may bike? Ito pong public address system, diyan po kinakabit and then naka-bike lang, going around.

This is the Info Board and even the social media. Facebook Page po iyan ni Governor Salceda. So sa mga Local Government Units (LGUs), there's no reason na hindi nila narerecieve ang aming information because we are sending them information redundantly. For the Info Board, as I have said, this is provided to us by SMART Philippines. So lahat po ng local government officials, member agencies ng council na may SMART phone na nasa amin ay nakakarecieve ng information galing sa amin, free of charge. Unless they reply back, that's Php2.50. This is the Info Board System.



Now, we have the new one. The PINDOT. Application po siya. This is based after TUDLO of Cebu and we also have established with the Philippine Institute of Volcanology and Seismology (PHIVOLCS) the Tsunami Monitoring System. And for the health information, we have **SPEED**, *Surveillance in Post Extreme Emergencies and Disasters.* This is an information system from the community up to the national government.





We have safe evacuation centers, our assets. Probably, we are one, siguro kami po ang isa sa mga provinces na marami ang ambulance. We have the communication, the Water Tank Lorry na dinadala namin sa mga disaster-stricken areas.

Physical Capacity-Building: Mobility Assets could evacuate 160,000 persons/day			
	LGU	National Agencies	Private
Ambulance	59	4	7
Rubber boats	18	8	
Passenger Trucks	3	54	300+
Helicopter		4	1
Fire trucks		26	8
Water Purifying Machine	1 (32 li/hr from AECID)		
Water Tank Lorry	1 worth P3m		
Com Vehicle	1 worth P14m		

And finally, these are our evacuation centers.




Thank you very much!

Open Forum

One of the big issues that was raised from the Yolanda experience was the failure of communication during the immediate 24 hours, ang sabi ninyo sa Albay, meron kayong redundancy of communication. Does that system continue to operate when there is no electricity? And when the towers are toppled down, what is your back up?

As mentioned, in our communication redundancy, we are using eight communication means. One of them is more reliable as compared to cellphones na if magbug-down na po iyong mga cellphone sites, wala na siyang masyadong signal na marereceive. Aside from that, we also enhanced our communication system. We have this communication vehicle that serves are repeater system. Kahit di na kaya ng signal from portable to portable, we just send this vehicle to an upper slope area that serves as repeater. Para magrepeat iyong signal. Of course, with the advent of technology, we have now this satellite phones that can be used. Sa province o municipal level, pwede, pero sa community, hindi, kasi masyadong magastos.

I wonder for the evacuation centers that was put up by JICA, if there are no disasters, what do you use that for?

Mr. Abundio Nuñez, Jr.: During normal periods, we call this as educational center assistance, this serve as classroom for elementary.

I admire that because what we have in mind, for the victims in Yolanda, probably the school houses in safe areas need to be improved like what was done in Albay. So those placed in the bunk houses in Tacloban, will have temporary houses in a year. I don't know where they will be in place after one year. Well, probably, they can go back because their livelihood is mostly fishing so they can go back to the coastal areas so they can have good livelihood. And I would suggest for Leyte and Tacloban to do what Albay has done. Improve the school houses in safe areas that will serve as evacuation centers during disasters.

Mr. Abundio Nuñez, Jr.: Thank you for that Sir. And for information po, the Province of Albay and Leyte entered into a twinning province. The twinning is basically focused on climate change adaptation and disaster risk reduction management.

I'm Dr. Casabal from University of Bohol. I would like to ask a question for Dr. Acuin. When you were saying about Momsie, is it commercially available? If not, can we get it free? Or will our LGUs request it from FNRI? And another question for Mr. Nuñez, do you have difficulty in convincing the people to go to evacuation centers or if none, is it because the evacuation centers are very good to stay? Because in many areas, it's very difficult to move people to the evacuation centers even if there is already a threat.

Dr. Cecilia Acuin: *Momsie* is not yet commercially available. We just finished the research in July but we are sounding out some entrepreneurs who might be interested to take it up as a business. We expect that we will be having contracts with these entrepreneurs before the end of the year. So most probably, this will be available by next year since this is not difficult to produce naman.

Mr. Abundio Nuñez, Jr.: Yes, before we also have difficulty in evacuating these populations and factors that we think helped us is the fact that we provide security both in the evacuation and the evacuated area. Their primary reason that they do not want to evacuate is that they are afraid that their properties might be lost. But then we assured them, *"No it will not be lost, we will provide security here,"* so sumasama po sila sa amin. Next probably, the other one might be the evacuation center. But in one particular Local Government Unit, not all of them will be evacuated to these JICA evacuation centers. May kanya-kanya po. Probably, the last one is the regularity of the evacuation order so halos wala nang resistance on their part.

This is a follow-up question for Dr. Cecil. What are the raw materials that you used in making the Momsie?

Dr. Cecilia Acuin: I have to rely on my memory. That is in my notes and I am not in the division that produces *Momsie*. But the ingredients come from peanuts, soy, soybeans, milk, sesame seeds, oil, and multi-vitamins and minerals. I understand the technical challenges wherein producing the right consistency, the color and taste. Because if you put in Iron especially when you put in Iron, once you add the Iron, it will turn dark so medyo pangit iyong hitsura. It won't look like food. It will look like something spoiled. Also, the taste of Iron is not very good. So these were the challenges in producing the *Momsie*. In fact, the difference between the *Momsie* and *Plumpy sup* that I showed to you earlier, *Plumpy sup* have micronutrients but we thought it is not going to be the sole-food anyway, we are going to give other foods where these micronutrients which are mostly trace minerals like Cobalt, Phosphorus are not actually that important to add to an emergency food. But the real important ingredients there would be energy and some micronutrients like Calcium, Iron and Zinc.

I'm Judith Borja from the University of San Carlos, Office of the Population Studies. I have a question for Dr. Acuin. First of all, thank you for that very informative and very interesting presentation. I was particularly interested in the slide showing the differences in nutritional status between the areas exposed and not exposed to calamities. I was just wondering when you're looking at the stunting weights, will we require more exposure period to assess real differences? And having said that, you said that for Eastern Visayas, you collected data right before Yolanda. I was wondering if FNRI has plans of doing a special survey of Eastern Visayas particular that you have baseline data that you could use as basis for. And if you could do follow-up study for the same area, at this time for a longer period, the data you collected will be a very good data to assess the impact of the calamity, in stunting, in particular.

Dr. Cecilia Acuin: Thank you for the questions and comments you did. The stunting data is cross-sectional so and as I mentioned earlier, are still unadjusted and we will do more refined analysis on that comparison so that we can attribute if it is really due to the exposure to the calamity or some other factor that is contributing to the difference between the two groups. So please bear with us as I told you, this was send to me only last night. I had to redo, in fact, the process that which they arrive that figures. Regarding doing follow-up, I wish we had the budget for this, just getting the budget from the National Nutrition Survey is a big undertaking. I think the last Nutrition Survey cost about Php160M or Php170M, that's because of all of the laboratories. I didn't show you the laboratory tests because some of them are not yet available. We do Vitamin A identification, we have cholesterol determination, there's a sub-study on Vitamin D that is also going to be disseminated next year. We have iodine inclusion so these are really complex surveys, quite expensive to mount. So there's no budget left to do follow-up surveys even if we wanted to. There are NGOs especially the bigger ones like the World Food Programme, UNICEF. I don't know about the World Health Organization but they have their own field evaluations in Eastern Visayas and the northern part of Western Visayas and the northern part of Cebu, so all of the affected areas of Yolanda. So they have data but using baseline and comparison of the areas wherein they intervene. So there is no population-based assessment like what we have. We will be going back next year because next year is the Millennium Development Goal year. We will be conducting anthropometry survey again nationwide so that's

really an opportunity to do follow-up. It's a little a year-and-a-half after Yolanda but that's the best we can do at this point.

Maayong buntag! I'd like to address my question to Mr. Nuñez. First, I'd like to congratulate Albay for zero casualties in disasters. Sir, we have four thematic areas in disaster risk reduction and management. We are more interested in your efforts towards response and rehabilitation. When do we say that our efforts and intervention is response and when do we move to rehabilitation? For example, we have Typhoon Glenda. When do we say that it is under response and when do we say that we move to rehabilitation. Thank you!

Mr. Abundio Nuñez, Jr.: Thank you very much Ma'am. First is, it will depend upon the situation. If the situation normalizes and the people in the evacuation centers are needed to be evacuated also because the schools will be used by the school children for their education, that's the time for us to do the early rehabilitation, early recovery. Right after the response which is at the onset of the disaster, we do the early recovery and rehabilitation. Doon po iyan papasok Ma'am, pagtapos na po iyong activity for response, saka na po. But as I have said, we have another office that takes care of the rehabilitation.

Dr. Lester Geroy: For the next question, the phases are just overlapping. This is more academic. Response can be one week to three months or even six months. From the rehabilitation, reconstruction can start from the first month to two years. So it overlaps.

I'm Efren Vallente from Cebu Doctors' University. My question is directed towards Dr. Acuin. In you presentation, you said that food is as important as safety during disaster. In the next slide, you showed some of the foods or meals you have prepared and one of them is only launched last July 2014. The disaster in Tacloban happened in November 2013. I'm just curious what kind of food were served to the Yolanda victims? That's the first question. The next question is during disaster, who's really in-charge in the distribution of relief goods? I now speak in behalf of the business sector because I'm part of the team of the Cebu Chamber of Commerce who responded immediately to the disaster and we were the ones who organized what came from other countries. There were really loads of them, from Russia, from Indonesia, from Israel, there at the Mactan Airbase, one after the other. And they have to unload the relief goods from the turmac waiting for who will be getting it, who will be distributing it. So I think this question to anyone of you who is familiar with this kind of situation. You know what happened? Even the Governor of Cebu, Governor Davide was not authorized, the decision-maker is in Manila, the Director of the National Disaster. The problem is, I think, we are not organized in this kind of emergency services especially that one. The foreign donors, they said, "Is this how you organize your response in disaster situation in your country?" The relief goods were there and just exposed under the sun. They could not decide who's going to take care. So that's my second question. Thank you!

Dr. Cecilia Acuin: I can only speak for theoretical perspective because I was not involved in the distribution of food in Yolanda. For those of you who was actually there, you would know that the food distributed is whatever is available. But from a technical perspective, what I show you, those energy biscuits are one of the preferred modes of giving food. Or something similar to that. Because as I have said, the characteristics of food that they can be distributed quickly, easy to serve and have high-energy. So the biscuits need those characteristics quite well. But in terms of what has been distributed, I have no idea. Maybe Lester here has an idea.

Dr. Lester Geroy: Thank you Dr. Acuin. Most of us here are probably government officials or people from the different universities or academies. One of the things that we are familiar with is the cluster system of the government. Under the National Disaster Risk Reduction and Management Council (NDRRMC) law, we have cluster. The government is clustered into different areas: welfare, health, education and so on. The agency responsible for food distribution is the Department of Social Welfare and Development (DSWD). And it goes from the national to the local. As far as the details is concerned, I'm not familiar but the Department of Social Welfare and Development (DSWD) has standards on what to distribute. On the side of international organizations, there are several agencies working with the Department of Social Welfare and Development (DSWD) for food particular World Food Porgamme and UNICEF. So the World Food Programme and UNICEF also have their own packs, which are very similar to what Dr. Acuin showed us and these are the ones being distributed. So your agencies, international organizations are working closely with the Department of Social Welfare and Development (DSWD), the national and local level at that. Going to distribution of relief goods, the Department of Social Welfare and Development (DSWD) is also in-charge of relief goods in general including food. With regards to health, it's Department of Health. And so what happens when there are relief goods coming from other countries? It comes into the country and there are still customs that will deal with officially and properly.

Sometimes, it has a bottleneck. The government also has mechanisms to facilitate that through the one-stop-shop which can be found in the airports, example in Manila, Cebu and in Tacloban. As far as the details, under the cluster system, there is a logistics cluster which is in-charge of transporting these goods from the international airports like Cebu to the local airports like Tacloban. We have these clusters that are groups of agencies as partnership with government, international organizations and even local organizations and it's one mechanism. Yes, the media presents the response as difficult and challenging and not effective but we can also argue especially if you know the system of government that there are mechanisms and these are actually smooth. The challenge for the private sector, the universities and business sectors is to coordinate with government. Coordination doesn't mean government will take away the resources that you have but this means that you will coordinate right away as to where these should be distributed properly. So at the national level and regional level, there are mechanisms and these are also reflected in local response mechanism. The local part, Mr. Nuñez, can explain.

Mr. Abundio Nuñez, Jr.: As mentioned by Mr. Lester, the primary concern for the distribution of the relief is the social welfare office. It's either the municipal, city, provincial, or the national level. In the case of Tacloban, what happens there was it was a national calamity. The calamity operation must be from the national government down to the local. And considering the fact even the local officials, local social welfare office in that area were also affected. Wala po sila the first two weeks. Probably, one from the national office should take care of the distribution. And during that time, for the Province of Albay, especially the Department of Social Welfare and Development (DSWD) Region V, we were the one who conducted the problems assessments because both local officers in Samar and Leyte ay hindi po visible during that period. Pero after two or three weeks, nagnormalize na ang situation, other regions came in sa Tacloban and Leyte to assist.

Good morning! I am Oscar Tabada from PAG-ASA Visayas. I am a meteorologist and a planetologist. This question is intended for Dr. Cecilia Acuin. Please correct me if I'm wrong, I have taken note of your presentation, that light rains increase consumption of food while heavy rains lower the consumption of food. I think we have the new normal right now. We are more concern of the heavy rains right now. So if we have less assumption of food during heavy rains, the agricultural sector won't have a problem anymore. My question is how did you came up with this kind of data that you have?

Dr. Cecilia Acuin: Actually the data from rainfall came from PAG-ASA and then these were categorized in terms of intensity of the rain fall. Di ko rin alam kung paano kina-categorize iyon kasi, iyong PAG-ASA component ang gumawa ng rainfall and temperature classifications. What we have was the food consumption data and these were just modeled together. I can show you the calculations maybe you will understand them better than I do of the classifications.

Personally Ma'am, during heavy rainfall, sarili ko lang ito ha. Pag malakas ang ulan, kumakain ako ng grabeh, nandiyan lang kasi ako sa bahay. Well ang nangyari kasi, in my case, malaking consumption iyon. Palagay ko there is something wrong, but this is only personal.

Dr. Cecilia Acuin: Sir, I think that's because you have food to eat and you have stored food to eat. For many of our countrymen, they will eat only on a day-to-day basis. So during heavy rains, in my limited access to food resources, there is the reason why there is decline of food consumption during that time.

Okay thank you!

I'm Dr. Lamberte, I'm a PhD, not and MD. My question is addressed to Mr. Nuñez. Do you have a plan if incase Joey Salceda will go because the experience in some other experts, like Department of Health for instance, during the time of Dr. Gamboa. We have lots of pilot studies, pilot operational studies and the same thing with the Department of Social Welfare and Development probably. They succeeded. Once they will be gone, it will be all gone, long years of work have gone when the person has gone. The other one is, how would you manage crowding of visitors in your area because day in and day out, you have visitors who will look at your community and who is handling you training component?

Mr. Abundio Nuñez, Jr.: Your question Ma'am, first is the succession of Governor Joey Salceda, second, how do we manage the people and third is our training programs. First, yes Ma'am, the Governor is on his last term. Again, as practiced in Albay, we are the first in creating institutionalized disaster risk reduction management office. We surpassed seven governors already Ma'am. And the one who will succeed the governor will have to fill

the big shoes. Pero andiyan po kami to facilitate, in our office, the administrative and technical and secretarial arm of the Provincial Disaster Risk Reduction and Management Office. Next, as to how we managed the visitors? As a general practice, they send communication to us and we confirm that they accepted their visit. In fact, we give them lectures on DRRMCA, we bring them to the best, good practices sites in the Province of Albay. For the training, as I've said, it is composed of several subject matters and content experts with the bigger universities. We have the Philippine Atmospheric, Geophysical and Astronomical Service Administration (PAG-ASA), Philippine Institute of Volcanology and Seismology (PHIVOLCS) for the climate change.

Big Data as Surveillance Tools during Emergencies and Disasters

Ms. Maria Ressa
CEO, Rappler

Discussion

Good afternoon! Wow! I need to be taller. Hindi lang pala, a little bit closer. Hindi ako mahuhulog, don't worry. Good afternoon! It's hard to speak after lunch because I am going to compete with your stomachs. Thank you so much for asking me to come speak to you today. I long to have ideas with you, to connect with what you are doing and where you're coming from, with the doctors in the audience. You know the ideas behind Rappler and the ideas behind our disaster risk reduction tool actually come from medicine. It is the idea of medical contingent and this goes back to social network analysis that things spread through a crowd whether it's a clue, whether it's a virus, or whether its emotions that it spreads through large groups of people through three degrees. You know the old saying, "Smile and the world smiles with you?" There's a scientific reason for that and in a training in Massachusetts, two Harvard professors wrote a study that was later turned into a book that talked about the three degrees of influence rule. It starts with medicine again, the framing. It's a heart study, about heart disease about cardiovascular disease as a doctor, as what most people say. So it's very daunting to be talking to doctors about your field. So in this one, this is Nicholas Christakis, he says, based on the big data, the studies that they did over three generations in this town in Massachusetts, they said that, an emotion, like loneliness, if I feel lonely, my friend, the first degree, has a 54% chance of feeling lonely because I do. My friend's friend, the second degree has a 25% chance of feeling lonely because I do and my friend's friend's friend, the third degree has a 15% chance of feeling lonely because I do. So we don't really think about society as spreading a virus or spreading an emotion but that's actually what we do and that is the power behind Rappler's group, from medicine to internet and new media.

Let me take you to that really quickly, for twenty minutes, we'll move fast through it. Again, that idea is very powerful when you combine it with technology because in the end, if you think about it, the game changer for every business and this goes to the doctors, to the researchers, the game changing technology is social media. You no longer need an inter-medium. You don't need media anymore to reach a large number of people because if you take that same principle, it's strategic, your visible social networks, that's your family and friends and then when you put it without boundaries of time and space, that's social media. So automatically, your Facebook account has global reach. These are the ideas we explored in Rappler. So let me take you through what Rappler is and how we are using it and how in general it can help in disaster risk reduction, right? That idea of one, spreading through three degrees of influence and in the old age we think about media as one-way direction. Now it's two ways. It's no longer linear. It's actually circular and let me show you what that means. I'll start here. This is our core, professional journalism, but when you add technology, technology is many things and then you add the crowd, you start thinking about not just pushing out, this is the part where I want to be closer to you because I want to hear what you think so I can actually be more responsive to your needs. You know it's actually much hard to be a journalist nowadays when there's social media there. And that's good and bad. We can talk about the negatives later. This is what Rappler tries to be and the technology that we harness is actually very simple here. We harness this full that creates the content. We amplify social media and remember social media is your visible social networks on steroids, wala siya, no boundaries of time and space.

And let me tell you how powerful social media is. It turns out and these are studies that were done in the States. If you look at an ad or a message on traditional media, you will only believe it about 14% of the time. When you hear from the social media account of someone you know, your friends at the table, you believe it 94% of the time and that kind of make sense because your social media are your physical social networks. They are your family and friends. They know you, you know them. So that's a big gap. So social media engages, amplifies and here's the last part, you can actually crowd source, meaning you can move people to act. And that easy phenomenon in the internet is, I'll show you an easy crowd sourcing that we do on Rappler, you can also let people connect things like an anti-corruption campaign and you can move people to act for disaster risk reduction and those are some of the more complex crowd sourcing networks. Now, when somebody, one of the internets is crowd sourced, is data point that comes in, when you post on social media, that's a data point. You look at it as personal but when you pull out a data point, then, when you harness it together, it becomes big data. When you look at big data, big data gives you greater insights. As a researcher you will find it an amazing probe of link details and you don't need to be the National Security Agency (NSA) to use big data because we put that stop up there publicly. We are two things from Rappler. We are built from mobile. You can't carry a TV around with you but you can carry a phone with you, in your pocket. So we're with you. This is a new wallet where it's being personal and you can use that same phone not just to connect but you can use to get the information you need.

We're also video. 75% of what we remember is not what we hear, it is what you see. And that is part of the reason I did these slides for you because you will remember the visuals before you remember what I say. So before you even see the article, it actually has buttons for you to share and it builds up engagement, right? So those are the easy things about Rappler.

Let's talk about the first easy crowd sourcing, which is Mood. The study show that up to 80% of people make decisions in their lives and it doesn't matter whether you're Filipino, American, Iranian or Indian. Up to 80% of how we make decisions in our life is not based on what we think. We would like to think we're rational beings but we're really not. We make decisions based on how we feel. And a 2012 Gallup Survey shows Filipinos are the most emotional people in the world. You can Google it. November 2012, a Gallup Survey says the Philippines is the most emotional nation in the world. The least emotional is Singapore. So, even in studies, we said, why do we pretend not to be emotional? I spend 20 years with CNN and every time I get up in front of the camera even if there were bombs going off behind me I have to be calm even if I want to run away. That's part of what the medium used to demand. But now, we move from authority to authenticity. Now, we actually, I don't know whether it's good or bad but that's where it's headed. So here's the Mood System in Rappler. And here's the first crowd sourcing that we do. Every story has a Mood Meter and the Mood Meter was developed by psychologists and sociologists and some of the folks who did SWS and Pulse Asia, our surveys. What are the emotions that power Filipinos? There were eight of them that we trimmed down to: happy, inspired, amused, sad, annoyed, angry, afraid, and don't care. And when you click how you feel, that vote and that crowd source route is abrogated by something called the mood navigator in the middle of the front page. This mood navigator takes every single vote on every single mood meter and then it takes the Top 10 stories that have gotten the most number of votes and it takes the emotion that has gotten the most number of votes and it places it, that's the mood of the day. Earlier it was angry but you can also navigate the site through moods if you want to only see happy stories, click happy; if you want to get angry, click angry. Hopefully you don't do that. Those are the two emotions, by the way, that we swing through globally, anger and inspiration. Filipinos tend to be happier.

Again, another one of those studies but this is an interesting way of looking at it but that is an easy crowd sourcing. It doesn't require much from you just tell us how you feel and we crowd source the mood of the day. What can you do with those data point? Well you can have the monthly moods. You can have the year-end moods. This is actually something marketers or advertisers want to see. What events affected you the most? The month of May I notice this all the time because May 2013 was our elections, 77% happy. But if you look at it, it's rarely happy leading up to Election Day. But you see Election Day, itself. On Election Day itself, it's that's little rise of red in the middle, the bottom is the day, so on May 13, you can actually see them actually go up. Angry votes went up around 8:30 in the evening after the polls close and the results of Precinct Count Optical Scan (PCOS) machines were coming up very slowly. So it overtook the happy votes of the day. And then if you go further down, around the 22nd, you see a huge spike in green, over very happy, when the winners were announced and that big spike of red at the end has nothing to do with politics. We won't remember because it was a long time ago, now. But at the end of May, Vice Ganda cracked a joke about Jessica Soho and rape. That's the red, that huge spike of red. People were angry. So what else can we do with this, right? So we also pull it together, the year and moods. You have an idea what moves Filipinos. The other thing is, you know the most emotional times of the day. You can actually chart it based on your crowd source votes. That's the power of data.

There is no bigger data than what we put on social media. More than 90%, nearly 96% of Filipinos on the internet are on Facebook. Can you raise your hand if you're not on Facebook? One, two, three, four, five, six, seven, eight, nine, ten, you're not on Facebook? You're social scientists! No. Come on. If you're a social scientist you got to get on Facebook. So here's, well, let me not get too real. So far, it's still the national average, 9 out of, how many, 300 people? Facebook is the easiest way to reach a mass audience but you can read here all of the frequency of the different types of social media that Filipinos use. Do you know that Filipinos upload and download the most number of videos on YouTube daily? We have another first. And we are the largest Facebook market. Again, positive or negative, just it is and it can be used as a tool in research because you will reach the most number of people there. I like this part. 800 million monthly users upload over an hour of video every second, an hour of video every second! A person cannot watch it all so you are going to need data analytics tools to actually see God's eye view on that. But let me show you what we do with it.

This is not a survey. This is actually human behavior and these are maps on people's behavior on Twitter. And I show you this particular one because this is what convinced me to set-up Rappler. This is in 2011. Most of these were taken in 2011. I call it my *gap year* after I left ABS-CBN in 2010 and I opened Rappler in 2012. In that time, I

was studying the spread of terrorism on social media. I was also studying how we can visualize human behavior on social media. This is what we came up with. If you look at that #Japan, March 2011, the Fukushima reactor, the earthquake, the tsunami and then the Fukushima radiation came out. And the Japanese behave the same way Filipinos behave during Ondoy, during Sendong, during crisis. Humanity in crisis forms clusters around pops that give information. So the pop there is a government agency. We do exactly the same thing, when a crisis strikes; we look for information. We need information that's why information becomes critical during disasters. The second, #GOP, millions of Americans on twitter, no survey, and that's six months before the last Presidential Elections. That shows you how divided America was between Mitt Romney and Barrack Obama. #Egypt is where revolution looks like. That is the Arab Spring or some people call it the Arab Winter. But that's the end of the dictatorship. And #Syria is 18 months into the Civil War between President Bashar al-Assad and the rebels. You know Syria now respond through Islamic State of Iraq and Syria (ISIS). We have an Abu Sayyaff and supposedly, the second most powerful leader in Abu Sayyaf swear allegiance to ISIS. See, we are all connected. This is why I like this. In some ways, social media shows it to us. I look at it as, you know you guys remember the movie Inception, with Leonardo de Carpio? That's the dream world for me. That's where we can see how we can shape reality because that is our behavior in the physical world.

Why is that important? Well, you can do things like this. You can map our conversations on social media. This is the day that the Senators voted on the Corona Impeachment Trial. We mapped it. It's actually on Rappler. When you see it, what you see is the most influential voice during the day of the vote. And that's Senator Miriam Santiago. If you mouse over the map, you can see every connection to her and every connection out. You can also see something we call the Ivy Vector Centrality. If you're do social network analysis, you know that that is really calculating influence and reach in social media. Ivy Vector Centrality is all about your power. We call it a Klout score. Let's go to how we use this for disaster risk reduction because we're out of time. Last year, we built this platform called **Project Agos**. We work with the Climate Change Commission, Office of the Civil Defense, Department of Interior and Local Government. We're working with anyone who wants to work with us because in 2009, when I was still heading ABS-CBN and Ondoy happened, Cebu weren't feeling as badly as Manila did. Months' worth of rainfall and it was the beginning of years where every year is a weird weather of freakiness. You know, that year we have a long rainfall, the next year we had a typhoon come through where it normally doesn't come through, I think this is Sendong and then Pablo came through the Compostela Valley. Every year it's different, we never had Yolanda. I have never in thirty years of being a reporter been out of touch with our reporters for more than six hours. In those 30 years, that I have been a reporter, the most out of touch I've been was six hours, never 48 hours, right? Every year, there's something new and it's clear government needs help. You can't blame government for a changing world. So in that sense, that's why we built Agos. So we thought, there are all these hazard maps, every single agency has been doing hazard map. DOST just promise us the Light Detection and Ranging (LiDAR) maps so we could all put it in the hazard maps there. So what's the goal here? The goal is to bring it to the students so people can find where they live, zoom into their maps, their hazard maps and help their parents prepare because this will have to be a top-down workflow and a bottom-up civic engagement. That's the way we're going as they say. And, you didn't hear him today but Governor Joey Salceda's goal, on zero casualty, will not gonna change what climate change is already doing. We're going to live through more horrible times and so how can we be prepared. That was what pushed us to do Project Agos. Rappler's small but the technology allows us to do something that is helpful because what we're doing here is putting up top government workflows with bottom up civic engagement and doing what journalists really should do. Prepare is about because when you click on that, you can see all the things you can do to prepare for it, like knowing where to evacuate, knowing the disasters around your home, knowing where you will go. In Albay, one of the things I like is, when you go to a home and by the door, there's a sticker that'll tell them where their evacuation center is and it even lists the people who are going to that evacuation center and they drill to the point that they even know who's going to cook. Do you? I don't know that and I want to know that because I know when it strikes we all better know what we're going to do. So that's part of the reason.

The last, in the early 1990s, I covered Tokyo for several months and I watched their earthquake drills. And you know the students in their schools, their desks in their schools are lined with metal. So that when earthquake will happen, the students hide underneath the desk. It's so thought out and they drill it. We need to do that. But how can we do it? I don't wanna just complain so we wanted to help. But where we come in is in the response, we developed a tool, that is a real-time reporting tool, that connects your reports in a transparent manner with the first responders – the PNP, the AFP and the LGU. And what this does is, you can report in three ways: you can report on SMS, the Telcos, you text, you need help and we will actually map it with volunteers, SMS; the next is, on the site, you will do it on the site and the last just do it on social media. If you have your phone, just use #rescuePH. And what will happen is, when you use #rescuePH, we developed an algorithm that will take it out of

the twitter flow and automatically map it. We didn't do this alone. We're building on the work of other people. But a guy named Patrick Meier, he said that volunteers will work for about four hours and then they get tired. So what if, we'll take the four hours that volunteers will work and have them teach the algorithm, what to pick out from these information. It's called a machine learning classifier and the entire tool is Artificial Intelligence for Disaster Response. They developed it in Qatar and the Philippines is the laboratory but we're trying it out. And so far, it has worked. This is the sixth iteration that we're trying to do with it. I will show you the case study of Yolanda.

Yolanda looked mean even from outer space. This is what it looked like. On the ground, it looked worst. That's the first day after the looting began because it was uncertain and it took so long for help to get there. This is what we do. I'm a journalist and I was panicking because I lost contact with my very young reporters who were there but what we did is we looked at how technology could help. Yolanda was also unique because Telcos went down. Again, that had never happened. In fact, I would say our two Telcos were very resilient, like our people, they're resilient and were used to an average of 20 typhoons every year. But in Yolanda, it was so strong, they went down. So in Yolanda, what we did is we took the twitter flow, the fire hose of big data, in Twitter and we plug it into this and it's basically a map. And if you click on any town in the map, you will get every single tweet that is connected to that town. On this side, if you click on Guiuan, you will see every tweet that mentions Guiuan that is geo-located to Guiuan. Twitter is not amazing on geo-location, it has about 4% accuracy but it's enough if you're looking for real-time information. So we did that. We did crowd sourcing. This is crowd source, collation of data that was on Twitter. So I mentioned Patrick Meier, he has something called the *Digital Humanitarians*. The Philippines isn't alone in the world and when we're in disasters others are there to help us online. That's what the Digital Humanitarians are. Starting with Typhoon Pablo, Patrick got a group together all around the world that would classify what's on Twitter. So when you tweet a photo of a damaged bridge, it could be someone in Manila, or someone in London or someone in the United States who will map it, verify it and then this map is done within the 24 hours, and is send to the aid groups. United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) is the first one that's using it and I think now we're finding better ways to get it to the Department of Social Welfare and Development (DSWD). The first people who actually need to be there, we can categorize and map tweet. Again, Rappler's role is very small, right? And we were online and what we did is, we know the geography better than the guys in London and Qatar. So that was the first thing we did. We all worked in the same Google docs. If you're interested in working with Digital Humanitarians, please just email me, we will put on a notice on how you could do it. But again, when a disaster strikes and you're in a place that's safe, you can help. Crowd source maps. In Typhoon Glenda, we outsourced the maps and it was fantastic. In Yolanda, without any Telcos, all you get are the people looking for their relatives. It'll show what the people do here; this is the map where you report. You click that button on top that says report and then you report it, you map it and then the Twitter map comes in also, the stream comes in.

So we thought, early on, people are gonna look for their loved ones. And when we gave the list to DSWD, they were inundated so we needed to help the people who are supposed to be helped. We then connected that with Facebook. Facebook has a facial recognition system, remember? So, we had a person on the ground who started taking pictures of people lining for relief goods, who wanted to tell their families that they're okay. So we asked them to pose a sign, snap a picture, and upload it. These changes on both Google and Facebook. If you're a friend of a friend of Anthony Clark, Facebook will tell you so that's how some people found their relatives and friends. This is now a tool we will use when it happens because it will happen again. I mapped crowd source. We, collectively, Rappler's readers mapped relief operations and relief needs and they just posted it. We mapped cell signals. This was useful in the first 48 hours because at the beginning people wanted to know whether they could communicate. Information is the first step for disaster risk reduction. We, the crowd, mapped roads and infrastructures. We drove our satellite truck from Manila to Tacloban and as we were doing that, people follow us and at the same time they mapped on their own towns. Is this bridge passable or not passable? Is there electricity or no electricity? And this is the last part where both Google and Facebook sent an engineer to Manila to help us build this. Imagine the two rivals, right? There is no rivalry during disaster. Google has person finder but Google's person finder is constricted by privacy restrictions of an American company or a news group. We can post people's faces particularly if they give us permission to do it because they want to reach their families. So we asked Google to let us in to their back end and key person finder and we updated it with every list we could find on Facebook, on email, from the networks, from every single thing and we updated it. Again, this is about big data, right? Aww that sounds horrible to say but we got to be prepared.

I'm going to show you the last thing. It's just a short one-minute video. The video you will see is actually shot by a citizen journalist, by somebody who's standing at the roof of their house and you will see blue texts that mean they're sending it on text message and you will see #rescuePH that's sent on Twitter. When you send it on

Twitter, it will be automatically mapped. The LGUs will automatically map going through, working with our agencies, that's not me. So this is the last confusing part. Rappler has a group of journalists. It also has Move.PH which is working with civic engagement that works with you, that works with the government. It works with the collaborative way to make things better. That's the goal of Move.PH. The video you will see shows you the first responder, responding, that's the goal of Project Agos.

So the vision of Agos is to use the wisdom of the crowds – to do crowd sourcing and combine it with top down government workflows, with the first responders. We help those, we help ourselves, and we help government help us. The changes in climate change, I don't know if we talked about this in the conference but we don't know what is going too happened. What we do know, is that the oceans are rising and there are going to more weather disturbances that we cannot predict. So we just got to be prepared. So that's what we are going to do, crowd sourcing, using the wisdom of the crowds, collaborate, research. We need research to get the insight out of the big data and use it to help us cope with the days ahead. Thanks so much!

Open Forum

Good afternoon! I'm Cecille Genove, I'm from Silliman University. It's good to see you again Ms. Ressa. We had you I think last year. Thank you very much again for this opportunity. Ms. Maria, the last slide or the last video you have shown us did that happen po in Dumaguete? Was that Sendong, in 2010? I think if I'm not mistaken a young student from our school send that to you po and I think it went viral. The question that I'm going to ask is, how important or how significant and how effective would citizen journalism be in terms of helping out in disseminating disaster preparedness or perhaps in preparing ourselves for any eventuality?

It was 2013 in Sendong. Salamat ho. It was a great question. The answer is, it is incredibly important because all of a sudden now, again look at the new world. In the old word, journalists in organizations in central places like Manila or Cebu would fly to wherever the disaster happened or wherever the events happened. That would take days, sometimes weeks, right? Now, the journalists are embedded in your communities. That is what twitter does. That is why the role of journalists has already been changed. You are now the first phase of history, you're living through it. You know during the Iraq war we were trained to embed in the US military. You are embedded in your community and you're telling the world what is happening in your community. You are a journalist. That's why. So again, we go back to what is the definition of a journalist? A journalist, in the past, and this is in New York, wrote a book about it, his definition is, *a journalist is anyone who can publish*. And in the past, it used to be that the only people who can publish were large organizations that spent a lot of money on it. And the biggest power of the journalists, of news organizations is the gate keeping role. Imagine how much the world has changed? You can't be the gate keeper anymore because the crowd, the people in their communities will tweet the events that will happen. Osama Bin Laden, his death. That was broken on Twitter because there was an IT professional who was a neighbor of the house of Osama Bin Laden. He didn't have a lot of followers. He had less than 150 followers on Twitter. He wrote it because he saw it. He just tweeted it and the news groups picked it up. So in a disaster, the first place we look is social media; in an earthquake, the first place we look is social media because we can actually crowd source an earthquake, how far? Actually what we do is that we just tell people map if you felt the earthquake, and when they mapped it, we already have the radius of the earthquake before U.S. Geological Survey (USGS) or any government agencies, Philippine Institute of Volcanology and Seismology (PHIVOLCS) actually tells us where it is. That's the power of the crowd. So now, citizen journalists are as important now as journalists to give us the first paths. Then professional journalist can come in and work with them in the same way that we did here. But you notice I'm shifting it not just to the writing, the context and analysis but to understanding crowd sourcing and big data. I think those are the massive game changers not just for us but I think for research. So here's the last change in the world. We went from the world where we used statistical sampling to extrapolate what society shows. But with big data, you can actually take millions and millions of data points and you can have corrupted data in the big data but the patterns will still show and the outliers will wash out. Remember in the statistical sample, your sample has to fit. It has to be a sampling of the entire society. Well, big data allows to not just get a ton of information. The technology now exists to process that information fast so we can get the information.

I'm Veronica from Southern Leyte State University. Thank you Maria Ressa, you have been in our university. I think that was March or April. I would just like to ask you what media source alternative can we use if all the sites black out just like what happened to Leyte during Typhoon Yolanda.

This is what we are actually starting to prepare for. So there are two ways, this is where I look to the Telcos. I apologize to Globe and Smart, I am platform agnostic in this one. But I think communities have to be prepared

with satellite phones and I know both will offer you a sleeve for your normal phone you can put it in. But one of the things we didn't do which journalist organizations do is to send people in the areas with a SACO that is not dependent on the infrastructure. Number 2, when all else break loose, and you don't have communication that I think is why we should be doing disasters simulations. We should then know it can be even as simple as a pyramiding scheme where information is passed through the barangays. I think we have to go bottom up. I think Joey (sorry I mentioned him again), but I looked at the stuff that he has done. What he's done is prepared for the worst. And it's workflow. We need to workflow this. If your cell phone dies, you will have no information except for the community around you. It could be a relay. It has to be planned. But the flipside of that is you also make sure you have a satellite phone. Can communities afford it? No. But can local government factor it in? Yes. Because there's a cheaper phone, it's a sleeve. I think Smart has it. It's a Thuraya sleeve that takes your normal phone and just plug it into that and then you're charged by the data point. The last thing I'll say is Facebook. Sorry there are two other technological ways to get around it. But they still require power which you know will go out. One is I think you will hear DOST talk about TV white space. TV white space is a new technology that will bring connectivity to outlying areas. Right now our cell phone signals are stopped by mountains. Cell phone signals are not as strong as TV signals that's why you get TV in remote areas where you may not get cell signals. So this new technology was developed by in junction with Microsoft, a Singaporean company and DOST I know is working with them on it. This technology takes the TV signal and allows you to actually use that for broadband which means you can connect directly to the internet. So that's one way even if your Telco signal is down. If you still got power in your laptop, you can turn on TV white space. In Bohol, for the fishermen I think, it was one of their pilot areas. In Batangas, it was their pilot area. I think they will tell you more about it here. And then the last one is Facebook. I just spoke with them. I'm stealing their thunder but it's a small group and let's just keep it amongst ourselves. In October, they will be launching internet.org. Internet.org is a way for you to get information on your cell phone that bypasses carriers so that's one way that you can also get information. But again, if your cell phone signal goes down, you're gonna have to have the SACO option. It's a new world. Again, when cell phone signals went down in Eastern Visayas, I knew it was going to be really bad and it was the calm before the storm and it really was. It was worse than anything we could have imagined. I hope that answers your question.

I agree with you. I think it's one area that we need to do to be prepared. Thank you very much!

I'm Marita Reyes from UP Manila. Ms. Ressa, I'm the 11th person that you did not see who raised their hand not having Facebook account. So now, you have so convinced me. Anyway, my question, it's not really a question but a feeling. You said crowd sourcing. And I have a bias about when you source your information from crowds because crowds have sometimes a mob rule. Parang ganoon. I'm not comfortable with sourcing information from crowds maybe we can change it to people information or community information? I don't know.

No, I'm so glad you mentioned that because I've only told you the positive aspects of the crowd right? But the crowd, as you said Ma'am, turns into a leech mob like this, like that – a click of a finger. And this is what scares government, what scares companies, what scares institutions and it's scary for us as people, so what stops that? The reason why crowd sourcing works because there's no organization that can be everywhere where people are, right? So, the first crowd source has been Wikipedia. Wikipedia is 2.5 million pages of an encyclopedia that no one edits. The crowd puts it up and it's self-correcting, the crowd corrects it. It's a rational crowd in that sense but sometimes an error will be on-line for 6 hours, 12 hours before someone corrects it. It's kind of like medical contagion again, right? That's why I'd like to go back to the biological facts. The reason why I believe in the wisdom of crowds and it goes against what I've been taught as a journalist because as a journalist you control your information, you verify that the person is who they say they are, you verify the credibility of the information they give you. But now, these data now can be treated and processed in a way that gets rid of the lies. So if you look at even on Rappler, we actually allow the crowd to vote it up or vote it down. At the beginning, it's not as precise as something that is completely controlled, but at the end, it's more accurate. Because it's about scaling. So at the beginning, if you notice, we couldn't have done Project Agos, in our first year as Rappler because we didn't have the scale. A hundred million people in the Philippines we scale so that's the risk that you take. So again, if you want to control it, it's statistical sampling. But the bias in statistical sampling is in the assumptions that you put into it. When you use big data, there is no bias because it's agnostic. It's the crowd, you cannot control it. And that's part of its accuracy in the end because you will see patterns that if you were doing statistical sampling and you didn't anticipate it then your statistical sample is wrong, is that correct? You see what I mean? In some ways, the big data will be more accurate in the end because you don't have to create a hypothesis that goes into creating the statistical sampling. So unfortunately Ma'am, we are in a world now, today that is in transition. And you know what? I think a decade from now, we're going to look back at this time period and we're going to realize exactly how this is such a time of, creative destruction is the phrase that we use. The kids in the

audience, kids I mean 20 and below, you have tremendous opportunities that my generation just didn't have. 5 years ago, I couldn't have created Rappler, it would have been too expensive. But Rappler lives on the wisdom of the crowd. 20% of our content comes from our audience and it's been a week and a half now that we're the number 2 news organization in the Philippines according to Alexa rank, which is an Amazon.com company. It's publicly available. So again, the crowd, social media and big data, these things when harness properly creates roles, create opportunities and can create solutions to problems.

I'm Dr. Vicente from Region 11 Davao, I never thought that I would not see the day that I would meet Maria Ressa. For a time, you were at CNN, ABS-CBN. I have a more practical question. How do you make money in Rappler? I understand that on Facebook a lot of people are trying to do just about anything just to make money. I don't know if Rappler makes money but I just want to assure that I'm one of your followers. I start the day and end the day – Facebook. And people say, "Hey don't start the day with electronic media otherwise you will spoil your day." I guess not with me especially if I get various opinions or comments coming from Rappler. I think I get better news from Rappler than from ABS-CBN or any other. I'm not kidding. You see, just as what Ressa said, in traditional or typical journalism, the journalist control the data. You have no way, even if you contradict them, the weapon is they just shoo you away. They will not publish what you commented. But in Rappler or Facebook, nobody cares. I just post it there, tweet it and then everybody sees it.

Dr. Vicente you won my heart, maraming salamat po. So let me show you a new business model. Again, sa atin-atin lang ho ito noh. Traditional media groups, the business model is dead and you're only watching it play out. And we know again having managed the traditional media, when you're inside, you're panicking because you only know one way. In some ways, this is the problem of large organizations you're going to have unlearned the things that made you successful and do things differently. That's scary. When we started Rappler, there is nothing. We started it from nothing so everything was possible. Our business model plays all the four things that I've told you about which is: content creation, social media engagement, crowd sourcing and big data. How do we make money out of this? Number one, do not look for banner ads or add-ons for advertisers and I think that newspapers, they get too much and the banner ads aren't clicked on anymore. Do you click on a banner ad when you're on a news site? And it really clutters the look of the site. I like things looking elegant right? So banner ads don't really work, not for the client and not for the news site. So if you notice on Rappler, every single page only has 3 banner ads. How we make money is by something called, the content that's created is native advertising and again it's a world of collaboration so we collaborate together. We will collaborate with the Climate Change Commission because we have a common goal. What we try to do is not PR because PR in many instances is one way but we try to figure out. Here's company A, our advertiser and they have information inside their company that you, the consumer want. And we have a separate team, not the news team, but a separate team in sales that actually works with the advertising that's called native advertising and you'll see it in Rappler under BrandRap, it has its own section and every single story there has a box that says, *From our Sponsor*. That then is amplified on social media, which sometimes then is crowd sourced and then it becomes a big data. It's a new business model because the data is actually the most interesting part. How do you make money out of that? Well, if you see P&G and Unilever. P&G, we did a campaign called Whip It. Are you guys familiar with Pantene's gender bias? This is the stuff what I like doing because it's exactly what I want to do and the company benefits and we make money. How do we do that? In Whip It, Pantene said, we want to look at gender bias. Gender bias sounds really boring when I say it like that but if you remember the ad of Pantene, it's if you're a man and you're strong, you're confident. But if you're a woman, you're aggressive with a slight negative tone. So what we did, we designed this campaign, actually it's our sales group, but we said, we want to do a survey that takes a look at how Filipino men and women look at women. And you know what? It had never really been done before. So P&G commissioned the survey, we did a forum like this. We live stream the forum and that live stream was live tweeted, live blogged. It spiked so much that it triggered reactions and stories from news groups in the States to the point that Sheryl Sandberg, picked it up and posted it on her Facebook page which made it go viral. And now, the Filipino ad agency that did that campaign now has actually is doing it in the West for P&G there. Dove's campaign went the other way. It was always from the West to Asia. This is a Filipino company who did the campaign and brought it to the West. That's the power of the internet. And this is when you think of a business model that isn't a business model. That's the new world today. We make money with great content. We tell you we've sold it because again the problem with native advertising in the West because some publications pretended like it wasn't paid. As long as you're transparent and you know it's paid advertising, it's paid by our sponsor you make up your mind. And you know what's crazy? Our team has gotten so good at that that sometimes a native ad content creative for a sponsor actually becomes number one before the news which sometimes kills me because I think we should care about the news but you are emotional. So you like what you want, we listen. So Sir, that's our new business model. But I can't tell you not to tell anyone. But I'm so happy to

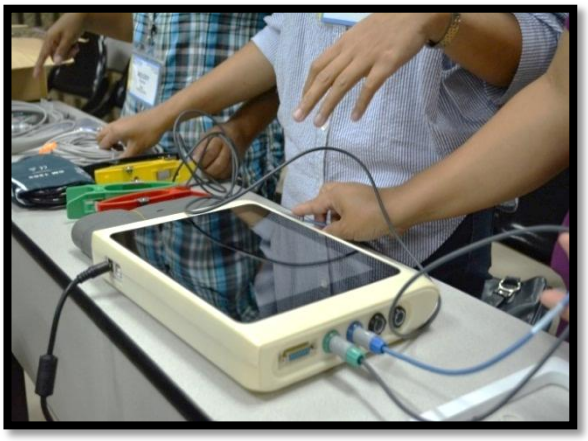
actually tell you about it because again it is technology driven, it is looking at our world today and trying to understand how we can use these things that are there now in new ways to rejuvenate dying industries.

Telehealth and the RxBox, Experiences from Leyte and Bohol

Dr. Kristine Mae P. Magtubo
Project Manager, RxBox
National Telehealth Center

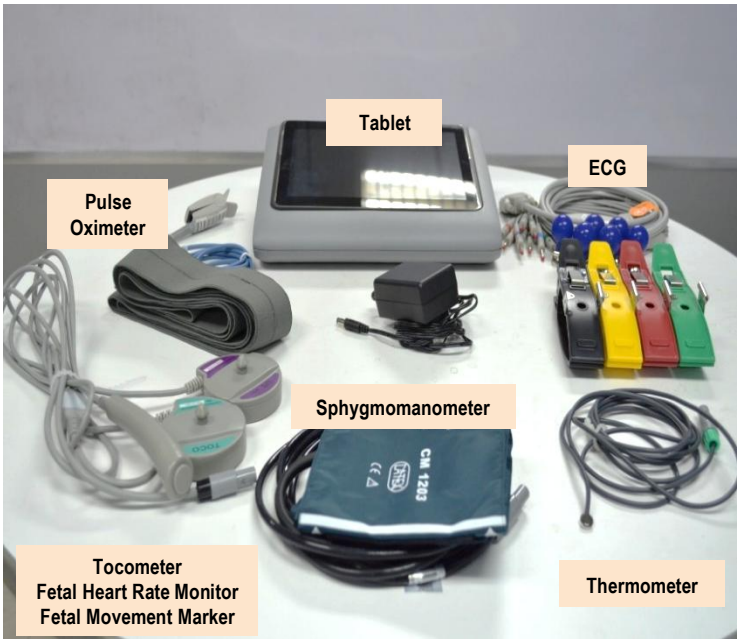
Discussion

Good afternoon! So as advertised, my name is Kristine Magtubo before becoming a Project Manager for the National Telehealth Center, I worked as a Doctor to the Barrio (DttB) in Eastern Visayas for two years. I was first assigned in Samar then I was transferred to Leyte. So sino diri ang mga Waray-Waray? Daho kamo? So maupay na udto. So when I was living in Leyte, Cebu was like my second home because it only takes around depende kung marami kang pera pwede kang mag Superferry, so mga 45 minutes lang iyon from Ormoc. So kasabot jud ko pang Bisaya pero hindi sobra, konti lang. So maayong udto sa inyong lahat. I'm here to present something that has been playing on your screens I think since last night which is the RxBox. My take home message is the same message that Ms. Ressa delivered earlier and that we are living in a brave new world and we have to take up new ways of solving our old problems and that these new ways need not be so far out of our reach. There are simple new ways of thinking about technology and how it can change the way we deliver health services and the way we look at healthcare. So before anything else, let me just introduce the National Telehealth Center. So the National Telehealth Center is the premier institute for eHealth research and service in the country. It was established in 1998 under the leadership of Dr. Perla Santos-Ocampo. Our vision is eHealth in empowered communities. So we design and develop, deploy eHealth technology software and hardware to disadvantage areas and we want to look at how these technologies will be used, how they will be adopted and what effects they will have on the health system.



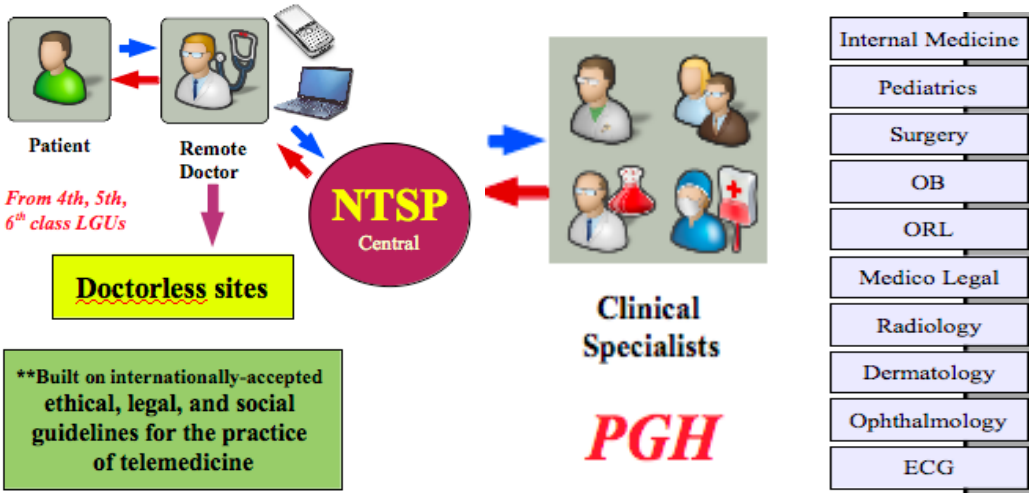
The RxBox, one of the eHealth projects of the National Telehealth Center

RxBox is one of these technologies. So, that is the RxBox. I'm sorry I didn't bring one today. I was advised against it. The formal title of the research is, "RxBox2: Integrating Medical Devices into the National Telemedicine Service Program." I will be talking about the National Telemedicine Service Program a little later but I'd like to point out that the RxBox is a sponsored project of the Department of Science and Technology. So the goals are very simple. We want to locally manufacture a biomedical industry product, deploy it in geographically isolated and disadvantaged areas to strengthen public health. So this is teleheath, you affect public health. And we want to look at what are the factors that will allow for this technology to penetrate the public health system, what are the factors that will allow for its adoption.



The RxBox and its components

So this is the RxBox, the easiest way to think of the RxBox program is to think of it as a system of intervention. It has three main components: the first is the medical device, which is on the screen. The medical device has an integrated tablet. So a while earlier, I was asked, can you remove the tablet maybe use it for Angry Birds or Temple Run? In our earlier version, yes you can do that but the final version we embedded the tablet into the box. So I guess yes you can, if you can carry the whole tablet. The tablet contains our software which is called ENAI, Electric Natal Assisted Intervention. It is the software that integrates the physiologic signals from the different sensors around the box and allows the box to the next component which is the electronic medical record. So the sensors in the box, these are medical sensors. The ECG measures your cardiac activity, heart activity. We have a thermometer that measures temperature; a sphygmomanometer that measures blood pressure; a pulse oximeter which measures the oxygen saturation in your blood and we have a fetal-maternal suite made up of three sensors: a tocometer, a fetal heart monitor and a fetal movement marker.



Together, this fetal suite is able to tell if there are complications that arise during delivery even before delivery which can harm the fetus or the mother or which can complicate birth. So I said, that's the tablet, the RxBox communicates with an electronic medical record. That electronic medical record is called Community Health Information Tracking System (CHITS). CHITS is a 10-year-old product of the National Teleheath Center. It was made side by side with health workers and the idea really is to take whatever the health worker is doing normally and just make it electronic. What happened when you enter a health center is you register, you take a number, you get your vital signs taken and after two hours or so they find your record, you're gonna get treated. CHITS removes that by making patient search easier with just a click of a button. So it doesn't only function as an Electronic Medical Record System, it's also a tool for something that we call *e-surveillance*. And that's because CHITS enables health facilities to do painless reporting. So the reports that you need when you submit to the Department of Health or to your partners in service delivery can be easily generated with just a click of a button. So for example, if we wanted to know where in your Municipality ang walang toilet you can see that in CHITS. So it's painless reporting. Another aspect is, because of CHITS, a Rural Health Unit (RHU) is capable of becoming completely paperless. So it's save the trees, you know that but it also makes health service delivery easier by removing clerical errors in reporting and recording data. So that's the second component.

The final component is the National Telehealth Service Program. Now this is the flagship project of the National Telehealth Center. NTSP was conceived in 2007 under the direction of the Department of Health and the idea really is to bring the clinical specialists from Manila closer to doctors who are practicing in the provinces. When I entered the Doctors to the Barrios (DttB) program, I become part of the NTSP and it was very useful. Imagine, if I have a patient which required a certain medication that was not available in my facility, being the remote doctor, I could ask my patient, *"Hey, Manong okay lang ba icoconsult ko iyong kaso mo sa specialist sa NTSP? Iyong data mo itetext ko sa kanya, hingiin natin iyong opinion niya sa kaso mo."* If the patient agrees, I text the case and the case gets collated at the NTSP Central and it sounds lofty but really NTSP Central is just a small room, in the dark corner at the 3rd floor of the Philippine General Hospital (PGH), where our equipment are. So there are nurses there who answer the messages and forward them to a pool of clinical specialists. So we have clinical specialists from Internal Medicine to Cardiologists who can read the ECG. So, when I ask that clinical specialist, I don't have Atorvastatin in my RHU. My patient can't afford it, he's a farmer, mag-aatorvastatin siya, mabebenta

iyong kalabaw niya, maghihirap iyong pamilya niya. Can I give simvastatin? And that clinical specialist texts, *"Yes you can. You can substitute. You just do this."* I, as a doctor now makes the clinical decision. Do I follow that opinion or not because in the end, the relationship is between me and the patient and the clinical specialist is just giving an opinion. And through this process, through the National Telehealth Service Program, that patient need not have travel from let's say Samar to Tacloban City, two hours around Php100 on the bus just to be told that yes you can have Simvastatin. So it's saves you the time, effort and saves the health system money. So those are the three components of the RxBox program. What is the service delivery in an RxBox program that enabled the RHU? So first, the patient is admitted through CHITS so we type in the vital signs, the data, etc., and then we use the RxBox to get your physiological data. So example, if you're a pregnant woman on your 6th month of pregnancy, we monitor the heartbeat of the baby, we take care of the blood pressure, we take care of the oxygen saturation and that data gets fed into CHITS where the doctor can see it without having to go actually to the device because an RxBox in an RHU is connected to a Local Area Network (LAN). Hindi po kami gumagamit ng internet, Local Area Network (LAN) lang siya. So I don't have to walk to the delivery room to see the reading of that patient, I can stay in my consultation room to see that. And then, if I decide that I need help on your case, I'm going to refer you to the clinical specialist. And then when I decide to take on the opinion of the clinical specialist, I give that opinion to you and manage you as the patient. After all the management is done, at the end of the day, CHITS is used to collate whatever services we have done on that day to a report that we needed to submit to the Department of Health. So it's a common misconception, there's no internet involved in the RxBox. Although, you do need the internet to send email to send teleconsults to NTSP, it's not necessary for RxBox to have internet to work in an RHU.

So where is the RxBox now? So our recently concluded training was last July, first week of July. So we're now on 36 health centers all over the country in 15 regions. We don't have a site yet in Region 9 and Region 13 but we are having training by the end of August. Meron ng representatives sa Region 9 and Region 13. We are in 24 provinces. We have trained around 350 health workers who served 700,000 Filipinos every day. So the goal really is for this technology to be spread around the Philippines as much as we are limited by nuisances in the production and the design of the device. So the topic really is what is the experience of RxBox in disasters? And I have to be honest when we conceptualize the RxBox, it wasn't really meant to aid disaster response or to be used in disaster areas. It is electricity dependent. But I'd like to share with you three stories from RxBox sites and I want to begin with the one that's closest to my heart.

But before that, let me just share few learnings from the research that we're doing about the RxBox. So the RxBox contribute to smarter patient care. We know this. We can diagnose diseases better. Smarter health financing because you don't need to spend much on referrals or expensive medication. Smarter health governance because of the power of CHITS to create reports for you with just one click, your decision now becomes evidence based in the end smarter public health which we all know from the Department of Science and Technology (DOST) in line with our goal in making Smarter Philippines. And this is our ultimate goal in RxBox to advance community healthcare.

So this is the Rural Health Unit (RHU) of Mayorga in Leyte. You probably heard the news of Mayorga in Yolanda. I don't know if you did. They're not very popular but they were hit quite hard. 98% were homeless after Yolanda. And this is a story that's close to my heart because two years and ten pounds ago, that was me. This is the municipality I served as Doctors to the Barrio and those are my friends, my staff. The RxBox came to our municipality, I volunteered for it. It came in July 2013. We had a training and we were able to operationalize it almost immediately. I was very lucky because my staffs are relatively young if you believe me; they say they're relatively young. We picked up the technology quite well and we were able to become completely paperless by the end of August. We were the first RHU in Leyte to do so and we're proud of that but then, disaster struck. So this is a picture, it's the same building, the same Mango tree where I do my post-mortem examinations which fell over. And during this time, it was interesting because the National Telehealth Center is actually conducting its field visits. And 2 of our staffs were actually in Mayorga when Yolanda hit. I was trying to get them out but nagca-cancel na ng flights iyong PAL at that time so we couldn't get them out. So ang nangyari, Yolanda hit Friday, they were there and during their exodus sabi nila, *"Sinabayan namin iyong mga tao Doc, palabas ng Mayorga, papuntang Tacloban. Pagdating namin ng Tacloban akala namin safe na kami. Pagdating namin doon, mas malala pala."* So they fell in line with the C130, luckily or unluckily, they were quite injured because the motorcycle they were riding hit a tree or a rock and they fell and they were injured. By Sunday, we had them home, we had them back. But when they came back, they brought in pictures and videos of what happened to the RHU. And sabi ko, *"Anong nangyari doon sa mga health workers, are they okay, are they alive?"* And sabi nila, *"Yes Doc, everybody is okay kaya lang wala na silang mga bahay."* So sabi ko, *"Anong nangyari right after?"*

"Wala Doc, business as usual." "Anong business as usual?" "Kasi Doc nasira lahat pero ang server, okay." Sabi ko, *"Sa lahat ng ise-save server talaga."* But they were fortunate, my friend, my staff were very fortunate because my nurse had the presence of mind to run the server as the winds were howling. Sabi niya, namimili daw siya. *"Anong ise-save ko, iyong server or iyong target clientele ko na madami?*" Sabi niya, *"Iyong server magaan lang so sinave ko iyong server.*" So sabi ko, *"Kumusta the day after?*" Sabi nila, *"Nag-immunize po sila ng mga bata.*" Because they have the server, all the records were there. *"What did you do for electricity?*" *"Kasi Doc, meron kasing stock ng diesel doon.*" So iyong diesel nilagay sa generator and they use an extension cord para ma-run nila iyong CHITS, iyong electronic medical record namin. So they were able to go back almost immediately to paperless service delivery. But the sad thing is and this is the graph of the utilization rate, we take how many times they used the RxBox, the device and you see in this 13 week-period, meron talagang plateau, zero talaga iyong utilization ng RxBox because they save the server but they left the RxBox. So the RxBox waited in water for a few hours before they deemed it safe to retrieve it. When they retrieved it, ang advice ng staff namin, *"Don't open it yet. Treat it like a phone that was in salt water. So put it inside the bigasan.*" Nilagay nila sa bigasan and because things were so busy, there was international aid coming in, local aid coming in, they forgot about the box. So they just remember that the box was there when they were accessing the rice. *"Ay, the RxBox.*" So when they turned it on, it turned on naman. So they just dried it out and turned it on. So they were able to use it. So if you are going to look at the graph, before Yolanda in July, Mayorga was number one, number two in utilization among the sites in the Philippines because we have a lot of patients. My average per day was 100 patients a day. When I do my clinics, para talaga akong nagbibigay ng libreng bigas kasi iyong pila umaabot sa covered court. When Yolanda struck, it really plateau and it took us 13 weeks to really go back up again. Service delivery na paperless, almost the next day. 2 days after, iyong use ng box 13 weeks. I was trying to find studies on health facilities recovering from disasters but I couldn't find any. And I think this is pretty good. So that was an unprecedented effect of the RxBox during the disaster. What we learned is that for the health system to respond to a crisis, it must first survive the crisis. You have to think about strengthening and resilience is a concept that has been labored over the past few days. But it's a concept that has to be really engraved into how we build our systems. Right now we're looking at how we can make the RxBox waterproof as waterproofing as we can afford because we are on a budget. How we can embed possibly a battery because the health system must survive. When you talk about the health system, iniisip natin lagi iyong Rural Health Unit, iyong health facility. They have to respond to a disaster, they're the first responders. Sila dapat marunong maglinis, magcater to the sick and all but they're also affected with the disaster. We are very lucky in Mayorga that they were all alive. But I heard the talk about the National Disaster Risk Reduction and Management Council (NDRRMC) and they were not so lucky. And this is an important concept that I think is a learning that was unprecedented for the program that really strengthen health systems. Even if it cost you to invest in technology, it will pay you back thousands of times because you will survive crisis and disasters. So that's for Mayorga.

The next story that I'm going to tell you is about Villareal, Samar. Sinong nakarinig noong Villareal sa news noong nagYolanda? Wala. Nobody. Because Villareal is a small, coastal town on the west coast of Samar. It was not affected because it was protected by the Samar plateau, what we call the *Samar Island National Park*. So it was protected from Yolanda but what happened and we heard this from Dr. Iris who was also a DttB, a friend of mine and is still in Villareal. Since they were the first town that was not affected, they have to cater to a huge volume of patients making the mass exodus from Tacloban and going to Calbayog City to escape Tacloban City. So they were catering to injured people, pregnant women, to all sorts of patients and Villareal is a small municipality. I don't know if you have gone there. You have to walk probably 6 or 9 kilometers to reach pero tinatiyaga siya ng mga tao kasi naririnig nila na iyong health center sa Villareall buhay pa kasi iyong mga health center sa mga naunang bayan, wasak na. So sabi ko, I talk to Iris and it was Monday, she was able to make it to Calbayog, meron nang signal doon. I ask her if she was okay sabi niya, *"Okay naman ako. Kaya lang, wala akong signal doon. And I have patients who really needed clinical specialists and there are no clinical specialists around, I can't send them back to Tacloban City. Kasi nga, they were leaving I can't tell them doon nalang kayo kung saan man kayo pupunta. But some of them are really emergent."* People with hypertension that were previously on branded medications na ang meron nalang natira na alam natin sa public health Metropolol nalang and very complicated heart failure cases. Sabi ko, *"Wala kang signal doon." "Oo, iyon ang kailangan ko actually."* So what we did is we tied up with the Department of Science and Technology - Information Communication Technology Office (DOST-ICTO) and we asked them, *"Can we do something for Villareal?*" And luckily, we were able to bring a Broadband Global Area Network (BGAN). BGAN is a broadband that connects you to satellite and gives you internet connectivity. So because of that BGAN, the Telemedicine capability of RHU Villareal was restored but then when we arrive there around late or early January wala na ring nag-eexodus so what we did when we got there was to install the BGAN and to look at how they were able to survive the disaster. It was the same thing. The generator from the Department of Health they used that to power the RxBox to power the server

and now their connectivity, care of the Broadband Global Area Network (BGAN), they were able to do telemedicine. And not only that, they were able to offer to them to have their CHITS on the cloud so that if something happens, you need not to worry about carrying a server out of a burning RHU. It's right there. It's on a cloud so if something happens you can access it technically anywhere. So this was so successful that it was actually used in the recently concluded eHealth Summit. We were able to do a live teleconsultation with me at the receiving end of the teleconsult and Dr. Tagaro at the other end and we were able to manage a case of a 16-year-old primigravid having premature contractions actually during the eHealth Summit. So this is the second lesson that we learned, effective does not have to mean expensive. You have a social capital. Our relationship with ICTO paved the way to get them satellite connectivity. Effective does not have to mean expensive because in order to cater to ganoon ka daming pasyente, all they needed was a little fuel for the generator to power the RxBox and CHITS and they were able to cater to hundreds of patients coming in. So when we think of technology, we think, I have to invest money. That's going to take hundreds of thousands of pesos. It has to be costly but it's not. Technology is a tool and it means nothing without the ingenuity of people.

So the last RHU that I want to talk to you about was also featured in the Summit and that's the RHU of Tubigon, Bohol. So we went to Tubigon as a request by ICTO because they told us and Ms. Maria Ressa alluded to this earlier that they had this technology, it's called the *TV White Space*. *TV White Space*, simply put, is super wifi. It has a 3-km radius. It does not need Telcos in its line of site. As long as there's a direct line of site from the receiver to the source, it's going to be okay and it rides on channels that are not used by our television. For example, Channel 1, there's nothing there. Channel 2, ABS-CBN, Channel 3, there's nothing there. So Channel 1 and Channel 3 are called white spaces and you can use that frequency to access broadband. So in this municipality, we asked, *"What you want us to do with TV white space?" "We want you to put an RxBox there because when the earthquake hit Tubigon, one of their problems was they couldn't go back to their normal service delivery because they were afraid of going back to the earthquake areas. So hindi sila makabalik, kung saan ang records nila, kung saan ang gamot nila, nasaan iyong facilities nila. So when they set-up elsewhere, they didn't have the records. They don't have anything. They don't have the equipment.*" So ICTO said, *"We can partner with you."* This will be another application of our technology. And we said, *"We're very interested."* It's a step towards a health system rebuild and we're very interested. So we did our first on-line training in a small town. We didn't even do it Manila, we did it in Tubigon. If you've been in Tubigon it was quite a ride from Tagbilaran City to Tubigon parang puro forest iyong dinaanan namin and boom! There's a town. And in this town, there's really good wifi because they have TV white space. And I said, we can put their CHITS in a cloud. So right now, the RHU of Tubigon, it's running CHITS on-line and if an earthquake hit them, they don't have to worry about anything. Their records are preserved and they can just continue giving quality service to their constituents wherever they might want to camp. If they want to set-up outside Tubigon, they can access that, as long as TV White space is up. And then one of the learnings also, on-line learning if we can do on-line or e-learning in a faraway place in a small coastal town, why can't we do it in other places in the Philippines? Why can't we train our health workers how to respond to disasters without them having to actually travel to Manila? So it was an eye opener for us.

This is the third lesson I'm going to share with you, it's building back better is better with a partner. The world today is limitless. You can collaborate with somebody from Los Angeles, make a Skype call, set-up a company through the comfort of your home. The world we're living is big and limitless and the collaborations that we make ultimately determine where we go with these technologies that we create and when we build back better we have to think about who we can collaborate with to augment what we have. Tubigon is a small town but with TV white space, they are ran because we already have a second site in Region 7, that's in Aloguinsan in Cebu but they ran the first on-line, paperless electronic medical records in Region 7. And that's not even in a city. So moving forward from these lessons. What do we want to do with the RxBox and this technology? We want to hit all regions by end of August like I said 140 sites by the end of the year. This is our commitment. We want to build a better product which will lead to a better system. The problem with the battery was a mind-boggler for a long time. If we are going to put solar in, a battery pack that's going to be too heavy, we realize that we teach them how to use a DC inverter. Use your Diesel fuel generator which comes with the health facility enhancement program of the DOH and run the RxBox. It's not costly, it's effective. You know we want to bring these lessons into how we develop the box. We want to do research and this is where I appeal to you today. We want to do more research. We want to look into the impact of the RxBox program in the health system, meaningful use, which patient do you use this on. Why do you use this on this patient? Why not this patient? And this is a research that we can only do through collaboration with the regional partners because we're handling the national program and we want to do more research collaborations. Our research with TV White Space is on-going. We're looking at another application for super wifi for the training component. We're also looking at another technology

that UP Diliman is developing that's also about giving connectivity to the barrios. And we're working on our customer support infrastructure because at the end of the day if a disaster happens, we want to know who you gonna call, the National Telehealth Center has to be able to respond to those calls. Finally, we're working on standards and interoperability. We're not the only Electronic Medical Record out there. We might be the only composite medical device but certainly, that's not going to be the case forever. So we want to work, continue advocating, create standards and pursue interoperability of all these systems. So that if an RHU in Samar operates CHITS and RxBox and another RHU in Iloilo operates another system, all of their records can be consolidated and can be used meaningfully by people in the national level.

So I want to end my talk today, these are my staffs. That's Chikay and Ate Lilit from Mayorga. So they're displaying two different behaviors. So my journey as a user and now as a manager of the program has really opened a lot of insight into how technology has changed our world. I've only been alive for 27 years and it hasn't been quite big a change I would imagine than those who have been far longer than I have but I want us all to think about new technology as a new way of thinking. Technology doesn't work with people. If you have a new smart phone and you insist on just using it to call your *amigos* and *amigas* and you're not using it to its full potential because you feel ICT is just that, if I can call, I can text. It's not going to drive the change that you want to see. Technology is a tool, what has to change is the way we use, the way we look at technology in a way we enable to use and adopt that technology so that it changes the world around us. I think that's the biggest lesson of the RxBox program and I want to end by saying thank you to all of you and introducing our team. I'd like to say that it's a privilege to be here today. If you want to know more about the RxBox program, I will be here until Friday. So, you can talk to me or you can talk to our partners. Thank you very much!

The Social Media System: A Double Edged Sword and Agent for Change

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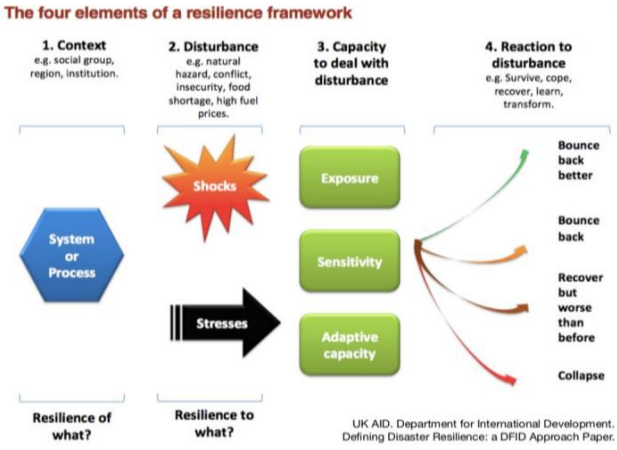
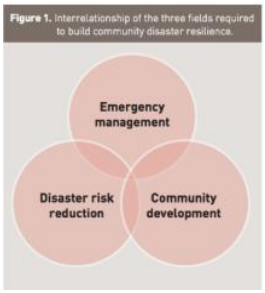
Discussion

Good afternoon! I arrive in Cebu yesterday I caught the afternoon sessions. I heard first-hand accounts of people who were actually in Tacloban in the aftermath of Yolanda and what they have accomplished. I wish I could claim to fame but I can't, I wasn't there. But I was on line to witness it all. I am an endocrine witch, I am a netizen. One of the many given by social media in real-time as disaster unfolds. Do you remember this picture? The picture of newly-weds taken during the Habagat in 2012 became viral. Hasn't it been said, *"The Filipino spirit is water-proof. Baha ka lang, Pinoy kami."*

So I'd like to talk about social media and community resilience. I divided this presentation into three parts – what is community resilience, how can social media build community resilience and finally as I am a doctor, some implications in public health. Resilience from the Latin, *resilio,* it means to jump up or bounce back. And for me, this picture evokes that. Don't you agree? There are many definitions on resilience. But I use this one in the UN International Strategy for Disaster Reduction. Resilience is the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions

Most definitions of resilience share four common elements: (1) context, resilience of what, (2) disturbance, resilience to what, (3) the capacity to deal with and (4) reaction to disturbance. Whether a system or a process is resilient is a function of its sensitivity and adaptive capacity. In the best case, the reaction to a stress might be a *bounce back better* to cope, a bounce back to a normal, pre-existing condition or recover but worse than before. In the worst case scenario, there is no bounce back and the system collapses.





The inter-relationship of these three fields are required to build community disaster resilience – disaster risk reduction, emergency management, community development. This reduction emergency management by themselves could not necessarily build disaster resilience in community, social interactions, competencies and interactions improved by community development activities form a critical part of the resilience building triumvirate. Social interactions, so I think you have the role of social media right there. So I ask, how can social media build community resilience? At this day and age, I don't think I need to define what social media is. There's a straight definition, it says websites and applications that enable users to create and share content or to participate in social networking. And then there's this lovely, creative definition. If you're on Twitter, you can say I'm eating a #donut, if you're on Facebook, you say I like donut, if you're in Foursquare and you do a check-in you say, this is where I eat the donut, if you're in Instagram, here's a vintage photo of my donut, in YouTube, here I am eating a donut, etcetera, etcetera.

So how can social media help build community disaster resilience? So there are three parts here I'll show you and there's a goal for each of these fields. So the main goal of disaster risk reduction is the minimization of residual risks. Social media can help people understand the disaster risk in their communities and what is being done to manage these risks? So as I said there, inform others of disaster risk, discuss and plan ways to minimize risk, coordinate and manage task and conduct post-event learning to improve. This is all possible with social media. As Ban Ki-moon, United Nations Secretary-General said, *"The more governments, UN agencies, organizations, businesses and civil society understand risk and vulnerability, the better equipped they will be to mitigate disasters when they strike and save more lives."* Ms. Maria Ressa just gave a talk and I hope you've been convinced that social media can get over and out. This is often quoted, *"There's no such thing as a natural disaster, only natural hazards."*

Disaster risk reduction used to reduce the damage caused by natural hazards like earthquakes, droughts, floods and cyclones to an effective prevention. In this article, it says, 2 days before Yolanda, the national government's social web posted details and explanation, *www.gov.ph*, about storm surges and how many actually asked, how many actually read it and heeded the advice? It's a long shaft from actually seeing and following it from what it's really not for me to judge or to see, it's a screen shot of the first page showing, *"Ano ang storm surge? "Bakit nagkakaroon ng storm surge?"* Why didn't it go viral? What are infographics? These are poster-like images you see floating around the web. These are visual pictures and photos of infographics such as these are more likely to be shared and go viral. This is an example. I've seen variations of this red, yellow, green for advisories in social media every time it rains. This is another infographics about earthquake survival from myManila.net. And then from Project NOAH, we have this, *Ano ang Habagat?* Another, panahon.tv, *Ano ang dapat laman ng emergency kit?* So these are thing that can be easily shared over Facebook.

So what's a hashtag? It is originally used to mark keywords or topics in a tweet. It was created organically by twitter users as a way to categorize messaging. So a few days ago, a trending topic on twitter, #DongYan, #LastDance. Sobrang lakas ng Pilipinas sa Twitter that #DongYan became a top trending topic worldwide. Imagine the possibilities if we harness that for disaster risk reduction. So Patrick Meier, as was mentioned by Ms. Maria Ressa, is an internationally recognized leader on humanitarian technology humanitarian technology and innovation. And he wrote about the Filipino government official strategy on crisis. He says that the Presidential Communication Development and Strategic Planning Office and Office of the Presidential Spokesperson clearly shared a 7-page strategy which you could download from a link in his blog. Patrick Meier writes that *"the Filipino government first endorsed the use of the #rescuePH and #reliefPH in August 2012 during the Habagat. These hashtags were initiatives from the private sector and trended per day so the government adopted the hashtags. The government also ventured into creating new hashtags and convinced media outlets to use unified hashtags. For example, for storms, its hashtags is the local name of the storm + PH (e.g., #YolandaPH).*"

#rescuePH was mentioned earlier for rescuing citizens, person requesting help is already okay #safenow, and relief request #reliefPH. The DOH even has this infographic combining unified hashtags with hotline numbers.

Of course the problem, there will be spam or leaks, such as the one shown here. There are tweets that have nothing to do with disaster. So #movePH were actually issued as gentle reminder to use hashtags properly. Patrick Meier reports that the #lubak2normal was a successful hashtag. What was that all about? In 2012, after the Habagat flood subsided, they launched #lubak2normal to treat pictures and details about potholes and cracks of the national highways of Metro Manila and those data you see there are where top holes are. Within 2 hours of launching the hash tags, 1,007 times siya nagamit. So this slide shows the map with the hash tag and these were reported to the government for roadwork and repair. So the success of this was attributed to the appeal of humor, lubak to normal and the convenience for the public to report directly to government.

So emergency management. How can social media contribute? By providing emergency intelligence through crowd sourcing (as Ms. Maria Ressa has mentioned), helping people prepare for disaster, communicating warning to others and coordinating community response and recovery and again conducting post-event learning to improve. So let's talk about crowd sourcing. The definition is to obtain information or input of a particular task or project by investing the services of a number of people either paid or unpaid typically via the internet. So the use of social media to gain real-time information on the ground on a disaster has been driven by the rapid speed at which information can be distributed, the cross-platform accessibility of information and the ubiquity of social media worldwide. So, what are the advantages of crowd sourcing for disaster relief? Number one, crowd sourced data if you will use a request and status report as Ms. Maria Ressa shown us are collected almost immediately after a disaster using social media. Number two, it is possible to do crowd sourcing tools to collect the data and do rudimentary analysis and actually partition the data so that now we can see what are the most frequently requested resources, what are the more urgent request. So number three, geo-tag information can help relief organizations accurately locate specific request for help like the crisis maps that was shown to us. So what will happen is we will have the inter-agency map. So the map works as an intermediary between the public and the relief organizations. Requests are collected via social media crowd sourcing and organizations can take action, share information and coordinate with each other using information on this map.

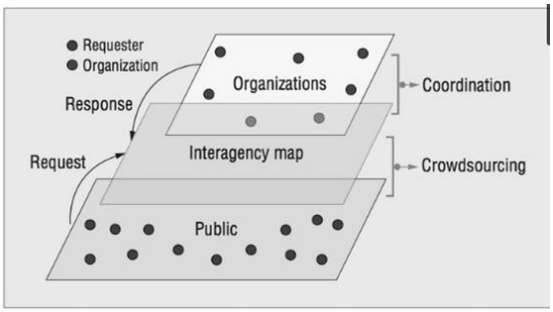


Figure 1. Interagency map. The map works as an intermediary between the public and relief organizations. Requests are collected via social media crowdsourcing. Organizations can then take actions, share information, and coordinate with each other using the information on the map.

So the Digital Humanitarian Network launched Micromappers after Yolanda to tag tweet and pictures. So at the UN's request, volunteers from all around the world were asked to tag tweets if they're related for request for help, infrastructure damage, or displaced populations and this was done entirely online by the Digital Humanitarian Network. Anyone could volunteer, no prior training or experience is required. And you can see the micropmappers inter-phased here. So for pictures, they will ask you how much damage you will see. 1 – none, 2 – mild, 3 – severe. For tweets, volunteers have to answer, what does this tweet refer to? Is it not relevant? Is it a request for help? Is it an infrastructure damage? Is it population displacement? Is it relevant but not categorize? Or is it not in English? As Ms. Maria Ressa said, there's also Project Agos, which I now won't talk about because she already talked about it.

So what are the shortfalls of crowd sourcing for disaster relief? Number 1, there is no common mechanism specifically designed for collaboration and coordination between disparate relief organizations. What do you mean? So you have microblogs and crisis maps but it does not provide the mechanism for apportioning response resources so multiple organizations can actually response at the same time. Number two, data from crowd sourcing application do not always provide all the right information needed for disaster relief efforts. What does that mean? The geo-located tweet does not necessarily refer to the geo-location point. For example, I'm going to report a bridge that collapsed, 10 miles away, because I'm only tweeting it now and not when I saw it first. Number three, crowd sourcing applications do not have adequate security features for relief organizations and relief operations. As you know the information is publicly available for viewing and it can create conflicts so officials have to be named about where and when relief sources are needed. Worst, relief workers can even be targeted by notorious groups if they know where they are going. There are four common ways that individuals use social media in crisis. One, family and friends' communication between affected and unaffected communities or within affected communities. Number two, situation updates. A person typically shares information like road closures, power outage, fires. Number three, situational or supplemental awareness where the information from authorities is now supplemented by citizens in text, image and video format. And number four, services accessed assistance.

So Jiggy Manicad collected messages from Yolanda survivors on scraps of paper and this was posted on-line and shared on social media on Google's person finder with a case of 47,000 records. And on twitter, people were posting pictures of relatives, hoping for help to find them. Erel Cabatbat also used his twitter accounts to let families know if their relatives were safe. Now this post is an analysis of tweet from November 6 to November 20 after Haiyan. There were around 5.2 million tweets in that amount of time. Almost 60% of tweets were people trying to share information. Up on the slide are the 6 most retweeted tweets and they're all about people trying to help. Guess what? Four of the tweets came from the members of One Direction and Justin Bieber asking the world to help the Philippines. I wish we had Philippine data like this. This is from the research. I hope somebody will pick this up. This is the result of a survey from the American Red Cross on how the Americans use social tools in emergency. So 76% contact friends to see if they are safe, 37% will purchase supplies or will seek safe shelter and 25% will download an emergency app. So 1 in 5 Americans have used an app for emergency info and mobile apps in social media are tied as the fourth most popular source for emergency information during a disaster. And get this, more than 76% expect help to arrive within three hours of posting their need to a social site. So I ask my Facebook network, what Philippine disaster-related apps they are aware of and this is what they told me. Number one is ARKO, it's by DOST and NOAH. It has flood-mapping, remote monitoring and weather advisories. There's also the Project NOAH app, wherein we have an overview on the rainfall, chance of rain, access data from the Doppler, sensors and weather outlook. There's also Batingaw that provides handy electronic resources to the public for emergencies. It increases public awareness on the fundamentals of Disaster Risk Reduction and Tudlo reporting tool for concerned citizens, companies and organizations that allows user to broadcast reassurance posts to family & friends. It provides notifications for disasters happening near you, location of safe evacuation sites and disaster shelters and toolbox with flashlight, alerts and audible alarm.

Lastly, how can social media build community disaster resilience? For community development and the goal there is formation of social capital for disasters. Social media can help increase and improve social networks, leadership and support systems and provide support to the people immediately after a disaster. So what is social capital? These are resources accumulated to the relationships among people. Social media reserves and improves existing ties and foster new relationships without limitations of geography and time. And one of the examples is Oplan Hatid. It began with a small group of volunteers, Junep and Cel Ocampo, Golda and Caryl Benjamin, James Deakin, Leah Lagmay to help Yolanda survivors arriving in Manila to travel to their loved ones. At that time people we're following updates on Junep and Cel's Facebook page but as you can see here it now has its own page, Oplan Hatid. And from Oplan Hatid we move to Oplan Trabaho, a one-day job here last

December 15 and when we checked last May, they already now have Oplan Kalusugan, a medical mission and they had 10 towns, 3,000 patients, 26 doctors, 5 dentists, 12 nurses and 5 pharmacists go around for 3 days in this medical mission. And last August 3, Oplan Iskolar aims to raise funds for 10 graduates of the Philippine Science High School in Tacloban who will be starting school in UP Diliman. So see how it has progressed establishing new relationships and going on to project after project? Certainly, there are challenges in disaster response. So as has been asked earlier, remote and less developed areas have more challenges accessing the internet and the less affluent and less educated have less access to IT.

You know what are the three biggest fears of our generation? Walang wi-fi, kailangan mag-update, walang battery. So disasters with destroyed infrastructure and interrupted services, that's a challenge. Also we have to authenticate, validate and ensure accuracy of messages in times of crisis and chaos, scalability of social networking sites and as I said social networks are not secured and private and personal information can leak. So what are the implications for public health? Let me share this research article, on the adoption and use of social media among public health departments. This was a cross-sectional study in the US of State Public Health Departments using social media and they just score the data partners using social media using three features: presence, does the State Department have Twitter accounts, do they have videos on YouTube, photos on Flicker; and do they have posts, videos, events and views on Facebook? Number two, interactivity or the audience member posting content, comments or likes. And number 3, the number of people connected with through the social media application – number of followers on Twitter, how many subscribers on YouTube, how many likes on Facebook? Because there are many ways on you could use social media for public health – to inform, educate and empower people about health issues, to enhance the speed at which communication is sent and received during public health emergencies or outbreaks and to mobilize community partnerships and action, facilitate behavior change, collect surveillance data and understand public perceptions of health issues.

So what are we saying? You should use social media to engage audiences and create relationships bringing us one step closer to establishing true community-based partnerships to address public health problems. Social media makes it easy to connect people. So for public health workers and emergency responders, we can't beat the speed in which you can construct professionals around practical and realistic common interests and objectives rather than around traditional bureaucratic structures. The non-hierarchical two-way communication system provided by most Web 2.0 social networks also empowers public users to participate in policy discussions with feedback to influence policy making. But what happened to the survey? The finding was that the use of social media by the State Health Department was only in the adaptive stage. There was very little social media as a channel to distribute information rather than capitalizing on the interactivity available that would create conversations and engage with the audience. So if I'm going to throw out a research topic, here's one. The DOH has a Facebook page, I'd like someone to develop a study to see, what is the level of interaction achieved in the DOH Facebook page? Finally, the role of social media as psychological first aid as a support to community resilience building. Sabi ng iba, *"Like ka nang like sa Facebook, may nangyayari ba sa kaka-like mo?*" So there's such a thing as *psychological first aid*. First things you might do to assist individuals and families during the first hours following a disaster. Psychological first aid aims to reduce initial stress, meet current needs, promote flexible coping and encourage adjustment. So the author's trying to do an on-line questionnaire using survey on links on Facebook, involves sampling with 27 questions. And this is how to find out how people use social media during emergencies and disasters. So here are the graphs. What are people doing in social media during the disasters? So a lot of them were seeking general information, some were leaving messages of support and sympathy, they were seeking specific information from people, they were providing general information and responding to questions. Not a lot of them were actually requesting help, siguro iyong mga nagfe-feedback walang access to social media or they were not really offering direct help to others. However, if you look at how social media was making the people feel? So they felt useful, they felt less worried, they felt more connected to others, they were encouraged by the help and support given to people, they were hopeful about the future. So what's interesting here is about 50% of suspicious content or the quality of the info or misuse of the supply of the info that is because any information on mind is actually suspect. But what the paper actually concludes is the role of social media is not bound to replace face to face support or contact or to replace official warning services. But it connects and expand capacity to deliver information, extend official messages, and reduce psychological damage caused by rumors and sensationalized media reporting. So the next time you hit the like button, pwede mong sabihin, psychological first aid iyon.

Just to end, I have presented the three parts of my presentation and please join us in UP Manila Medical Informatics Community. I also have to plug my Facebook page, social media for health promotions, I need some collaborators because I want to find out how can photos go viral with help messages content. Lastly, please join

us on our HealthxPh tweet chats every Saturday, 9pm so we can discuss these issues more. Thank you very much!

Open Forum

Magandang hapon po sa inyong lahat. Ako po si Verb sa DOH 7. Ang tanong ko lang ay para kay Dr. Magtubo. What are the logistic resources needed to adopt the RxBox? And how can the DOH or LGU start or create that RxBox for sustainable use?

Logistics needed. First, in order to have an RxBox in your facility, you need to have a volunteer or partner LGU to the National Telehealth Center kasi the RxBox program is a research program funded by the DOST. So it's not available for sale, parang we're not giving it away so you have to volunteer as a partner. Sa logistics that you need, you volunteer, we ask you, we get the information about your RHU, we need to be able to operationalize this so we look at your ICT capability if you have computers, electricity, meron ho ba kayong tao, may Doctor po ba, may Nurse po ba, may Midwife po ba. So tinitingnan po namin. Hindi po kami nagtu-turn away ng volunteers. It's just that we have to prioritize kung saan siya ilalagay. Paano nalalaman na volunteer na kayo? Nakasubmit na kayo ng Volunteer Form. We have to train you po before we give you the box. Currently, the training is conducted in Manila. So siguro doon sa question kung ano iyong logistics, we will need to fund your transportation for the training the rest of it, the accommodation. The box is given for free wala kaming china-charge for the box. So we'll give you the server or CHIT, all of the materials para magawa niyo po ang training for your other staff. Other logistics siguro aside from complete iyong staff ninyo, you need to also have the support of your Local Chief Executive. Kasi we've seen this before, without the support of the Mayors talaga, mahirap mag-operationalize ng kahit na anong bago sa RHU. So you need to have the support of your Mayor. The second question, how can the LGU make it sustainable? The RxBox has a program, hindi ko kasi masyadong naintindihan how to make it sustainable? Hindi po siya manakaw?

Because we are at the DOH-CHD 7, we would like to adopt it for sustainable use in the entire region with regards to connecting it to the RHU. That's why the first question is about the logistics or the resources needed because you showed to us the sphygmomanometer, etc. And then, of course, the volunteers, the training will be emanated from your end because that is a government funding and that government should also, you have successfully developed the technology and then after that is to give down to the region. That's why we are asking how we can adopt it to the entire region or for the entire country? Do we have MOA or agreement or something like that?

Okay po. This is something that we're still looking at. We do want to roll-out the RxBox to the regional offices but it's still under proposal so what we're going to do is we are going to train the regional offices to do what we're doing. We're going to train you on how we will train the municipalities, how you will be able to support your municipalities because you're going to give customer support kasi magkakaroon ng problems iyan especially for the first weeks of use. And then we're going to teach you on how to make it sustainable. How we make it sustainable right now is by helping the LGUs to institutionalize policies around the box. For example, if you feel sa LGU na kailangan mo ng IT personnel and you don't have an item for that, we can look into saan siya pwedeng i-charge, iyong mga ganoong concerns. So that's the way we help the LGUs to make it sustainable. We are proposing na gawin siya and if you are volunteering po, we can talk a little later on how we can have it in Region 7. So it's in the works na po Ma'am.

Hi everyone, I'm Dr. Martinez, a Doctor of Medicine. Doktora, with regards to the Telehealth RxBox, you have already experiences using this in Leyte and Bohol, right? Is there any research as to determining the validity of RxBox as a health care management compared to the previous way of managing patients? Because we know that when doctors manage a patient they are the ones who go to the doctors, not through a tele-box? So before you have implemented this in the region, kailangan muna sana that there would be a research that will determine the validity and reliability of this innovative in healthcare management because what you are dealing is the rights of patients. So it's useless for some management, healthcare management that is less expensive if the new management the validity and reliability, sensitivity, effectivity, specificity for this kind of management is not comparable with the old management of healthcare Doktora because when you have new diagnostics tools, for example, we have to compare it with the standard, right? You have to compare the validity, accessibility, reliability, sensitivity, specificity, and the new versus the old. Kailangan talaga before we applied it to the regional offices iyong experiences niyo sa Leyte and Bohol there must be a research that will improve the validity and reliability of this healthcare management. Thank you Doktora.

That is more of a comment. I agree po, 100% so I would like to allay everybody's fears and ensure you that the RxBox Program at the National Telehealth Center is working under the regulatory authority of the Department of Health and the Bureau of Health Devices and Technologies and we do ensure that the RxBox is accurate and is safe for use. However, as mentioned, it's a research project. There are modifications on-going and we are in the process of having it certified. Doon naman po sa Telehealth, doon sa researches, iyon po ang sinasabi ko na we want to go into more research and as I mentioned iyong initial research namin is really on the behavior, tatanggapin ba nila or ano iyong factors bakit hindi nila tatanggapin and we want to go in that direction, Ma'am. Iyong impact niya, iyong comparison with the traditional way of doing things and the new way of doing things and I think doon po talagang merong role iyong collaborations with other partners para mas maging tutok po iyong research na ginagawa. I hope that answers your questions.

Yes, good afternoon and thank you very much for the nice presentation. I am Dr. Quisumbing of Gullas College of Medicine, I saw a slide and you mentioned about the psychological first aid. I didn't quite get any further elaboration on how that can go into that Telehealth for the e-something and how does that relate and how can we put that in because I understand they no longer use the term debriefing but they prefer the psychological first aid thing. This would be a good forum to discuss a little more about it.

Thank you for the question so I'm not a psychiatrist or a psychologist but I think of the paper because it was very interesting that for example when after a disaster, we usually send people from the Department of Psychiatry from PGH to go to the disaster areas to perform what used to be called debriefing but it seems that through the power of social media, it is possible to extend for example psychological first aid without actually going there. Of course that is not ideal, we still need face-to-face but somehow the feeling of being on-line and being able to provide support is there. So that's really the point of the paper that even if you are not directly going to the place or directly involved, by just sharing community or this piece of community on-line, there has some effect on being able to provide psychological first aid. And of course, that concept needs to be studied some more. And more and more people are driven by the fact that we are living most of our lives on-line that everyone has a Facebook page and that paper is also going towards that and much of our personality now exist in dual phase - your real life and on-line life. So it's not really more on the fact I'm going to talk more of the psychological first aid but I thought it was an interesting idea that social networks or social media can actually contribute to that.

Just one follow-up on that. I just noticed that DOST has not invited the Philippine Mental Health Association or something so we can probably have a little more discussion along that line.

Thank you Doc, that's noted.

Thank you! I'm Dr. June Lopez from UP-PGH Psychiatry Department. I'd just like to react to the previous question. This is not a question. With regards to psychological first aid, I think a lot of people have a wrong notion what psychological first aid is about. But really if you think about it, it's just knowing how to respond immediately to the needs of people in crisis. And if social media can provide, for example, information about where to go to trace missing loved ones, that is psychological first aid. If people are able to use if your cell phone is working at all to call your relatives and tell them you're okay. That is psychological first aid. There's nothing mysterious or any kind of high-tech scientific thing about psychological first aid. But what is it? It's just common sense. And I'd like to correct what has said, we do not send our Psychiatrist at the UP PGH to do debriefing. We have in fact defunct critical incidences debriefing as it was popularized back in the 90s because we saw that it does more harm than good. Thank you!

Thank you for the correction Ma'am.

Hi I'm Ms. Ouano from the University of San Carlos. I'd like to commend the group of Dr. Kristine for a very good innovation on the RxBox. In our language, in the Pharmacy profession, Rx stand for prescription. So I'd like to ask the rationale behind the name using RxBox.

Pagdating ko po sa National Teleheath Center after I was a Doctor to the Barrio, RxBox was already RxBox. So I will explain it, the way they explained it to me. The first application of the box really is diagnostic. So Rx, is something that we arrive in a prescription. So when you diagnose, ina-assume mo na meron kang ipeprescribe, so it really speaks volumes about what you can do with the device. You can use it for diagnostics, you can use it to augment treatment, you can use it for telemedicine so that the treatment can be supported by somebody who

might know a little more about the disease condition. That's the way they explained it to me and I hope that answers your question.

This is not a question but a suggestion. Doktora, while you're on-going this project, maybe a suggestion with DOST to do a prospective study that will monitor evaluation and reliability of the RxBox. Thank you!

Government's Response and Coordination to Disaster Preparedness, Management and Post Disaster Management (In Relation to Health)

Ms. Lenie D. Alegre
Chief, National Disaster Risk Reduction and Management Service, NDRRMC

Discussion

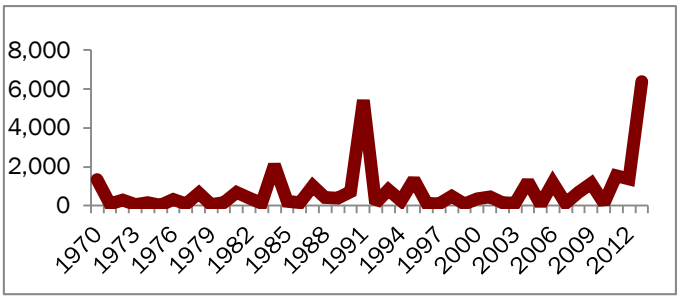
Thank you Ma'am for that very kind introduction, maayong buntag sa inyong tanan! Good morning! We also have with us some international friends so it's good to see you today, alive and kicking, as what our Masters Ceremonies said after all the disasters that happened last year and this year. Of course, we just have Glenda, especially in Luzon. So, who among you here are government employees, government officers? So we have a lot of government officers. And of course, I understand, most of you are practitioners that's why you're here today. And I just would like to thank DOST for the opportunity that you have provided today for us to present the government efforts on disaster risk reduction and management and how we manage and coordinate, given the huge task of the national government as well as the local government units in dealing with disasters and of course, in the efforts of prevention and mitigation, preparedness, disaster response as well as recovery and rehabilitation. I understand you have Secretary Lacson earlier during this event. We've been working hard also with the Office of the Presidential Adviser Assistance for Recovery and Rehabilitation (OPARR) in order to hasten the planning for the recovery and rehabilitation of Typhoon Yolanda – affected areas.

But in the national level, we just need to continue with our work on disaster risk reduction and management because this is our mandate. The Office of Civil Defense, under the national government, is the executive arm and the Secretariat of the National Disaster Risk Reduction and Management Council (NDRRMC) and that's where I belong. Today, I'm fortunate to share with you. I'll be touching very briefly on the system on disaster risk reduction and management in the country. And I will be sharing with you the four thematic areas where the research community can help us a lot in improving our system in DRRM. To proceed with my presentation, this is the scope for today's presentation:

1. Disaster Impacts on Health
2. Philippine DRRM Legal Bases
3. Four (4) Thematic Areas Initiatives and Current Efforts
4. Areas for Cooperation

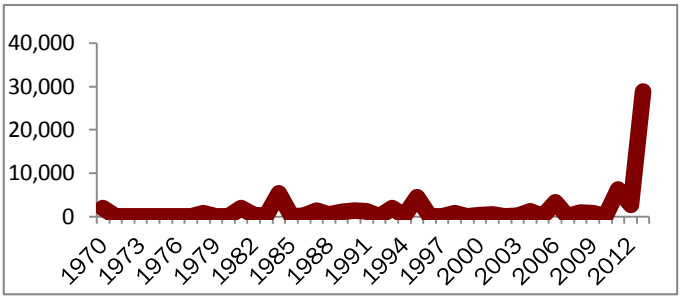
First one, I would like to share with you historically disaster impacts on health and this will provide us the appreciation of why we really need to get serious with research on disaster prevention and mitigation in order to avert the negative impacts of disasters in the health center. And very briefly, I will share with you the Disaster Risk Reduction and Management (DRRM) legal basis. What do we have at the national level that will provide us the authority to do things on Disaster Risk Reduction and Management (DRRM)? And I just would like to also engage you and familiarize you with the four thematic areas of the Disaster Risk Reduction and Management (DRRM) because at the national level and even in the local level and those who are not deeply involved in Disaster Risk Reduction and Management (DRRM), they will always say that the national government is just acting on the response aspect. You're always saying, *"Hindi namin nakikita ang gobyerno. Nakikita lang namin pag may disaster."* And that is a wrong perception. Okay, so I just would like to share with you why. And of course, other areas of cooperation and this has been identified most importantly after Typhoon Yolanda because this is where we need to put in our resources, more efforts, and step-up our initiatives at the local level and all sectors, to include health sectors.

So, the first one is, I'd just would like to share some statistics to bring in, to drive the importance of why this research forum week or research activity is important to us because if you will notice in the Philippines, we have a lot of hazards and those hazards have the potential to bring with us disasters. We have a natural hazard, that's tropical cyclones or storms; we have volcanic eruption and earthquakes. But among these hazards, tropical cyclones bring with us the most negative effects and the most number of deaths, of injuries and of missing individuals when it occur in the country. But we also have human-induced hazards. If you will remember, we have the Zamboanga siege last year until now we have a lot of affected population inside the evacuation center and it saddens us because during the siege itself very few were casualties. But after a year of staying in the evacuation center, it brought to our attention that so much death occurred because of health condition, because of the condition in the evacuation center and there was no preventive measure that has been instituted widely to prevent casualties because of failing health conditions. But I just would like to invite you that this particular figure that instead of us, you know, reducing the deaths and then preventing what will probably happen, if you will look at the graph:



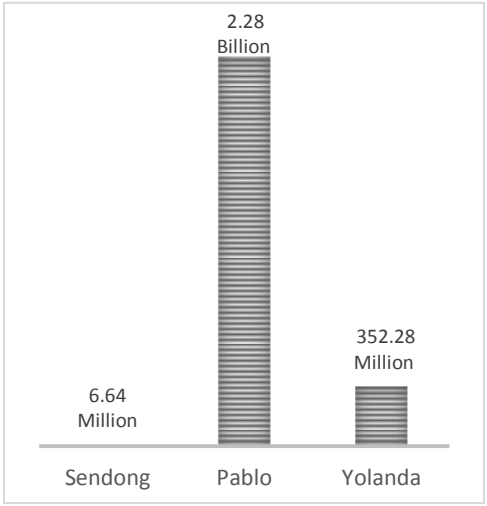
Deaths and injured caused by tropical cyclones 1970-2013

Between 1990 and 1992, and repeatedly in 2009, 2010, 2011, 2012 and 2013, we have a lot of deaths because of tropical cyclones. And this actually is primarily because of Typhoon Sendong in 2011, Typhoon Pablo in 2012 and Typhoon Yolanda in 2013. We accounted for deaths at the national level, first day, when the disaster occurred and we also accounted and monitored deaths in the evacuation center, in camps or outside evacuation center. That's how we total deaths in this particular figure and we knew for a fact that Yolanda contributed a lot last year. And this would tell us that we need to really go more into prevention and mitigation rather than just response. And injured persons, is also, well, we have flatten our figure in the early years before it rose again in 2010.



Injured persons caused by tropical cyclones 1970-2013

So this could be because our disasters are getting bigger because of climate changes and our typhoons are getting stronger but something could be done if only we do preventive measure and preparedness action. In terms of health infrastructure, we did this study on the comparative health infrastructure figures. When there is major disaster in the country, we always do Post Disaster Needs Assessment (PDNA) especially if our country declares a *National State of Calamity* and if you look at the figures for Sendong, Pablo and Yolanda, you have there figures of money per se, this is in million pesos.



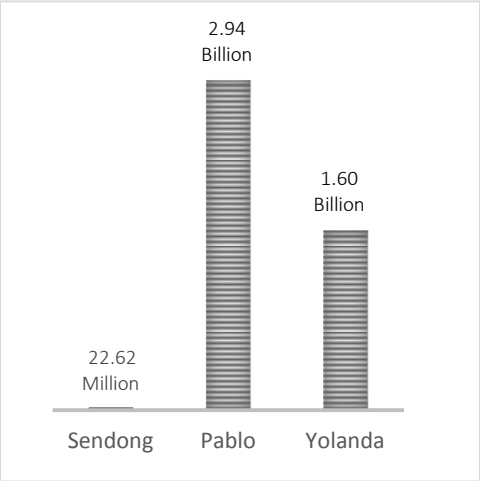
Cost of damaged health infrastructures (PDNA)

Tropical Cyclone	Percentage against the total cost of damages
Sendong	0.12%
Pablo	5.68%
Yolanda	0.39%

And we also have there the percentage of total cost damage. What does this figure tells us? For Sendong, Pablo and Yolanda, we have quite a big amount for health infrastructure that is being damaged. This will tell us that, *"Is our health infrastructure safe enough?" "Is it resilient enough to withstand disaster, to withstand tropical cyclone*

in the country?" "Do we need to review the design of our health infrastructure?" So those are the first questions, but if you look at the figures, the answer would be immediately "Yes." So that is a challenge for you at the research arena, how do you improve your health infrastructure? How do you improve the design? What particular percentage of investment should be put into that particular health sector?

And the next one is the cost of recovery and rehabilitation. Given that damage to infrastructure, this is the needed money or investment that we need to put in.



Cost of Recovery and Rehabilitation (PDNA)

Tropical Cyclone	Percentage against the total cost of recovery and rehabilitation
Sendong	0.08%
Pablo	9.47%
Yolanda	1.53%

This is just minimal for our health infrastructure to be restored, to be rehabilitated and even build back better. Because in the recovery and rehabilitation, we always encourage that if you need to get back to the normal functioning especially in the health sector, we should build it back better. We should increase your investment because if you build back better, Pablo has a share of 9.47 % for your area to be restored to its normal condition. And then Yolanda has 1.53% just for the health sector to be back in the previous state of health infrastructure and health services. And given this particular figure, we also look at Typhoon Yolanda per se and we have this number of casualties and we have reported this and we look at the qualitative health impacts.

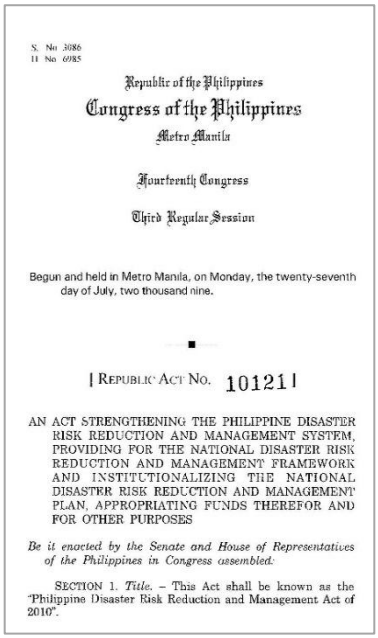
CASUALTIES	TOTAL
Dead	6,300
Injured	28,689
Missing	1,061

And this has been a study that we also validated through field validation together with health practitioners from the Department of Health and this were the figures and the qualitative description of what happened after Typhoon Yolanda. Psycho-social distress including fear in the particular areas affected in the Typhoon Yolanda and we have 40% of feeling insecure because of what had happened. And the delay of provision of services. Again, we look at that because that is logistical requirements and that is also systems improvement on the part of the health sector. So, a large number of injured people who live in remote areas were not accessible and local hospitals were not functional at the affected areas due to destruction.

Right after Yolanda, we attended this Joint Congressional Hearing because there is this Joint Oversight Committee on Disaster Risk Reduction and Management and on the review of the Republic Act 10121 that is the strengthening of our disaster risk and management system in the country early this year, that was January and February and we were, especially in the health sector, because our Senate and Congressmen were asking, *"What has been your research agenda for the health research sector?*" And again, my earlier question, *"How do you improve your infrastructure especially in areas identified as very, very prone to tropical cyclone disaster or very prone to earthquake?*" The second question is, *"If and when we need to respond, do you have mobile hospitals made enough to really respond to the need of the affected population, to the injured and to safe lines?*" Those were the questions thrown to us by the legislators. And we were told, and the Health Secretary was also requested to really do an honest to goodness study on this on how de we improve the health system in the country given the disasters that we have experienced last year and in the past years. So that was the requirement. And I hope, we're working on it, DOH is working on it and they have quite mobilized resources and

of course, prepared project proposals for that and hopefully when the next hearing would be called we'll have a good answer to our legislators. This is done by the United Nations and the UN System in the country and our attention has been called that 67% of women has been in high-risk of physical injuries compared to men. So looking at vulnerable sector, this actually tells us that we need to take on seriously gender-sensitivity and concerns on vulnerability sector especially in the health sector because it's actually women who suffer a lot not just the injury part but in other psychosocial findings that we have found out in a study together with the international organization. And very sad is that, we don't have a very good baseline on Persons with Disabilities, PWDs and there were not much report, we have very little report on PWDs affectation in disaster affected areas. And again, you could help us with this in establishing baseline data in your respective agencies. And given this, we look again, specific for Yolanda, what has been the effects of the typhoon in the health sub-sector infrastructures. Just for Yolanda, we have Php352M damage for hospitals and health facilities. We have Php38.7 million losses. For that income, that's opportunity lost that was provided by DOH to augment the repair of health infrastructures. And we have Php1.602B is the need for reconstruction and restoration of services, both for soft and hard infrastructure. So that's how big the investment we would need to go back to normal functioning.

And it is also said that Php367M medical damages on the medical equipment, medical supplies, furniture and office equipment, Php145.6M losses, just for the cleaning of dirt and removal of debris for the health and medical requirements and the need for Php546M to normalize the health-related services. So again, those are huge numbers. We may not feel this much but our government is burdened with these numbers. And we may not be directly affected but of course if you have known somebody in that particular area that has been affected, that is a sad thing to experience. And given all of this, we will be asking, *"What has the government been doing? What do we have at the national even at the local level that will help us improve?*" As we say, *Juan Direction for Coordination and Disaster Preparedness.* So we have here in 2010, we actually passed this Republic Act 10121, that's the Disaster Risk Reduction and Management Act that strengthens the legal basis to act, not just response but also for disaster risk reduction and management that includes disaster prevention and mitigation, preparedness and even the recovery and rehabilitation and the building back better principle to be applied. Ngayon lang ba tayo nagkaroon ng ganito? No. In 1972, we have already promoted the Presidential Decree 1566, community involvement. So in the research sector, if you have researches that would be most helpful to the local government units and to your organization, we encourage you to share this particular research. Because sometimes, research are just being done for the sake of research, for the sake of compliance, but you have not shared it out, we have not seen it, your Barangay Captain, your Mayor, it's not being appreciated so it's not being funded, that is just on the shelves on file. But you can help us if you will share that to us and it can be recognized because mitigation prevention is more on the research agenda. It's more on policy improvement and systems improvement. And given this particular RA 10121, we have shifted our approach to a more pro-active approach on disaster risk reduction.



S. No. 3086
H. No. 6985

Republic of the Philippines
Congress of the Philippines
Metro Manila

Fourteenth Congress

Third Regular Session

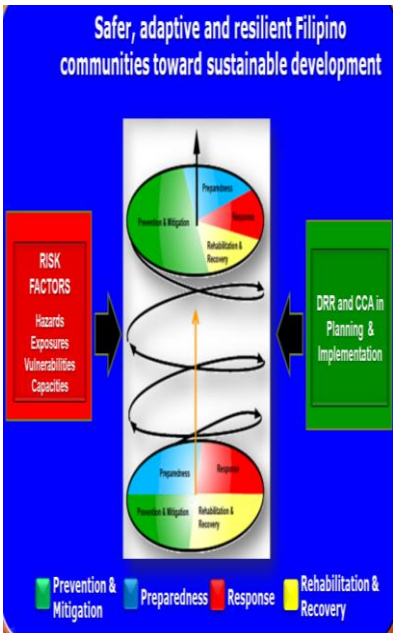
Begun and held in Metro Manila, on Monday, the twenty-seventh day of July, two thousand nine.

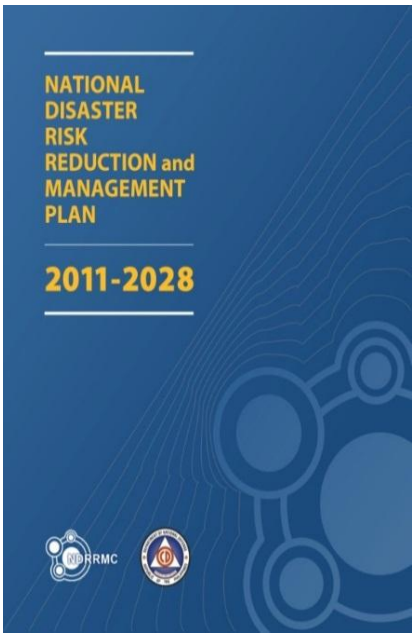
[REPUBLIC ACT NO. 10121]

AN ACT STRENGTHENING THE PHILIPPINE DISASTER RISK REDUCTION AND MANAGEMENT SYSTEM, PROVIDING FOR THE NATIONAL DISASTER RISK REDUCTION AND MANAGEMENT FRAMEWORK AND INSTITUTIONALIZING THE NATIONAL DISASTER RISK REDUCTION AND MANAGEMENT PLAN, APPROPRIATING FUNDS THEREFOR AND FOR OTHER PURPOSES

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

SECTION 1. *Title.* – This Act shall be known as the "Philippine Disaster Risk Reduction and Management Act of 2010".



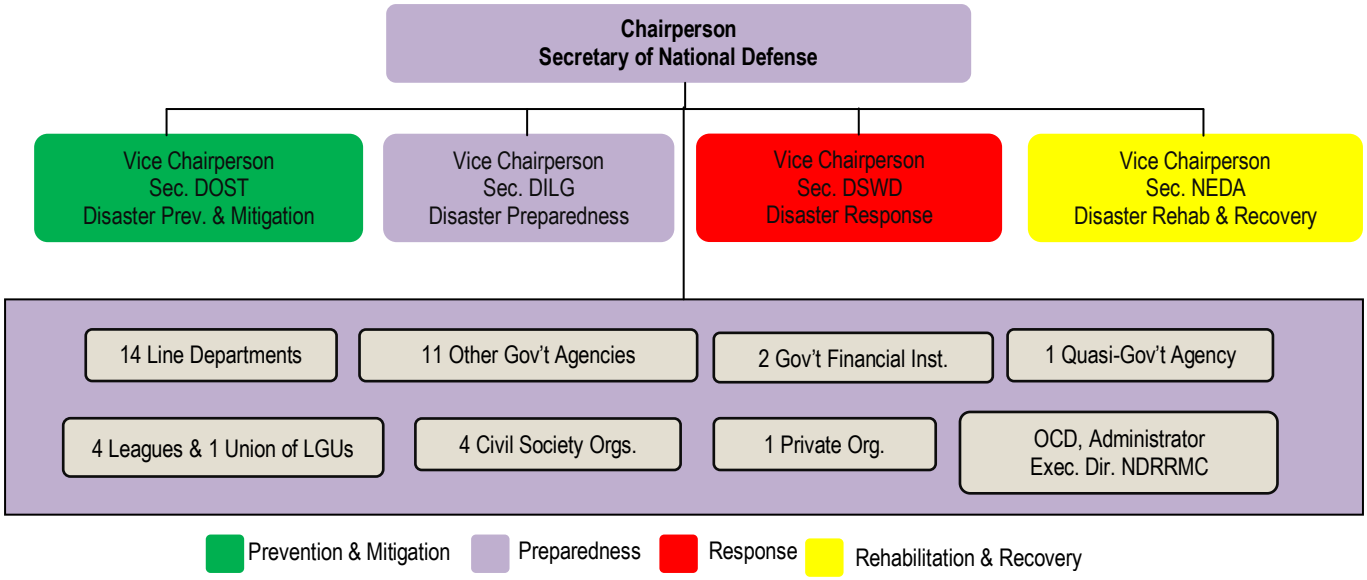


We're promoting more investment on disaster risk reduction and given that particular framework, the middle figure, previously we have a pie at the bottom that will tell us that investment in the government would be equally distributed for prevention mitigation, preparedness, response, recovery and rehabilitation. But in 2011, when we did study statistics on investment, accordingly, one-peso investment for disaster risk reduction will gain us 4 to 7 pesos of savings in the future. So the framework in the middle will show us that prevention and mitigation has been given more investment, more budget in the government right now. And later, I will show you what the investments of the government are in this particular thematic area. But not forgetting that we also need to invest in preparedness, to effective response to save lives and to build back better. And how do we implement this? The national government drew up the Disaster Risk Reduction and Management Plan. That's the right side of the figure. This is the plan that we have for 2011-2028 that particular plan details us what outcomes, what activities and outputs that we need to achieve including the health sector. And DOH in this plan because it is being drawn by the disaster risk reduction and management council has been taking the lead in delivering what is required and what is being planned in here. And since this is a long term plan, it goes beyond political period, so kahit mawala na iyong President natin, come the next President, this plan will still apply. This plan will still be implemented we have a bottom-up and participatory approach right now, so the research sector is very much welcome and we encourage you to engage in Disaster Risk Reduction and Management (DRRM) and then we realized that disasters is mainly a reflection of people's vulnerability. There will be no disaster; there will be negative impacts, very, very little negative impacts if we prepare our people. If we have enough and high-level appreciation of the hazards that are present in our area. That way, we will beat the early warning that is given to us. We will take on seriously how we will build resilient infrastructures and how we will build resilient communities. And we wanted that to be an integrated approach because this should not be a separate sector and separate subject because in every sector, there should be a sense of urgency, on mainstreaming or integrating disaster risk reduction elements as well as climate change adaptation. We don't separately treat disaster risk reduction. For example, in the health sector, when you plan for establishment or infrastructure, you should look at hazard maps in the area where you want to establish this infrastructure. You should make sure that your building is not on top of an active force. It's not flooded, or if it's flooded it should be able to withstand such. So that's how we treat Disaster Risk Reduction and Management (DRRM).

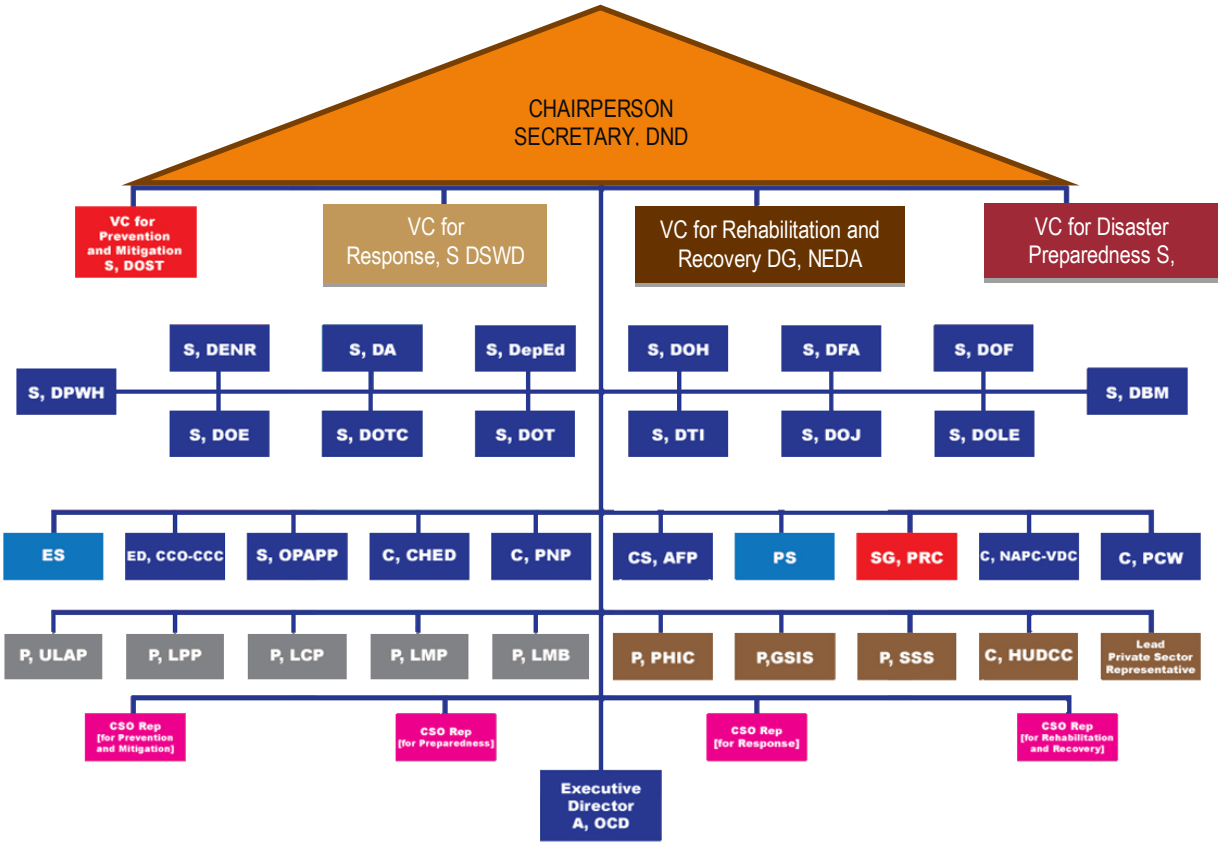
There are academic subjects especially in health, mainstreaming of disaster risk reduction and management and climate change adaptation is also encouraged. So how do we do that? We have identified entry points in Disaster Risk Reduction and Management (DRRM) and climate change adaptation concept and of course applications. So this is actually geared towards integration and adaptation and of course because we wanted that all our investments, we will save our investments, we will sustain our developments. That is how RA 10121 is crafted and how we envision it to be implemented in the future. But however, in 2015, we will start to review RA 10121 because it is in the provision of the law, that within 5 years, this law will be reviewed. And we will strengthen in this particular sections and particular policies this law, if we need to, and your contribution. If you need a copy of that law, it's accessible at the website of Disaster Risk Reduction and Management Council (DRRMC). You can forward to us all your comments, all your suggestions, on how do we improve, importance and emphasis of the health sector in the law itself.

PD 1566		RA 10121
Top-down and centralized disaster management	›	Bottom-up and participatory disaster risk reduction
Disasters as merely a function of physical hazards	›	Disaster mainly a reflection of people's vulnerability
Focus on disaster response and anticipation	›	Integrated approach to genuine social and human development to reduce disaster risk

Before we have the National Disaster Coordinating Council (NDCC), now because of the law, we have the National Disaster Risk Reduction and Management Council (NDRRMC). And from the disaster relief and response orientation, we are now in disaster risk reduction and management. Thus, the statement, *"That the government is just visible because of response.*" No, that is not true. How do function at the national level? How do we coordinate? So we have here the chairperson:



So much responsibility has been given to this person because aside from ensuring our safety and security from external threats and terrorism and internal threats, he also need to look at concerns on safety and security in terms of human-induced and natural disasters. To lessen the burden, the law specifically identified four Vice-Chairs for each thematic area. We have here the Vice-Chair person for Disaster Prevention and Mitigation, the Department of Science & Technology (DOST). So, DOST is living up to the expectation to the council by way of hosting this forum. Palakpakan niyo naman ang DOST. Thank you DOST! I will report this back to the council that you have actually hold this forum to let you learn on Disaster Risk Reduction and Management (DRRM). We have the Vice-Chair for Disaster Preparedness, the Department of Interior and Local Government (DILG); the Vice-Chair for Disaster Response, the Department of Social Welfare and Development (DSWD); and the Vice-Chair Person for Disaster Rehabilitation & Recovery is the National Economic Development Authority (NEDA). And where is the Department of Health (DOH)? I will show you another slide to capture that DOH is a regular member and is regularly represented in the council.



So you can also, submit all your research to DOH, DOH can have that for discussion on the council, as well as DOST. What is good in here, before there were just 19 member agencies of the council. But since we believe that Disaster Risk Reduction and Management (DRRM) is a whole of society approach and it should be inclusive, the membership was increased to 44 and what is amazing here is that we also include civil society organization participation, private organization and of course we have the quasi-government and financial government organization to help us also on risk financing mechanism. How does the programs of the government being instituted on the ground and ensure that there is coordination and make sure that it is being implemented and there will be ensuring that it is carried out? We have here, we call it the Disaster Risk Reduction and Management Council Records. Have you ever experienced engaging in your local council? May tango naman, okay. So at the national level, we have 1 National Disaster Risk Reduction and Management Council, the earlier organization that I have shown you is the organization from the national council. But at the regional level, we have 17 Regional Disaster Risk Reduction and Management Councils and this is being chaired by the Regional Director of the Office of Civil Defense (OCD), and we have the regional government agencies as members. And inclusions also are membership for civil society organization and non-government organization. And we have 81 Provincial Disaster Risk Reduction and Management Councils, the Governor is our chairperson; 144 City Disaster Risk Reduction and Management Councils, 144 cities in the country, with the mayor as the chairperson; 1,490 Municipal Disaster Risk Reduction and Management Councils and 42,027 Barangay Disaster Risk Reduction and Management Committees under the barangay development committee. That's how programs in Disaster Risk Reduction and Management (DRRM) are carried out and offices under this council are being established.

This is the composition for the Local Disaster Risk Reduction and Management Council (LDRRMC). This is where you can help out if you are working in your municipalities, cities and province, you can also share research work on improvement on the health center. So the province level, city level and municipality level (Sec. 11 RA 10121), the chairperson is the Local Chief Executives with the members of the agencies (18) members, mostly the sectors also. Included there is the local health sector and with the barangay level, Barangay Disaster Risk Reduction & Management Committee under the Barangay Development Council, we also have the Punong Barangay as the chairperson. That's why our programs, if you will notice, is also being carried out at the local level but sometimes, it's an accepted fact that not all of our local chief executives are doing their part. That's where the national government comes in. So, how do we work, what are the works of the council and how do we implement these?

So for thematic area, I'm just going to share you what has been the activities of the government for this. For prevention, mitigation and preparedness: the enhancement and implementation of flood control projects. Because as you have noticed, it's flooding that kills, it's not tropical cyclone per se, it's the effects. Especially in collapsed areas, the government is investing on this and the Strengthening of the Early Warning System (EWS). So the Philippine Atmospheric, Geophysical and Astronomical Service Administration (PAG-ASA) as one of the bureaus of the Department of Science and Technology, has been recognized as the top four performing government agencies. Palakpakan natin ang DOST-PAGASA. They're quite really, really good because last year, and this year, we have seen the performance of PAG-ASA and that is because of research too and they have been improving their craft, technological innovation as well as research. Unfortunately, even if PAG-ASA has been improving, even if PAG-ASA has been performing well, and very good at that as it garnered recognition, the attitude of people should really be changed. Because at times, I don't know if it's good or bad, if people on the ground will tell us, *"Bahala na ang Diyos sa amin."* That is quite an attitude. Of course, I respect your faith, but we also need to listen to early warning systems to save your lives, to save investment and to help the government in its aim for sustainable development. And what we are doing for this year because we have seen that local government units sometimes don't listen or if the local chief executives do listen, people don't listen, too so a percentage of the population doesn't really follow immediately. It's in not in the culture of the Filipino na lahat susunod, meron talagang suwail. So what we are doing right now, we call it Pre-Disaster Risk Assessment (PDRA). For Typhoon Glenda, for example, we did this exercise. We keep track together with us at the Operation Center at the National Disaster Risk Reduction and Management Council, we keep track of the progress and the development of the typhoon. And every now and then, we also look at the killer factors. What are these killer factors? Will it bring so much rain that will cause landslides and flash flooding? Will it bring very strong winds, which happened during Glenda? Where will it hit? If it will hit in your area, what is the socio-economic profile of that area. Were the people living nearby riverbanks? Were the people living beside mountains? What do we need to do? What do we need to advise them? That is the natural hazards forensics we called. And then we have there, DOST, PAG-ASA, we have DILG, DSWD and NEDA because we want it to anticipate. What happened is that, we knew the track very accurately. DILG will call the local chief executives and we also directed our

Regional Directors to really get them on action, advised them to do preventive evacuation. That way, we will save people's lives. Albay, we have here, they have injured, they have missing but they don't have deaths. That's how preventive action will save us. But you look at Typhoon Millenio and Typhoon Glenda, comparative analysis as to disaster forensics and it boils down to, *"Why does the number of casualties, dead, specifically in Region IV-A didn't change much compared to Millenio?"* Millenio was 2006 and Glenda, Typhoon Glenda was stronger than Millenio. It's not the law of averages because they have so much population but we knew that it was attitude. It was attitude that killed people, they don't listen much and they don't heed much the warning. So that is why in the SONA of the President, he actually deliberately emphasized on why Albay can do it but others can't. Even if we have a very good early warning system, if attitude change will not be done. That is something. And how do we do that? That is another form of psycho-social research on your part. What strategies do we need to employ to convince people? Kailangan ba nating takutin lagi o kailangan bang may ibang strategy? That is something that we need know.

We also do disaster risk reduction management trainings, Information, Education and Communications Campaign (IEC) and every year we observe one whole month of National Disaster Consciousness Month every July of each year so ginagawa natin to remind everyone and also to provide an avenue to learn. And contingency planning, this is usually done at the local level. But in the contingency planning side, the health sector is also given emphasize. What are the factors that we look into the health sector side in the contingency planning? If and when a worst-case scenario happened. If your people will be evacuated and if an outbreak will happened, do you have enough resources to withstand that particular disease outbreak? If flooding will stay for long, do you have enough medicines, do you have enough stock pile of relief? So that's for contingency planning. And then of course at the local level, we also do, we need to establish disaster risk reduction management offices as well as forge agreement for partners on Disaster Risk Reduction and Management (DRRM). That's for prevention, mitigation and preparedness.

And right now, we also have this technology, because there's a need for us to really go into technology to help us with our work. We have this SMART Info Board that is one way where we can communicate supposedly what we need to communicate to the public. NDRRMC signed up a Memorandum of Agreement with Smart Telecommunications for the projects: SMART Info Board and Batingaw which is being utilized as early warning device information dissemination. This is one of OCD's initiatives in integrating all major telecommunications companies in the country in the use of organizational advisory and warning system within the institution. The NDRRMC mobile applications software *"BATINGAW"* is designed to run on smart phones, tablet computers and other mobile devices. Through this application it will help to increase public awareness on the fundamentals of Disaster Risk Reduction and areas for information-sharing that can be incorporated in actions needed to future emergencies. Further, use key learning points for preparedness activities such as knowledge for individuals and their respective family members before, during and after disasters. This application was developed through the joint efforts of OCD, Smart Communications Inc., and Tudlo, and is downloadable for free and is compatible with iOS and Android devices. This has also a feedback mechanism that you can also get back to us even when there's a need to report something.

For climate change adaptation, we have partnered with the Climate Change Commission on this and if and when you have programs and research we encourage you to go into these particular 18 major River Basins in the country: (1) Cagayan River Basin, (2) Mindanao River Basin, (3) Agusan River Basin, (4) Pampanga River Basin, (5) Agno River Basin, (6) Abra River Basin, (7) Pasig-Laguna River Basin, (8) Bicol River Basin, (9) Abulog River Basin, (10) Tagum (Saug)-Libuganon, (11) Ilog-Hilabangan, (12) Panay River Basin, (13) Tagoloan River Basin, (14) Agus River Basin, (15) Davao River Basin, (16) Cagayan de Oro River Basin, (17) Jalaur River Basin and (18) Buayan-Malungun. So you can also forward your findings to the Climate Change Commission and NDRRMC because this is one of the areas where we can help out as these areas were identified prone to flooding and also prone to diseases borne out of flooding.

For response, we've been doing this for quite some time where most of our practitioners in here have expertise already. But in Yolanda, we found out that there's a need for us to stage a more organized and coordinated search-and-rescue retrieval operations. And the humanitarian aid, relief and health services and management of evacuation centers have been a challenge in terms of coordination and effective management. And of course given this, we also prepare at the national level, the National Disaster Response Plan. So we identified important cluster aid here. So what did we do because during Yolanda we have so much in-flux of health practitioners in the country? So DOH has been recommended for this particular area, because they have a very good system of coordination in terms of deploying health practitioners in disaster-affected areas. And we realized what is very

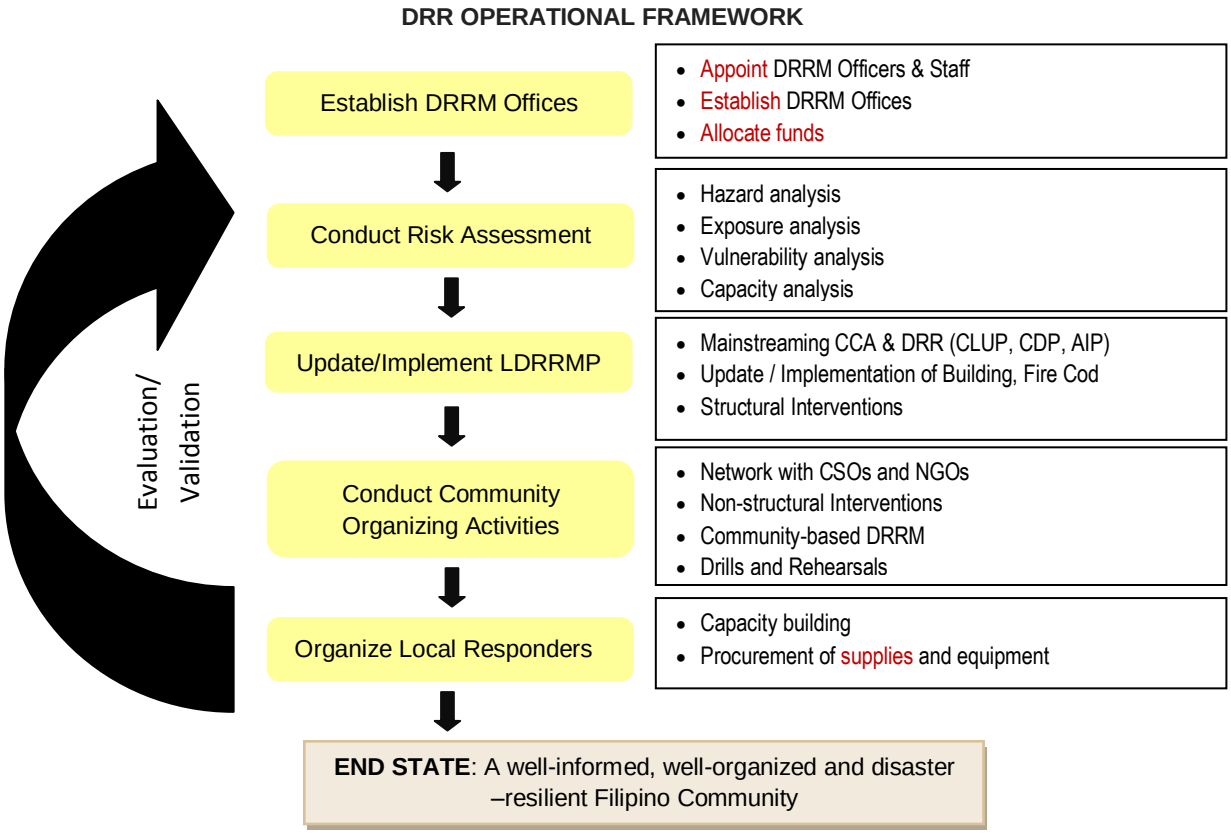
functional for us and very efficient is the establishment of one-stop shop where in we can actually see who are coming in the area, which particular groups are going to where so this we employ during Yolanda and other major disasters. The *"One-Stop-Shop"* facility was activated by the Council on November 12, 2014 to serve as the information hub for all transactions between and among donors, consignee and recipients of foreign donations. The concerned government agencies expedited the documentation and processing of imported donations, including the issuance of custom and flight clearance in a facility operating 24/7. These were located in Ninoy Aquino International Airport (NAIA) in Manila and Mactan-Cebu International Airport (MCIA) in Cebu City with drop-off points in Ormoc, Guiuan, Tacloban City, Ilo-Ilo city and Aklan, all in Visayas.

For recovery and rehabilitation, we have here Secretary Lacson but what is really important to us when it comes to recovery and rehabilitation is timely and speedy recovery and rehabilitation because affected people don't have so much patience so we really need to institutionalize this. And of course, the reconstruction of damage houses and buildings, safer resettlement that is why it takes so long for the government to establish safer relocation site or resettlement because we need to find lands that will answer the building back better principle, lands that will answer the safety of the people and restoration of facilities to include health facilities. In order for us to be aided with the right information and right decision and also to mobilize external funding because so much has been needed during the reconstruction assistance on Yolanda study, that was a very rapid study, we declared that we actually need Php360-B for the recovery and rehabilitation of Typhoon Yolanda. But when we did further validation and re-validation of the data and of course going to the ground to really seeing with our own teams, whether the reported figures from the local government units are really because of typhoon of Yolanda, we did the PDNA and more or less we had a figure of over 110B that is required just for the government investment to recover and rehabilitate Typhoon Yolanda-affected areas. This particular study, the RAY 1 and the PDNA has been inputted to the created Office of the Presidential Adviser Assistance for Recovery and Rehabilitation (OPARR) and their baseline data on approval, disapproval for recommendations of the programs for Yolanda affected areas and this also include very significantly the requirement of the health sector. We also encouraged Public-Private Partnership. So that's where the private association of medical practitioners comes in because they provided medicines for some areas and the psycho-social intervention. And we also encourage some research as earlier said on how we can build resilient infrastructure both for earthquake and multi-hazard infrastructure for earthquake especially and flooding and storm-surge in Yolanda affected areas. And you can include the health infrastructure. And these are just a few of the private entities that have helped us, that have helped OPARR in the implementation of recovery areas. So in the areas of education, health/nutrition, housing, livelihood and other areas such as telecommunications and power.

Development Partners from telecommunications, banking and finance, real properties, and foundations who were able to provide their assistance during Typhoon Yolanda (Haiyan).

How do we build resilience? So we look at the disaster preparedness areas that we really have to look into after Yolanda. Again, we realized that these awareness and understanding on how to prepare for certain hazards is still very low in some areas especially those affected during Yolanda. There was not much appreciation on what would probably happen if and when disaster strikes. And also, we have to look on capacities of council and offices because they are the ones who lead the programs implementation on the ground. So there's a need for us

to also put significant resources for capacity building. And policies plans and systems, as mentioned earlier, altogether we need to look at systems in Disaster Risk Reduction and Management (DRRM). In your case, the health sector, where we can improve on. And because we have limited resources in the government, partnership made a very big role in this especially in the recovery and rehabilitation aspect. That's for the disaster preparedness. But for disaster response, we realized that there should be a well-established, known and standardized systems and procedures. Hindi iyong pagdating sa isang area, *"Bahala kayo diyan, I will only help this particular area."* And then, there was chaos. And then there was misunderstanding and more sadness for those who were affected. Because some has been treated special, has been given special treatment, others were not able to receive one. So that is one area, we're looking at right now in the preparation of the national disaster response plan at the national level. And we also need to improve on an integrated and coordinated Search, Rescue and Retrieval system. So there have been issues on management of the dead and missing (MDM). Who will take charge? Who is the lead? And what can be done given the massive retrieval operations during Typhoon Yolanda. Right now, we're improving and our policies on these are reaching finalization. So instead of DOH taking care of the MDM because DOH will tell us para kanino sa buhay, hindi kami para sa patay. So we're identifying now, the lead will be the DILG, the Local Government Unit. And DOH will come in as adviser on health and sanitation issues. And we also need to have very strong security to really ensure the safety of our responders. For you to be effective on the local level, we always share this operational framework:



We really established an institutionalized a Disaster Risk Reduction and Management Offices, not just at the local level but also in your respective agencies because this has been written in the law but very few have really followed what has been mandated and what has been directed by the law. And given this, always when I speak before any forum, I will always ask, *"In your particular offices, do you have risk assessment whether your office is built on safe, whether you knew how to evacuate, whether you conduct an earthquake drill or if and when something will happened do you have stocks of pile that will let you live for at least 3 days?*" I also asked this recently at the Asian Institute of Management and then they told me, *"Meron pa lang ganoon?"* That's basically part of management work and that is DRRM – Disaster Risk Reduction and Management but none of us, well a few of us is aware of it, but those few who are aware doesn't also act on it. Well for Metro Manila, we are looking at the big one, the big event, and what will happen? See a 7.2 magnitude earthquake will render us hopeless in Metro Manila. It will kill 36,000 people for a study that we have conducted and it will almost have 800,000 injured. Are we prepared for it? The answer is "*No, we are not!"* That's why we are coming up with integrated contingency

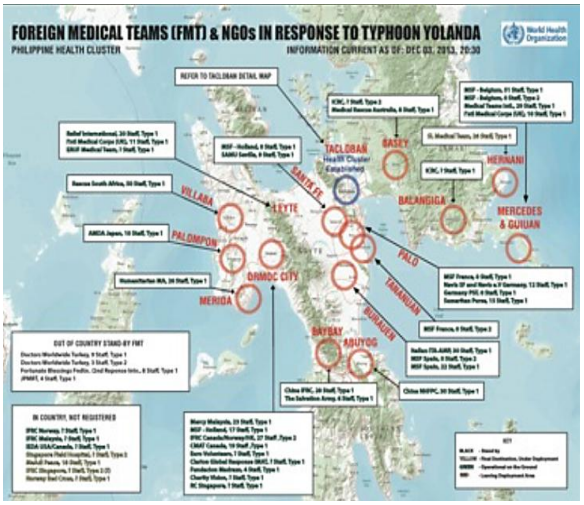
plans for LGUs because they are just working on their own, there is not much discussion on how they are going to help each other and how other regions can help them. In our respective offices, we also don't have a requirement on business continuing, do we have that? Can the hospital function even if this particular event will happen? Do we also ask that to ourselves or to our management if we cannot do it on our own? Even the stock piling for the employees is not practiced. That is also one thing that we should look at and that is part of the conduct of risk assessment. Do we have plans? So business continuity planning even for the government is needed. And of course, at our household and individual level, do we have a plan? Do we help conduct community organizing activities that will also help our respective communities and at the LGU level we can also help. Do we have organized community responders so that if and when these local responders will not function, we will also have a back-up plan on external responders? And of course, we have with us the end-stage of well-informed and well-organized and disaster-resilient Filipino communities. If my questions will be answered by your organization, that's the time that we will be achieving a new level of resiliency in your respective offices and respective organization. And between and among these activities and requirement, there's a need for us to really evaluate and monitor if this has been done or not by respective agencies, local government units, households, community, and individual. What we can do is to be pro-active, get involve, coordinate and implement. So that is a challenge to you as health practitioners, researchers in your field and we will come up with innovative and new ideas at the NDRRM level. I think this is the end of my presentation. You can always contact us; we also have social networks that you can connect with.

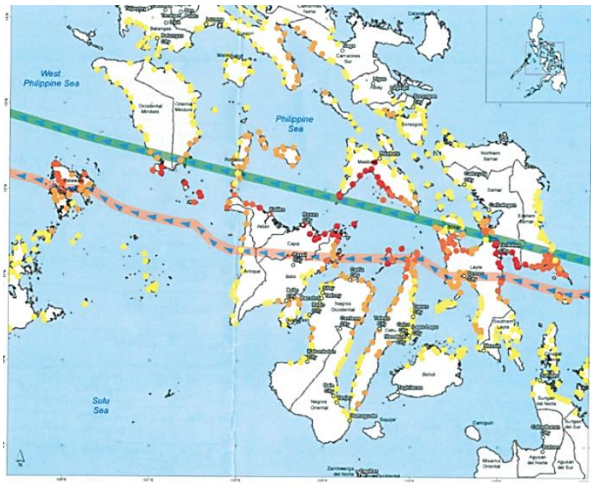
Government's Response and Coordination to Disaster Preparedness, Management and Post Disaster Management (In Relation to Health)

Undersecretary Teodoro J. Herbosa
Department of Health

Discussion

Yes, thank you very much for that kind introduction. Good morning to everyone there at the PNHRS meeting, which I've wanted to personally attend. I do apologize for the irregularity of the airline having not informed us that the flight they put me in was moved to 9:00 PM and it is just going to be impossible. Nevertheless, I would like to thank Jimmy Montoya for thinking of the idea of doing this by letting me email my presentation and then be on audio conference. So the topic is very close to my heart, what they didn't say in the introduction is that all my life's research work has been in disaster medicine and I actually set-up at the Philippine National Institutes of





Health the first research group on disaster and that's the health emergencies and disasters. My first slide (left photo) actually shows you what we used that we succeed during the response of the health sector in Typhoon Yolanda. This is a geo-information photo of what we could see when we deployed all the medical teams to the different areas. And this is the use of this type of information which was really helpful.

The green line (right photo), which you see, the straight one, was the prediction of the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and the red dots actually, 1 meter and above were storm surge predictions. So there were predictions on the possible communities that would have been affected. The crooked

line below with the blue arrows is the correct path of what Yolanda has, the four different regions were affected. That actually was also useful because of that prediction, we also know which communities will actually respond. As you very well know, this is the first time we had a disaster of this real damage. As you probably heard from the previous speaker of this meeting that the actual economic cost much, much higher, run in hundreds of billions of pesos, this estimated cost is just the infrastructure damage and did not equate economic losses, job losses and loss of lives. It was really of great magnitude that maybe if you take it differently because I've been working with disasters for like 30 years and even our national disaster preparedness plan did not prepare for something of this magnitude.

Initial Estimates of Damage of Health Facilities in Regions IV-B, VI, VII, VII

Provinces	BHS	RHUs	Hospitals	Total No. of Health Facilities	Estimated Amount**
Region VIII				**996**	**3,928,512,300**
Leyte			17	249	1,205,618,500
Northern			11	138	661,555,900
Biliran			2	57	187,636,900
Eastern			12	206	723,485,200
Southern			8	99	385,290,500*
Western			11	246	704,925,300
DOH-				1	60,000,000
Region VII				**60**	**21,880,000**
Cebu	43	15	2	60	21,880,000
Region VI				**1,216**	**49,932,500**
Aklan			9	161	5,244,000
Antique			6	176	10,528,500
Capiz			6	310	4,085,000
Iloilo			14	569	30,075,000
Region IV B				**8**	**82,060,000**
Culion,		7	1	8	82,060,000
GRAND	1,888	292	99	**2,280**	**4,082,384,800**

**Includes infra and/or equipment costs for affected hospitals, RHUs and BHS*

I'm showing here exactly what happened with the health systems. In our intitial assessments, you see here in this particular table four regions – Region VI, Region VII, Region VIII and Region IV-B (MIMAROPA) and it tabulates the different health facilites that were actually damaged. A total of 2,280 health facilities, 99 hospitals were damaged, several thousands health centers and over two hundred ninety rural health units. In other words, there was no health system in place in the four regions. They were practically designated. What's important in understanding disasters and emergencies is that needs and resources are affected by timelines. And I'd like to look at people do studies based on timelines because timelines are very important because the need for the first 24 hours, the first six hours, the first 72 hours and the first week are entirely different. We knew for a fact that on the first week, we would be handling a lot of injury. We also knew that after the first week our main concern was going to be public health issues and it was very important that the resources that you mobilize in times of disaster are matched to the needs. The reason I was not there yesterday because yesterday we also conducted our after-action review of all foreign medical teams, I had a two-day meeting with all the foreign responders. There were about sixty of them of the 150+ and we discussed on how we can improve our management of foreign medical teams in future disasters of this magnitude. But it showed there, most of the foreign teams took three to four days to set-up, three to four days to arrive.

This is the listing of all the wounds that we encountered: fractures, lacerations, avulsions, amputations, punctured wounds, animal bites, wounds associated with chronic medical illness, neglected infected wounds and gangrene and tetanus. We have storms surges of floods. Normally, floods wouldn't come up with those types of injuries but it's the strong winds or typhoons that actually come up with these types. However, this particular powerful storm we have all of these things to manage and they are not easy to manage in a system that has been damaged. Health facilities are not functioning where there is no power and where there is no substitute supply.

This particular table shows some of our experiences. We have sent teams abroad as well as Philippine Emergency Responder. We sent about 15-20 personnel and we sent to Myanmar in Cyclone Nargis and we sent to Haiti. And we tried to compare the initial injuries that we actually saw and you can see that Typhoon Yolanda

had a wider variety of injuries that we actually handled. This will be a comparison in a typhoon and an earthquake.

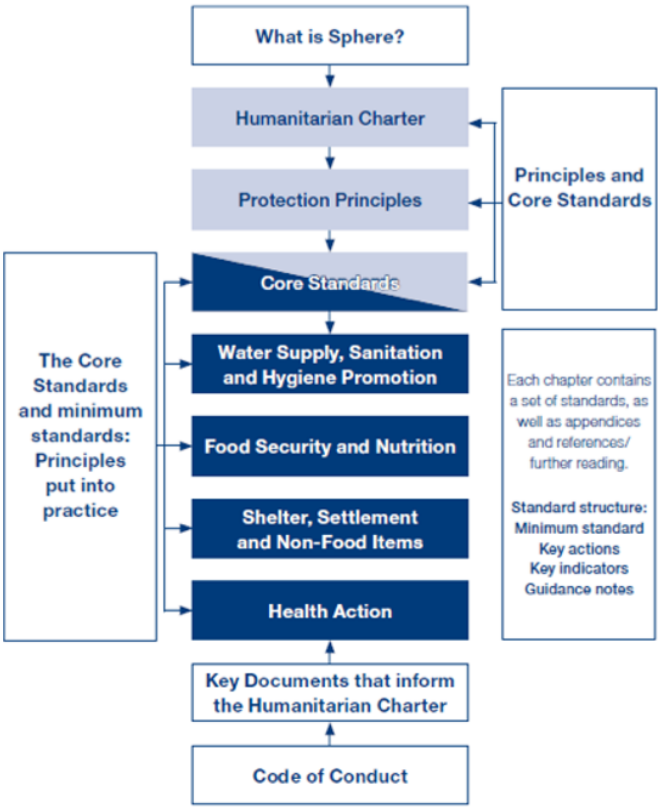
Wounds/Injuries	Cyclone Nargis	Haiti Earthquake	Typhoon Yolanda
Lacerations	X	X	X
Incised	X	X	X
Punctures	X		X
Abrasion	X	X	X
Skin Avulsions			
Fractures		X	X
Amputations		X	
Animal Bites			X
Wounds associated with chronic illness			X
Infected wounds	X	X	X

Now, who are responding to our people? By third day, I think the President declared a national emergency and that opened our request for foreign medical teams. So initially, our own government medical teams, the Bicol group, the Albay Department of Health team have about twenty 4x4 were able to cross to Matnog then to Allen and drive their way slowly to Tacloban arriving there on the evening of Sunday. Earlier than them arrived a medical team from Northern Samar. This proved probably that they were not very much affected so they were able to send augmentation teams to Tacloban. The other one also arrived on Sunday is the Department of Health team in CARAGA, and of course, in the island and the non-island, there were non-government organizations. Small teams went on their own, in their own backpacks and of course, the medical teams who were requested through the WHO. We approached disaster in a cluster-approach and the lead of the cluster is the Department of Health in partnership with the World Health Organization. As early as Saturday, even before the national declaration, we have started to ask for foreign help. The first hospital that we requested and responded was the Australian team and they were ready to deploy as early as Sunday. We were finally mobilized right after we had the official recommendation that it is a national emergency and we activated our international call for assistance. Our military medical teams, the Israelis, Japanese, even the Chinese medical teams were really part of the operations. They came in through the Department of National Defense though many of them still coordinated with the health department because they were actually connected. They knew that the collaboration should be the health team. And of course, the Philippine Red Cross, the chapters in many parts of the Philippines is mandated to respond to any kinds of disasters and many of their volunteers are already on the ground as early as the first day.

Now these are the things that I think we need to work on in terms of research and in terms of improving the quality of disaster response in the aftermath of mega-disasters like Yolanda. When foreign teams enter the place, the first thing that they ask is referral system and how, where they are going to send cases in the level of care. That is one of the things we discussed, maybe a system where people are able to understand where to refer the patients with higher level of care. For example, if we know that the people who need higher level of care will be flown to Cebu or be flown to Manila. This is probably the things that we need to put together through research work and be able to be shared online, maybe as an app, maybe as a brochure given out to the foreign teams as they come in. The second thing I'd like to talk is on teamwork collaboration. Because of the cost of medical teams deployed into a country like the Philippines, a few will be able to deploy a field hospital. I'm talking of an example like the Australian Field Hospital which established a 30-bed field hospital and it was set-up right next to Tacloban Airport. But the head Dr. Keith Morton asked me for 25 nurses for it to be fully operational. It seems that the Australian Medical Team because of restrictions also, like how many they can bring and the cost needs collaboration with local professionals. Because of our surplus of nurses, I easily provided him about 25 nurses in a few hours. We were so impressed and it started to function by the second day and our own surgeons were the one operating in the hospital. So it's very important for this time, how teamwork collaboration can be maximized. And I think we were talking yesterday of being able to develop partnerships or free-registration experience so that we can work together in an active registered experience foreign things. The other thing we discussed were inter-team referrals. Many of the aides come from different nationalities, they have different systems. We had important things that we need to know when they go to countries. We had cases that required anesthetics, we had cases that were probably not managed very well. Health system apparently needs to also be refined. Teams on the ground who are deployed need to know who have better services. The way we've done it was implemented for the first time in the history of a disaster. Theoretical classification of foreign medical team which

was published only by the UN in September. And we implemented it and this is how we classify the foreign medical team: Types 1, 2, and 3. Type 1 is just for emergency and outreach and care, Type 2 is an operating room, and Type 3 all those with have intensive care treatment. So because of that classification, we were able to actually deploy resources to the right areas where they will need it.

The third is that it is important to share resources. Most of the resources needed by these field hospitals, I had a Russian that wanted to come in but they needed several liters of water per day which I could not supply. So we rejected that hospital simply because it was not appropriate. There is also the concept of case management transfer. It is very important that doctors know each other and be able to provide the utmost care to the disaster victims in a resource-limited environment. And of course, definitive care of hospitals and the sharing of expertise and logistics.



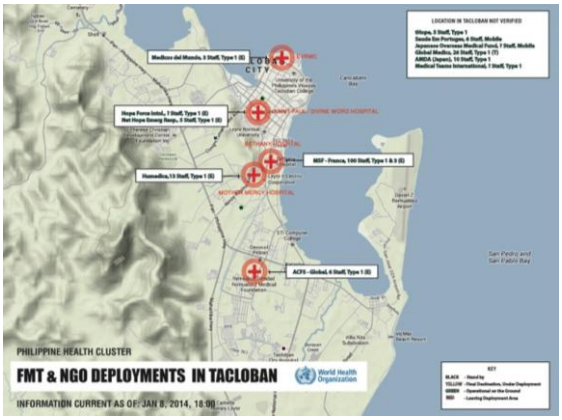
I saw here the framework of the Humanitarian Charter. The Humanitarian Charter was set-up by a Non-Government Organization. It's called the Sphere Handbook. And it's available on-line, anybody can download it. And I have a concern on this because in the rehabilitation reconstruction, this sphere guidelines was referred to and one of the officials in the DPWH was not aware of such because these guidelines included the four minimum standards for shelter settlement during humanitarian conditions. So these are very important documents that we need to put into action whenever we have disasters. The core on health action is actually very large in fact, the other core standards – water supply, sanitation, and hygiene promotion food and nutrition are also health related. So actually, of the four standards, many of those that we actually implement are standards for dignity of the victims that are affected by massive disasters. And I put this on because research frameworks are very important. If we are going to establish and write more research papers, it is important to understand conceptual framework on how disasters through humanitarian work is implemented. But we can do better researchers and better papers. Just to show the difficulty of the international, national and local level being able to coordinate with the local resources. We of course, had a call for help. It was a massive amount of help. What I realized was the biggest difficulty of the management of the aftermath of the health sector, we were able to mobilize a hundred tons of supplies, medicines, equipment and in all forms of transport – land, air, sea and on your backpack. And that I think is a very crucial learning on how we can improve faster response to victims. Because it's easy to move people and experts but they cannot do anything if they do not have the supplies and medicines or if they do not have the right medicines. This is a very important lesson that Yolanda has taught us. What we did actually was that we created several logistics hubs. We set-up one in Legazpi, in Catbalogan (Samar), in Borongan, in Tacloban, in Cebu and of course in Iloilo. These were the areas where we actually do such hubs and we were

able to fly-in or ship-in all the supplies that were needed on a daily basis. Remember, the stock of supplies that were necessary in the region. And Tacloban was the regional hub for Region 8.

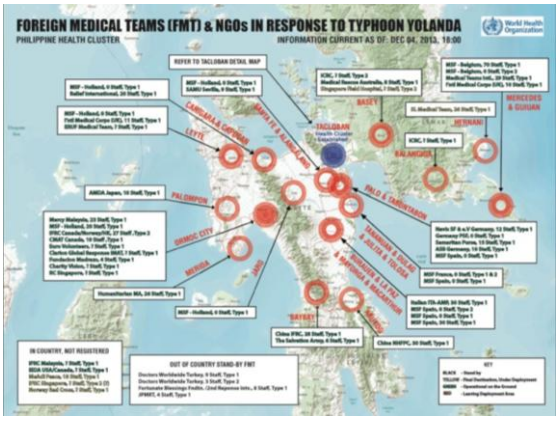
How we were able to mobilize include amount of assistance with the collaboration with the Department of Health and the World Health Organization. In fact, I have something that I want to of course for diplomacy reasons and political reasons, we were able to actually fix that. However, let me reiterate that it's the national government that has the legal mandate to accept or decline anything on people who want to and the WHO understands this. If the government accepts foreign teams and actually responds with the legal mandate, rules and regulations that are present in that country we do not violate them to provide humanitarian assistance. However, if it is war or conflict, it is the International Charter or the UN Charter for International Law that actually prevails. For the NGOS or the small NGOs, they actually come in more based on moral issues and that's what the Sphere guidelines actually have.

These are just more pictures on the type of coordination and sharing of information that was necessary at all levels to be able to provide information. I thought that sometime we have more information on a strategic level than the local level. And it becomes difficult for the Mayor or the Governor to make decisions when the bigger picture of everything that is available to you so the real key is really the sharing of information not only from the top down to the local level but the information that is known to the local up to the national level. So even if I deploy a team for example, foreign team, to a locality, it is the Mayor who know exactly where to deploy them and based on the local knowledge of where the people are and where they would go to seek medical assistance.

So these next two slides, this is the map of Tacloban and I think this is dated early on because the medical teams are still few but the use of the type of group and then the type of foreign medical team,



I'll show you the next slide which is the bigger slide of the deployments as of December 4, 2013. But this shows not the whole of Region 8. As you can see, this is the type of strategic response or strategic action that actually cut phases from the foreign medical teams. They were telling me as they exited that they were never handled in a fashion this way in the others – Earthquake in Haiti or the one in Pakistan. This type of management did not happened and we were able to do it in our government. The thing is we were able to do it because of the currency of information and I think that's the major lesson: the flow of goods and logistics and the flow of information are key and vital in any response to any major disaster like Yolanda.



So basically, we were able to register about 151, these were just the foreign teams that registered. And of this 151, only 84 registered prior to coming, many were registered upon arrival or were there already working and were reported to us by people working on the ground. These included the NGOs mostly. Those from the government passed through government routes. They used deployment coordination. We remember we asked for teams that were self-sustaining or at least two weeks with them they have their own housing, they have their own food, they have their own water, and they have their own supplies sustainable for two weeks. And many of them left after a couple of days especially the small NGOs because if you went there with just money, you won't be able to buy anything. So it's very important to understand the needs of the people and the requirement of the people that will actually respond.

So this concept of about being able to process the donations, the teams is actually a very tedious process because we created what is called a *"one stop shop,"* but it actually requires a lot of improvement, a lot more study. And I think that donation and movement of goods could still be improved with research especially in terms of quality and timeliness. So as we had informed the specific public health or public health sector requirements, there was also a requirement on toxicology experts as there was actually at the same time an oil spill in Estancia, Iloilo. And this was also very important because mobilization of the teams was difficult already on a normal non-disaster. It became even more difficult because it was a disaster situation. What have been done? (1) Facilitated the acceptance and quality control of donated medicines and medical supplies, (2) health promotion activities and other public health advisories, (3) provision of cadaver bags, (4) assistance to NBI and LGUs in the management of the dead and (4) deployment of composite team with toxicology experts to manage the secondary event of oil spill in Barangay Botongan, Estancia, Iloilo.

So I'm quite motivated to share my inputs to the research community. These are probably things that I want to be converted into research questions and probably research protocols wherein we can continually improve our disaster response and emergency management. There you are beginning to see now that the Philippines after Yolanda, is really an important point what we call the Philippine way of doing disasters. Many of the disasters I mentioned within the level of Yolanda were still struggling months after. We were able to set-up health services, shelter, water sanitation very quickly and many of the international teams were actually impressed. In fact, many of them left during Christmas time and only a few stayed. So as I said, disaster. Number one on my list is logistics and supply management for emergency health sector response. How do you mobilize them? And how do you get quick information which supplies we will be sent because there's always a tragedy of sending the supplies that people do not need. The next one is the concept of building back better. We always see hospital as a place that should remain functional. The concept of safety in times disaster must be strengthened. We have lots of studies on this matter and this needs to be continued. And then we need to upgrade the capacity of our response teams. It seems that we've not had a magnitude of this disaster wherein a whole regional government is designated in Palo. I think we need to develop a team like what they have in Bicol wherein they are self-sustaining similar to the foreign teams that arrived who are self-sustaining. So each province, each region, each academic institution should probably develop these teams. And the right equipment, the right training, needs a lot of study. We also need to look at again our plans. Because our plans is based on barangay disaster plans, city disaster plans, provincial disaster plans and regional disaster plans, we've had for our experience, all up to the level of the provinces, every time, the region is able to respond. This is the first time we had a different disaster, a regional unit that were victims themselves. So this is a very unique situation. We also need to develop more systems for the health services especially on how we can actually manage mega disasters.

So these are the research ideas for you: (1) Increase the logistics capacity and lifelines for health sector response: emergency communications system, air transport to and within the affected areas, emergency logistical needs such as generators, hospital tents, etc. We're thinking of hospitals have the communications, have the logistics, have the shelters that we can provide. It's very important to understand the flow of information through communications and then the TV white space. We need to improve air transport in the affected areas. We need to know how to move logistics – power generators, hospital tents.

(2) Build resilient health facilities: hospitals as the last facility standing, hospitals as hubs for energy, water, logistics, communications, and shelter. The concept of building resilient health facilities, for example, we have to say the hospital must be the last facility standing. The concept there is that the hospital not only is a hub for treatment and health care but it will be a hub for power so that it should get energy generator that can be shared to other government offices so that they will be able to function. They will have logistics. They will have houses that are huge enough that can supply for the whole region. They will have communication, infrastructure, and personnel. And maybe part of the hospital can also be a temporary shelter rather than using our schools. Because every time we use the schools, we deny the children to return to the schools until we house our evacuees.

(3) Develop self-sufficient teams: properly equipped mobile surgical, public health teams, physically and psychologically prepared teams to withstand the disaster conditions and of course, the concept of developing self-sufficient medical teams. I'd like to see a point when the Philippines will not ask from foreign medical teams to come in the country. But actually just mobilize our own teams. We are exporter of health professionals, we export nurses, we export doctors, we export paramedics but I think we need to develop battalion of teams whether they are in the hospital ships, in hospital planes, in hospital tents, we need to mobilize it. The previous speaker talked of previous disasters like the Zamboanga siege – we needed a field hospital at that time because we evacuated a medical center. Bohol Earthquake, we needed field hospitals at that time because the people didn't want to stay in the regional medical center but stayed in front of the hospital. Obviously, the need for mobile field hospital is a very important factor to study for future response to disaster.

(4) Improve preparedness, response, and rehabilitation planning across different levels: include worst case scenarios/mega disasters, consolidation of top-bottom and bottom-up planning. Our point is we are never concentrated on rehabilitation and reconstruction. And I think that's another thing that we need to study on. How fast do we rehabilitate, reconstruct completely? And where do we start if the scenario is a mega disaster. We should learn from the local, national.

(5) Strengthen systems for service delivery: improved inter- and intra-operability among all responding agencies, improved information management systems, improved logistics management systems. And of course if I look at ideas because what I see from the past experience is the improved use of information management systems. And also improved the logistics.

So this is the last slide. I'm asking the research people to look at the framework for research in disasters in a perspective. The first one is the concept on improving patient outcome, saving lives. Our job in the health sector in the aftermath of a disaster is to save lives. Saving lives in timeliness of the intervention. If your trauma team, what they will do will just treat infection and not save lives because your patient has to go to complications. Next is the competency of health personnel. I realized that there were a lot of incompetent health professionals to the affected area. When they came back to Manila, many of them were traumatized on what they saw. We need to create battalion of health professionals with experience with mental toughness, with emotional toughness that can handle the sight of mega disaster. We need to have adequacy of service providers, available logistics and I cannot over-emphasize the value of team work and collaboration. It's the key hallmark of the concept of *Bayanihan* and I think it works very well when your resources are limited. Lastly, what is important especially when foreign teams assist in our country is the concept of the partnership. It must not be, you just come in, help you and you dole out, that partnership is developmental. Partnership must stand technology, partnerships must empower local community. So I think the cost, I think it's more expensive to send a team than respond to a local one. These are the things that I want to put in research and be able to tell us so we can more evidenced-based research in disaster management.

Maraming salamat at mabuhay po kayo!

Open Forum

I'm Dr. Martinez. I'm employed at the Philippine Institute of Traditional and Alternative Health Care. I'm assigned at the Cagayan Valley Processing Plant, in Tugegarao City, Cagayan Valley, Region 2. My question is this. I agree with you that one of the objectives of NDRRMC is risk awareness, understanding and how to prepare for such risk, right? The first question is, this objective is aimed only at the adult level. We know that persons are at risk during disaster are children right? So another question, DepEd, ano ho kaya ang ginawa ng DepEd with regards to this? Is there a special subject aimed at familiarizing kids or those of minor age on risk awareness, risk understanding and preparedness for disaster. Kasi kung wala, I think DepEd in collaboration with DOST HRDCs should undertake a research, conduct a study on Knowledge, Attitude, Practices on disaster management. Para malaman ang level of understanding awareness and preparedness of kids sa disaster. I think Japan has been doing that at the elementary level, they have I think special course or special subjects on disaster management. So we can have an innovation kung wala pang project na ganyan sa DepEd. Thank you.

Ms. Lenie Alegre: Good morning once again. Thank you Ma'am for that very good question. Recently, I attended this National Youth Commission and that is 14 to 15 years old. And in our previous studies, we also look at the data on children. And yes, totoo po iyan, aside from women, it's also the children that are most vulnerable to disasters. And DepEd as a regular member of the National Disaster Risk Reduction and Management Council has programs on this implementation. And at the IEC level, a different material should be packaged for children because we knew that their level of understanding is different from that of adult. And what we did is really to look at the modules of elementary and high school on where we can introduce the concepts of disaster risk reduction and management. This is for a long term intervention for the children. However, we found out, because we started this initiative last 2006, we found out upon evaluation that this is not that effective. We need to create a module that could catch really the attention even with the kindergarten level. We start education very early especially on Disaster Risk Reduction and Management. We acknowledge that there is still lack of innovation in this particular area. And Japan, as mentioned did this very early, at the age of 3, at the age of 2. Their children are exposed to, we call it human exercise on Disaster Risk Reduction and Management. When I was in Japan, I have noticed that even 3-, 4-year-old children participated in earthquake drills. They actually have a real scenario on earthquake drills. Imagine children doing duck-over-and hold in railway stations. They did that. Why can't we do this in our country? We always have a reason. Pagkanagka-usap kami doon sa elementary schools, or even in kindergarten, minsan the reply is always, *"Eh ma'am, madidistract kasi ang klase."* Again, we go back to the attitude of why are we not embracing this. And DepEd recognizes that because DepEd as we speak here is actually doing their share of work in the Disaster Risk Reduction and Management Council. Because we're preparing this World Conference on Disaster Risk Reduction and Management and we wanted to highlight the education sector as one important sector where we can really have a good head start on Disaster Risk Reduction and Management and we also need your help on research especially on innovative way on how we really can effectively change the mindset and influence children in not so stressful way of sharing disaster information, strategy on how we can react correctly and how we can prepare correctly. And this is a challenge really for us at the national level because we have not reached the point of making disaster risk reduction more interesting especially for children. Again, I throw this back to you as a challenge to help us out in this particular study and research field. And we can talk with DepEd, we can share with DepEd and maybe we can implement if and when we can test that as a pilot strategy in some schools and maybe at a very young age we target kindergarten and elementary. But we already have some modules on disaster risk reduction and management. I hope I answered your question.

Hello, good morning! I'm Ms. Virginia Murray. I come from Public Health England and I have the great privilege of meeting the Undersecretary Herbosa before in 2009 in the Philippines when we're working in a hospital. You both provided two excellent and very interesting presentations. Yolanda was a huge event in the Philippines and have also caused huge concerned all over the world including for us in the UK and Public Health England was very much involved in supporting the Department of Health and the WHO Health Cluster. Your comments Undersecretary are really important. I'm worried that perhaps in the Philippines we don't have a full or hazards approach yet or maybe or whether or not some examples around the world that may help to support you but the other thing that I think is very important is actually sharing your learning from the Typhoon Yolanda in a published review. Are you proposing to do this at some point?

Usec. Teodoro Herbosa: Yes, in fact we had that in July. Right after the Japan, Hanshin as a disaster responder, I saw hundreds of papers. I'm actually appalled by the lack of papers being written right after a massive typhoon like Yolanda. And the materials are there. I see many of our researchers in the Philippines are not also attuned to doing disaster papers. We've been so herded to randomized trials, double-blind studies and

methodologies that are not applicable in disaster where more of the social science approach of case studies are actually used. So I think that's why I actually established in 2008, Health Emergencies Cluster because we actually wanted to put the Philippines into the forefront. Because every year, we have over 20 typhoons, we have in history, a garbage landslide, a Yolanda, a mega typhoon storm surge and definitely most of the experiences are just passed on by word of mouth and not in the written format. I really agree with you. I am appealing actually to the crowd to actually help us. Write all these papers and government will be more than willing to support such initiative. And I really thank PNHRS for concentrating on disasters as a research topic. Thank you for that comment and we will write definitely.

Dr. Jaime Montoya: Hello Ted! I just like to respond immediately to your request. We are in fact looking at that. We are already meeting on commissioning groups to do the documentation because I do agree that we have to share our best experiences with other countries, probably the whole world will be interested in listening and leading our best practice. And in relation to that, we plan to have as one of the major themes of the Global Forum for Health Research next year to tackle this particular topic and I've already asked Professor Murray to help us make this forum. All of the papers on this particular topic will be integrated. So we have very nice presentation and topic for the Global Forum. Thank you!

Usec. Teodoro Herbosa: Thank you Jimmy and I will be supporting you, definitely in the field of disaster.

Good morning everyone. I am Fely Gumba, a resident of Tacloban City connected at Samar State University at Catbalogan, Samar. Since Day 1, this is just my comment and then the question, topics were discussed along disasters and these were focused more on typhoon, earthquake and so on. We really appreciate those areas, local government, even national government who had zero casualties. But we want to remind everyone here and any of these speakers, Yolanda is a world super typhoon recognized by CNN, BBC, National Geographic, American Association of Civil Engineers Structural Engineering Division and other scientific organizations. My comment is, since Day 1, speakers who were discussing disaster related topics were comparing Typhoon Yolanda to that of ordinary typhoon. I was in Bicol when Typhoon Millenio happened. I was just sleeping in my hotel room. Walang nangyari, normal lang po iyon. We were in Manila also during Ondoy. We were staying in Radio Park in 14th Floor. Wala ring nangyari except na gutom lang kami kasi naubusan ng pagkain. For the information to those who did not experience Yolanda, we heard alarms before Yolanda because I'm living in San Jose, the biggest hit community. So in other words, every time we are compared with the zero casualty, we felt hurt. Masakit sa loob namin, as if the local government did not do their part. Parang wala silang ginawa before typhoon Yolanda. Maybe maliit lang iyong ginawa nila. Based on your picture, the first structure damaged was even the Bethany Hospital na in Japan, iyong mga hospital nila, it is the last to be damaged. Nakakatayo pa. So in other words, iyong Yolanda natin, ay napaka-one-of-a-kind, maybe it was the first. So if we want to get a lesson out of here, let's not compare, instead let us contrast. Ano ba ang dapat nating i-contrast? I have listed here some. One is the mode of preparation. Ilan ba ang dapat na residents, household, women, children, and everything ang ilalagay doon sa evacuation center. Why? Bakit ba maraming namatay? Because the evacuation centers were damaged and people were there inside. My house is at the back of National High School, evacuation center iyon. Lahat ng 30 residents doon patay dahil doon ang evacuation center kaya hindi natin pwede sabihin na wala silang ginawa. The second, in terms of cost provided during the evacuation centers, saan ba iyon? Ano bang ginawa ni Bicol na hindi ginawa sa Tacloban, na hindi nagawa sa Bohol, na hindi nagawa sa other areas? Ano ba ang ginawang magandang practice sa Japan na pwede natin doong i-practice sa area. These are our comments. My question is, in terms of data preparation. We were really sad because the information were not the right information we experienced during the field. Like for example, during the State of the Nation Address (SONA) of the President, sinabi doon na nagkaroon ng kuryente one week after. Kami sa aming area, malapit na ang Christmas, malapit lang kami sa provider ng kuryente, wala kaming kuryente. That's a wrong information. The second is, how reliable is data gathering? For us researchers, kasi very important ito kasi the baseline information in acting the information since Day 1, lahat na binigay na information during the ethics discussion hindi rin binigay ang right na information. If we want to improve, let us have a reliable and accurate information. And my next question is, who is really responsible in providing the information of those casualties? Thank you!

Ms. Lenie Alegre: Thank you ma'am. That's a first-hand experience being one of the victims of Yolanda and we appreciate that observation that you have shared with us. If you will remember, when the government was asked whether if we have prepared for Yolanda. The direct answer is *"Yes, we have prepared."* But at the rate of 1 to 10, the preparation for Yolanda should have been 10. Because Yolanda is quite extraordinary but we only prepared for let's say, 6. That's exceptional. We have acknowledge that at the national level that we have not

prepared at a Yolanda scale disaster. And the comparative study that we have looked at, we did not actually compare Yolanda to any other typhoons. What we did is, we compare typhoons like apples for apples, oranges for oranges. Yolanda is incomparable. When we had this hazard mapping in Yolanda-affected areas before Yolanda, it was done 2006, 2007 and 2008. There were a lot of infrastructures already built in hazard-prone areas. For example, in Tacloban, you have already built your astrodome, the malaking dome na nasira. And that area is very prone to flooding, liquefaction and even earthquake and possible storm surge. We already advised some of the LGUs on this and of course, there's again the question of, *"What will happened to our investment?" "What will happen to our building?"* And again, there's also a discussion of probability. How soon will this occur given the worst-case scenario? Will we sacrifice development because of this fear of the unknown? That was the issue then. Again, we're not telling that the local government units are not performing their work. It's just that Yolanda is beyond any preparation and we acknowledge that. And very good point of having a comparative study on how we move forward given the effects of Yolanda. That is why, it is our moral responsibility to share lessons learned and that particular publication is a very good idea. The one mentioned earlier. And we are also doing right now a Typhoon Yolanda documentation. It will provide you a national view and a regional view and local perspective on what really happened during Typhoon Yolanda, before Typhoon Yolanda and after Typhoon Yolanda. And that publication will be launched this coming September that we can look at because it provides the perspective from the national down to the local level. On the info gathering, especially for the accounting of deaths. If you will remember, there were issues on who will really account for that numbers. And who is really responsible for reporting the numbers. At the local level, it should be the LGUs because they directly handle the situation if and when the LGUs is functional. Meaning hindi kayo affected, meaning lahat ng government employees nakapagreport at pwede pang magamit ang facilities doon, including communications facility. But if the government units cannot do anymore their function because they are also affected, there is a need for us to come in – the national government. In RA 10121, it is stated there, if one or two municipalities are affected, the province will come in to help; if two or more provinces are affected, the regional government will come in; if two or more regions are affected, the national government will come in, will help, will assist and will function and deliver the services necessary for the region, province or municipality. And that is what we did for Typhoon Yolanda, the national government helped, came in but we knew for a fact there were issues then. But that is necessary because if the operations there are paralyzed, the national government should come in. If we go back for accounting of the data, there's the need for the national government to really do its part on accounting. So, what happened in Yolanda, retrieval operations for the dead? That is being spearheaded initially by the national government and the local government came in after a while, after they have recollected all their efforts and after the government employees reported for work. During the initial days, only few of the government employees reported for work because they're all affected. And we get the data from the local government units, initially. But NBI did come in, Bureau of Fire Protection came in, MMDA and several responders there. And we accounted for deaths according to body count. That was what our protocol dictates so before the revision of this management of the dead and missing. Until now, our numbers account of 6,300 but a lot of these 6,300 are still unidentified. Why? Because we're awaiting for the result of the DNA testing being done by NBI and SOCO. And until now, no update yet because we understand that it will quite take them sometime. So that's how the DILG, local government units and the local health officers are one in accounting and helping out in this process. Who really is responsible? For all the works that should be done at the local government units. The primordial responsibility of the disaster risk reduction should be at the local level. The local government units if and when they have the capacity. Pero if kulang po ang kanilang capacity, that's why we have the provincial, regional and the national structures to come in to help them. Again, the primordial responsibility is the local government units. We provide technical assistance, financial assistance if and when necessary. And other local government units are also helping, local government units that are lesser in terms of financial capacity. I think maybe Usec. can add to that.

Follow-up lang po sa question kanina, related po. Actually, in all of the figures presented, you compared the damages between Pablo, Sendong and Yolanda. So Yolanda is just second and even so small a damage compared to Pablo in spite of the coverage of Typhoon Yolanda. I am from Southern State University which is far from Tacloban but I am part of the consortia. Sa amin lang Ma'am, we were wondering, even though missing sa report mo sa slides mo 1,000 lang talaga. We were reacting and we wanted to know kasi we are in the research world, saan kinuha, and kailan kinuha? I really appreciated the way you report kasi maganda, pero we were just wondering with some data you presented.

Ms. Lenie Alegre: Going back to the data, remember that's Post Disaster Needs Assessment (PDNA) data, the PDNA data, noong Pablo po, we have the luxury of time to do it. Pablo happened December 2012, noong kami po nagkaroon ng PDNA, 2 months po binigay sa grupo. Practically almost 2 months to gather the data. Why the health sector during Pablo, well, I would say, mas maganda iyong data nilang nakuha, they have actually sinuyod

the area. The health sector in the area has provided a rich database on what they need and what the baseline data is. Ibig sabihin, pre-disaster when we had the disaster evaluation. Ngayon, pagdating sa PDNA, kasi available ang data na iyon, we were having house-to-house, establishment-to-establishment at nakuha iyong computation for the needs and losses maayos din nagawa. What happened in Yolanda was that the baseline data was not available. Meron man, konting-konti. And submission coming from departments and government agencies were lacking in terms of the cost because some infrastructure were built long time ago and the value of the infra was fully depreciated. Meron po tayong formula na ginagamit, for example, itinayo po ang ating hospital that was 20-30 years ago and that design of the hospital is designed only for 20 or 10 years but it lasted for quite some time. When you compute for the damage, you also compute for depreciation cost. That's the systematic way and the accepted standard we do for disaster needs assessment. That is why, dalawa ang ibig sabihin noon. Kung hindi masyadong nacapture, maybe you lack baseline data. Pangalawa, kung mababa masyado, maybe because these cities, structures are old enough, pagdating sa accounting ng damage, fully depreciated na siya, salvaged value nalang ang nacapture. So that's how we account for PDNA. We have these standards and we also have formulas for the computation. Again, it's a challenge for us at the heath research sector especially sa health sector na magandang ma-establish ang data. Meron kayong magandang database on your health infrastructure, on health workers, health responders, equipage and other medical investments that you have. Because come disaster time, and we get back to you, you can help us provide a better picture on what really are the damages, then losses and the needs. That's how we computed for the PDNA data.

Usec. Teodoro Herbosa: I think my view point will be more philosophical and academic. Number one, I'm being polite. We don't act as cancer patients to do cancer research, we don't ask cancer patients to do cancer research. When you do research you have how and you compare. Those are two very important aspects of research. What you count is the quality of your data and what you compare is the methodology, how you do you study? Now, we do not compare the hazards themselves but we compare the risks. So you look at risks and you're getting the concept of how we reduce or minimize or manage those risks. The risk on what you describe, whether Sendong, Pablo, Yolanda is still health risks. And that's what I expect our researchers to study. You study how to minimize health risk whether they be of great magnitude like Yolanda or a smaller variety so we need to compare. So I beg to disagree. In fact, the disaster community has created several frameworks and templates to make different disasters comparable and I refer to the World Association for Disaster and Emergency Medicine whose item in research wherein a conceptual framework and a proper scoring were tallied in an objective manner. And that leads me to my second point. It is very hard to do research when we actually are emotional. We need to be very objective in research because that is really the design of research. We need to look at it objectively and if our quality of data, information and knowledge, enough wisdom what it will do is it will create better policies for government, evidence-based policies that can be implemented. So when you talk about SONA and the information clarification that is not research that is a political speech with a political statement. What researcher needs to do is to actually give evidence so that politicians cannot say, what is not evidenced. So we have to compare apples with apples, oranges with apples. And in our studies for disaster samples, we don't compare the hazards and the methodology. You compare the risks and you count mortality. So if you ask me, which local government have better response? Of course, I will always say the community that have zero mortality. That's the best disaster response. To me there is no question about that that is an outcome that is unquestionable. That's my point. Thank you very much!

This is Dr. Jeric Amor Camero from Northern Samar, Philippines, a professor. My question is directed to the honorable Usec. Herbosa. Sir, congratulations on factual and comprehensive presentation. However, I am going to ask you a question that may seemingly digress from which you have presented and which I and we strongly believe is of comparing relevance. My question is, would you agree that politics is the key factor in disaster intervention? Either agreed or not, what sort of politics is ideal for us to subscribe on? Thank you.

Dr. Teodoro Herbosa: Very powerful question. First, let me define politics with the way the late Robin Williams define politics. Do you know how he defined politics? *'Poli'* come from the Latin root word, meaning many *'tics*' with many people with convulsions or tics. That's politics to you. Anyway, seriously, many people always claim that. They always claim that disaster is politics, that public health is politics and I think they are in the wrong path of the discussion. What I will say is powerful and what I learned as Undersecretary for the Department of Health that when you provide health care for the poor, for the victims, it is always about politics. And if you cannot take that, then you should actually make your research work so that the politicians are unable to say things that have no evidence and that is the power of true research. Thank you!

WINNERS, AWARDS AND CITATIONS

2014 ALBERTO G. ROMUALDEZ, JR. OUTSTANDING HEALTH RESEARCH AWARD (AROHRA) (Health Services Research Category)

Neglected Tropical Disease Study Group of the National Institute of Health
College of Public Health, University of the Philippines Manila

2014 DOST – PCHRD – GRUPPO MEDICA AWARD FOR OUTSTANDING UNDERGRADUATE THESIS IN HERBAL MEDICINE

First Place: "The Anti-Dengue Potentials of the Quercetin Fraction of Tawa-Tawa (Euphorbia hirta) Whole Plant and Papaya (Carica papaya) Leaves Tea Preparation Using the Laboratory Criteria: Platelet Count and Hematocrit Levels"
Authors: Dave Eric P. Erosa, Hazel Mae S. Lawas, Rachel Mae L. Nengasca, Lua Edirne I. Eugenio, Harvey P. Tadle, and Jann Camina H.
Adviser: Professor Fatima May R. Tesoro
San Pedro College, Davao City

Second Place: "The Anti-Urolithiatic Activity of the Tundan Saging (Musa Paradisiaca Linn.) Pseudo-Stem Capsule in Ethylene Glycol-Induced Albino Rats (Rattus norvegicus): A Potential Preventing Agent for Kidney Stone Formation"
Authors: Farrel Jay G. Batua, Benjamin Francis P. Fernandez, Brendel John T. Roa, and Kariza V. Tan
Adviser: Professor Fatima May R. Tesoro
San Pedro College, Davao City

Third Place: "The Anxiolytic Activity of Kaemferol Fraction from Busikad (Kyllingo brevifolia) Leaves in Capsule Formulation"
Authors: Diana Jane Cadiatan, Judith Abad, Mahannah P. Bale, Katreena Marie A. Brillante, Charlene S. Ganason, and Ricca Bianca M. Guardados
Adviser: Professor Fatima May R. Tesoro
San Pedro College, Davao City

8TH PNHRS STUDENT ORAL RESEARCH COMPETITION (UNDERGRADUATE) CATEGORY

First Place: "Not All Taua-tauas Are Alike: A Morphological, Molecular, Genetic, Phytochemical and Anti-thrombocytopenic Profiling of Different Euphorbia hirta Linn. Plants from the Philippines"
Authors: Sheriah Laine M. de Paz; Angelo Augusto Sumalde; Criselda Jean Cruz; Joyce Ann Robles; Emma Pajarillo; Perlita Apelado; Ralph Julius Bawalan
University of the Philippines Manila, College of Medicine

Second Place: "Nephroprotective Effects of Cogon (Imperata cylindrica) Root Aqueous Extract on Sprague-Dawley Rats with Gentamicin-Induced Acute Kidney Injury"
Jonnel Poblete
University of the Philippines Manila, College of Medicine

Third Place: "Anti-developmental Effects of Callistemon viminalis (Weeping Bottlebrush) Leaf Extract on the Early Development of Tripneustes gratilla L. (Sea Urchin) Embryos"
Authors: Geraldine P. Cercado; Kevin Fritz Arnaiz; Angela Ivy Dy; Noel Filipinas; Ghanshyam Joshi; Mia Coleen Lao; Raymond Moscoso; Daryl Bess Pasco; Fritz Gerard Quirante; Raiza Mae Rodriguez; Rachelle Marie Sy
Cebu Institute of Medicine

8TH PNHRS PROFESSIONAL ORAL RESEARCH COMPETITION

First Place: "Biomechanical properties of an Improvised Monoplanar External Fixator for Transverse Metacarpal Shaft Fractures AO/OTA 77-A2.3"
Author: Dr. Juan Agustin D. Coruna IV
Corazon Locsin Montelibano Memorial Regional Hospital

Second Place: "Prebiotic Potential of Ubi Flour (Dioscorea Alata L.)"
Author: Dr. Lotis Escobin-Mopera
University of the Philippines Los Baños

Third Place: "Climate Hazard Effects on Socio-Environmental Health and Adaptation Strategies in Two Coastal Communities in Palawan Island"
Author: Dr. Patrick A. Rogeniel
Palawan State University

8TH PNHRS STUDENT POSTER EXHIBIT COMPETITION

First Place: "Innovations for Anti-Microbial Therapeutic: Synergistic Inhibitory Effect of *Allium sativum* (Garlic), *Capsicum frutescens* (Chili) and *Zingiberofficionale* (Ginger) Against *Staphylococcus aureus*, *Eschiricia coli* and *Pseudomonas aeurginosa* Including Drug Resistant Strains"
Authors: John Ric Evangelista and James Sumabagaysay
Mountain View College, Valencia City, Bukidnon

Second Place: "The Effect of 100% *Moringa oleifera* (Malunggay) Leaf Extract on the Heart Rate of Male *Mus musculus albinus* (Albino Mice)"
Authors: Gladys May Cojo; Christie Marie Andrada; Diane Angeli Cabading; Ma. Eliza Codilla; Cheska Alyssa Delgado; Francis Anthony Fernandez; Kimberley Therese Gothong; Roy Bonson Lim; Dawn Christie Sandiego; Samanta Yu; Brooke Zamora
Cebu Doctors' University, Mandaue City, Cebu

Third Place: "An *In Vivo* Study of the Potential Hemocyte Effect of the Crude Extract from the Leaves of *Lagerstroemia speciosa* L., Family Lythraceae (Banaba)"
Authors: Jesanie Marfil; Robb Ian Membrebe; Mhara Vennize Navarro; Charmaine Rose Odiamar; Marvy Tiongson
University of Perpetual Help – Dr. Jose G. Tamayo Medical University, Biñan, Laguna

8TH PNHRS PROFESSIONAL POSTER EXHIBIT COMPETITION

First Place: "Characterization of the Glucosinolates and Isothiocyanates in Malunggay (Moringaoleifera L.) Extracts and Determination of their Myrosinase Activity and Anticancer Activity"
Authors: Mr. Raymond S. Malabed and Ms. Marissa G. Noel
De La Salle University

Second Place: "Hypoglycemic Activity of Antidesmabunius L and Mollugooppositifolia L Fresh and Alcoholic Extracts in the db/db Diabetic Mouse Model"
Author: Dr. Neil C. Tanquilut
Pampanga Agricultural College

Third Place: "Antimicrobial and UV-Blocking Property of Ag and SnO2 Nanomaterials"
Author: Prof. Eduardo B. Tibayan
De La Salle Science Health Institute

8TH PNHRS CONSORTIUM EXHIBIT AWARD

CARAGA Health Research Development Consortium

SPECIAL AWARD - CONSORTIUM WEBSITE AWARD

Region 11 Health Research Development Consortium
Website: http://region11.healthresearch.ph

SPECIAL AWARD - CONSORTIUM DATABASE AWARD

Cebu Doctors' University

CERTIFICATE OF ACCREDITATION LEVEL III

Davao Doctors' Institutional Ethics Review Board

POSTER EXHIBIT FINALISTS (STUDENT CATEGORY)

REGION 3

1. **Detection of Potential Anti-Quorum Sensing Activity in Common Santan (*Ixora chinensis* Lam.) Leaf Extracts on *Pseudomonas aeruginosa***
   Diane Nicole Conde; Fatima Anne Corpuz; Kim Vergel Cudia; Jim Kirby Cunanan; Ruben Custodio Jr; Ivan ay David; John Aufer David; Jeanina De Guzman; Olimpio De Leon III; Lawrence Reive Delim; Raphael Del Pilar; Arvin Dimabuyu; Ma. Patricia Dispo; Angelo Ruel Enriquez; Neil Espiritu; Beatriz Angelica Feliciano; Anjelle Roselle Gagui; Carina Galang; Renato Galvan Jr.; Christian King Garcia; John Evan Glori; Camille Gozum
   Angeles University Foundation, Angeles City

REGION 4A

2. **An *In Vivo* Study of the Potential Hemocyte Effect of the Crude Extract from the Leaves of *Lagerstroemia speciosa* L., Family Lythraceae (Banaba)**
   Jesanie Marfil; Robb Ian Membrebe; Mhara Vennize Navarro; Charmaine Rose Odiamar; Marvy Tiongson
   University of Perpetual Help – Dr. Jose G. Tamayo Medical University, Biñan, Laguna

REGION 5

3. **Evaluation of the Anticonvulsant Activity of *Jatropha curcas* L. (Tubang-Bakod) Methanolic Leaf Extract in *Mus musculus***
   Ellen Keith Coraled Barreda
   Bicol University, Legazpi City

4. **Hypoglycemic Effect of Papaitan (*Tinospora crispa* L. Miers) Stem Extract on Alloxan-Induced Diabetic and Normal Glycemic Male Albino Mice**
   Christine Arcueno & Mark Despalideras
   Bicol University, Legazpi City

REGION 6

5. **Antibacterial Effect of Coffee (*Coffea arabica*) on Methicillin-Resistant *Staphylococcus aureus* (MRSA)**
   Pristine Kae Beatriz; Sheila Mae Albay; Tom Leo Tolosa; Thessa Mae Ecarma; Melecio Gil Jardeleza; Ed Sherman Chu; Cherie Chariz Cadayday; Wilkinson Gacayan; Glendale Fantonalgo; Lawrence Pedregosa; Geleen Anne Procianos
   West Visayas State University - College of Medicine

6. **Prevalence and Risk Factors of Pulmonary TB Treatment Defaulters in Barotac Nuevo, Iloilo, Philippines**
   Beatrix Grace Oserraos; Ed Levi Camarillo; Charles Louigi Badon; Eda Mae Agustin; Mercia Joanne Codilan; Johnn Mark Caballero; Jackie Acha; Florimer Amity Bojos; Elijah Abuan
   West Visayas State University - College of Medicine

REGION 7

7. **The Effect of 100% *Moringa oleifera* (Malunggay) Leaf Extract on the Heart Rate of Male *Mus musculus albinus* (Albino Mice)**
   Gladys May Cojo; Christie Marie Andrada; Diane Angeli Cabading; Ma. Eliza Codilla; Cheska Alyssa Delgado; Francis Anthony Fernandez; Kimberley Therese Gothong; Roy Bonson Lim; Dawn Christie Sandiego; Samanta Yu; Brooke Zamora
   Cebu Doctors' University, Mandaue City

REGION 8

8. **Utilization of Coconut Water from Mature Coconuts in the Development of Probiotic Coco Beverage**
   Lorina Galvez and Eileen Bandalan
   Visayas State University, Visca, Baybay City

REGION 9

9. **Hospital Hazardous Waste Management Practices in Basilan Province**
   Rea Tarro, MD
   Ateneo de Zamboanga University – School of Medicine

10. **Post-Zamboanga Crisis: The Prevalence of Post Traumatic Stress Disorder (PTSD) Among Elementary Students in Selected Schools Near the Conflict Areas and a Description of the Initiated Psychosocial Support Programs**
    Al Rayyan Annudin
    Ateneo de Zamboanga University – School of Medicine

REGION 10

11. **Innovations for Anti-Microbial Therapeutic: Synergistic Inhibitory Effect of *Allium sativum* (Garlic), *Capsicum frutescens* (Chili) and *Zingiberofficionale* (Ginger) Against *Staphylococcus aureus*, *Eschiricia coli* and *Pseudomonas aeurginosa* Including Drug Resistant Strains**
    John Ric Evangelista and James Sumabagaysay
    Mountain View College, Valencia City, Bukidnon

12. **The Capacity of Selected Rural Health Units in Cagayan de Oro City in Providing Basic Emergency Obstetrics and Newborn Care Services: A Cross-Sectional Study**
    Lilyka Vic Arceta; Charisse Elden Gaid; Cristie Joy Indoc; Rahma-Faizah Ismael; Joseph Michael Lim; Mary Ena Palen; Robert Ramos; Tristan Diego Saavedra; Luv Roed Tahil; Allen Khadir Uy
    Cagayan De Oro City

REGION 12

13. **Antiangiogenic, Antimicrobial Activities and Toxicity of *Acanthaster planci* Linnaeus (Crown-of-Thorns Starfish)**
    Ma. Cristina Quiñones and Samm Salih
    Notre Dame of Dadiangas University, General Santos City

14. **Bioactivity of the Stem Essential Oil of *Equisetum spp.* (HORSETAIL)**
    Rhodeliza Joyce Flores; Chelbert Granada; Ivee Marie Publico
    Notre Dame of Dadiangas University, General Santos City

POSTER EXHIBIT FINALISTS (PROFESSIONAL CATEGORY)

NATIONAL CAPITAL REGION

1. **Characterization of the Glucosinolates and Isothiocyanates in Malunggay (Moringaoleifera L.) Extracts and Determination of their Myrosinase Activity and Anticancer Activity**
   Mr. Raymond S. Malabed and Ms. Marissa G. Noel
   De La Salle University

2. **Anti-anemic Activity and Safety of Alternantherasessilis (L.) (Family Amaranthaceae)**
   Dr. Erna C. Arollado
   University of the Philippines Manila

REGION 1

3. **Health Seeking Behaviours and Health Care Utilization Among Indigenous Peoples of Ilocos**
   Dr. Mercedita Q. Queddeng

4. **Devolution as Framework in Health Service Delivery in Region I**
   Mr. Paulito C. Nisperos
   Don Mariano Marcos Memorial State University

REGION 3

5. **Risk Evaluation of the Toxicity of Tubang Amerikano (Jathropamultifida Linn.) Leaf Extract**
   Prof. Erwin C. Mina
   Tarlac State University

6. **Hypoglycemic Activity of Antidesmabunius L and Mollugooppositifolia L Fresh and Alcoholic Extracts in the db/db Diabetic Mouse Model**
   Dr. Neil C. Tanquilut
   Pampanga Agricultural College

REGION 4A

7. **Antimicrobial and UV-Blocking Property of Ag and SnO2 Nanomaterials**
   Prof. Eduardo B. Tibayan
   De La Salle Science Health Institute

REGION 6

8. **A Community-Based Multifactorial Approach for Reducing Malnutrition Prevalence in Barangay La Paz, Nueva Valencia, Guimaras, Philippines**

REGION 7

9. **Nephroprotective Activity of Ethanolic Fruit Extract of Ervatamia Pandacaqui Linn. (Banana Bush) in Gentamicin-Induced Nephrotoxicity Oryctolagus Cuniculus (Rabbit)**
   Ms. Merafe Torregosa
   Southwestern University

10. **Incidence of Tuberculosis and Treatment Compliance to DOTS Program in Barangay San Roque, Talisay City, Cebu**
    Ms. Mae Reynes
    University of Cebu

REGION 8

11. **Factors Affecting Treatment Outcomes of TB DOTS Enrolled Patients seen at the Department of Family Medicine and Department of Internal Medicine**
    Dr. Maryanne Cristy Dadulla and Dr. Marjorie Palermo
    Eastern Visayas Regional Medical Center

REGION 12

12. **Ethnopharmacological Resource Variation in the Indigenous People's (IP) Groups in the SOCSARGEN Region**

CORDILLERA ADMINISTRATIVE REGION

13. **The Impact of Health Education Interventions of Soil-Transmitted Helminth Infections Among School Children of Barangay Tadiangan, Tuba Benguet**
    Mr. Allan Jay Espiritu and Mr. Gabrielle Paul Pascual
    St. Louis University

14. **Knowledge, Attitude and Practices of Residents in Selected Barangays of Baguio City Regarding Chikungunya**
    Ms. Mari Sim Meing Jamias

PRESS RELEASES

A22 Friday, August 1, 2014

neighborhood

neighborhood@sunstar.com.ph

JOVY TAGHOY-GERODIAS Editor

8th PNHRS Week celebration set on Aug. 12-14 at Radisson

THE Central Visayas Consortium for Health Research and Development of the Department of Science and Technology will host the 8th Philippine National Health Research System (PNHRS) Week on Aug. 12-14 at the Radisson Blu Hotel, Cebu City.

More than 500 participants from 17 regional health research consortia are expected to participate in the event.

This year's theme, "Research and Innovation in Health for Disaster and Emergency Health Management," will focus on the role of health research in disaster and emergency health management.

This event will enable health research stakeholders to interact, learn from each other and share evidence-based information to contribute in establishing the country's responsive disaster and emergency health management systems.

The PNHRS is a system which assures quality health care for Filipinos by ensuring that health research is linked to the needs of the health system. It aims to generate research funds to finance the capacity of more health scientists and provide the necessary resources to undertake health researches aligned with the country's National Unified Health Research Agenda.

Its core agencies are the Department of Health, Philippine Council for Health Research and Development-Department of Science and Technology, Commission on Higher Education and National Institutes of Health-University of the Philippines Manila.

CEBU DAILY NEWS TUESDAY, 12 AUGUST 2014

Cebu hosts Health Research System Week

CEBU will play host to the 8th Philippine National Health Research System Week celebration starting today.

The week-long activity, which will be held at Radisson Blu Hotel, is expected to gather around 600 participants composed of researchers, government officials, and representatives from the private sector and the academe.

Merlita Opeña, chief of Research, Information, Communication Utilization Division, Philippine Council for Health Research Development said the event is in preparation for Global Forum for Research and Innovation for Health to be hosted by the Philippines next year.

It will feature speakers from other countries with topics focusing on "Research and Innovation in Health for Disaster and Emergency Management."

Merlita Opeña from the Philippine Council for Health Research Development answers queries on Ebola virus during a press conference with Dr. Enrico Gruet at the Radisson Blu Hotel.

CDN PHOTO/LITO TICSON

Prof. Virginia Murray, vice chair, Science and Technical Advisory Group, United Nations International Strategy for Disaster Reduction, will deal on "Disaster Risk Reduction and the Role of Science."

Prof. Shinichi Egawa of Tohoku University Japan will talk about the Great East Japan Earthquake.

Government officials will also attend the activity tonight, including Gov. Hilario Davide III, Department of Science and Technology Undersecretary Amelia Guevara, Department of Health 7 Director Jaime Bernadas, Chair Patricia Licuanan of the Commission on Higher Education, DOST 7 Director Edilberto Paradela and Presidential Assistant for Rehabilitation and Recovery Panfilo Lacson, who will give a keynote address.

Dr. Enrico Gruet, Chair for Central Visayas Consortium for Health Research and Development and Dean of College of Medicine, Cebu Doctors University, said the week-long activity is geared towards better cooperation and involvement in future disaster response. /CORRESPONDENT MICHELLE JOY PADAYHAG

PRESS RELEASES

The Freeman TUESDAY | August 12, 2014

With disasters, more research on health needed

More effort is needed to further establish the role of health research in disaster and emergency management but it is equally important to make the public understand the value of the research.

These were two of the points emphasized by Merlita Opena, chief of the Research, Information Communication and Utilization Division of the Philippine Health Research System.

"No matter how important it is, if a research is not properly disseminated, it would be useless," she said, as she encouraged more researchers to undertake work on the subject.

Enrico Gruet, chairman of the Central Visayas Consortium for Health Research and Development, also emphasized the importance of translating research findings to more understandable and relatable terms.

"There is a need for more researchers to communicate technical terms to make it understandable to the community," he said during the Kapihan sa PIA yesterday.

Gruet said there has been a substantive increase in the budget for research in the last two to three years. "The trend is increasing and still we encourage more research in different academic institutions," he said.

A two-day event organized by the Philippine Health Research System, which will kick off today, aims to provide a platform for stakeholders in health research and development to interact, learn from each other, share information and experiences, and voice concerns to contribute to research-based solutions to health problems, among others.

All plenary and parallel sessions will revolve around key areas like science for disaster preparedness and actions, use of information and communication technology and tools and policies, coordinating mechanisms for service delivery, and role of social media.

Gruet said natural or man-made disasters such as typhoons, tsunamis, hazardous spills, fire, biohazard incidents, acts of terrorism or pandemics can happen anytime and anywhere with little or no warning.

"With the frequency of occurence of these catastrophes, it is about time to acknowledge disaster and emergency health research as an emerging discipline," he said.

— Mitchelle L. Palaubsanon/ JMO

PRESS RELEASES

Sun.Star Cebu | Tuesday, August 12, 2014

Health, science links in disaster readiness

RESEARCHERS highlighted the importance of health-related research in disaster and emergency management and the role of science for disaster preparedness as they observe Philippine National Health Research System Week.

Dr. Enrico Gruet, chair of the Central Visayas Consortium for Health Research and Development, lamented that there is little coordination between the local government and agencies that handle research work, including the Department of Health and the Department of Science and Technology.

"There is coordination but it needs to be better. All the resources of the health department will be used by the people," he said during the Kapihan sa PIA at the Radisson Blu Hotel yesterday.

The press conference was held in time for the Summit on Research and Innovation in Health for Disaster and Emergency Management, which will be held in the same hotel today until Thursday.

● Researcher laments lack of coordination between local government units and agencies in disaster situations

Gruet, also the dean of the Cebu Doctors' University College of Medicine, said the summit aims to educate people on how health research is useful during disasters.

Ready

"Sometimes we cannot predict when disaster would come so we should always be ready... so when disaster is already imminent, we can be more prepared. On the side of health, we can tell people how to take care of themselves so that when disaster comes, they will not easily succumb to illness," he said.

Merlita Opeña, chief of the Research Information Communication and Utilization Division of the Philippine Council for Health Research and Development, said there are only a few researches regarding disasters.

She added that the cooperation of local government units in the conduct of any research is important since they are the main users of the study.

During the Kapihan sa PIA, Opeña encouraged the science community to pay more attention to disaster and emergency preparedness and management.

Citing the importance of science in packaging and spreading information to the public, she encouraged those who are interested in doing a research to submit a proposal to DOST so their study can be funded.

The agency can allot up to P500,000 for research.

Opeña said that some researches related to health, including the study on the benefits and properties of 'lagundi,' have been widely used, particularly in the production of lagundi-based products. **Franz Correa, USJ-R Mass Com Intern**

PRESS RELEASES

NEWS

Healthcare crucial in rehab efforts

THURSDAY, 14 AUGUST 2014 | CEBU DAILY NEWS 05

Rehabilitation czar Panfilo Lacson (center) with Health Asst. Secretary Dr. Enrique Tayag and DOST Undersecretary Carol Yorobe

CDN PHOTO/JUNJIE MENDOZA

Rehabilitation czar Panfilo Lacson on Tuesday said the healthcare sector plays a crucial role in efforts to rebuild areas devastated in November by superty-phoon Yolanda.

"We need you to help us arrive at health outcomes that would build our country back better, safer, and more resilient," Lacson, the presidential assistant on rehabilitation and recovery, told delegates attending the Philippine National Health Research System forum in Radisson Blu, Cebu City.

Lacson said he believes that healthcare professionals can help draft action plans to identify and raise awareness on health problems affecting the typhoon victims and come up with solutions.

With the approval of a P171-billion master recovery plan, Lacson said rehabilitation efforts are expected to shift to higher gear. "But even with the massive mobilization of government resources and downloading of funds to implementing agencies, we will still need the health sector to play more significant roles," he said.

MULTI-SECTORAL

Health Assistant Secretary Enrique Tayag said preparedness is the key to manage effects of disasters.

He said the Department of Health makes sure that proper sanitation in affected areas is observed, clean water is provided, vaccinations are given to children, and emergency medical services are rendered.

But the health sector cannot do it alone. We need a multi-sectoral collaboration in disaster management. The department is part of a coordinated response," Tayag said.

Tayag said the country needs to build bigger and stronger hospitals and improve coordination with other countries in disaster and emergency management. Tayag added that adequate preparation can minimize damage during calamities. /CORRESPONDENT VICTOR ANTHONY V. SILVA

NEWSLETTER

8TH PHILIPPINE NATIONAL HEALTH RESEARCH SYSTEM WEEK CELEBRATION
AUGUST 13 - 14, 2014

CVCHRD HOSTS 8TH PNHRS WEEK CELEBRATION

More than 600 participants registered on the event via electronic registration.

The Central Visayas Consortium for Health Research and Development (CVCHRD) hosts the 8th Philippine National Health Research System (PNHRS) Week Celebration on August 12-14, 2014 at Radisson Blu Hotel, Cebu.

More than 600 guests and participants from diverse profession converged in Cebu City to attend the celebration.

All parallel and plenary sessions of the 8th PNHRS Week Celebration will center on the theme, "Research and Innovation in Health for Disaster and Emergency Management".

Various speakers and presentations are provided to give an array of choice for the audience to learn from the vitals of disasters and emergencies - preparations, actions, tools, and role of social media.

The event also features distinguished guests Prof. Virginia Murray, Vice Chair, United Nations International Strategy for Disaster Reduction and Technical Advisory Group and Sec. Panfilo Lacson, Presidential Assistant for Rehabilitation and Recovery.

The 8th PNHRS Week Celebration is a prelude to the Global Health Research Forum set this coming 2015.

LACSON DELIVERS KEYNOTE SPEECH AT THE 8TH PNHRS

SEC. PANFILO M. LACSON
Presidential Assistant for Rehabilitation and Recovery

Sec. Panfilo Lacson delivered the keynote address during the Opening Ceremonies of the 8th Philippine National Health Research System (PNHRS) Week Celebration in support to the health research community.

Sec. Lacson considered this year's theme as an avenue for researchers to identify the need in developing mechanisms to make the Philippines effective in responding and dealing with emergencies and disasters.

In his keynote speech, Sec. Lacson encouraged health scientists to empower more people to conduct health research studies. "It is time we support this kind of initiative and undertaking with no "ifs" and "buts" but unequivocally", he said.

He cited the importance of health research on the evidence-based action plans that his office is implementing for the rehabilitation strategies on areas hardy hit by typhoon Haiyan, one of the worlds strongest typhoon on record.

Furthermore, he also shared their initiative in leading the multi-hazard mapping which integrates and topologically overlays different thematic maps generated by various government units and other groups to create a unified multi-hazard map.

Together with Sec. Lacson were Dr. Enrico Gruel, Chair of Central Visayas Consortium for Health Research and Development (CVCHRD); Dr. Jaime C. Montoya, Executive Director of Department of Science and Technology – Philippine Council for Health Research and Development (DOST – PCHRD); Professor Virginia Murray, Vice Chair of the United Nations International Strategy for Disaster Reduction and Technical Advisory Group; Assistant Secretary Enrique Tayag of the Department of Health; Undersecretary for Regional Operations Carol M. Yorobe, Department of Science and Technology (DOST); Commissioner Mineta Alarcon of the Commission on Higher Education; Chancellor Manuel Aguito of University of the Philippines Manila; Engr. Edilberto L. Paradela, Regional Director of DOST Region VII; and Board Member Peter Calderon, Chair, Committee on Health, Cebu Province.

The San Pedro College team who bagged the three top awards of Gruppo Medica Award for Outstanding Undergraduate Thesis for Herbal Medicine with their moderator Prof. Fatima Mae R. Tesoro (first from left).

WINNERS, AWARDEES AND CITATIONS

Aside from the usual musical and cultural flare, the first day of the 8th PNHRS was also an avenue to recognize outstanding achievements of the members of the health research community.

8th PNHRS Student Research Competition (Undergraduate) Category

1st Place
Research Title: **"Not All Taua-lauas Are Alike: A Morphological, Molecular, Genetic, Phytochemical and Anti-thrombocytopenic Profiling of Different Euphorbia hirta Linn. Plants from the Philippines"**
Authors: Sherlah Laine M. de Paz; Angelo Augusto Gumalde; Criselda Jean Cruz; Joyce Ann Robles; Emma Pajarillo; Perlita Apelado; Ralph Julius Bawalan
University of the Philippines Manila, College of Medicine

2nd Place
Research Title: **"Nephroprotective Effects of Cogon (Imperata cylindrica) Root Aqueous Extract on Sprague-Dawley Rats with Gentamicin-Induced Acute Kidney Injury"**
Authors: Jonnel Poblete
University of the Philippines Manila, College of Medicine

3rd Place
Research Title: **"Anti-developmental Effects of Callistemon viminalis (Weeping Bottlebrush) Leaf Extract on the Early Development of Tripneustes gratilla L. (Sea Urchin) Embryos"**
Authors: Geraldine P. Cercado; Kevin Fritz Amalz; Angela Ivy Dy; Noel Pilipinas; Ghanshyam Joshi; Mia Coleen Lao; Raymond Moscoso; Daryl Bess Pasco; Fritz Gerard Quirante; Raiza Mae Rodriguez; Rachelle Marie Sy
Cebu Institute of Medicine

Special Award - Consortium Website Award
Region 11 Health Research Development Consortium
Website: http://region11.healthresearch.ph

Special Award - Consortium Database Award
Cebu Doctors' University

Certificate of Accreditation LEVEL III
Davao Doctors' Institutional Ethics Review Board

2014 DOST – PCHRD – Gruppo Medica Award for Outstanding Undergraduate Thesis in Herbal Medicine

1st Place
Thesis Title: **"The Anti-Dengue Potentials of the Quercetin Fraction of Tawa-Tawa (Euphorbia hirta) Whole Plant and Papaya (Carica papaya) Leaves Tea Preparation Using the Laboratory Criteria: Platelet Count and Hematocrit Levels"**
Authors: Dave Eric P. Erosa, Hazel Mae S. Lawas, Rachel Mae L. Nengasca, Lua Edme I. Eugenio, Harvey P. Tadle, and Jann Camina H.
Adviser: Professor Fatima May R. Tesoro
San Pedro College

2nd Place
Thesis Title: **"The Anti-Urolithiatic Activity of the Tundan Saging (Musa Paradisiaca Linn.) Pseudo-Stem Capsule in Ethylene Glycol-Induced Albino Rats (Rattus norvegicus): A Potential Preventing Agent for Kidney Stone Formation"**
Authors: Fannie Jay G. Batua, Benjamin Francis P. Fernandez, Brendel John T. Roa, and Kariza V. Tan
Adviser: Professor Fatima May R. Tesoro
San Pedro College

3rd Place
Thesis Title: **"The Anxiolytic Activity of Kaempferol Fraction from Busikad (Kyllingo brevifolia) Leaves in Capsule Formulation"**
Authors: Diana Jane Cadiatan, Judith Abad, Mahannah P. Bale, Katreena Marie A. Brillante, Charlene S. Ganason, and Ricca Blanca M. Guardados
Adviser: Professor Fatima May R. Tesoro
San Pedro College

2014 Alberto G. Romualdez, Jr. Outstanding Health Research Award (AROHRA) (Health Services Research Category)

Neglected Tropical Disease Study Group of the National Institute of Health
College of Public Health, University of the Philippines Manila

8TH PHILIPPINE NATIONAL HEALTH RESEARCH SYSTEM WEEK CELEBRATION
AUGUST 13 - 14, 2014

Rappler's CEO, Maria Ressa

MARIA RESSA ON SOCIAL MEDIA

Rappler's CEO Maria Ressa expressed how social media played important roles during emergencies and disasters. In fact, she acknowledges social media as an important tool in extracting information during such situations.

As social media involves humans and their activities, they become sources of an enormous amount of information which is accurately expressing emotions. According to Ressa, 80% of our decisions are not based on what we think, but rather based on what we feel.

Project AGOS, a project launched by Rappler, which basically uses the "wisdom of the crowd" was also presented by Ressa. Through the use of crowdsourcing, inputs from the people in a certain area, in need of emergency or during disaster can be assisted in the quickest way possible without wasting valuable resources.

Accordingly, "Project Agos is a platform that combines top down government action and bottom up civic engagement to help communities deal with climate change adaptation and disaster risk reduction. It harnesses technology to maximize the flow of critical data before, during, and after a disaster."

The most significant design of big data as surveillance tools during emergencies and disasters is its crowdsourcing attribute, enabling collaboration among community members and concerned citizens.

SCIENCE FOR DISASTER MANAGEMENT: SAFEGUARDING PEOPLE'S HEALTH

The plenary session focused on the role of science, research and innovations for disaster management. Experts on the field shared their lessons and approaches to safeguard the health of individuals from possible effects of disaster aftermaths.

Dr. Lester S.A. Geroy, Team Leader of WHO Cebu Field Officer for Post Haiyan Recovery, WHO Philippines, imparted the effective strategic approach in disaster preparedness.

Dr. Geroy provided the areas for improvement from post Yolanda experience such as Logistic/Finance Capabilities, Resilience of Hospitals and Health Facilities, Policies and Planning as well as Incident Command System on all levels of Society. In his experience, certain agencies such as World Health Organization (WHO) and the local government collaborated for strategic approaches including Health Emergency Management System. The efforts of the agencies and the communities have contributed to the rehabilitation program in crisis-stricken areas.

Meanwhile, Dr. Cecila D. Acuin, of the Food and Nutrition Research Institute (FNRI) gave the participants insights about emergency food and the relevance of assessing the health status of Filipinos during emergencies.

FNRI discussed about emergency food to help guarantee sustenance among disaster victims. Though regarded as immediate relief, packs of biscuits, porridge, canned goods and bottled water are best examples for quick, easy-to-serve and high in energy sources recommended to be distributed during emergencies.

Dr. Acuin also presented Momsie, a peanut-like packaged food launched last July 26, 2014 by FNRI. The complementary food for children from 6 months to 3 years old is an affordable emergency food packed with high protein and nutrients.

RXBOX AS A REMOTE MEDICAL CONSULTATION

An innovation in biotechnology makes remote medical consultation and storage of patient's medical information possible. Aside from digitally storing the names of the patient, the RxBox has built-in sensors, two of which can obtain and record blood pressure and pulse rate.

The RxBox unit has made use of technology to enable medical professionals to collect medical information in community level including isolated locations in provincial towns.

Wouldn't it be great if having a doctor's appointment means going paperless and retrieving your files doesn't mean that the secretary would spent countless minutes in locating for them?

Dr. Kristine Mae P. Magtubo, the project manager of RxBox unit in National Telehealth Center shared the wonders RxBox unit has made in towns in Bohol.

Apart from her experience as a doctor to the barrios using the RxBox unit, Dr. Magtubo has learned 3 things in assessing the crisis and effectively implement disaster and emergency management: 1. For the health system to respond to a crisis, it must survive the crisis. 2. Effective does not have to mean expensive. 3. Building back better (after a disaster) is better with a partner.

ALBAY, A MODEL FOR EFFECTIVE DISASTER PREPAREDNESS

Mr. Abundio Nuñez, Jr., Chief Plans and Operations Division, Province of Albay presented the topic: *A Leader's Science Toolkit for Disaster Preparedness: The Case of Albay.*

Though Mr. Nuñez remarked that the Philippines was considered the vatican of disasters, the possibility of zero casualty would be attainable if disaster preparedness and actions would be in place.

The local government units of Albay with the help of participating agencies have made strides and strategies to minimize casualties and to possibly attain zero casualties in the province. this

The case of Albay in attaining zero casualties during the recent typhoon Glenda is an example of effective disaster preparedness implementation in the local government level.

MINDANAO CLUSTER
Cluster Presentation Grand Winner

FELLOWSHIP NIGHT

The fellowship night started with a bang!

While showing Cebu's many tourist attractions, guests were serenade with tribal beats giving the venue a very festive vibe.

In his opening remarks, Fr. Dionisio Miranda, President of the University of San Carlos expressed his utmost appreciation to all the delegates who have come from the different islands of the Philippines. He stressed the essential role of these researchers and eager participants who converged to impart their expertise and learn from each other on the developments related to health.

Cebu City Mayor Michael Rama being the special guest of the night sang songs to futher convey his appreciation to all participants. "The Way You You Look Tonight", "How Did You Know" and "Kahit Isang Sagit" were songs that he sang to fill the night of every participant as his way of thanking them of choosing Cebu City as the main destination of the conduct of this year's PNHRS.

The night also include performances from the different clusters in which Mindanao Cluster bagged the prize of P15,000 cash as the grand winner.

PHOTO GALLERY: EVENT HIGHLIGHTS


Participants of the 8th Philippine National Health Research System (PNHRS) Week Celebration line up at the registration area. More than 600 participants converge in Cebu City to attend the event.




University of Cebu Dance Troupe welcomes participants of the 8th Philippine National Health Research System (PNHRS) Week through the Sinulog, a ritual dance of Cebu in honor of Santo Niño.


(Left) Pictured at the 8th Philippine National Health Research System (PNHRS) Week Celebration Ribbon Cutting and Opening of Poster Exhibits are: Prof. Virginia Murray, UNISDR Vice Chair; Dr. Thelma Fernandez, CVCHRD Vice Chair; Dr. Enrico Gruet, CVCHRD Chair; Usec. Carol Yorobe, DOST Undersecretary for Regional Operations; Dr. Jaime Montoya, PCHRD Executive Director and Dr. Danilo Largo, CVCHRD Execom Chair. (Right) The ceremony was followed by the viewing of the poster exhibits.




The Opening Ceremonies commenced (clockwise from top left) as the University of Cebu Officer Cadets and Colors march off while the key personalities queue up for the processional. The Opening Ceremonies of the 8th Philippine National Health Research System (PNHRS) Week Celebration is graced by Secretary Panfilo Lacson, Presidential Assistant for Rehabilitation and Recovery.

Different stakeholders in health R&D attended the two-and-a-half day conference. Parallel and Plenary Sessions is centered on the theme, *"Research and Innovation in Health for Disaster and Emergency Management."*

Speakers share their expertise focusing in disaster and health emergency management. (Clockwise from top left) Dr. Raquel Fortun discuss on Disaster Victim Identification; Dr. Marita V.T. Reyes on Ethical Issues on Research in Disaster Areas; Ms. Lenie Alegre on the Government's Response and Coordination to disaster (in relation to health); Ms. Maria Ressa on Big Data as Surveillance Tools during Emergencies and Disasters; and Prof. Shinichi Egawa on Tohoku University and the Great East Japan Earthquake.

Cebu City Mayor, Hon. Michael Rama serenades participants of the 8th Philippine National Health Research System (PNHRS) Week during the Fellowship Night.

The 17 Regional Health Research Consortia group into clusters showcase their talents through different performances during the Fellowship Night of 8th Philippine National Health Research System (PNHRS) Week Celebration.

MEMBERS OF THE ORGANIZING COMMITTEE

Committee	CVCHRD	PCHRD/PNHRS
Organizing Committee	Chair: Dr. Enrico B. Gruet, CDU Members: Dr. Thelma L. Fernandez, CIM Engr. Edilberto L. Paradela, DOST 7 Dr. Danilo B. Largo, USC Dr. Debbie O. Abdul, CDU Dr. Melfer R. Montoya, CIM Dr. Virginia Mollaneda, SWU	Co-Chair: Dr. Jaime C. Montoya, PCHRD Members: Dr. Lilibeth C. David, DOH-HPDPB Dr. Napoleon K. Juanillo, Jr., CHED Dr. Generoso T. Abes, UP Manila Ms. Merlita M. Opeña, PCHRD
Program	Chair: Dr. Thelma L. Fernandez, CIM Members: Dr. Enrico B. Gruet, CDU Dr. Melfer R. Montoya, CIM Dr. Debbie O. Abdul, CDU Dr. Manuel Emerson S. Donaldo, CIM Dr. Josie Ann Danes, DOH-CHD 7 Dr. Daisy R. Palompon, CNU Dr. Bernardina Regner, GMCOM Dr. Leovigildo Manalo, SWU	Co-Chair: Ms. Merlita M. Opeña Members: Dr. Antonio D. Ligsay Ms. Carina L. Rebulanan Ms. Ullyann C. Garcia Ms. Ana Ciaren H. Itulid Mr. Vincent John H. Tumlos
Student Research Competition	Chair: Dr. Debbie O. Abdul, CDU Members: Dr. Corazon Meneses, CIM Mr. Max Duenas, CDU Ms. Maria Fe Abejar, CDU Ms. Jillian Bejoc, CNU Ms. Judy Ann Gimena, UC Mr. Christian Anuta, HNU Dr. Robert Guino-o, SU	Co-Chair: Ms. Kristine Dominique M. Zamora
Regional Research Presentation	Chair: Dr. Debbie O. Abdul, CDU	Co-Chair: Ms. Carina L. Rebulanan Members: Ms. Anicia P. Catameo Ms. Sheryl Joyce Grijaldo Ms. Paula Jane America Ms. Lucila Roja
Overall Exhibits	Chair: Dr. Melfer R. Montoya, CIM Member: Ms. Krissette Grace Campilan, DOST 7	Co-Chair: Ms. Kristine Dominique M. Zamora
Registration	Chair: Ms. Karen Gladys Delizo, DOST 7 Members: Ms. Johanna Cempron, DOST 7 Mr. Reymund Dayon, DOST 7 Ms. Ferdalin Omamalin, DOST 7 Ms. Joy Baguio, UB Ms. Jica Ceszaraine Pacatang, UB Mr. Angelo Yuayan, HNU Ms. Ailen Doongog, CITU Dr. Sandro Villarea, CITU	Co-Chair: Ms. Ma. Violeta G. Intia Members: Mr. Christian Anthony Vios Ms. Mylene B. Marco Ms. Carla Mae Desano
Invitation	Chair: Ms. Krissette Grace Campilan, DOST 7	Chair: Ms. Joana J. Angostora Members: Ms. Ma. Violeta G. Intia Ms. Michelle Estera, Mr. Christian Anthony Vios Ms. Mylene B. Marco Ms. Carla Mae Desano Ms. Anicia P. Catameo Ms. Wilma Santos

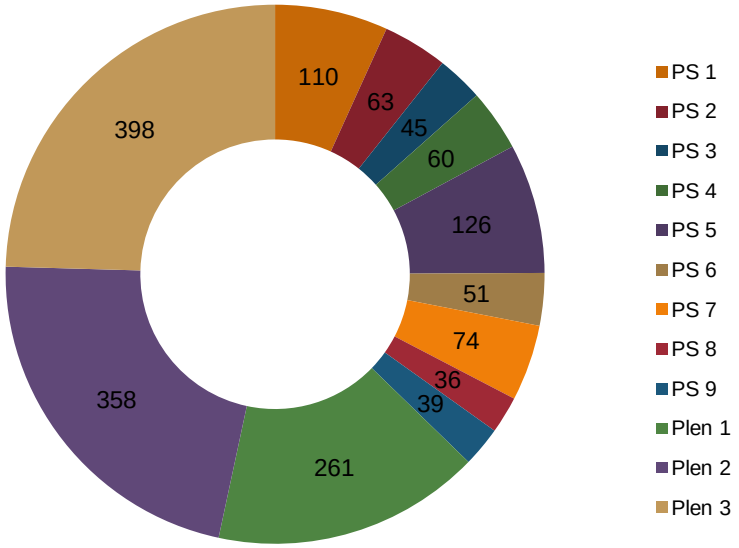
Publicity/Promotions/ Media Documentation	Chair: Ms. Yvette Hope Labus, DOST 7 Member: Ms. Krissette Grace Campilan, DOST 7 Ms. Ronya Mae Bayan, DOST 7	Chair: Ms. Ana Ciaren H. Itulid Members: Ms. Jessica Marie Suerte Ms. Hope R. Bongolan
Reception and Ushering	Chair: Dr. Daisy Palompon, CNU Co-Chair: Dr. Mauro Allan Amparado, UC Members: Ms. Kara Kristine Pino, UC Ms. Olive Therese Perral, UC Mr. Evan Jaime Narvasa, UC Ms. Janica Jean Madrigal, UC Ms. Eilaine Sarah Ariza, UC Ms. Rose Pelia Ocariza, UC Ms. Heather Hao, UC Ms. Tiffany Hao, UC Ms. Melorens Dumas, UC Ms. Lorei Mhel Mayol, UC	Co-Chair: Ms. Wilma I. Santos Members: Ms. Sabrina Arra Elechosa Ms. Joana Angostora Ms. Lucila Roja
Venue and Food	Chair: Ms. Krissette Grace Campilan, DOST 7	Chair: Ms. Maria C. Orogo Members: Ms. Ma. Violeta G. Intia Ms. Wilma Santos Mr. Renante Bahala
Tokens and Kits	Chair: Dr. Gloria T. Casabal, UB Co-Chair: Ms. Maria Paz T. Espiritu, HNU	Co-Chair: Ms. Mylene B. Marco Member: Mr. Leo Nuyda
Session Documentation	Chair: Ms. Ronya Mae Bayan, DOST 7 Members: Dr. Virginia Mollaneda, SWU Ms. Cristita Lanticse, USC Ms. Maria Arleen Arnejo, DOST 7 Ms. Emeline Baco, CDU Ms. Barbara Faura, CIM Ms. Rosalina Dinoy, SU	Chair: Ullyann C. Garcia Co-Chair: Ms. Janice A. Lopez Members: Ms. Jessica Marie Suerte Ms. Ma. Cristina Cadag Mr. Mark Joseph Tano Ms. Marie Jeanne Berroya Ms. Sheryl Joyce Grijaldo Mr. Nico Angelo Parungao
Evaluation	Chair: Dr. Virginia Mollaneda, SWU Members: Ms. Cristita Lanticse, USC Ms. Maria Arleen Arnejo, DOST 7 Ms. Emeline Baco, CDU Ms. Barbara Faura, CIM	Co-Chair: Ms. Ma. Cristina Cadag Members: Mr. Mark Joseph Tano Ms. Kristine Dominique M. Zamora Ms. Ma. Cristina Cadag
Fellowship Night and Welcome Dinner	Chair: Dr. Danilo B. Largo, USC Members: Ms. Celeste Villaluz, USC Mr. Julianito Joseph Masna, USC	Co-Chair: Ms. Wilma Santos Members: Ms. Marie Jeanne Berroya Ms. Paula Jane America
Physical Arrangement and Logistics Support	Chair: Dr. Malou Viray, CIM Members: Mr. Cylfor Putong, SU Ms. Judith Ismael, CITU Ms. Cyrille Panimdim, CITU	Chair: Mr. Renante G. Bahala Members: Mr. Joshua Ababa Mr. Christian Anthony Vios
ICT Support	Chair: Mr. Sherwin Mariquit, DOST 7 Member: Mr. Eliezer Serra, DOST 7	Chair: Mr. Joshua Ababa Members: Mr. Renante G. Bahala Mr. Christian Anthony Vios Mr. Ronel Molina Mr. Jerome Lavapie
Travel and Accommodation	Chair: Ms. Rica Cadlawon, DOST 7 Members: Ms. Krissette Grace Campilan, DOST 7 Mr. Joel Legaspi, DOST 7	Chair: Ms. Eliza D. Manalo Member: Ms. Sylvia Ocon

Ways and Means	Chair: Dr. Danilo B. Largo, USC Member: Ms. Krissette Grace Campilan, DOST 7	Co-Chair: Mr. Edgar F. Ortiz Members: Mr. Christen Castillo Mr. Reinier Cajigas Ms. Sylvia Ocon Mr. Diego Hernandez
Regional Products Bazaar	Chair: Ms. Ana Jean Jumawan, DOST 7 Member: Ms. Ellen Joy Mariquit, DOST 7	
Tours	Chair: Dr. Daisy Palompon, CNU	
Secretariat Room	Chair: Ms. Leizil Mauring, CHED RO7 Members: Dr. Josie Ann Danes, DOH-CHD 7 Ms. Myrna Villafranca Nuñez, DOH-CHD 7 Ms. Ms. Verbina Estrada, DOH-CHD 7	
Health Emergency	Chair: Dr. Enrico B. Gruet, CDU	
Security	Chair: Dr. Leovigildo Manalo, SWU	

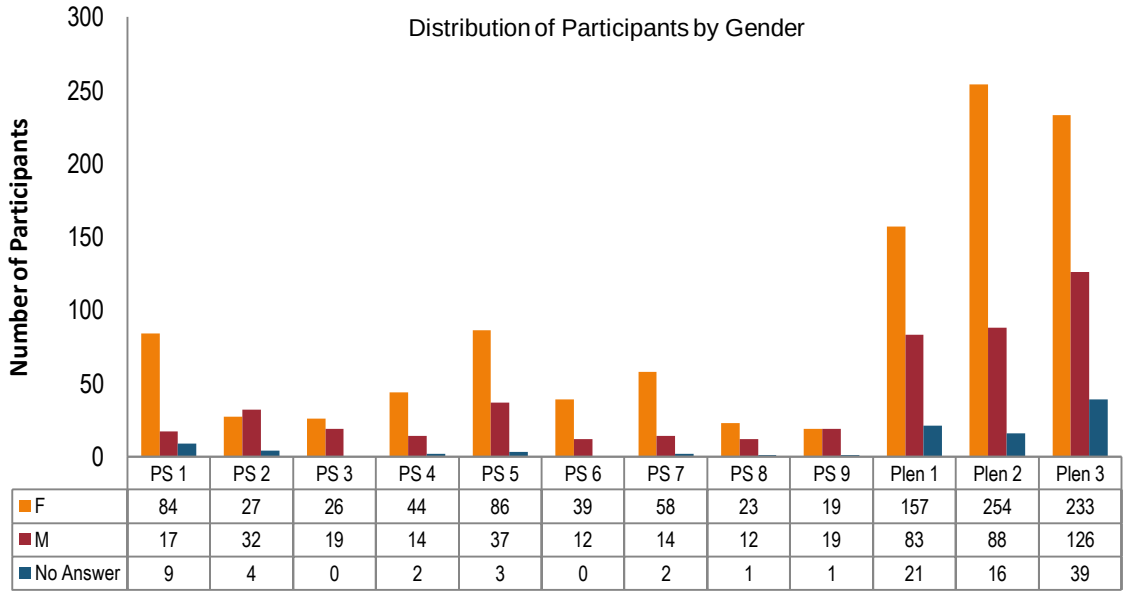
CONFERENCE EVALUATION

CONFERENCE EVALUATION

Participants were asked at the end of each session to complete an evaluation form giving their assessment on the lecture and materials presented. This will enable conference organizers to evaluate the conference and respond to the participants' interests and needs when planning future activities. Of the number of attendees in the conference, 110 evaluation forms for Parallel Session 1; 63 evaluation forms for Parallel Session 2; 45 evaluation forms for Parallel Session 3; 60 evaluation forms for Parallel Session 4; 126 evaluation forms for Parallel Session 5; 51 evaluation forms for Parallel Session 6; 74 evaluation forms for Parallel Session 7; 36 evaluation forms for Parallel Session 8; 39 evaluation forms for Parallel Session 9; 261 evaluation forms for Plenary Session 1; 358 evaluation forms for Plenary Session 2 and 398 evaluations forms for Plenary Session 3 were completed and returned.

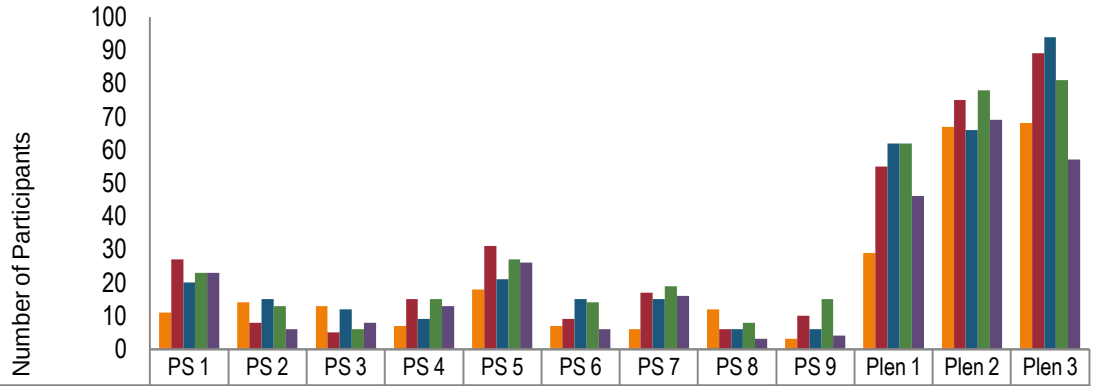


PROFILE OF PARTICIPANTS



	PS 1	PS 2	PS 3	PS 4	PS 5	PS 6	PS 7	PS 8	PS 9	Plen 1	Plen 2	Plen 3
F	84	27	26	44	86	39	58	23	19	157	254	233
M	17	32	19	14	37	12	14	12	19	83	88	126
No Answer	9	4	0	2	3	0	2	1	1	21	16	39

Distribution of Participants by Age



	PS 1	PS 2	PS 3	PS 4	PS 5	PS 6	PS 7	PS 8	PS 9	Plen 1	Plen 2	Plen 3
20-25	11	14	13	7	18	7	6	12	3	29	67	68
26-35	27	8	5	15	31	9	17	6	10	55	75	89
36-45	20	15	12	9	21	15	15	6	6	62	66	94
46-55	23	13	6	15	27	14	19	8	15	62	78	81
56 and above	23	6	8	13	26	6	16	3	4	46	69	57

Distribution of Participants by Affiliation

SECTORS	PS1:		PS2:		PS3:		PS4:		PS 5:		PS 6:		PS 7:		PS 8:		PS 9:		Plenary 1:		Plenary 2:		Plenary 3:	
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Government Sector																								
Academe	42	38.2	29	46.0	9	20.0	20	33.3	40	31.7	17	33.3	23	31.1	9	25.0	11	28.2	101	38.7	125	34.9	111	27.9
NGA	9	8.2	3	4.8	6	13.3	17	28.3	20	15.9	4	7.8	15	20.3	2	5.6	3	7.7	25	9.6	41	11.5	54	13.6
Others	2	1.8	3	4.8	2	4.4	5	8.3	1	0.8	1	2.0	1	1.4		0.0	1	2.6	5	1.9	10	2.8	9	2.3
Private Sector																								
Academe	38	34.5	26	41.3	26	57.8	17	28.3	53	42.1	29	56.9	26	35.1	19	52.8	21	53.8	93	35.6	156	43.6	175	44.0
Research Ins.	2	1.8	0	0.0	2	4.4	0	0.0	7	5.6	0	0.0	2	2.7	0	0.0	1	2.6	6	2.3	10	2.8	11	2.8
Prof. Org.	6	5.5	0	0.0	0	0.0	0	0.0	1	0.8	0	0.0	5	6.8	0	0.0	1	2.6	5	1.9	11	3.1	6	1.5
Industry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.4	0	0.0	0	0.0	1	0.4	2	0.6	4	1.0
People's Org	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Int'l Org	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Others	1	0.9	2	3.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	13.9	1	2.6	6	2.3	1	0.3	13	3.3
No Answer	10	9.1	0	0.0	0	0.0	1	1.7	4	3.2	0	0.0	1	1.4	1	2.8	0	0.0	19	7.3	2	0.6	14	3.5
TOTAL	**110**	**100**	**63**	**100**	**45**	**100**	**60**	**100**	**126**	**100**	**51**	**100**	**74**	**100**	**36**	**100**	**39**	**100**	**261**	**100**	**358**	**100**	**398**	**100**

SATISFACTION LEVEL

The evaluation included indicators/factors appraising the topics, speakers and the venue for the conference. The tables below show the range of ratings given by the participants.

Table 2.1 Parallel Session 1: Lessons from Typhoons Yolanda and Pablo

\Indicators/ Factors	Ratings													
	5		4		3		2		1		No answer		TOTAL	
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree					
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*F*	*%*
Objectives of the session were clear and logical	52	47.3	53	48.2	4	3.64	1	0.91	0	0	0	0	110	100
Content of session was relevant	57	51.8	45	40.9	6	5.45	2	1.82	0	0	0	0	110	100
Visual aids used were appropriate	48	43.6	47	42.7	12	10.9	3	2.73	0	0	0	0	110	100
Presenter was knowledgeable	47	42.7	52	47.3	10	9.09	1	0.91	0	0	0	0	110	100
Presenter provided clear answers/comments	40	36.4	61	55.5	9	8.18	0	0.00	0	0	0	0	110	100
Reactors' comments were relevant, thought-provoking and informative	41	37.3	56	50.9	12	10.91	1	0.91	0	0	0	0	110	100
Facilitator/moderator encouraged participation	37	33.6	58	52.7	13	11.8	2	1.82	0	0	0	0	110	100
Interaction with others was beneficial	64	58.2	38	34.5	6	5.5	2	1.82	0	0	0	0	110	100
Reception/Registration went smoothly	83	75.5	23	20.9	4	3.64	0	0.00	0	0	0	0	110	100
Venue / facilities were appropriate	79	71.8	28	25.5	2	1.82	1	0.91	0	0	0	0	110	100
Food served was acceptable	75	68.2	33	30.0	1	0.91	0	0.00	1	0.91	0	0	110	100

Table 2.1.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
Objectives of the session were clear and logical	4.42	Very Satisfactory
Content of session was relevant	4.43	Very Satisfactory
Visual aids used were appropriate	4.27	Very Satisfactory
Presenter was knowledgeable	4.32	Very Satisfactory
Presenter provided clear answers/comments	4.28	Very Satisfactory
Reactors' comments were relevant, thought-provoking and informative	4.25	Very Satisfactory
Facilitator/moderator encouraged participation	4.18	Very Satisfactory
Interaction with others was beneficial	4.49	Very Satisfactory
Reception/Registration went smoothly	4.72	Very Satisfactory
Venue / facilities were appropriate	4.68	Very Satisfactory
Food served was acceptable	4.65	Very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

Table 2.2 Parallel Session 2: Response to Manmade and Natural Disasters: Bioterrorism and Earthquake

Indicators/ Factors	Ratings													
	5		4		3		2		1		No answer		TOTAL	
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree					
	f	*%*	*f*	*%*	*f*	*%*	*F*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
Objectives of the session were clear and logical	35	55.6	26	41.3	2	3.17	0	0	0	0	0	0	63	100
Content of session was relevant	46	73.0	17	27.0	0	0.00	0	0	0	0	0	0	63	100
Visual aids used were appropriate	27	42.9	31	49.2	5	7.9	0	0	0	0	0	0	63	100
Presenter was knowledgeable	39	61.9	23	36.5	1	1.59	0	0	0	0	0	0	63	100
Presenter provided clear answers/comments	36	57.1	20	31.7	7	11.11	0	0	0	0	0	0	63	100
Reactors' comments were relevant, thought-provoking and informative	27	42.9	30	47.6	6	9.52	0	0	0	0	0	0	63	100
Facilitator/moderator encouraged participation	32	50.8	29	46.0	2	3.17	0	0	0	0	0	0	63	100
Interaction with others was beneficial	35	55.6	23	36.5	5	7.94	0	0	0	0	0	0	63	100
Reception/Registration went smoothly	39	61.9	23	36.5	1	1.59	0	0	0	0	0	0	63	100
Venue / facilities were appropriate	34	54.0	27	42.9	2	3.17	0	0	0	0	0	0	63	100
Food served was acceptable	37	58.7	24	38.1	2	3.17	0	0	0	0	0	0	63	100

Table 2.2.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
Objectives of the session were clear and logical	4.52	Very Satisfactory
Content of session was relevant	4.73	Very Satisfactory
Visual aids used were appropriate	4.35	Very Satisfactory
Presenter was knowledgeable	4.60	Very Satisfactory
Presenter provided clear answers/comments	4.46	Very Satisfactory
Reactors' comments were relevant, thought-provoking and informative	4.33	Very Satisfactory
Facilitator/moderator encouraged participation	4.48	Very Satisfactory
Interaction with others was beneficial	4.48	Very Satisfactory
Reception/Registration went smoothly	4.60	Very Satisfactory
Venue / facilities were appropriate	4.51	Very Satisfactory
Food served was acceptable	4.56	very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

Table 2.3 Parallel Session 3: Student Research Competition

Indicators/ Factors	Ratings													
	5		4		3		2		1		No answer		TOTAL	
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree					
	f	%	*f*	%	*f*	%	*F*	%	*f*	%	*f*	%	*f*	%
Objectives of the session were clear and logical	25	55.6	20	44.4	0	0	0	0	0	0	0	0	45	100
Content of session was relevant	23	51.1	20	44.4	2	4.55	0	0	0	0	0	0	45	100
Visual aids used were appropriate	20	44.4	25	55.6	0	0	0	0	0	0	0	0	45	100
Presenter was knowledgeable	17	37.8	27	60.0	1	2	0	0	0	0	0	0	45	100
Presenter provided clear answers/comments	15	33.3	28	62.2	2	4.44	0	0	0	0	0	0	45	100
Reactors' comments were relevant, thought-provoking and informative	22	48.9	22	48.9	1	2	0	0	0	0	0	0	45	100
Facilitator/moderator encouraged participation	12	26.7	25	55.6	8	17.78	0	0	0	0	0	0	45	100
Interaction with others was beneficial	17	37.8	23	51.1	5	11.11	0	0	0	0	0	0	45	100
Reception/Registration went smoothly	23	51.1	21	46.7	1	2.22	0	0	0	0	0	0	45	100
Venue / facilities were appropriate	28	62.2	16	35.6	1	2	0	0	0	0	0	0	45	100
Food served was acceptable	22	48.9	23	51.1	0	0	0	0	0	0	0	0	45	100

Table 2.3.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
Objectives of the session were clear and logical	4.56	Very Satisfactory
Content of session was relevant	4.45	Very Satisfactory
Visual aids used were appropriate	4.44	Very Satisfactory
Presenter was knowledgeable	4.36	Very Satisfactory
Presenter provided clear answers/comments	4.29	Very Satisfactory
Reactors' comments were relevant, thought-provoking and informative	4.47	Very Satisfactory
Facilitator/moderator encouraged participation	4.09	Satisfactory
Interaction with others was beneficial	4.27	Very Satisfactory
Reception/Registration went smoothly	4.49	Very Satisfactory
Venue / facilities were appropriate	4.60	Very Satisfactory
Food served was acceptable	4.49	Very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

Table 2.4 Parallel Session 4: National Assessment of Health Research Capacity

Indicators/ Factors	Ratings													
	5		4		3		2		1		No answer		TOTAL	
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree					
	f	*%*	*f*	*%*	*f*	*%*	*F*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
Objectives of the session were clear and logical	28	46.7	30	50.0	2	3.33	0	0	0	0	0	0	60	100
Content of session was relevant	32	53.3	25	41.7	3	5.00	0	0	0	0	0	0	60	100
Visual aids used were appropriate	26	43.3	30	50.0	4	6.67	0	0	0	0	0	0	60	100
Presenter was knowledgeable	33	55.0	24	40.0	3	5.00	0	0	0	0	0	0	60	100
Presenter provided clear answers/comments	29	48.3	28	46.7	3	5.00	0	0	0	0	0	0	60	100
Reactors' comments were relevant, thought-provoking and informative	29	48.3	29	48.3	2	3.33	0	0	0	0	0	0	60	100
Facilitator/moderator encouraged participation	25	41.7	29	48.3	5	8.33	1	1.67	0	0	0	0	60	100
Interaction with others was beneficial	33	55.0	24	40.0	3	5.00	0	0	0	0	0	0	60	100
Reception/Registration went smoothly	40	66.7	18	30.0	2	3.33	0	0	0	0	0	0	60	100
Venue / facilities were appropriate	35	58.3	22	36.7	3	5.00	0	0	0	0	0	0	60	100
Food served was acceptable	42	70.0	16	26.7	2	3.33	0	0	0	0	0	0	60	100

Table 2.4.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
Objectives of the session were clear and logical	4.43	Very Satisfactory
Content of session was relevant	4.48	Very Satisfactory
Visual aids used were appropriate	4.37	Very Satisfactory
Presenter was knowledgeable	4.50	Very Satisfactory
Presenter provided clear answers/comments	4.43	Very Satisfactory
Reactors' comments were relevant, thought-provoking and informative	4.45	Very Satisfactory
Facilitator/moderator encouraged participation	4.30	Very Satisfactory
Interaction with others was beneficial	4.50	Very Satisfactory
Reception/Registration went smoothly	4.63	Very Satisfactory
Venue / facilities were appropriate	4.53	Very Satisfactory
Food served was acceptable	4.67	Very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

Table 2.5 Parallel Session 5: Ethical Issues in Research in Disaster Areas

Indicators/ Factors	Ratings													
	5		4		3		2		1		No answer		TOTAL	
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree					
	f	*%*	*f*	*%*	*f*	*%*	*F*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
Objectives of the session were clear and logical	92	73.0	34	27.0	0	0	0	0	0	0	0	0	126	100
Content of session was relevant	94	74.6	31	24.6	1	1	0	0	0	0	0	0	126	100
Visual aids used were appropriate	75	59.5	46	36.5	5	3.97	0	0	0	0	0	0	126	100
Presenter was knowledgeable	91	72.2	32	25.4	3	2.38	0	0	0	0	0	0	126	100
Presenter provided clear answers/comments	86	68.3	36	28.6	4	3.17	0	0	0	0	0	0	126	100
Reactors' comments were relevant, thought-provoking and informative	78	61.9	45	35.7	3	2.38	0	0	0	0	0	0	126	100
Facilitator/moderator encouraged participation	72	57.1	47	37.3	6	4.76	1	0.794	0	0	0	0	126	100
Interaction with others was beneficial	84	66.7	39	31.0	3	2.38	0	0	0	0	0	0	126	100
Reception/Registration went smoothly	88	69.8	38	30.2	0	0	0	0	0	0	0	0	126	100
Venue / facilities were appropriate	93	73.8	30	23.8	2	1.59	1	0.79	0	0	0	0	126	100
Food served was acceptable	81	64.3	44	34.9	1	0.79	0	0	0	0	0	0	126	100

Table 2.5.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
Objectives of the session were clear and logical	4.73	Very Satisfactory
Content of session was relevant	4.74	Very Satisfactory
Visual aids used were appropriate	4.56	Very Satisfactory
Presenter was knowledgeable	4.70	Very Satisfactory
Presenter provided clear answers/comments	4.65	Very Satisfactory
Reactors' comments were relevant, thought-provoking and informative	4.60	Very Satisfactory
Facilitator/moderator encouraged participation	4.51	Very Satisfactory
Interaction with others was beneficial	4.64	Very Satisfactory
Reception/Registration went smoothly	4.70	Very Satisfactory
Venue / facilities were appropriate	4.71	Very Satisfactory
Food served was acceptable	4.63	Very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

Table 2.6 Parallel Session 6: Professional Research Competition

Indicators/ Factors	Ratings													
	5 Strongly Agree		4 Agree		3 Neutral		2 Disagree		1 Strongly Disagree		No answer		TOTAL	
	f	%	*f*	%	*f*	%	*F*	%	*f*	%	*f*	%	*f*	%
Objectives of the session were clear and logical	32	62.7	16	31.4	2	3.92	0	0	1	1.96	0	0	51	100
Content of session was relevant	26	51.0	21	41.2	3	5.88	0	0	1	1.96	0	0	51	100
Visual aids used were appropriate	24	47.1	23	45.1	3	5.88	0	0	1	1.96	0	0	51	100
Presenter was knowledgeable	24	47.1	23	45.1	3	5.88	0	0	1	1.96	0	0	51	100
Presenter provided clear answers/comments	21	41.2	24	47.1	4	7.84	0	0	1	1.96	1	1.96	51	100
Reactors' comments were relevant, thought-provoking and informative	25	49.0	20	39.2	5	9.80	0	0	1	1.96	0	0	51	100
Facilitator/moderator encouraged participation	23	45.1	20	39.2	4	7.84	3	5.88	0	0	1	1.96	51	100
Interaction with others was beneficial	23	45.1	22	43.1	3	5.88	1	1.96	0	0	2	3.92	51	100
Reception/Registration went smoothly	31	60.8	19	37.3	0	0.00	1	1.96	0	0	0	0	51	100
Venue / facilities were appropriate	30	58.8	20	39.2	1	1.96	0	0	0	0	0	0	51	100
Food served was acceptable	28	54.9	21	41.2	2	3.92	0	0	0	0	0	0	51	100

Table 2.6.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
Objectives of the session were clear and logical	4.53	Very Satisfactory
Content of session was relevant	4.39	Very Satisfactory
Visual aids used were appropriate	4.35	Very Satisfactory
Presenter was knowledgeable	4.35	Very Satisfactory
Presenter provided clear answers/comments	4.20	Very Satisfactory
Reactors' comments were relevant, thought-provoking and informative	4.33	Very Satisfactory
Facilitator/moderator encouraged participation	4.18	Very Satisfactory
Interaction with others was beneficial	4.20	Very Satisfactory
Reception/Registration went smoothly	4.57	Very Satisfactory
Venue / facilities were appropriate	4.57	Very Satisfactory
Food served was acceptable	4.51	Very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

Table 2.7 Parallel Session 7: Individual and Community Responses to Disaster

Indicators/ Factors	Ratings													
	5		4		3		2		1		No answer		TOTAL	
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree					
	f	*%*	*f*	*%*	*f*	*%*	*F*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
Objectives of the session were clear and logical	53	71.6	21	28.4	0	0.00	0	0	0	0	0	0	74	100
Content of session was relevant	53	71.6	21	28.4	0	0.00	0	0	0	0	0	0	74	100
Visual aids used were appropriate	52	70.3	22	29.7	0	0.00	0	0	0	0	0	0	74	100
Presenter was knowledgeable	48	64.9	26	35.1	0	0.00	0	0	0	0	0	0	74	100
Presenter provided clear answers/comments	52	70.3	21	28.4	1	1.35	0	0	0	0	0	0	74	100
Reactors' comments were relevant, thought-provoking and informative	43	58.1	28	37.8	3	4.05	0	0	0	0	0	0	74	100
Facilitator/moderator encouraged participation	46	62.2	26	35.1	2	2.70	0	0	0	0	0	0	74	100
Interaction with others was beneficial	42	56.8	28	37.8	4	5.41	0	0	0	0	0	0	74	100
Reception/Registration went smoothly	46	62.2	28	37.8	0	0.00	0	0	0	0	0	0	74	100
Venue / facilities were appropriate	47	63.5	26	35.1	1	1.35	0	0	0	0	0	0	74	100
Food served was acceptable	47	63.5	26	35.1	1	1.35	0	0	0	0	0	0	74	100

Table 2.7.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
Objectives of the session were clear and logical	4.72	Very Satisfactory
Content of session was relevant	4.72	Very Satisfactory
Visual aids used were appropriate	4.70	Very Satisfactory
Presenter was knowledgeable	4.65	Very Satisfactory
Presenter provided clear answers/comments	4.69	Very Satisfactory
Reactors' comments were relevant, thought-provoking and informative	4.54	Very Satisfactory
Facilitator/moderator encouraged participation	4.59	Very Satisfactory
Interaction with others was beneficial	4.51	Very Satisfactory
Reception/Registration went smoothly	4.62	Very Satisfactory
Venue / facilities were appropriate	4.62	Very Satisfactory
Food served was acceptable	4.62	Very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

Table 2.8 Parallel Session 8: Workshop - Organizing Response to Emergency and Health Care Delivery

Indicators/ Factors	Ratings													
	5		4		3		2		1		No answer		TOTAL	
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree					
	f	%	*f*	%	*f*	%	*F*	%	*f*	%	*f*	%	*f*	%
Objectives of the session were clear and logical	27	75.0	9	25.0	0	0.00	0	0	0	0	0	0	36	100
Content of session was relevant	27	75.0	9	25.0	0	0.00	0	0	0	0	0	0	36	100
Visual aids used were appropriate	24	66.7	11	30.6	1	2.78	0	0	0	0	0	0	36	100
Presenter was knowledgeable	18	50.0	16	44.4	2	5.56	0	0	0	0	0	0	36	100
Presenter provided clear answers/comments	22	61.1	12	33.3	2	5.56	0	0	0	0	0	0	36	100
Reactors' comments were relevant, thought-provoking and informative	22	61.1	13	36.1	1	2.78	0	0	0	0	0	0	36	100
Facilitator/moderator encouraged participation	24	66.7	8	22.2	4	11.1	0	0	0	0	0	0	36	100
Interaction with others was beneficial	24	66.7	12	33.3	0	0.00	0	0	0	0	0	0	36	100
Reception/Registration went smoothly	27	75.0	9	25.0	0	0.00	0	0	0	0	0	0	36	100
Venue / facilities were appropriate	25	69.4	10	27.8	1	2.78	0	0	0	0	0	0	36	100
Food served was acceptable	22	61.1	14	38.9	0	0.00	0	0	0	0	0	0	36	100

Table 2.8.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
Objectives of the session were clear and logical	4.75	Very Satisfactory
Content of session was relevant	4.75	Very Satisfactory
Visual aids used were appropriate	4.64	Very Satisfactory
Presenter was knowledgeable	4.44	Very Satisfactory
Presenter provided clear answers/comments	4.56	Very Satisfactory
Reactors' comments were relevant, thought-provoking and informative	4.58	Very Satisfactory
Facilitator/moderator encouraged participation	4.56	Very Satisfactory
Interaction with others was beneficial	4.67	Very Satisfactory
Reception/Registration went smoothly	4.75	Very Satisfactory
Venue / facilities were appropriate	4.67	Very Satisfactory
Food served was acceptable	4.61	very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

Table 2.9 Parallel Session 9: How to Get Published in Research Journals

Indicators/ Factors	Ratings													
	5		4		3		2		1		No answer		TOTAL	
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree					
	f	*%*	*f*	*%*	*f*	*%*	*F*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
Objectives of the session were clear and logical	23	59.0	16	41.0	0	0.00	0	0	0	0	0	0	39	100
Content of session was relevant	24	61.5	15	38.5	0	0.00	0	0	0	0	0	0	39	100
Visual aids used were appropriate	12	30.8	19	48.7	8	20.5	0	0	0	0	0	0	39	100
Presenter was knowledgeable	26	66.7	12	30.8	1	2.6	0	0	0	0	0	0	39	100
Presenter provided clear answers/comments	20	51.3	19	48.7	0	0.00	0	0	0	0	0	0	39	100
Reactors' comments were relevant, thought-provoking and informative	10	25.6	29	74.4	0	0.00	0	0	0	0	0	0	39	100
Facilitator/moderator encouraged participation	13	33.3	24	61.5	2	5.1	0	0	0	0	0	0	39	100
Interaction with others was beneficial	18	46.2	19	48.7	2	5.1	0	0	0	0	0	0	39	100
Reception/Registration went smoothly	23	59.0	15	38.5	1	2.6	0	0	0	0	0	0	39	100
Venue / facilities were appropriate	26	66.7	13	33.3	0	0.00	0	0	0	0	0	0	39	100
Food served was acceptable	19	48.7	20	51.3	0	0.00	0	0	0	0	0	0	39	100

Table 2.9.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
Objectives of the session were clear and logical	4.59	Very Satisfactory
Content of session was relevant	4.62	Very Satisfactory
Visual aids used were appropriate	4.10	Very Satisfactory
Presenter was knowledgeable	4.64	Very Satisfactory
Presenter provided clear answers/comments	4.51	Very Satisfactory
Reactors' comments were relevant, thought-provoking and informative	4.26	Very Satisfactory
Facilitator/moderator encouraged participation	4.28	Very Satisfactory
Interaction with others was beneficial	4.41	Very Satisfactory
Reception/Registration went smoothly	4.56	Very Satisfactory
Venue / facilities were appropriate	4.67	Very Satisfactory
Food served was acceptable	4.49	Very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

Table 2.10 Plenary Session 1: Safeguarding People's Health: Science for Disaster Management

Indicators/ Factors	Ratings													
	5		4		3		2		1		No answer		TOTAL	
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree					
	f	%	*f*	%	*f*	%	*F*	%	*f*	%	*f*	%	*f*	%
The subject discussed contributed to my awareness, knowledge and understanding of prevailing issues and other concerns	147	56.3	107	41.0	5	1.92	1	0.383	0	0	1	0.383	261	100
The discussion brought to fore issues and concerns needing policy intervention	123	47.1	130	49.8	8	3.07	0	0.00	0	0	0	0	261	100
The speakers were effective in their presentations	96	36.8	136	52.1	28	10.7	1	0.383	0	0	0	0	261	100
The reactors comments were relevant, though provoking and informative	92	35.2	144	55.2	21	8.05	3	1.15	0	0	1	0.383	261	100
The moderator was knowledge of the subject matter to steer a fruitful discussion	99	37.9	131	50.2	28	10.7	1	0.383	0	0	2	0.766	261	100
The participants were active in the discussions	77	29.5	140	53.6	40	15.3	4	1.53	0	0	0	0	261	100
Time allotted for each program component was adequate	119	45.6	130	49.8	11	4.21	1	0.383	0	0	0	0	261	100
Reception/Registration process went smoothly	169	64.8	84	32.2	7	2.68	1	0.383	0	0	0	0	261	100
Venue / facilities were adequate	187	71.6	71	27.2	3	1.15	0	0.00	0	0	0	0	261	100
Food served was acceptable	169	64.8	75	28.7	17	6.51	0	0.00	0	0	0	0	261	100
Event organizers were helpful and responsive to participants' needs	164	62.8	89	34.1	6	2.30	1	0.383	0	0	1	0.383	261	100

Table 2.10.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
The subject discussed contributed to my awareness, knowledge and understanding of prevailing issues and other concerns	4.52	Very Satisfactory
The discussion brought to fore issues and concerns needing policy intervention	4.44	Very Satisfactory
The speakers were effective in their presentations	4.25	Very Satisfactory
The reactors comments were relevant, though provoking and informative	4.23	Very Satisfactory
The moderator was knowledge of the subject matter to steer a fruitful discussion	4.23	Very Satisfactory
The participants were active in the discussions	4.11	Very Satisfactory
Time allotted for each program component was adequate	4.41	Very Satisfactory
Reception/Registration process went smoothly	4.61	Very Satisfactory
Venue / facilities were adequate	4.70	Very Satisfactory
Food served was acceptable	4.58	Very Satisfactory
Event organizers were helpful and responsive to participants' needs	4.58	Very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

Table 2.11 Plenary Session 2: ICT Tools for Disaster Management - eHealth and Social Media

Indicators/ Factors	Ratings													
	5		4		3		2		1		No answer		TOTAL	
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree					
	f	*%*	*f*	*%*	*f*	*%*	*F*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
The subject discussed contributed to my awareness, knowledge and understanding of prevailing issues and other concerns	254	70.9	99	27.7	5	1.40	0	0.00	0	0.00	0	0.00	358	100
The discussion brought to fore issues and concerns needing policy intervention	221	61.7	132	36.9	5	1.40	0	0.00	0	0.00	0	0.00	358	100
The speakers were effective in their presentations	246	68.7	102	28.5	8	2.23	2	0.559	0	0.00	0	0.00	358	100
The reactors comments were relevant, though provoking and informative	207	57.8	140	39.1	10	2.79	1	0.279	0	0.00	0	0.00	358	100
The moderator was knowledge of the subject matter to steer a fruitful discussion	189	52.8	150	41.9	16	4.47	3	0.838	0	0.00	0	0.00	358	100
The participants were active in the discussions	178	49.7	163	45.5	14	3.91	3	0.838	0	0.00	0	0.00	358	100
Time allotted for each program component was adequate	201	56.0	145	40.4	9	2.51	2	0.557	1	0.279	0	0.00	358	100
Reception/Registration process went smoothly	240	67.0	112	31.3	5	1.40	1	0.279	0	0	0	0	358	100
Venue / facilities were adequate	265	74.0	90	25.1	2	0.559	1	0.279	0	0	0	0	358	100
Food served was acceptable	243	67.9	106	29.6	9	2.51	0	0	0	0	0	0	358	100
Event organizers were helpful and responsive to participants' needs	263	73.5	90	25.1	5	1.40	0	0	0	0	0	0	358	100

Table 2.11.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
The subject discussed contributed to my awareness, knowledge and understanding of prevailing issues and other concerns	4.70	Very Satisfactory
The discussion brought to fore issues and concerns needing policy intervention	4.60	Very Satisfactory
The speakers were effective in their presentations	4.65	Very Satisfactory
The reactors comments were relevant, though provoking and informative	4.54	Very Satisfactory
The moderator was knowledge of the subject matter to steer a fruitful discussion	4.47	Very Satisfactory
The participants were active in the discussions	4.44	Very Satisfactory
Time allotted for each program component was adequate	4.50	Very Satisfactory
Reception/Registration process went smoothly	4.65	Very Satisfactory
Venue / facilities were adequate	4.73	Very Satisfactory
Food served was acceptable	4.65	Very Satisfactory
Event organizers were helpful and responsive to participants' needs	4.72	Very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

Table 2.12 Plenary Session 3: Juan Direction: Coordinating Mechanisms for Better Emergency Health Service Delivery

Indicators/ Factors	Ratings													
	5		4		3		2		1		No answer		TOTAL	
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree					
	f	*%*	*f*	*%*	*f*	*%*	*F*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
The subject discussed contributed to my awareness, knowledge and understanding of prevailing issues and other concerns	271	68.1	122	30.7	5	1.26	0	0.00	0	0	0	0	398	100
The discussion brought to fore issues and concerns needing policy intervention	247	62.1	141	35.4	6	1.51	4	1.01	0	0	0	0	398	100
The speakers were effective in their presentations	239	60.1	141	35.4	17	4.27	1	0.251	0	0	0	0	398	100
The reactors comments were relevant, though provoking and informative	202	50.8	176	44.2	18	4.52	2	0.503	0	0	0	0	398	100
The moderator was knowledge of the subject matter to steer a fruitful discussion	184	46.2	179	45.0	30	7.54	4	1.01	1	0.251	0	0	398	100
The participants were active in the discussions	180	45.2	187	47.0	29	7.29	1	0.251	1	0.251	0	0	398	100
Time allotted for each program component was adequate	219	55.0	166	41.7	12	3.02	1	0.251	0	0	0	0	398	100
Reception/Registration process went smoothly	260	65.3	127	31.9	8	2.01	3	0.754	0	0	0	0	398	100
Venue / facilities were adequate	286	71.9	108	27.1	3	0.754	0	0.00	1	0.251	0	0	398	100
Food served was acceptable	260	65.3	127	31.9	9	2.26	1	0.251	1	0.251	0	0	398	100
Event organizers were helpful and responsive to participants' needs	259	65.1	132	33.2	4	1.01	1	0.251	2	0.503	0	0	398	100

Table 2.12.1 Weighted Mean of Evaluated Factors

Indicator/ Factor	Mean	Adjectival Rating
The subject discussed contributed to my awareness, knowledge and understanding of prevailing issues and other concerns	4.67	Very Satisfactory
The discussion brought to fore issues and concerns needing policy intervention	4.59	Very Satisfactory
The speakers were effective in their presentations	4.55	Very Satisfactory
The reactors comments were relevant, though provoking and informative	4.45	Very Satisfactory
The moderator was knowledge of the subject matter to steer a fruitful discussion	4.36	Very Satisfactory
The participants were active in the discussions	4.36	Very Satisfactory
Time allotted for each program component was adequate	4.52	Very Satisfactory
Reception/Registration process went smoothly	4.62	Very Satisfactory
Venue / facilities were adequate	4.70	Very Satisfactory
Food served was acceptable	4.62	Very Satisfactory
Event organizers were helpful and responsive to participants' needs	4.62	Very Satisfactory

4.1 to 5.0 = VS 3.1 to 4.0 = S 2.1 to 3 = N 1.1 to 2.0 = D 0 - 1 = VDS

GENERAL COMMENTS

There was a general praise for the conference among the respondents. Many found the event well organized and informative.

Parallel Session 1: Lessons from Typhoon Yolanda and Pablo		
Positive	**Negative**	**Neither Positive/Negative**
• Congratulations! • Very helpful and just a challenge for me to be actively involved in disaster preparedness and management • Well-planned and properly implemented • Risk perception needs to be touched as well in effectively communicating the risk – Kudos & Congrats to NOAH. • Endeavors such as these are really very helpful and this should be replicated and encouraged so more outputs can be shared & maximized. • Kudos! • I have learned a lot from the speakers especially on the difference cultures towards resilience and on towards adaptation. • Very realistic • Well-documented nice presentation • Project NOAH Active • Keep up the good work! • Some speakers were effective • Very interesting topic • Very informative and fun • Clearly stated • Presenter 3 provided good lessons, which is what the session is all about. Informative.	• Venue was too small and air-condition was not adequate. • Evaluation form is inadequate. Evaluation should be by speaker. • Not new results • Some speakers were not effective. • Not much data on health resources availability after Yolanda especially in North Cebu to give us an idea on how the private sector can help in ensuring delivery of health care to affected areas. • Presentations is very fast and he just shared memories of what he intend to present because of time constraints. • Ask for her presented data since it was shown rapidly – and not able to see most of her data. • PowerPoint slides are not clear. • The LED is not that visible. • Time allotment for each presentation was too short for presenters that in depth were not focused. • No new insights like specific ways to cope/disasters present • Arrangement of tables, tables should be facing AVP. • Food should/may have been served than self-service, time of going to the buffet table should have been saved and the lecture should have just continued working snacks na lang sana. • Presenter Dr. Lamberte, didn't' give justice to her paper. She did not talk about health needs, etc. KALAT! The organizers to coach speakers with regards to making their presentations relevant & connected to the conference theme. Specifically, what are the lessons learned. • Two extreme presentations. Presenter 2 did not cover as it appeared on her power point what she was to cover based on the title of her presentation. Made hasty conclusions. Data presented left a big room for questions – just not much time to ask her. She covered and made comments on many things. So very frustrating listening to the presentations! No lessons on Yolanda were shared.	• Natural hazards could be human – induced. • Hazards are normal, disasters are not! • Geohazard mapping (flood and landslides) being done/prepared by the Mines and Geo Sciences Bureau should have also been presented to understand the risks/hazards based on geomorphology and its combination with storm surges and earthquakes. • Right preparation mitigates disaster. • Please provide us copies of the presentation made either in soft or hard copy. • Updated data. Please answer questions directly. Ask questions directly. • What is making the delay of the funds (donated internationally) be given to those in need. Those billions of financial aides, governors/mayors and other government agencies can't blame NGOs & other organizations would prefer to identify bye themselves who to give their donations and aides for the fear that their help won't reach to those in really need. Just like foreign aid giving corned beef – what is given is sardines!! LOL!! • Preparedness is a must to prevent massive destructing lives and resources in a disaster. • Evaluation should be per speaker, not a general evaluation of the whole session. A good speaker is brought down because of a not good speaker. • Include lessons learned in this session in their conferences' resolutions. • The sessions emphasized the importance of effective communication in disaster prevention which our country should improve. • Please share the presentations in your website. • Share your data with us, in the Department of Health.
Parallel Session 2: Response to Man-Made and Natural Disasters; Bioterrorism and Earthquake (Videoconference)		
Positive	**Negative**	**Neither Positive/Negative**
• The session provided an avenue for us to be aware on how to prepare for disasters. • Better IT support. • Better connection with the US resource person – technology issue. • Speaker was knowledgeable about what he presented. I learned a lot of new things about bioterrorism. I forgot to	• I wasn't able to get so much about bioterrorism. • There are some groups who were having discussions during presentation. Maybe the secretariat can call their attention. It's disturbing. • No food served. • Videoconference had few technical problems. Maybe it could be improved	• I learned about disaster preparedness strategy. • All information gathered from the speakers should be relayed to the government for action to have used the purpose of the activity. • Thank you for this opportunity.

register because I came from another session. Excellent topic. More power! • It is an eye opener. • Much to do. Thank you for the learning. Several best practices to emulate.	next time. • The session was a videoconference. There were the usual technical glitches which affected my attention and interest.	
Parallel Session 3: Student Research Competition		
Positive	**Negative**	**Neither Positive/Negative**
• Session is good venue to showcase our young and aspirant scientists. • The researches presented were very excellent and has high potential in new researches that can be conducted. • Very aspiring and inspiring • Highly commendable studies with promising appreciation on humans • More opportunity for audience for questions • Very informative.	• Started late because one of the judges was late. • The light in the podium was not working, the speaker had difficulty reading. • The event started late because of one of the judges. • Podium not visible to everyone. • Sound system can stand improvement. • The activity did not start on time as scheduled. • Podium of presenters should have been more visible to the audience. • Time management is essential. Session started late. • Sessions should start on time. The session started late approximately 15-20 minutes. • Some terms are very technical and were not defined clearly and simply for the benefits of the participants not really in the field.	• An abstract of each paper presented should be given to all audience to facilitate interaction.
Parallel Session 4: National Assessment of Health Research Capacity		
Positive	**Negative**	**Neither Positive/Negative**
• Very informative. • Motivates me to do research. • The session was helpful especially for us who are new researchers, for us to know the scope of the need for capacity building. As well as hearing from a lot of experts in the field was beneficial. • The tools for assessment of R&D capacity are very good innovations for the researcher, institution and consortium. We will be able to gauge where they are in the proficiency level. • The tool is a good start. • Having heard of the exchange of ideas of researchers, I now realized that social researchers and those researchers under the people's organization were not fully covered yet. This questions was actually first thrown to us by our participants in our training. I have not received clear answers to them. So I am glad that in this bigger venue, it was raised again. This time from the mouth of the renowned researchers themselves. Thank you.	• Disheartening to note that there seems NO PARADIGM SHIFT yet for some health headers. At this stage, we should be viewing health as a social phenomenon – look/research the social determinants of health. (Please social scientists, don't say you are not doing health research because you are!) • The tool should accommodate suggestions/recommendations. • OMG were presented a research that had not go through ethics approval. • I observed that the tool has a bias to quantitative researchers. The tool should be equal to both quanti and quali researchers. • PCHRD must walk its TALK. Dapat collaborative din iyong research – the research team should have been multi-disciplinary. I appreciate the honesty of the researchers this session really opened a can of worm. (Both the organizers and participants). Frustrating but challenged. • More time for open forum so that we could hear all ideas of participants who wants to impart their ideas. • It is better to consider the equal rights of non-Christians among participants. Avoiding such words as Jesus, Christians. Be more ecumenical please. This is the international approach. • Moderator talks a lot taking much time for the open forum. • Moderators should speak "less" to allow the participants to share their perspectives/ask questions. • I could have appreciated it more if the objectives were made known to the	• Development of the assessment tool could have been enhanced with collaboration with experts on "evaluation" • I have come to know that in publishing a research, capacity building is very important in whichever field you are into. This can be utilize in the aspects of conducting studies/dissertation and making analysis. Health research has a strong impact especially in our institution that I'm currently working. • The suggestions made should be needed to. Eventually we hope to have a balanced sensitive assessment tool. • The assessment forms should have been presented to the regional consortium for comments and suggestions. • Online or electronic submission should be encouraged. Epi-info database development is commendable.

	participants by including them in the program. In this manner, participants would have aligned themselves in the session's topics.	
Parallel Session 5: Ethical Issues in Research in Disaster Areas		
Positive	**Negative**	**Neither Positive/Negative**
• Helpful/stimulating. • Good speakers and moderators. Hats off! • The topics were very informative, very good speakers. • Well organized! One of the best sessions I have attended. • Keep it up! • Very good! Dr. June Lopez is very excellent speaker! Keep it up Doc! • Very informative and ethical! Good work! • Very good. • Dr. June is commendable. Full of passion and commitment. • Very enlightening. • The said workshop encourages different sectors in the society to help and plan for the betterment of the disaster risk management. • Very good. • I specially appreciated one talk on ethical issues on mental health. As a newbie it made me aware of the things which I used to laugh about before. Bottom line, everyone deserves a listening ear, veering is understandable no matter how unjustifiable it seems for use. Indeed, first step to conduct health research – know whom you're working/studying, know some people. • Speakers were very knowledgeable in the topics they discussed. • Very good speakers. Keep up. They have passion on what they are doing (public health). • Very prolific open forum/interaction. Very relevant topic and excellent speakers. • Keep up the good work in the future events like this. Thank you and congratulations! • Very informative talks. • This session provide great knowledge to researches conducted in disaster areas and provided us with a new outlook on how to review studies being done in those areas.	• Some seats are not conducive to viewing the presentations. • Questions raised by some reactors are not related to the topics. • Food serve has too much sugar of same variety. • Started late. No time keeper. • Time management. Follow rules on time.	• Communities which are prone to natural disasters because of their geographical location are also 'vulnerable populations'. • Resilience is the call of the hour in emergency/disaster situations including research procedures and ethical imperatives. • Research is relational. The research funds are all co-achieved. The focus is "one" person and as such, "person" should be respected, valued, and protected. He or she should not be manipulated or mere used for whoever objectives of the researcher. That's ethics. • Information & Ethical guidelines are very useful for those who conduct researchers within the academe. Research findings should help students & disasters responders understand to come up with proper intervention that ensure the best of care for disaster survivors. • Presentation of PAR is good since there is usually a bias against PAR as a research method. • Services and research can converge. • Researchers in disaster areas must be anchored on the people's own process of recovery. • Greater sensitivity on the part of the researcher not to cause more harm to those affected by disasters. • If health is the heart of research, ethics is the one that pumps the heart. Fuel that this is the one that could make or unmake research endeavors. Thanks.
Parallel Session 6: Professional Research Competition		
Positive	**Negative**	**Neither Positive/Negative**
• Learned new things. • Very Good. • Had an overwhelming learning experience from the presenters. • All papers are insightful.	• The session started late because the previous session also started late. Judges need to come on time. They're adding to the jitteriness of the presenters. Please inform judges to strictly follow the 1 question per judge. • Better selection to get the "cream of the crop." One or two papers are lacking depth, not properly concluded. • Need to improve quality of researches in terms of design and analysis of results. • The judges were all female. No gender equity. • Copies of abstract of each paper should have been handed on the audience to	• Through PNHRS, how can future researches done in disaster areas assure that ethical principles are not violated? Example: incompetence of field data gatherers/field facilitators; Yolanda-related topics being under taken by students (this semester) without proper guidance on ethics in research. Through PNHRS, how can health information sharing be put in place such that survey-fatigue Yolanda survivors are spared of further surveys w/o direct benefits to them (beneficence vs. maleficence)?

	facilitate more interaction. • This sheet was refused by the PCHRD staff directing me to someone who wasn't in the room instead of endorsing it. Epitome of laziness.	
Parallel Session 7: Individual and Community Responses to Disaster		
Positive	**Negative**	**Neither Positive/Negative**
		• It would be good to have inside stories documented to help manage/prepare for disasters.
Parallel Session 8: Workshop-Organizing Response To Emergency And Health Care Delivery		
Positive	**Negative**	**Neither Positive/Negative**
• Good job! • Learn from various inputs of the presenters. • Informative lecturers and inter-active methods of disseminating information. • The workshop was a good way to refresh our knowledge for the said topic.	• Overtime; should have chosen presenters since same scenario was utilized.	• Perhaps there can also be lectures on other hazards such as floods, and typhoons. • Disaster risk reduction and prevention is very important in all levels of the community and not only the responsibility of the government but the proper coordination of the private sectors and other NGOs. The law for disaster risk reduction still have some lapses and must be revisited and strongly administered not only in establishment, schools but also in the community level. • More disaster risk management seminars. Hopefully have it better integrated in the curriculum.
Parallel Session 9: How to Get Published in Research Journals		
Positive	**Negative**	**Neither Positive/Negative**
• This activity was very insightful and it gives relevant idea bout proper management of research journals. • Very Good.		
Plenary Session 1: Safeguarding People's Health Science for Disaster Management		
Positive	**Negative**	**Neither Positive/Negative**
• Keep up the good work PNHRS; PCHRD- DOST; Health R&D Consortia, Institutions and enthusiasts. • Great Job PNHRS! • Very informative, relevant to the theme, effective speakers! Very young! • Tool is quite good. Presentation quite boring, generally good. • Excellent Organizers! • Provided especially important insights parallel to the needs of the region to develop similar concept and model. • This session opened my mind to appreciate contingency plans that were never brought up by media but were and are very helpful as preparation and response to disasters such as Yolanda. I just hope that here are a lot more organizations such as our speakers today. • We were expecting Gov. Salceda and it would have been nice he was around; nevertheless his representative was sufficiently prepared in his presentation. • Interesting topic, comprehensive presentation of Dr. Acuin. • The speakers were very knowledgeable. • More power! • Informative inputs! • Very good! • The plenary session provided an avenue	• I was interested with the lectures that I was listening intently to the speakers when somebody was asking for the evaluation forms. Of course, I have not accomplished it yet since the session was going on. This happened in the morning session of August 13. I was doubly surprised when I approached the registration area giving out free t-shirts in the afternoon when the people in charge of giving were asking the evaluation forms even the session is not yet finished. • Please minimize/stop LED spot lights. It causes photosensitivity. • Technological support should be taken cared of before the presentation to avoid "glitches". • Technological support for visual aids should be around the computer and projectors so time is not wasted. • How come there are no speakers from Cebu or Region 7? Not a good aspect of the organizers & the entire conference!!! • Screen manpower especially those who will handle sessions (session managers/facilitators/emcee, etc.,) language facility is a factor and can make or break the session. • Kling lights need not be placed in the convention venue because it hurts the eyes and causes headaches. It does not	• Please provide softcopy of all presentations. • Strategies to address disasters were shared. Basic need like food should be secured in times of emergencies. The role of LGUs is very crucial in disaster like in the case of Albay which is very good in their strategy relative to disaster. • Active community participation in assessing, planning implementation and evaluation of projects lends to ownership and increase commitment towards achievement. • Awareness on nutritional deficit. • Disaster Management plays a major role in our society. Aside from this nutrition must be included in program of our government. Each region in our country must fabricate a program like this. Because there's an increase of numbers/percentage of malnutrition causes adult & pediatric settings. • Sustainability of the program for the next years to come. • Albay's example must be emulated by the rest of the country. • I lost my bag with it are my certificates. The organizers should at least help me retrieve the certificates. The bag could be bought anyway.

for the participants to be aware with the various programs from the different agencies regarding high resolution & response to disasters and emergencies. • I was made aware of the systems and directives of different sectors & LGUs when it comes to handling disasters. • Good materials for instruction and program planning and design. • Great information & very informative. • Very important issue/topic.	serve any use in the convention. • The speaker always emphasizes zero casualties which irked no emotion because it is entirely different from Tacloban. • I wish there's more time on the question and answer portion of the program. • Sound system can be improved. • The plenary for this day could have been made more interesting. There were many sessions on August 12 that could have been offered so we can hear more. • Too difficult to request e-file of PowerPoint. Needed to have one to write an article for the consortium website. Not everybody has gadgets to access PNHRS website.	• Disaster or without disaster, nutrition considerations in decision-making is very vital and necessary. LGU and civic participation are key and essential in preparing for disaster.
Plenary Session 2: ICT Tools for Disaster Management – eHealth and Social Media		
Positive	**Negative**	**Neither Positive/Negative**
• Some topics were so interesting. Wish more time. • Very Good. • Excellent presentation of Ms. Maria Ressa. • Ms. Maria Ressa did a very good job. • Very informative. • Very nice speakers. • Ms. Maria Ressa's presentation and discussion was very interactive and informational to me. Me, being an older adult. • The speakers of today's sessions were articulate, engaging and well-versed about their respective topics. • PM Session is very interesting. Everybody is able to relate with the topics. • Keep up the good work PNHRS; PCHRD-DOST; Health R&D Consortia; institutions and enthusiasts. • The event was good & informative. The speakers were good at presenting their views. • Very enlightening especially on bias related to data from crowds (Maria Ressa) • A very good lecturer. Agos needs support from our government. • Very well presented to improve experiences on twitter & Facebook users responsibility/accountability. • Very successful program. Thank you. Good Job. • Informative/Inspiring/Excellent presentation. • Good Job. • Very useful high technology adaptation; more of it please. • Very informative & inspiring. Keep up the good work. • Interesting topics. • Well organized lecture. Minor snags. • Very interesting. We really need to be open to unlearn old ways in order to respond to new and evolving challenges. • Informative inputs. • Big data as surveillance tools is very substantial. She has delivered her talk very well of how to be prepared during emergencies and disasters. Other topics on RxBox is really interesting. It is	• Speakers – speaks relatively too fast. • There should be wide screen TVs to highlight the speaker while on stage at strategic places for all audience to facilitate the listening.	• We are looking forward to its opening/training in Region IX (RxBOx) • Social Media plays a significant role in our society. They are telling the world what is happening, they are the ones who sends, tweets information/news. In a disaster, social media is a crowd source. Technology really helps our social media in disseminating news for the good of our country/people. Social media & Technology must work together. • ICT is inevitable requirement to ensure comprehensive response to disaster. Social media provides a new platform in inductively generating data needed to prepare and respond to disaster. • Thank you. • Tele health and RxBox - Informative/accessible for patient saving time. • The recommend ICT Tools for Disaster Management should undergo research first to establish their usefulness and their effectivity. • Information technology should be in the hands of the people to prevent/reduce/manage disaster and recover from it. • Learn the power/potential ICT tools for disaster. • Technology is a tool but worth nothing without ingenuity. It would really be helpful to train health practitioners with new technological programs and devices to improve quality health care. • Updated info could be great help for the academe/research sector. Work hard in hand with local stakeholder's needs empowerment. • A book or collection of the lectures should be made. • Social media could help in effectively disseminate information in preparation for a disaster and in respond to the needs of mankind in times of crisis.

helpful to those geographical isolated areas. Amazing technology. Hope we can have it in Surigao del Sur, Tandag City. • Good info about Rappler. Topics in this session are very helpful. • Excellent, concise, meaty, very informative, close to perfect. • Staffs are approachable. • Venue is highly adequate for events and sessions. • Ms. Maria Ressa has imparted her experiences clearly to participants. • Topics of this session really eye opening on how technology is a tool to save lives. • Very interesting topics. At least we have technology to help us cope during disasters. • Very timely discussion. • Interesting to replicate Noah's Ark project to all parts of the country. • Great job PNHRS! • I liked the idea of having white screen on all sides of the room. • Ressa was great! Magtugbo rocks! Thiele Tan is cool techie "guru". Thanks. • Thank you for organizing this event! How good and useful and beneficial and power it would be if more institutions, more persons, larger public know and be informed by all these things.		

Plenary Session 3: Juan Direction: Coordinating Mechanisms For Better Emergency Health Service Delivery		
Positive	**Negative**	**Neither Positive/Negative**
• This activity was very insightful and it gives relevant idea bout proper management of research journals. • Very Good. • Privileged to have taken part in this 3-day workshop! More power! • I appreciate Ms. Alegre, she was so calm answering the questions despite the emotional outburst of the reactor. I appreciate Mr. Herbosa for the live stream lecture despite the fact that his flight was move to tonight. He really made an effort to talk. • More lectures like this should be done. • I learned a lot from government's perspectives and system on disaster management. • We appreciate the strategy of making possible Usec. Herbosa to present his PowerPoint in spite of the fact that his flight was cancelled. • The 2nd speaker is better. Audio conference was a good option. • Informative! • I learned about the functions & structures of NDRRMC. Ideas came into mind on topics related to disaster prevention, mitigation and preparedness of communities in Northern Luzon. • Thank you for the effort. • Very important to know all these topics. Thank you for everything, for this program! Enriching, inspiring. But everything needs also application in reality. Hope that with collaboration of everyone, everything discussed will be concretized. • The research presenters were able to present their research. And were able to	• Moderator/summarizing the topic should summarize not as if she is talking to the lecture again! • 8th PNHRS Week organizers were disorganized. Hospitality and warmness typical of a Visayan are not felt. Just wandering and asking?!?!?!?! • Reports/data on missing persons and damages of typhoon Yolanda is unbelievable on NDRRM 2nd speaker. • Some difficulty in editing registration data at the reception area. • Some technical problems of PowerPoint. • Some secretariat members have double standards – strict on some but very open/lax on some participants. • The last moderator was not confident for the Q&A but she was replaced by another one. • Add the lesson learned in the open forum. And not just the idea set up by NDRR. • To the lady speaker: A little humility will make you more credible. • The input did not facilitate critical analysis. The descriptions did not show the strengths & weakness and how agencies should strategize and commit to move forward; lack of emphasis on disaster prevention; emphasis of MDG indicators and other development indicators during recovery phase; policy changes; changes in environment. • Certificates run out. • No hand-outs, can hardly copy e-files to write an accurate article. • Certificates should be distributed every after each session after evaluation. I	• Please send ppt slides to email using our address. • Disaster preparedness is a serious concern that must be given utmost attention. Good plans are in place but there has to be proper mechanisms to ensure implementation. • Let's be proactive and prepare enough for any eventualities; strengthen the awareness of people about disaster preparedness and emergency response. • Thanks for the updates. • Thank you! • Resilience must be embedded in communities & system. • Please provide soft copy of the lectures/talks and the researchers presented. • We will be delighted if the organizers will upload all presentations for us to download everything said and done.

give comprehensive answers to the audience's commentaries. • The reactors' comments were relevant, thought provoking and informative, also insightful! • Bravo! The videophone was great. Congratulations to the organizing team! • Congratulations to the organizers! • Topics are very substantial and relevant. Seminars 3-day are really organized. I think if we can also invite representatives from local government units for reinforcement of information. I look forward for more seminars related to this. Thank you for choosing Cebu! • Very Good! • Informative and inspiring! • Technology at its best – Dr. Herbosa! • Very comprehensive information in health outcomes from emergencies, disasters & others. • Well organized, well-coordinated, each sessions I attended were full of intellectual discussions and convictions. Hope that more government agencies do the same activities like this. All Glory to God!!! • Relevant inputs • Very well organized. • Very informative on the direction and recommendations of government response & coordination to disaster preparedness/early warning systems/ response. • Kudos!	have not received mine as it was not available.	

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