PNHRS | Philippine National Health Research System

Guidelines for Health Research Prioritization

• How to Set a Research Agenda •

PHILIPPINE NATIONAL HEALTH RESEARCH SYSTEM

Guidelines for Health Research Prioritization
(How to Set a Research Agenda)

2016

PREFACE

Health research should be responsive to current and emerging health needs of the Filipinos. For the Philippine National Health Research System (PNHRS) to achieve this objective, having a health research agenda is crucial in providing direction and focus for health R and D efforts.

Setting a research agenda entails research priority setting to identify priority health research topics for research implementation and funding. Having a set of guidelines would institutionalize the process of research priority setting for the PNHRS and at the same time help build capacities in planning and prioritizing for health research.

This document embodies the PNHRS guidelines for health research prioritization, a local tool and a common reference, that will guide the PNHRS stakeholders in defining and updating a relevant health research agenda.

The preparation of these guidelines would not be possible without the able support and contribution of several entities. Gratitude is extended to Professor Cynthia P. Cordero and her team at the Foundation for the Advancement of Clinical Epidemiology Inc. for the formulation of the guidelines; to the PNHRS core agencies, specifically the Philippine Council for Health Research and Development – Department of Science and Technology for the organizational support and financial assistance, the Department of Health, Commission on Higher Education, and the National Institutes of Health - University of the Philippines-Manila for their contribution, accommodating interview requests, and giving feedback; and to the key informants and workshop participants who gave their time and valuable inputs in the preparation of these guidelines.

PNHRS Research Agenda Committee

ABBREVIATIONS

CAM Combined Approach Matrix

CBC Capacity Building Committee

CHED Commission on Higher Education

COHRED Council on Health Research for Development

DOH Department of Health

DOST Department of Science and Technology

ENHR Essential National Health Research

PCHRD Philippine Council for Health Research and Development

PNHRS Philippine National Health Research System

RAC Research Agenda Committee

RMC Resource Mobilization Committee

RUC Research Utilization Committee

SDG Sustainable Development Goals

SOMEC Structure, Organization, Monitoring and Evaluation Committee

TWG Technical Working Group

UHC Universal Health Care

UP-NIH University of the Philippines National Institutes of Health

WHO World Health Organization

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INTRODUCTION

Sound health policies and actions promote health, a driving force for development.[1] To make sound decisions, policy makers and health providers need well-formulated and properly conducted research. For low-resource settings like the Philippines, it is important to focus resources on research topics with a high potential for translation towards better health. Other considerations are level of impact, ethical plausibility and availability of expertise. This concept, referred to as research prioritization, is considered an important step of a coordinated research effort.

In the early 1990s, the Commission on Health Research for Development (COHRED) formulated the Essential National Health Research (ENHR) strategy. The Commission observed that there exists a 'gross discrepancy between the burden of illness in the world and investment in health research.'[2] The ENHR strategy aims to guide the focus of health research at the country level and at the same time influence global research agenda. The ENHR process is a product of participation of a broad base of stakeholders policy makers, researchers, health providers, patients and communities, funding agencies. As such, it has the potential to capture research topics that are relevant to the health situation, promoting efficient use of research funds. While ENHR is applicable to all countries, it is needed more in low- and middle-income countries where resources are scarce. When the call towards ENHR was made by COHRED, the Philippines was one of the countries that responded to this call.[1]

More than two decades since COHRED's call to action, the need to prioritize research efforts remains as important as it was then. In the Philippines, there had been several research prioritization initiatives not only at the national level,[3,5] but at the regional and institutional levels as well.[6,7] Methods were varied; some were adapted to particular contexts.

A number of guidelines on research priority setting are available.[2,8,9] However, priority setting is highly dependent on its context. This is why the PNHRS Research Agenda Committee pursued the development of the guidelines through the Philippine Council for Health Research and Development (PCHRD) in partnership with the Foundation for the Advancement of Clinical Epidemiology (FACE, Inc.).

The FACE, Inc.'s prioritization guidelines team used local experience on research priority setting in the formulation of the guidelines. The team reviewed local literature and conducted interviews of stakeholders of health research in the country. Aside from local experience, the team also reviewed literature on agenda setting in other countries. These included research prioritization for specific populations and diseases. Best practices and barriers to research agenda setting were identified. The team validated the guidelines among a larger group of stakeholders.

HOW TO USE THE GUIDELINES

The guidelines are presented according to three phases: preparatory, implementation, and post-implementation phases. This manner of presentation emphasizes the importance of each phase in an agenda setting initiative.

The guidelines are applicable in various settings of research prioritization. They may be used for national agenda setting initiatives. Regional consortia may also use these guidelines by identifying the counterparts of the various components of the initiative in their regions. The consortia can identify who should be leading the initiative. Likewise they can specify who shall comprise the Technical Working Group (TWG) that will plan for and facilitate the research agenda setting activity. The TWG can then enumerate stakeholders and specify the manner of representation and engagement of each stakeholder group.

Institutions may also use these guidelines. Directors and board of trustees, depending on the leadership model of the institution, may initiate the agenda setting. The leadership can appoint the institution's research committee as the Technical Working Group. Local government units of provinces, cities, and municipalities may also refer to the guidelines for their health research prioritization activities. However, the guidelines are not meant for agenda setting at the levels of the barangays, although this document provides strategies of engaging communities as valuable stakeholders. Any agenda setting initiative should include this important stakeholder sector.

The guidelines may include aspects that may not be realistic in some settings. In such cases, one may need to adapt the application or simply acknowledge limitations. In setting a research agenda, it is good to balance our ideal aims with realistic goals.

Samples and templates included in the annexes are mainly for illustrative purposes. The contents should be carefully considered and modified if deemed necessary.

The guidelines are meant to be dynamic. They may be revised to develop new versions upon the decision of the PNHRS leadership. Members may also initiate revisions should they think these are needed.

Feedback on the guidelines may be sent to *feedback@gmail.com* or to:

The Philippine National Health Research System (PNHRS) Secretariat
Research Agenda Committee
Philippine Council for Health Research and Development
Department of Science and Technology
General Santos Avenue
Bicutan, Taguig City, Philippines

GUIDELINES FOR HEALTH RESEARCH PRIORITIZATION

Health research prioritization is typically viewed as a one-off exercise, but it is a good practice to treat it as a process. Prioritization needs preparation even before it is conducted. The implementation of the resulting agenda is subsequently monitored and evaluated.The agenda is updated as necessary.

Health research priority setting should be a comprehensive process that consists of three phases: (1) a preparatory phase, (2) an implementation phase, and (3) a post-implementation phase. The organization that plans for a prioritization initiative should ensure that each phase is properly conducted by identifying the following key groups of people: leadership, the technical working group, an initial list of stakeholders to involve in the prioritization exercise, and committees or offices put in charge of post-implementation activities. In addition, the organization has to identify budget source and allocations as well as infrastructure to ensure that each phase is properly conducted.

I. PREPARATORY PHASE

A. Contextualization

The implementation of a research agenda setting exercise is highly dependent on context. Setting the agenda and its utilization must take several factors into consideration.For example, in a national agenda setting, current health, research, political, and economic environments in the country must be considered. Low-resource settings must not be taken as a hindrance or threat, but rather as a major consideration in the prioritization exercise.

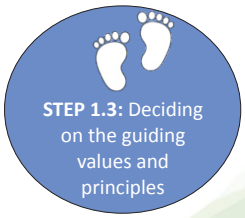
These are the questions to consider in defining the context of the health research agenda:[10]

1. What are the focus and scope of the agenda setting exercise?

    a. What is the geographical scope (e.g., institutional, regional, or national)?
    b. What is the intended timeframe (e.g., long-term or short-term)?

2. Who are the end-users of the research agenda?

    a. Who will eventually benefit from the research (e.g., national/local communities, children, elderly and other special populations, government institutions, health industry)?
    b. Who is the intended audience of the agenda (e.g., researchers, funders, policymakers)?



3. What are the underlying values and principles that will guide the process?

    a. Should priorities be equitable, cost-effective, or both?
    b. Are there political or commercial influences that may affect the priorities?
    c. Should particular types of research be emphasized (e.g., systems, operational, basic, applied)?

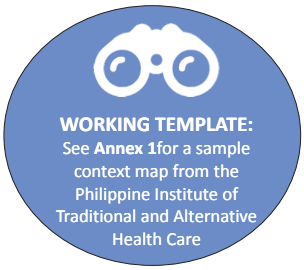
4. Is there adequate capacity and resources to…

    a. Undertake/ conduct the health research prioritization exercise?
    b. Implement the research agenda?
    c. Monitor the implementation of the research agenda?

Panel 1. Contextual factors in health research priority setting

It is important to explain the rationale behind a health research prioritization activity. This can be done by identifying an overarching framework that links research outputs with clearly defined goals and measurable indicators. Health research prioritization should lead to improved health status of the population. The framework shows how the identified priorities can help achieve this goal.

A sample context map may be developed to visualize the framework with the contextual factors. An example of a context map is found in Annex 1.



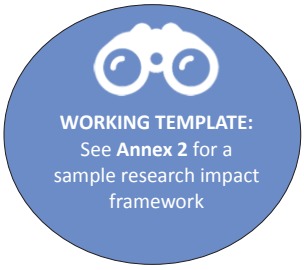
B. Planning for Monitoring and Evaluation, Implementation, and Dissemination

B.1. Prepare a Monitoring and Evaluation Plan

The research agenda is only as good as its implementation.Therefore, a Monitoring and Evaluation (M&E) plan (based on the overarching framework) should be developed. The M&E Plan should include the WHO (who will perform the activities in the plan), WHAT (what will be monitored), WHEN (timing of monitoring), and HOW (methods of monitoring).

Monitoring should include which of these researches have been implemented, disseminated, and translated. Dissemination includes scientific publications and presentations in conconferences or public fora. Translation includes health policies, practice guidelines, utility models, patented products, and copyrighted health technologies.

The Technical Working Group should regularly monitor the uptake of the research agenda by researchers and institutions. To minimize duplication of research projects, on-going researches may also be disseminated.



The evaluative component of M&E should determine whether the research is increasing scientific knowledge, producing useful policies, and making significant impact on health. Determining impact on health, though difficult, can be done if this is defined within the overarching framework. For instance, if the overall goal is Universal Health Care, then it should be clear how the output of the research would help contribute to the achievement of Universal Health Care. Figure 1 shows four broad and specific areas of research impact. A sample research impact framework is also included in Annex 2.

M&E should allow identification of changing research priorities. Changing epidemiological and socio-economic landscapes, political leadership, and health policy environment should serve as motivation for updating the research agenda.[11]

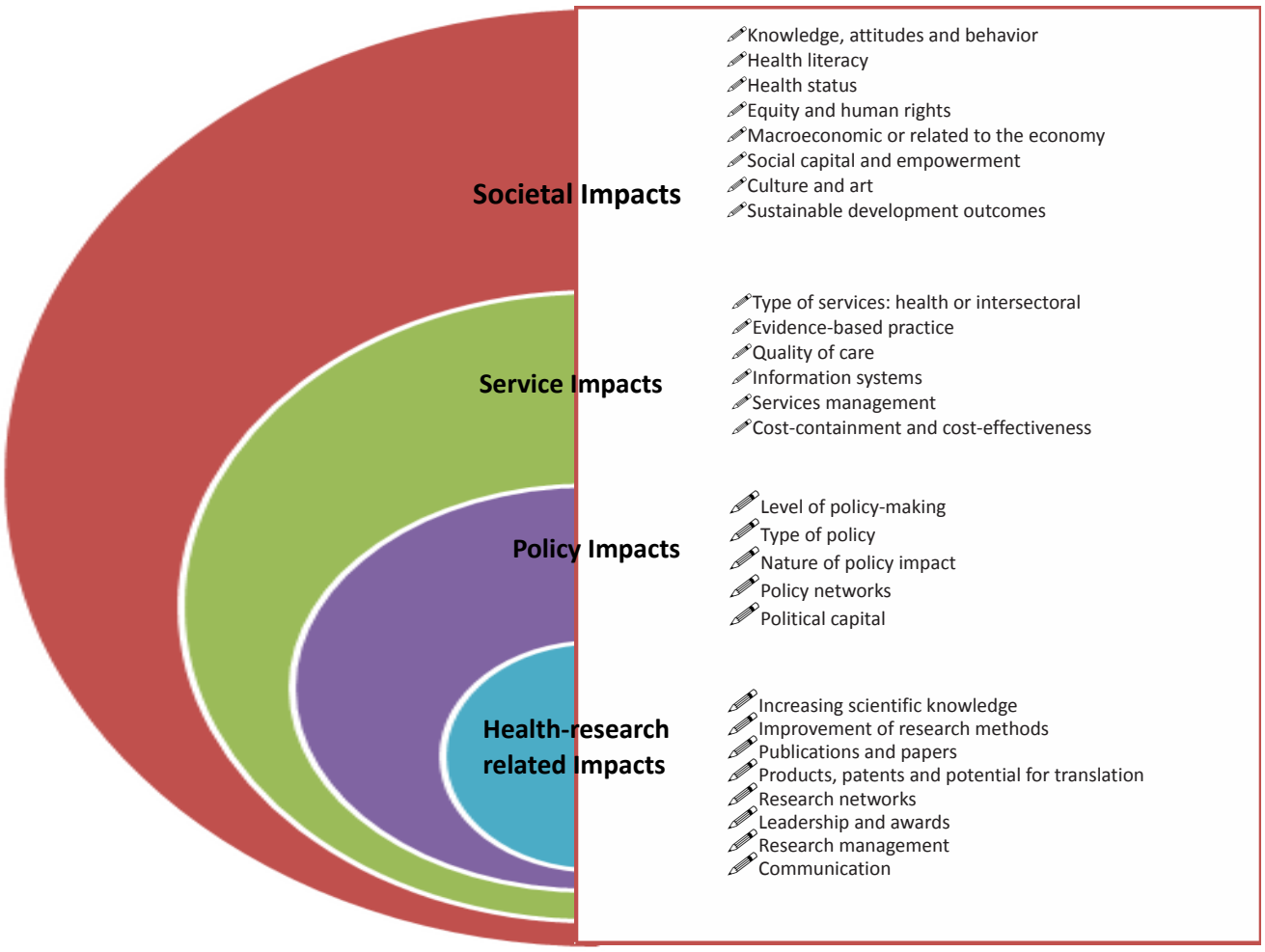


Figure 1. Areas of Research Impact [40]

B.2. Prepare an Implementation Plan

The implementation plan consists of two parts plans on how the prioritization activities will be carried out and plans to carry out the topics identifed in the agenda.

To develop an implementation plan, the following should be identified:

A. Funding sources and mechanisms Identify possible sources of funding, estimate the amount of funding available, and determine process(es) to access internal or external funding

B. Governance mechanisms Establish or re-affirm the roles and responsibilities of organizations and existing offices within one's organization in the agenda setting process. See Table 1 under Inclusiveness, which identifies appropriate stakeholders, and the Summary Table at the end of this section, which enumerates the tasks of stakeholders in the research agenda setting process.

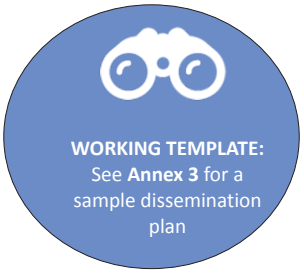
In implementing the research agenda, it is important to identify existing research systems. These systems include existing resources and processes that can be used or adapted. Networks, institutions and individuals that will carry out the research should be identified.

B.3. Prepare a Dissemination Plan

To ensure that all stakeholders are made aware of the research agenda in a timely manner, a plan for transparent dissemination should be put in place before the agenda setting itself begins. This dissemination plan should identify the target users of the agenda; describe their roles as funders, implementers, or end-users; determine the timing of dissemination; and identify the most appropriate venues, media, and materials to be used.

Different venues can be used such as conferences, fora, workshops, meetings, university visits, and research caravans. Other than face-to-face dissemination activities, various media can also be used such as scientific publications, monographs, brochures, flyers, websites, and electronic mail.[2]

Annex 3 shows a sample dissemination plan. Existing dissemination plan templates may also be used to facilitate this process.[12] The Technical Working Group should prepare this plan for approval by Leadership



C. Information Gathering

Research priorities should be made based on the best available information. Information gathering is therefore a necessary prerequisite to inform discussions on the research agenda.

There is a lot of health- and health research-related information that can be useful in agenda setting. Burden of disease data, cost effectiveness studies, documentation of resource flows, current level of knowledge, and research capacity are some examples. Other useful information include documents on previous research agenda initiatives. The context map should serve as a guide in collecting meaningful data.

Several methods can be employed. These include literature reviews and desk reviews. Published reports may be searched through the internet. Gray literature may be accessed through existing contacts. Sources of information may also include vital registration systems, special surveys, patient records, and demographic and epidemiological forecasts. Hard data may not always be available, in which case other sources of information should also be accessed such as local experts and representatives of local stakeholder groups.

After collecting all the information needed for the prioritization activity, it is important to process and integrate this data. It is important to note that there are many different approaches with established methods that can be used to process and integrate data; however, the Combined Approach Matrix and Essential National Health Research strategy are recommended.

Both the Combined Approach Matrix and Essential National Health Research strategy were developed by international organizations to aid the organization of available information that would be used in health research priority-setting. The Combined Approach Matrix, developed by the Global Forum for Health Research in 1999, is an analytical tool that allows a large body of information for priority-setting to be processed according to multiple factors and dimensions. Developed in 1990 by the Commission on Health Research for Development, the Essential National Health Research strategy on the other hand is a step-by-step guide to national research priority setting, which includes a situational analysis.[41]

C.1. Combined Approach Matrix

The combined approach matrix is done by incorporating collected information on the appropriate cross-sections inside the matrix, as shown in Figure 2. The combined matrix approach is useful for identifying what research is available and what research is lacking. The need to prioritize certain research topics may then be established by answering these questions:

- Should currently available information in the matrix be improved or updated?
- Is it necessary to fill in the gaps in the matrix?

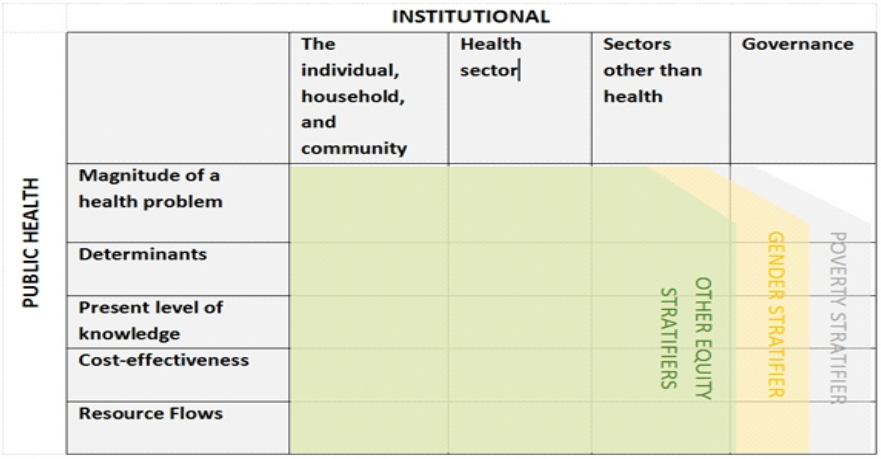


Figure 2. The Combined Approach Matrix with Equity Stratifiers[13]

C.2. Essential National Health Research (ENHR) strategy

An alternative approach is developing a *situational analysis* on the current state of health research, such as that developed under the Essential National Health Research strategy (Figure 3). This particular flowchart emphasizes three important dimensions to identify main health problems and the resources available for agenda uptake, namely:

- The health status in a given setting
- The healthcare system
- The health research system

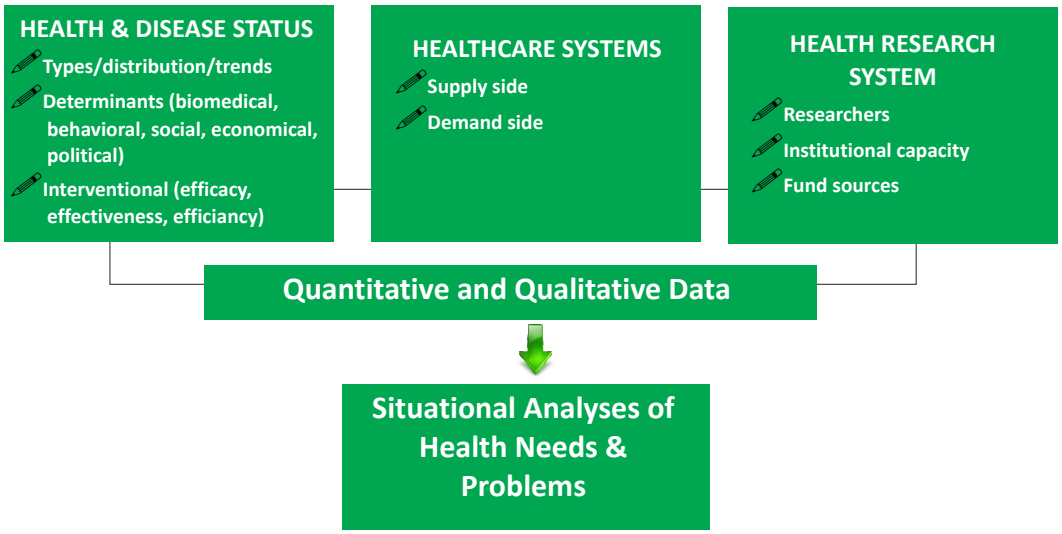


Figure 3. Situational Analysis Adapted from the ENHR Strategy[14]

Whatever approach is used, it is essential to ensure the inclusion of various perspectives at the global, regional, local, and institutional levels. Information at one level, where available, should be used to inform priorities at another level. For example, diseases prevalent only in some regions of the country may be considered a priority at the national level if such diseases are not reported anywhere in the world. It may be a potential niche of the country in global health research.

Diseases that are uniquely prevalent in some regions of the country may be a potential niche in global health research.

Regardless of the method used, information gathering will require human resources, access to information, and adequate amount of time. Leadership should commit to supporting this critical step by sourcing and securing adequate financial and non-monetary resources (including technical expertise and staffing).

D. Inclusiveness

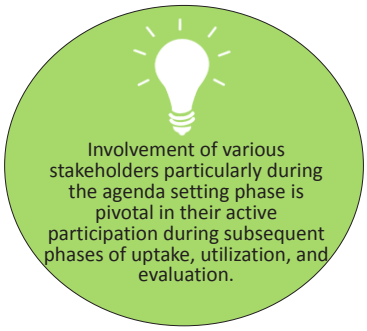
An important tenet to emphasize in research priority setting is inclusiveness.[15] It is a cornerstone in equitable prioritization (Panel 2).

Panel 2. Why is Inclusiveness Important?

1. Not bringing certain groups into the priority setting process may contribute to the neglect of certain health research fields.[15]

2. End-user participation:[16]
a. promotes accountability of researchers and funding institutions; and
b. creates opportunities for research results to be communicated in layman's terms

3. Participation from many different disciplines ensures that no priorities are overlooked. [10]



Stakeholders must be involved in the entire process of health research, from agenda setting to utilization, monitoring, and evaluation. Involvement of various stakeholders particularly during the agenda setting phase is pivotal in their active participation during subsequent phases of uptake, utilization, and evaluation. It is useful to delineate the roles of stakeholders as funders, implementers, end-users (or beneficiaries), or combinations of these.

Stakeholder composition should be appropriately tailored to the level (i.e., institutional, regional, or national) at which the research agenda will be implemented. Stakeholders comprise, but are not limited, to the following: scientists and researchers, non-scientist clinicians (e.g., hospital administrators, medical societies), government agencies, policymakers, academic institutions, funding agencies, development organizations, industry (such as pharmaceutical companies, manufacturers, and contract research organizations), private foundations, and civil society organizations. Panel 3 shows principles and best practices in choosing stakeholders.

Panel 3. Principles and Best Practices for Determining Stakeholder Representation

1. Inclusion of participants should ideally demonstrate breadth, qualitative equality, and the involvement of minority and disadvantaged groups (non-elite participation).[17]

2. The following criteria are useful in identifying the stakeholders:[18]
- *Geographical focus:* that there is adequate representation from different regions
- *Gender representation:* that gender equity will be an important consideration
- *Researcher/NGO interface:* that the process is not dominated by academics/researchers and that there is representation from civil society, NGOs, community-based organizations, human rights groups, consumer organizations, patient groups, and marginalized groups

3. For each category of stakeholders, determine why their opinions need to be sought and identify what role they should play in the process (e.g., providing opinion, providing evidence, or being a part of the group that decides on priorities).[10]

4. The relative weight or priority placed upon the viewpoints of different stakeholders can be adjusted according to the objective of the exercise.[15]

5. Leadership should welcome and seek dissenting voices that will challenge accepted wisdom.[10]

It is necessary to include multiple sectors because they offer substantial differences in perspectives and priorities in the resulting research agenda.[19] In this case, health research priority setting should also include patient groups, care givers, and/or their families, who are often overlooked but are important end-users of a healthcare system (Table 1).

Table 1. Sample Stakeholder Representation at Different Levels of the Health Research System

	National Level	Regional Level	Institutional Level
Leadership	PNHRS Core Agencies: * DOST-PCHRD * DOH * UP-NIH * CHED	* Regional Office Directors (CHDs) * Provincial Governments and Provincial Health Offices * City/Municipal Governments and their Health Officers	* Boards of Trustees (such as in civil society organizations and private foundations) * Boards of Regents and Officers (such as in specialty societies) * Dean's / Chancellor's Advisory Committees (such as in academic institutions)
Technical Working Group (TWG)	PNHRS RAC (or as assigned)	RHRDC RAC (or as assigned)	Technical Working Group as assigned
	TWG must be provided strong technical and administrative support, including financing TWG must have multisectoral representation, with some members having training & experience in research		
Participants	Representatives from: * government agencies * academe - SUCs - private institutions * industry - biopharmaceutical - contract research * research institutions * civil society groups * patient groups and their caregivers/families * health professional groups * funders - international dev't partners - local foundations * regional health research & development councils	Representatives from: * government agencies * academe * industry * research institutions * civil society groups * patient groups and their caregivers/families * health professional groups * possible funders	Representatives from: * Individual Departments / Committees / Councils * Staff / Employees / Faculty / Students * Shareholders * Clients / Consumers / Patients

Appropriate methods of engagement, especially for the general public and marginalized groups, should be used to ensure meaningful stakeholders' participation. During the research priority setting process, stakeholder deliberations should also be encouraged. Ideally, stakeholders should be allowed to pursue an equitable voice in constructive debates and conflict resolution.[20] Table 2 shows good practices in engaging the general public and marginalized groups.

Table 2. Engaging Representatives from the General Public and Marginalized Groups

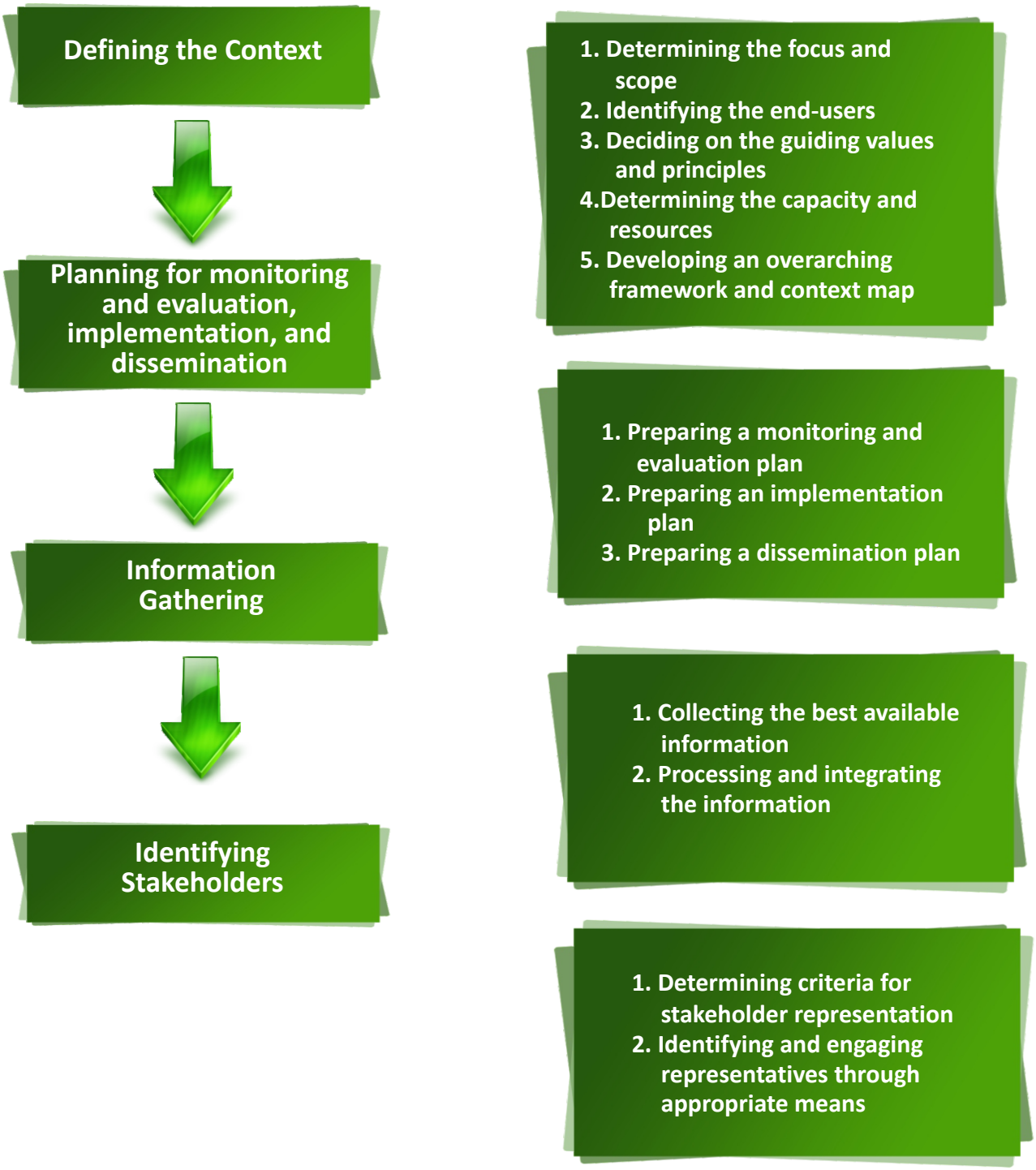
Stakeholder group	Methods of engagement
Patient groups, caregivers, and families	Employ a dialogue model between patients and healthcare professionals[21,22] Provide additional support (such as short sessions outside working group meetings) to clarify objectives and ensure members are comfortable with what is being asked of them during the prioritization exercise[23]
Communities, urban poor, indigenous peoples	Immersion and observation Dedicate sessions to marginalized groups to allow unique concerns and priorities to surface [24]
Intellectually challenged participants	Use of more informal settings such as visits in the participants' home or workplace, sharing life stories, and open conversations with friends and families[25]
Online patient communities	Web-based surveys, questionnaires, or social media[10,26]

The use of digital information channels has been highlighted as a fast and effective means for communication.[27] In low- to middle-income countries, national health research networks can be tapped to invite stakeholders. Government research agencies such as the Ministry of Health, Ministry of Higher Education, and national universities have the responsibility to encourage active participation of its constituents.[28]

Summary of Responsibilities: Preparatory Phase

RESPONSIBLE PERSON OR GROUP	RESPONSIBILITIES/ TASKS	REMARKS
Leadership	COMMITMENT TO ESTABLISH A HEALTH RESEARCH AGENDA	Commitment to the process guided by the values of transparency, inclusiveness, responsiveness, and equity
	COMMITMENT TO THE POST-AGENDA DUTIES	Ensure that plans for dissemination and implementation are done Ensure that there is an M&E plan, including the manner and schedule of agenda updates
	SUSTAIN STAKEHOLDER PARTICIPATION	Good leadership can be pivotal in creating and sustaining a high quality priority setting process
Technical Working Group	DEFINE CONTEXTUAL FACTORS	Determine the focus and scope, identifying the end-users, and delineating the values and guiding principles
	PLAN FOR MONITORING & EVALUATION	Monitoring scheme to be disseminated together with the agenda
	PLAN FOR TRANSPARENT DISSEMINATION	Create a dissemination plan as a supplement to the resulting research agenda
	COLLECT ALL RELEVANT INFORMATION	Exhaust methods to gather the entire gamut of information necessary to inform discussions on the research agenda
	PROCESS AND INTEGRATE THIS INFORMATION	Explore the most appropriate method to synthesize collected data Ensure inclusion of multiple perspectives at the global, regional, local, and institutional levels
	DETERMINE EQUITABLE STAKEHOLDER COMPOSITION	Stakeholder composition should be appropriately tailored to the level (i.e., institutional, regional, or national) at which the research agenda will be implemented
	ENSURE BROAD STAKEHOLDER INCLUSION	Use of multiple channels to ascertain broad stakeholder representation
Participants	DEMONSTRATE ACTIVE ENGAGEMENT AT ALL STAGES OF THE PROCESS	Active involvement helps create a sense of 'ownership' in the process and add much value to the research priorities identified

Summary Flowchart: Preparatory Phase



II. IMPLEMENTATION PHASE

At this point, the Technical Working Group is equipped with the (1) context; (2) plan for dissemination, implementation, and evaluation; and (3) all other relevant information. The Technical Working Group is now ready to begin the implementation phase, which involves (1) generating an initial list of health research topics; (2) determining criteria for prioritization; and (3) determining the method for deciding on the research priorities.

A. Generating an Initial List of Health Research Topics

The initial list of health research topics can be generated from:

A.1. Information Gathered during the Preparatory Phase

a. *Previous research agenda:* Health research topics from previous research agenda can be used as a source of information for generating a new list. Look for topics that have not been done and recommendations from completed researches.

b. *Situational analysis:* The ENHR and CAM models may be used to determine critical gaps in evidence or knowledge in the priority areas.

A.2. *Information from Stakeholders*

This involves inquiring from stakeholders for potential research topics using all means available. Questionnaires, surveys, and interviews are possible methods to generate a list of research topics, and can be done virtually or face-to-face. Virtual ways include electronic databases, email and social media. Face-to-face approaches include interviews, focus group discussions (FGDs) and participant-observations. Interviews may be more feasible for busy administrators. FGDs and participant-observations may be more effective for general public and marginalized groups.

In general, this list will be many and varied and should be synthesized. This is the job of the Technical Working Group. The TWG can remove duplicate topics and combine similar health research topics. Vague topics may be reworded or removed. The TWG may also review the literature to determine topics that may be deleted because they have already been addressed.

B. Setting the Criteria for prioritizing health research topics

Criteria are used to focus the discussion on research priority setting while considering the important dimensions of priority setting. Participants in a priority setting exercise must decide at the beginning of the exercise on which criteria to use. They should also decide how each criterion will be ranked or weighted in terms of importance. However, within a context of a single priority setting exercise that may involve different levels of prioritization (e.g., regional/ sub-national to national), it is important that the same criteria are used.

To do this, the TWG can facilitate a discussion to enable stakeholders to come up with a decision.The TWG will identify the appropriate representative stakeholders who will determine these criteria. Stakeholder composition should be appropriately tailored to the level (i.e., institutional, regional, or national) at which the research agenda will be implemented. The criteria for determining stakeholder representation have been provided in the preparatory phase section (Panel 3).

Criteria may be defined broadly according to the context of the health research agenda setting (e.g., values and principles of the agenda setting). Note that all participants should be made aware of these contextual factors.

Panel 4. Examples of Values and Principles in Agenda Setting

- Inclusiveness
- Equity
- Transparency
- Responsiveness

Criteria can also be categorized, as shown in Figure 3, into one of three dimensions: Public health benefit (*should we do it?*), feasibility (*can we do it?*) and cost (*are we willing to put our resources into it*?).

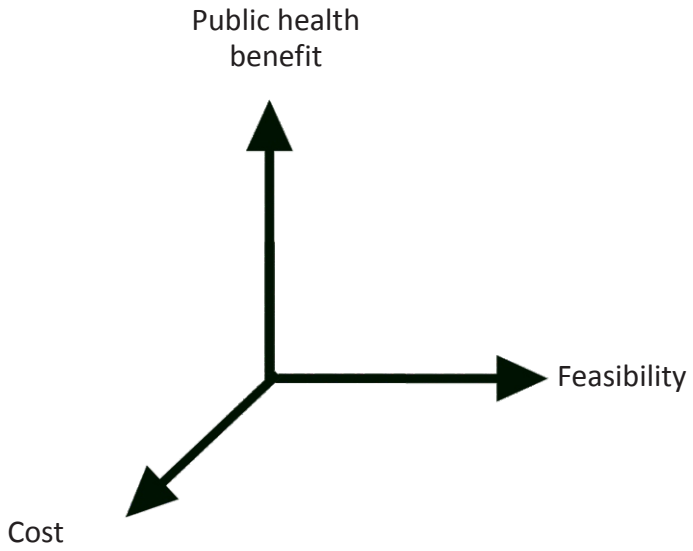


Figure 4. Three Dimensions of Criteria for Prioritization[10]

More specific examples of criteria are magnitude of a health problem, likelihood of reducing disease burden, cost-effectiveness, present level of knowledge, current resource flows, the degree of equitability, sustainability, ethical aspects and local research capacity.Table 3 below shows the commonly used criteria in health research priority setting.

Table 3. Commonly Used Criteria for Research Prioritization

CRITERIA	REMARKS BASED ON THE THREE DIMENSIONS OF CRITERIA FOR PRIORITIZATION
Sample Criteria from a CHNRI Exercise[29] 1. Likelihood that research option would be answerable in ethical way 2. Likelihood that resulting intervention would be effective in reducing disease burden 3. Deliverability, affordability and sustainability of resulting intervention 4. Maximum potential of intervention to reduce disease burden 5. Effect of disease burden reduction on equity in population	*Feasibility* – Criteria 1 and 3 address the feasibility of conducting research and of the effectiveness of resulting intervention. Additional criterion on feasibility in terms of available expertise to conduct the research may also be considered. *Cost* – Criteria 3 considered the cost of applying the intervention. Additional criterion on cost of the conduct of research may also be considered. *Public Health Benefit* – This aspect is adequately covered by Criteria 3, 4 and 5.
Sample Criteria from a COHRED Exercise[9] 1. Focus of the priority setting (diseases, health system, health research system, research institutions, or the overall science technology-and-innovation environment of the country) 2. Time frame (interim, short-term, long-term) 3. Periodicity (when will the next priority setting cycle take place) 4. Extent of the priority setting (national; subnational – regional, state, department, city; institutional)	*Public Health Benefit* – This aspect is covered by Criteria 1. *Cost* – Criteria 2 and 3 reflect the duration and frequency of research to be done, both of which have cost implications. *Feasibility* – This is covered by Criteria 4, which may reveal the required support and resources needed to do research in different levels.
Country-Level Example 1 [30] 1. Magnitude of the problem 2. Solvability by R and D 3. Feasibility of solution given current resources 4. Impact of R and D 5. Current funding	*Public Health Benefit* – This is covered by Criteria 1 & 4. *Feasibility* – This aspect is covered by Criteria 2 and 3. *Cost* – Criteria 5 reflects the cost of conducting research.
Country-Level Example 2 [31] 1. Magnitude or severity of a problem in the priority area 2. Economic importance 3. Expected impact of research 4. Feasibility of research to be completed within the period	*Public Health Benefit* – This aspect is covered by Criteria 1, 2 and 3. *Feasibility* – This aspect is covered by Criteria 4. *Cost* – This is also covered by Criteria 4. It reflects the time period it will take to complete a research.

C. Deciding on Research Priorities

Ranking and consensus are commonly cited ways of reaching decisions on prioritization.[2,8,9] Approaches that combine consensus with some form of metrics (ranking) are common. That is, research topics may first be individually prioritized and then consequently discussed (or *vice versa*). This can be an iterative process. It is not necessary to follow one specific method, but it is imperative to be transparent by describing the processes and steps in detail.

The TWG will determine the appropriate representative stakeholders who will rank the priorities based on the criteria provided in the preparatory phase section (Panel 3). This process, like the steps of arriving at the priorities, should be properly documented by the TWG.

C.1. *Ranking*

After generating the initial list of health research topics and deciding on the list of criteria, the TWG can facilitate the ranking of these topics by the stakeholders. The TWG shall provide the list of topics, the criteria and the weights assigned to each criterion. A template for assigning scores to research priorities is available in Annex 4.The scores should be collated and analyzed by the TWG by to come up with the ranked priorities. A template for collating the scores is available in Annex 5. Using this template, the topics may be classified into a low, medium, or high level of priority. Please note that values for weights and priority levels indicated in the annexes are for illustrative purposes only, and therefore can be modified as deemed necessary,but these values should have a solid basis or justification for their use.

STEP 7.1: Ranking the health research topics according to criteria

It is also important to differentiate between ranking priority issues and ranking priority research questions. At the beginning of the engagement of the stakeholders by the TWG, it is likely that priority issues (not specific research topics or questions) will be generated. The advantage of broad topics is that there is a wide room for flexibility on what research may be done. The disadvantage, however, is that researchers are sometimes left guessing on what topics may be classified under a broad issue. Thus, it is a good practice that, after the broad issues are identified, specific research topics are enumerated under each broad issue. The former step could be performed by a broad stakeholder group up front, and the latter step by the TWG.

Other ways of establishing thresholds for levelling of priorities are by using percentiles (e.g., thirtiles, quartiles).

C.2. Agreeing on Research Priorities

At this point, the list of research priorities have been ranked and medium to high priorities identified. However, there may be instances wherein some stakeholders may question, appeal, or object the result of the ranking. Such concerns can be settled by consensus if possible, which involves a group of participants jointly deciding on a priority, or through voting, with a majority decision prevailing. The resulting agenda tends to be more acceptable. Venues for consensus are through workshops, round table discussions, focus groups, or approaches that include a combination of these three. Annex 6 details the use of Delphi and Nominal approaches for consensus building. It also explains Child Health and Nutrition Research Initiative which uses both ranking and consensus building.

STEP 7.2: Agreeing on research priorities

D. <u>Other Important Aspects of Implementing the Prioritization Exercise</u>

D.1. Use of a Facilitator A facilitator can be invited to operationalize the consensus process of the agenda setting activity. The TWG should carefully choose a facilitator guided by the following characteristics:

a. *Impartial and neutral* - A facilitator should ideally be impartial and unbiased to avoid unduly influencing decisions and choices of participants. If conflicts of interest cannot be avoided, then these should be declared.

b. *Engaging* - A facilitator must be able to encourage stakeholders to participate in the discussions and other activites (e.g., voting process) during the consensus meetings.

WORKING TEMPLATE: See **Annex 4** on weighing the health research topics according to criteria

D.2. Ensuring balanced representation of stakeholders

There are instances that some institutions and stakeholder groups are more represented than the others. This may affect the results of the agenda, favoring groups with more representation. It is therefore important to ensure that: (a) the number of stakeholders from the different agencies or institutions is the same; or (b) that representation is by agency or stakeholder group, and not as an individual.

WORKING TEMPLATE: See **Annex 5** on how to collate the scores to determine the list of research priorities

Summary of Responsibilities: Implementation Phase

RESPONSIBLE PERSON OR GROUP	ROLES/ RESPONSIBILITIES	REMARKS
Leadership	LEADERSHIP TASKS BUDGET HUMAN RESOURCES INFRASTRUCTURE	Leadership should have enough budget, human resources, and infrastructure to fund the whole priority setting activity. Appropriate leadership of the priority setting process needs to be identified. This can be, for example, in the form of an executive committee or an advisory group that provides overall guidance on the prioritization process.
Technical Working Group	ORGANIZER AND FACILITATOR	TWG should initiate, organize, and facilitate the process.
Participants	INFORMATION SOURCE DECISION MAKER	Participants are one of the sources of information in generating the research topics and priorities. Participants must decide on the priorities through ranking, voting, or consensus.

Summary Flowchart: Implementation Phase

IMPLEMENTATION PHASE

Generating an Initial List of Health Research Topics

1. Information gathered from the preparatory phase
   - Previous research agenda
   - Situational analysis
2. Information from stakeholders

Choosing the Criteria for Ranking the Topics

Setting specific criteria guided by general dimensions of:
- Public benefit
- Feasibility
- Cost

Deciding on Research Priorities

1. Ranking the health research topics according to criteria
2. Agreeing on research priorities

III. POST-IMPLEMENTATION PHASE

STEP 8: Reporting the prioritization process and its results

A. Reporting the Prioritization Process and its Results

The entire research prioritization process and its results should be documented in full and should include: the context, the basis and process of selection of stakeholder participants, the criteria used for prioritization, the methods used for deciding on priorities, and the resulting agenda. Panel 4 below shows a sample report outline.

STEP 9: Disseminating the research agenda

Panel 5. Sample Report Outline for Post-Implementation Phase

At the end of the implementation phase, the TWG shall prepare a report which includes (but should not be limited to) the following sections:

Summary
1. Introduction/Context
2. Methods
   - 2.1 Priority setting exercise
     - 2.1.1 Methods of identifying and inviting the participants
     - 2.1.2 Methods used to generate list of initial topics
     - 2.1.3 Prioritization method/s used
3. Results of the priority setting exercise
4. Plans for agenda implementation/translation
5. References
6. Appendices (such as tools used and raw data)

STEP 10: Monitoring and Evaluation

B. Disseminating the Research Agenda

Active and timely dissemination is crucial to facilitating uptake of the research agenda. The dissemination plan developed during the preparatory phase should be updated at this stage if necessary. This includes confirming commitments (monetary or otherwise) from identified groups to carry out the plan, as well as ensuring the appropriateness of the plan. The dissemination plan is then carried out.

WORKING TEMPLATE: See **Annex 7** on how to create a status report for research agenda implementation

C. Monitoring and Evaluation

The monitoring and evaluation (M&E) plan developed during the preparatory phase should be revisited and updated at this stage if necessary. If no changes are necessary, M&E may proceed as originally planned. Annexes 7 and 8 illustrate sample tools for monitoring and evaluation.

SWORKING TEMPLATE: See **Annex 8** on how to make an evaluation report for a five-year agenda setting exercise

STEP 11:
Ensuring that the research agenda is dynamic

D. Ensuring that the Research Agenda is Dynamic

To ensure that the health research agenda is responsive to the evolving needs of stakeholders in the health sector, mechanisms should be set to allow for updating of the agenda and to allow for stakeholders to appeal the health research priorities.

STEP 11.1:
Updating the agenda

D.1. Updating the agenda

This will require revisiting and reviewing the implementation of the health research agenda, which can be done on a regular predetermined basis or on an *ad hoc basis*. If these reviews are to be done on a regular basis, the frequency of the reviews should be determined and should be linked to M&E efforts. These processes should be able to identify changing research priorities. New political leadership, and a modified health policy environment, and changing epidemiological and socio-economic landscapes are among the motivations to update the research agenda (Table 4).

Table 4. Quick Assessment of the Need to Update the Research Agenda

	Have there been any changes?	**If yes, are the changes significant enough to affect what should be prioritized in research?**
Epidemiological landscape	[ ] Yes [ ] No	[ ] Yes [ ] No
Socio-economic landscape	[ ] Yes [ ] No	[ ] Yes [ ] No
Political leadership	[ ] Yes [ ] No	[ ] Yes [ ] No
Health Policy Environment	[ ] Yes [ ] No	[ ] Yes [ ] No

Reviewing the health research agenda should be done not only with the participants during the implementation phase but also with other stakeholders who were not able to participate. This ensures that the agenda remains responsive to the current health needs.

STEP 11.2:
Establishing an appeals process

D.2. *Appeals process*

Though efforts will have been made to ensure inclusiveness and appropriate representation of stakeholders during the implementation phase, there still may be instances of disagreements on what was included in the health research agenda during the post-implementation phase. To address these complaints openly and fairly, stakeholders should be allowed to make an appeal. The TWG will have to establish a transparent appeals process (Panel 5). Existing appeals process templates may also be adapted to facilitate this step.[32,33]

POST-IMPLEMENTATION PHASE

Panel 6. Establishing an Appeals Process

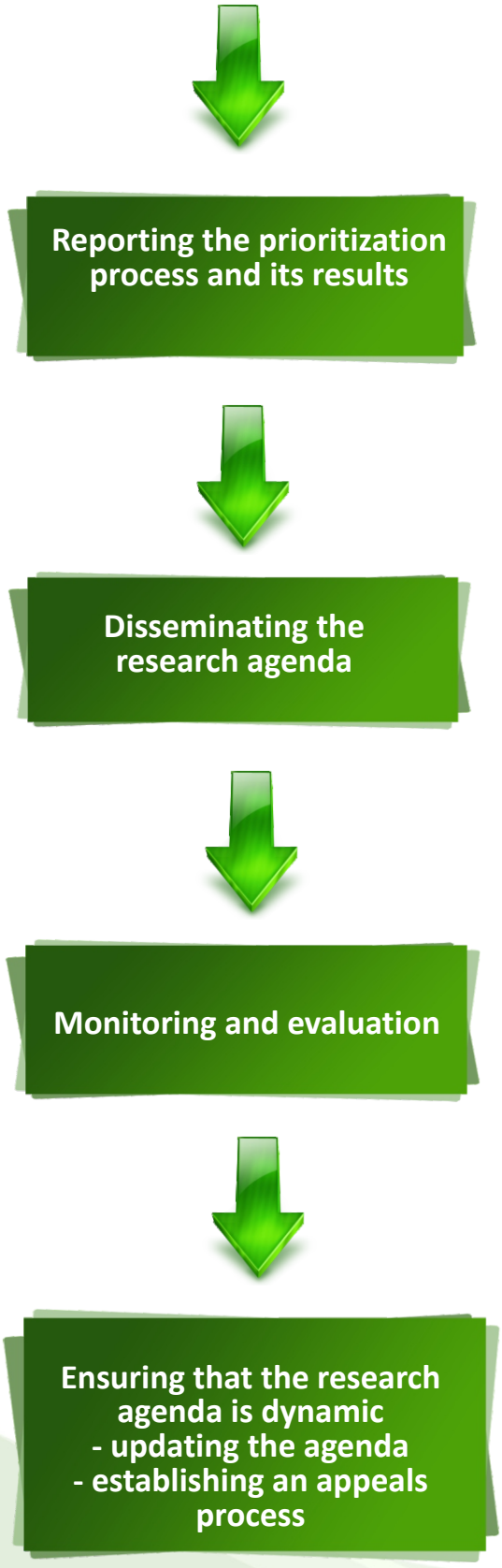
An appeals process should be established by the TWG and should include the following:

- How appeals can be submitted
- Which form will be used (e.g., required forms/ templates)
- Who exactly will handle and decide on appeals
- How often this will be done (scheduled like quarterly or semi-annually)
- How results of the appeal will be known (published on a website)

Summary of Responsibilities: Post-Implementation Phase

RESPONSIBLE PERSON OR GROUP	ROLES/ RESPONSIBILITIES	REMARKS
Leadership	PROVIDE SUPPORT FOR INFORMATION DISSEMINATION RELEASE RESOURCES ON TIME	Leadership to release allocated funds, as well as non-monetary resources such as human resources, infrastructure, networks and partnerships available to the staff responsible for information dissemination
Technical Working Group	DRAFT REPORT (AS OUTLINED IN PANEL 5)	Draft and submit report of the agenda setting activity to the Leadership
	IDENTIFY AUDIENCE, CREATE AND EXECUTE INFORMATION DISSEMINATION STRATEGIES	For information dissemination, the TWG can contract out or assign staff responsible for information dissemination
	M&E INCLUDING AGENDA UPDATES	Regularly monitor progress of the researchers and evaluate outcome of the agenda setting exercise
	SET-UP AN APPEALS PROCESS	
Stakeholders	ALIGN RESEARCH ACTIVITIES TO THE AGENDA	Active participation in their respective roles in: • the uptake of the research agenda • utilization of researches • monitoring and evaluation of researches • the appeals process

Summary Flowchart: Post-Implementation Phase



POST-IMPLEMENTATION PHASE

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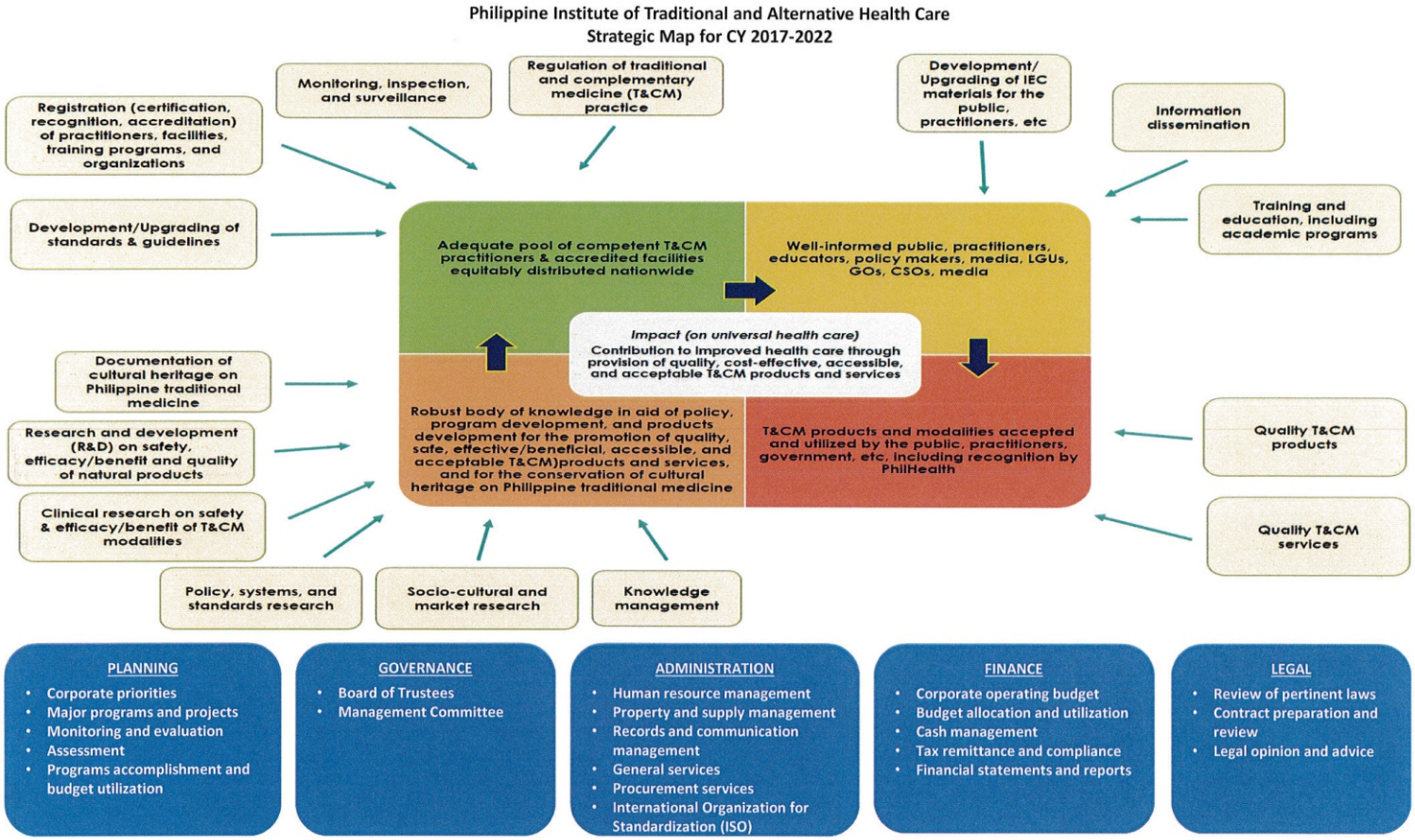
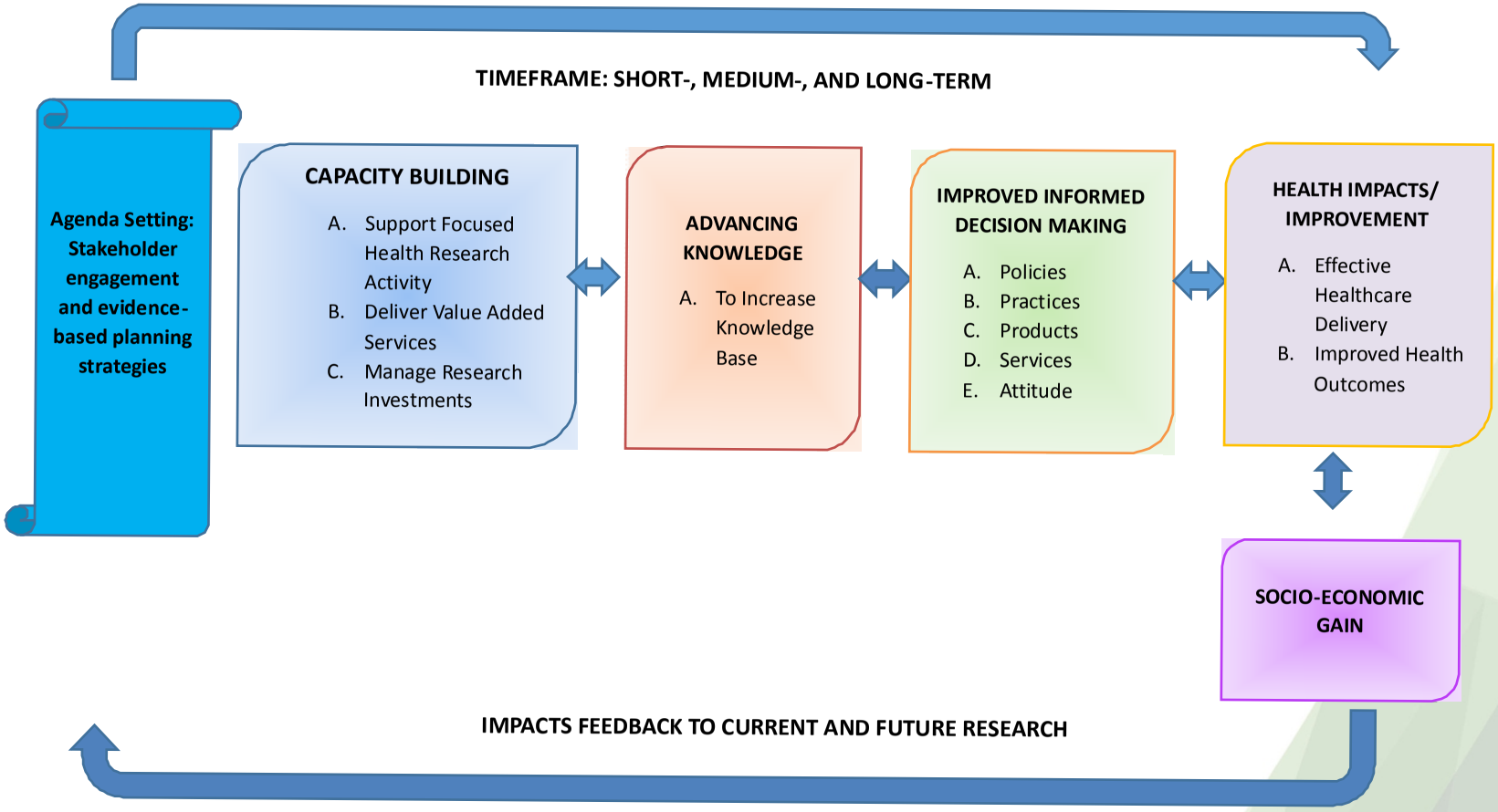
ANNEX 1. Sample Context Map

A context map facilitates visualization of the contextual factors in a health research prioritization exercise. The map below illustrates the strategic map outlined by the Philippine Institute of Traditional and Alternative Health Care (used with permission)



ANNEX 2. Sample Research Impact Framework

An effective health research impact framework will illustrate the desired research related impacts, policy impacts, service impacts and societal impacts of the health research agenda.[34]



ANNEX 3. Sample Dissemination Plan

An effective Information dissemination plan will ensure that the relevant stakeholders will be aware of the research agenda. The proposed activities, dissemination tools and channels should correspond to the literacy of the target audience.

Form Number:					
Version number:					
Date of Issue (MM.DD.YYYY):			Prepared by:		
Table of Dissemination Activities					
Activity no.	Activities, dissemination, channel/s and tool/s	Results/Outputs	Target Audience: *(Indicate with the corresponding letter)* A. Beneficiaries B. Policy makers C. Researchers D. Higher education E. Industry F. Funding Agency G. Others; Please specify	Responsible organization/person	
				Main	Contribution
Activity no. 1	*Disseminate via electronic means (websites, social media)*	*To increase the level of awareness among target stakeholders*	*A, B, C, D, E, F*		
Activity no. 2	*Half day workshop from 9am to 12 noon on…*	*To increase the level of awareness among the participants* *Promote end-user participation*	*A*	*Materials for the workshop will be prepared by…*	
Activity no. 3	*Round Table Discussion*	*To gain buy-in among funders*	*F*	*Materials for the workshop will be prepared by…*	

ANNEX 4. Table for Weighing Health Research Topics

This is a template for computing the scores for health research topics. A representative stakeholder assigns scores to each health research topic based on the criteria.

SAMPLE CRITERIA	Magnitude of the problem (based on prevalence, urgency, burden to population)	Can the problem be solved by R and D?	Is the expected solution applicable based on existing resources of the nation/region/province?	Is the research feasible based on existing resources of the nation/region/province?	Does R and D have an impact on the issue being addressed?	SAMPLE COMPUTATION	TOTAL SCORE
Assigned Weight per Criteria (multiplier)	2	1	1	1	1		
Topics	**SCORE THE TOPICS PER CRITERIA (from 1 to 10)**						
1. Topic 1	9	10	8	5	6	(9x2) + (10x1) + (8x 1) + (5x1) + (6x1)	47
2. Topic 2	6	6	8	10	10	(6x2) + (6x1) + (8x 1) + (10x1) + (10x1)	46
3. Topic 3	10	10	10	10	10	(10x2) + (10x1) + (10x1) + (10x1) + (10x1)	60
4. Topic 4							
5. Topic 5							
...							

ANNEX 5. Table for Ranking the Priorities

This is a template for determining the rank and level of research priorities. Scores are collated from multiple stakeholders to determine the collective rank of research priorities.

	Stakeholder 1	Stakeholder 2	Stakeholder 3	Stakeholder 4	…	AVERAGE SCORE	PRIORITY RANK	PRIORITY LEVEL
LIST THE TOTAL SCORE FOR EACH TOPIC PROVIDED BY EACH STAKEHOLDER								
Topic 1	47	50	44	…		80	2	High
Topic 2	46	52	40	…		66	3	Medium
Topic 3	60	50	40	…		92	1	High
Topic 4	45	40	35			45	4	Low
Topic 5								
…								

Sample priority levels:
High Priority: Scores between 75 and 100
Medium Priority: Scores between 50 and 74
Low Priority: Scores between 0 and 49

ANNEX 6. Commonly Used Methods of Consensus Building

COMMONLY USED METHODS	DELPHI METHOD[23,24,35,41]	NOMINAL GROUP APPROACH[36,42]	CHILD HEALTH AND NUTRITION RESEARCH INITIATIVE (CHNRI)[18,37–39,41]
Useful for:	Consensus building	Consensus building	Consensus building combined with metrics
When to Use	Type of an iterative consultation that yields an overview of what is happening in an area of science.	To increase creativity and participation in group meetings involving problem-solving and/or fact-finding tasks To develop or expand participants' perceptions of critical issues within defined problem areas To identify priorities among selected issues within a problem area, considering the viewpoints of differently-oriented groups	Address several components of research that can be used as criteria for setting research priorities
General Features	A systematic, interactive forecasting method which relies on a panel of experts. The experts answer questionnaires in two or more rounds. After each round, a facilitator provides an anonymous summary of the experts' forecasts from the previous round as well as the reasons they provided for their judgments. Thus, experts are encouraged to revise their earlier answers in light of the replies of other members of their panel. It is believed that during this process the range of the answers will decrease and the group will converge towards the "correct" answer. Finally, the process is stopped after a pre-defined stop criterion (e.g., number of rounds, achievement of consensus, stability of results) and the mean or median scores of the final rounds determine the results.	The nominal group technique is taught and used widely in the context of group processes. As an integrative method, it is particularly useful for synthesizing judgments where different types and extent of knowledge and/or a diversity of opinions exist on a problem or issue. Participants exhibit a commitment to dialogue and a willingness to accept the outcomes of the group process, even if the outcomes do not match the position they initially brought to it.	• A systematic approach that enables a better understanding of the key criteria that qualify some research options as a funding priority over the others. • Its transparency ensures that all reasons for decision making and input from each person involved are recorded and eventually viewed and challenged at any later point in time. • It incorporates an efficient means of considering the voice of stakeholders and the wider public.
Advantages	1. "Multiple iterations and feedback process 2. Flexible to change Anonymity of respondents"[41]	1. "Generates greater number of ideas than traditional group discussions 2. Balances influence of individuals by limiting power of opinion makers 3. Diminishes competition and pressure to conform 4. Encourages participants to confront issues through constructive problem solving 5. Allows group to prioritize ideas democratically Typically provides greater sense of closure"[42]	1. "Simple, inclusive and replicable and thus systematic and transparent process 2. Independent ranking of experts 3. Less costly"[41]

COMMONLY USED METHODS	DELPHI METHOD[23,24,35,41]	NOMINAL GROUP APPROACH[36,42]	CHILD HEALTH AND NUTRITION RESEARCH INITIATIVE (CHNRI)[18,37–39,41]
Disadvantages	1. "Does not provide methodology for identifying participants 2. Lack of criteria transparency 3. Potential for low response rate due to multiple iterations 4. Time-consuming 5. Potential for investigators and facilitators to bias opinions"[41]	1. "Requires preparation 2. Is regimented and lends itself only to single-purpose, single-topic meeting 3. Minimizes discussion, does not allow for full development of ideas, and can be less stimulating"[42]	1. "Potentially represent collective opinion of the limited group of people who were included in the process 2. Scoring affected by currently on-going research"[41]
Key Steps	1. Design the questions 2. Circulate the questions to a wide community 3. Analyze the answers or comments of the experts' views: typically done with graphs or diagrams 4. Present the answers in the form of assertions and rationale and circulate again for comment 5. Produce a report setting out the final conclusions of the work	1. Generating ideas: Each individual in the group silently generates ideas and writes them down. 2. Recording ideas: Group members engage in a round-robin feedback session to concisely record each idea. 3. Discussing ideas: Each recorded idea is then discussed to obtain clarification and evaluation. 4. Voting on ideas: Individuals vote privately on the ranking of the ideas, and the group decision is made based on these rankings.	1. The initiators of the priority setting process should gather a group of leading technical experts in the area of interest (in this case, child health) 2. The experts define the context in space, time, target population, and target disease burden. 3. The members of the technical working group are expected to systematically create an exhaustive list of the competing research issues by addressing risk factors and possible interventions through 3 main instruments of health research. 4. Technical experts score all the research issues by assessing their likelihood to address each of the five (5) criteria relevant to priority setting: answerability in an ethical way; efficacy and effectiveness; deliverability and affordability; maximum potential to reduce the existing disease burden; and predicted effect on equity in the population. 5. Weights and thresholds are placed on the five intermediate scores to reflect the values of stakeholders' representatives from the larger reference group. In this way, the methodology ensures that the scientific assessment of the research priorities is combined with a view of the wider society in which the priorities should be implemented. 6. Weighted means of intermediate scores are then computed to derive the final "research priority score" for each research issue. 7. Technical experts use the derived priority scores to: • Perform program budgeting and marginal analysis at the country level. • Make the results accessible to the public. • Implement mechanisms for reviewing the scores and decisions. • Advocate and implement the identified priorities. • Evaluate and improve the process based on feedback information.

ANNEX 7. Monitoring the Research Agenda Uptake

Sample Status Report for Research Agenda Uptake
This is a tool for monitoring research agenda utilization. The table provides a target date of completion and provides the progress for each project.

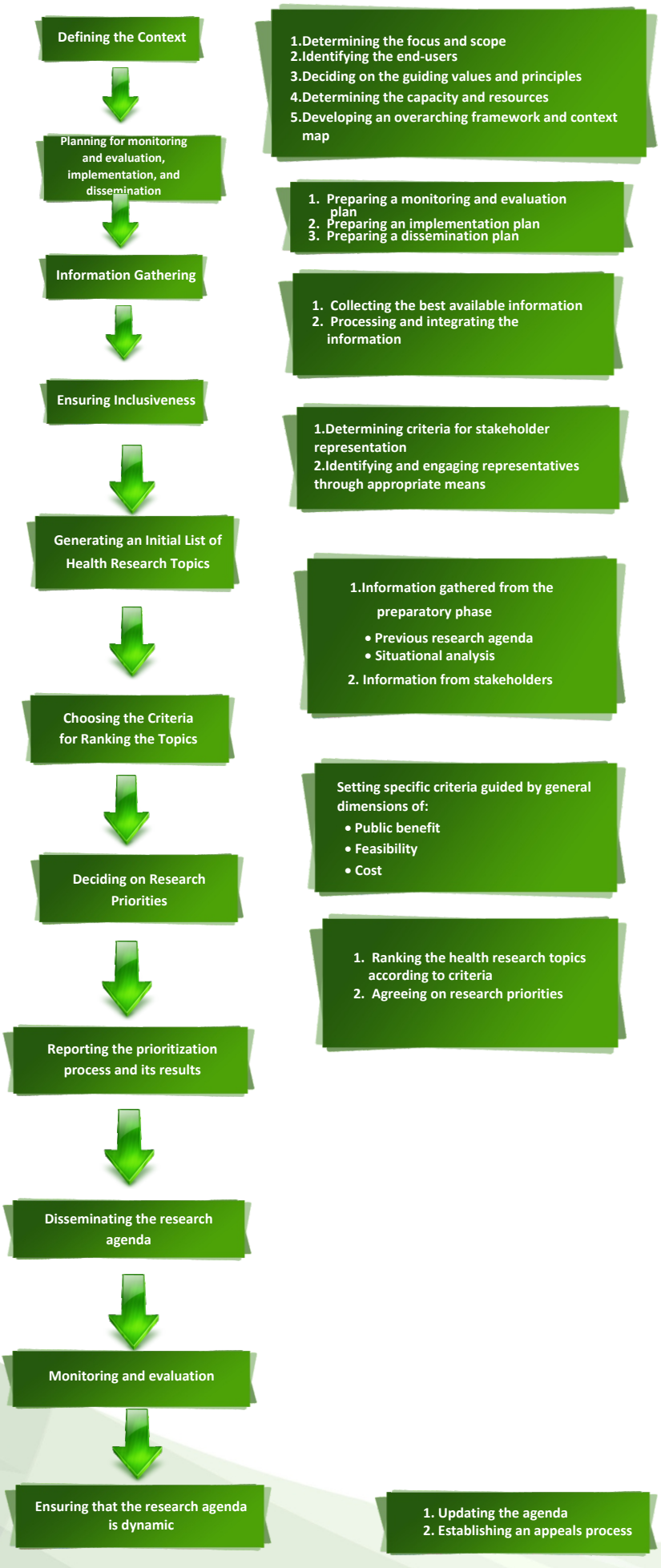
QUARTERLY STATUS REPORT as of _____, 20_____.				
Research Agenda List of Topics	**Target Date of Completion**	**CURRENT PROJECT STATUS**		
		RED (Project has not yet started)	**YELLOW** (Project is ongoing)	**GREEN** (Project is completed)
Category A (*Example: Healthcare Financing*)				
1.Topic 1 (*Example: No balance billing among DOH retained hospitals.)*				
2. Topic 2				
3. Topic 3				
…				
…				
Category B				
1. Topic 1				
2. Topic 2				
3. Topic 3				
…				
…				

ANNEX 8. Evaluation of Research Agenda Uptake

Five-Year Evaluation Report Template
This is a sample evaluation report for the uptake of the research agenda. It details some examples of specific indicators per year across the period covered.

Title of Agenda:						
Indicators:	**Period Covered**					**TOTAL**
	2017	**2018**	**2019**	**2020**	**2021**	
A. Number of topics identified in the research agenda						
B. Percent of submitted research proposals aligned to the agenda (B/A x 100)						
C. Percent of approved research proposals (C/A x 100)						
D. Percent of completed researches (D/A x 100)						
E. Percent of published researches (E/A x 100)						
F. Percent of researches utilized for health policies and programs (F/A x 100)						
G. Number of new research topics that were added						

STEPS IN HEALTH RESEARCH PRIORITIZATION



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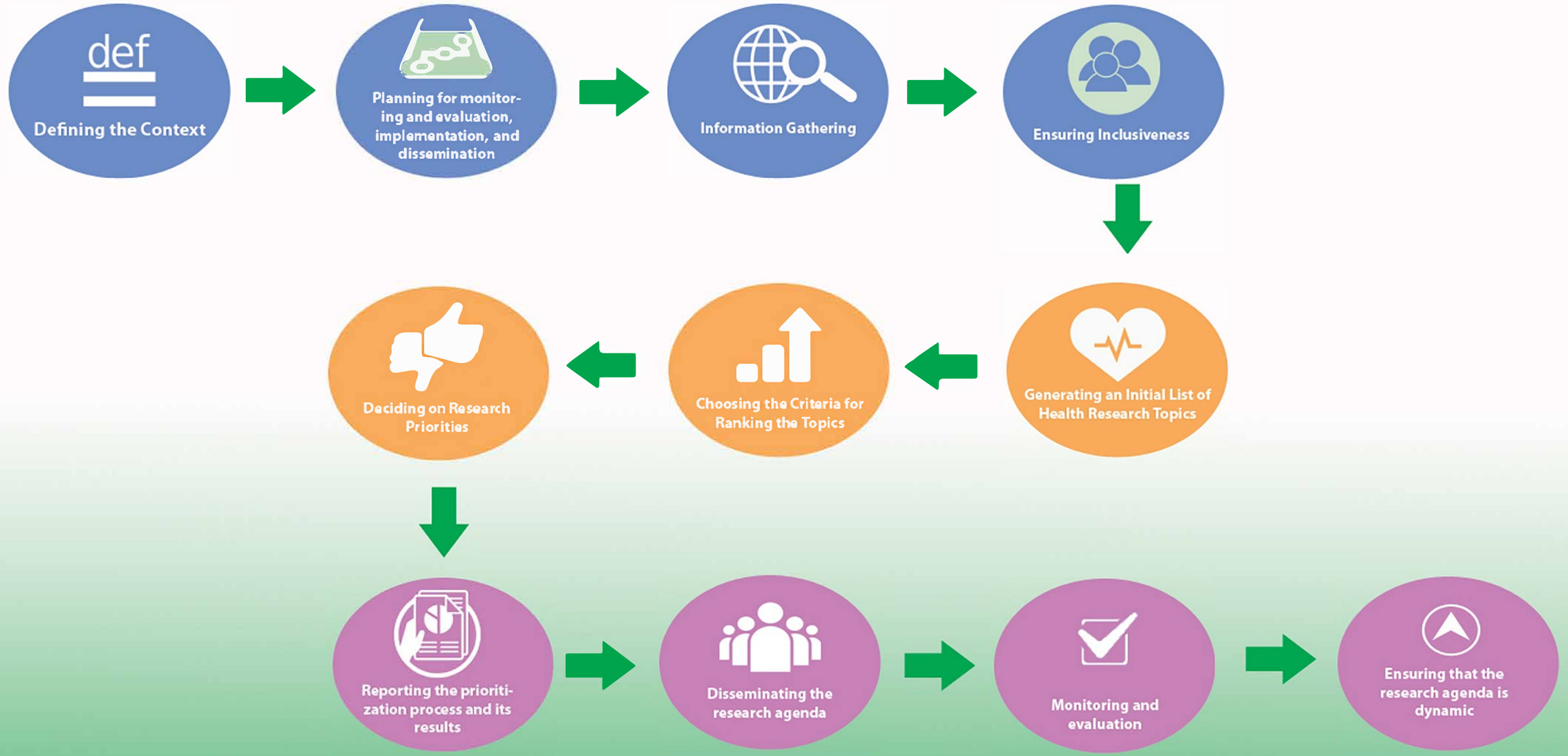
STEPS IN HEALTH RESEARCH PRIORITIZATION



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