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Final Report Version 1

Title of the Project:

PNHRS' National Unified Health Research Agenda (NUHRA) 2017-2022: Preparation, Advocacy, Monitoring and Evaluation

Duration of the Project: January to October 2017

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List of abbreviations

CAP	Communications and Advocacy Plan
DOH	Department of Health
DOST	Department of Science and Technology
HDI	Health Alternatives for Total Human Development Institute, Inc.
MEP	Monitoring and Evaluation Plan
NGOs	Non-Government Organizations
NUHRA	National Unified Health Research Agenda
PCHRD	Philippine Council for Health Research and Development
PDP	Philippine Development Plan
PNHRS	Philippine National Health Research System
RAC	Research Agenda Committee
RHRDC	Regional Health Research and Development Consortium
RPO	Regional Project Officer
RUHRA	Regional Unified Health Research Agenda
UPM	University of the Philippines Manila

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I. Introduction

A. Background

The Philippine National Health Research System (PNHRS), with its goals to enhance health status through health research, generates the National Unified Health Research Agenda (NUHRA). It is one of PNHRS' core areas, alongside ethics, utilization, resource mobilization, system monitoring and evaluation, and capacity building. The NUHRA guides health research and development efforts of the country, and, given recent developments in local capacity and education among others, catalyzes the development of the local health economy. Building on achievements and lessons learned from previous editions, the current NUHRA 2017-2022 was designed to balance the inputs from the regional stakeholders and national agencies.

The priority setting activity involved multi-disciplinary and multisectoral participation at the regional and national levels. It made use of the PNHRS Guidelines for Health Research Priority Setting established by the Research Agenda Committee (RAC) in 2016. Regional and national stakeholders dedicated time to fully participate in multiple consultations throughout the country to provide a prismatic lens into the current health status of each region. The NUHRA 2017-2022 will have to be properly disseminated and advocated to ensure that health researches will be aligned to the identified research priorities. Likewise, it has to be monitored and evaluated to track its implementation, milestones and accomplishments, and research outputs.

B. Rationale

Philippine economic growth in the last few years has been remarkable. Placing this within an environment of stronger local capacity, improving education among the population, increasing number of foreign workers, and tapping of local markets, the opportunity for health research and development will increase. The NUHRA will serve as the country's template for health research and development efforts. The NUHRA 2017-2022, guided by lessons from previous NUHRAs and the current Philippine Health Agenda, was formulated to complement development through health research and innovations in health care.

C. Objectives

1. To formulate the National Unified Health Research Agenda for 2017-2022;
2. To determine the health research priorities of the regions for 2017-2022;
3. To develop an advocacy plan for the 6-year national health research agenda; and
4. To develop a monitoring and evaluation plan for the 6-year national health research agenda.

D. Significance

The NUHRA 2017-2022 will serve to catalyze the process of expanding innovation, health services in the country, production of health goods, and building the capacity of highly qualified Filipino health care managers and researchers. It serves as the basis for selecting, prioritization, and funding of health research proposals and sets the direction of health researches in the country for the next six years.

E. Literature review

Setting the research agenda is essential to maximize the impact of investments, and is regarded as key in strengthening the national health research system. Literature on agenda and priority setting process state that it should have a clear governance and leadership, is properly documented and legitimate, has a transparent procedure, and contains a mechanism for publishing results. The Guidelines for Health Research Priority Setting developed by the

PNHRS (2016) divides the process into three phases: preparation, implementation, and post-implementation.

The research agenda can be of several types. It can be a list of priorities which guides agencies or institutions in allocating their money based on strategic directions. The second type is a wishlist of an agency, such as the government, presented to development partners to determine which researches they would want to fund, or to researchers to develop proposals for funding opportunities. In the early 2000s, health programs in the Philippines began taking this approach. A third type is a mix of the two - a mix of priorities of institutions and interests of particular groups/agencies. Government institutions and non-government partners (*e.g.*, private sector, universities, and development partners) can pick topics of interest based on their technical and resource capacities and based on how these topics are in line with their directions. The NUHRA 2017-2022 is perceived to be of this type--composed of broad areas, rather than a list of topics.

The process of research agenda setting is both a science of research and an art of political science. It is a science because it requires strong evidence, robust methodology, and a team of experts who have strong technical and research capacities. The art and politics come in when topics are being vetted and prioritized. While criteria are useful and helpful, the agenda can be highly influenced by key persons or agencies which control the funds; hence, it is essential to determine who these persons or offices are and to ensure their buy-in with the framework or strategy.

An evaluation of NUHRA 2011-2016 revealed that not all topics included were completed or done. It was recommended that the consultation process should be inclusive and participatory. National priorities should arise from regional consortia. The number of NUHRA priorities should be kept low and funding must be assured. Lastly, use of internet and digital technology should be maximized. The NUHRA 2017-2022 should have a strategic plan for its advocacy and implementation in the five-year agenda prior to launching the national agenda. Monitoring and evaluation indicators should also be enforced by the PNHRS. Both bottom-up and top-down approaches with multi-sector representation are recommended. (Ramos-Jimenez et. al, 2015)

Alongside NUHRA were the Regional Unified Health Research Agenda (RUHRA) 2011-2015. Fifteen of 17 regions had their respective RUHRAs. These regional agenda, while guided by the NUHRA, were still perceived as more important as it was seen as more relevant to regional problems and gave direction at regional level. Some recommendations for the RUHRA include greater involvement of stakeholders in multi-sectoral consultations. Others are revisiting previous RUHRA, aligning with NUHRA, and engaging Department of Health (DOH) Regional Offices in regional agenda setting. (Ramos-Jimenez et. al, 2015)

The succeeding section will discuss the development of the NUHRA 2017-2022.

II. Accomplishments

The development of the NUHRA 2017-2022 followed the PNHRS National Guidelines for Health Research Prioritization which divided the process into three phases: preparatory, implementation, and post-implementation (Annex A). The preparatory phase included information gathering and integration for contextualization of health research issues, mapping of stakeholders, planning for implementation, monitoring and evaluation, and information dissemination. The implementation phase produced the health research agenda through inclusive consultations. The guidelines prescribed the determination of criteria and application of the same to identify priority topics for inclusion into the research agenda. The post-

implementation phase emphasized the importance of reporting the results, dissemination of the agenda, monitoring and evaluation of research generation and utilization, and updating the agenda. The perspectives in the reporting of accomplishments shall ensure that the Political-Technical-Operational components of the project are reported.

The development of the NUHRA 2017-2022 adopted the Kingdon model for agenda setting (1984). This model involved the alignment of three streams - problem, policy, and political - which provided a window of opportunity for the elevation of an issue into public policy (Figure 1).

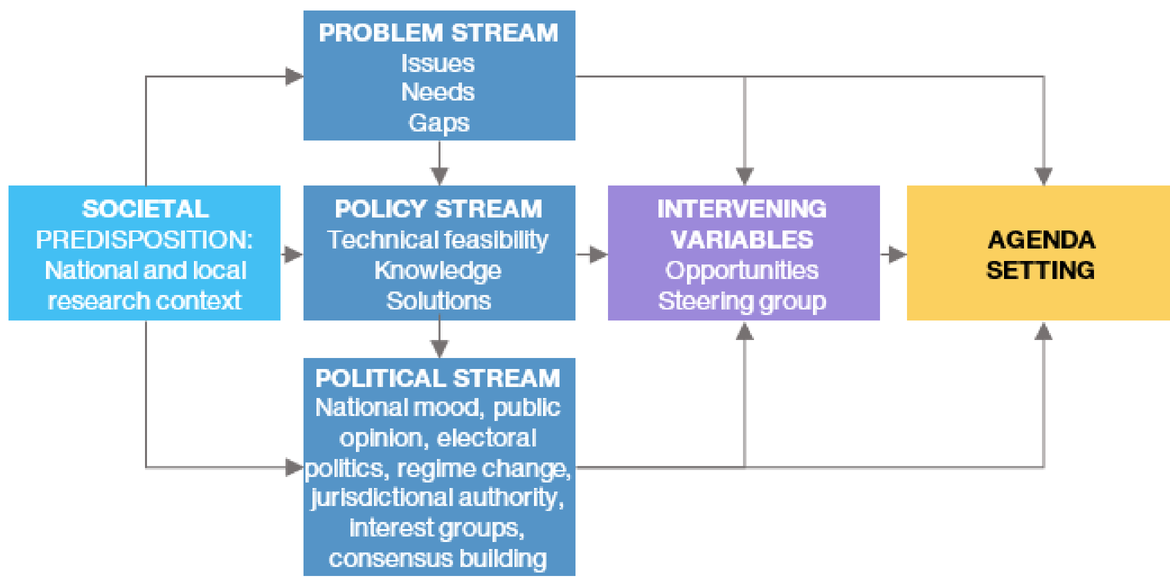

Figure 1. A flowchart illustrating the Kingdon Multiple Streams model on agenda setting (1984).

A. Preparatory phase

The preparatory phase included development of reports and papers to give context to the status of health research at the national and regional level. In framing the research context for every region and at the national level, several reports and papers were developed to provide stakeholders with an objective basis and baseline information for determining health research priorities, alongside national and regional policies and political priorities. The steps taken during the preparatory phase include:

1. Courtesy calls and levelling off

   The preparatory phase began with the North Luzon, South Luzon, Visayas, and Mindanao teams conducting courtesy calls with the Regional Health Research and Development Consortia (RHRDC) offices. During the visits, the teams introduced the project, the project team, and to communicate the objectives and scope of work. The key offices include the PCHRD regional offices, universities, and hospitals. This was essential in order to keep these stakeholders involved from the very start on developing the agenda. Likewise, meetings with the Research Agenda Committee, the PCHRD Executive Director were done to brief them on the project, the project team, the objectives, and the expected outputs.

2. Production of regional situational reports (Annex B)

   Each region developed a regional situational report describing the stakeholders, health research context, and the health challenges, issues, gaps, and threats in the region.

The reports were developed by regional coordinators through review of literature and interviews with key informants, guided by a general outline developed by the core team. The reports contained discussions on population, economic, and educational background, previous health research priorities, profiles of the health challenges faced, research gaps and limitations, opportunities and strengths, and political priorities and directions. These reports served as guides defining the health research context in the region during regional consultations.

3. Production of technical papers and infographics

   Four technical papers were developed to frame key issues surrounding health, health sector, and health research needs at the national level (Annex C). These papers were prepared through review of related literature, policies, and strategies, and consultations with key stakeholders via interviews and focus group discussions. These papers are:

   a) Synthesis of national socio-economic development and health directions, and setting the working framework for NUHRA 2017-2022 (Salisi and Oraño, 2017)
   b) A 20/20 vision of the Philippine health sector by 2040: review of current trends, developments, and challenges (Klingel and Zuñiga, 2017)
   c) Towards a relevant and actionable Philippine health research agenda: a review (Lopez and Dizon, 2017)
   d) Enabling greater private sector participation in health research in the Philippines (Magtubo and Mauricio, 2017)

   Infographics on main findings of the technical papers and the methodology used were also developed for the general audience and non-academics to assist interpretation of key results during the conduct of regional and national consultations (Annex D).

4. Coordination with RAC and PCHRD Secretariat

   During the development of the consultation design and the leveling off with the various regional offices, the project team also met with the RAC, in order to get their input. The consultation design was sent for clearance by the RAC.

B. Implementation phase

The implementation phase covered the regional and national consultations and thematic analysis of the generated outputs to identify national research themes.

<u>Regional consultations</u>

Regional consultations were held with stakeholders from the academe, government, hospital, non-government organizations (NGOs), and private sectors. These consultations defined the health needs and concurrent research priorities of different institutions through their representatives. Each participant was provided with a regional consultation package which included the consultation design and program (Annex E).

Regional consultations, in coordination with the HealthDev Institute (HDI), the PCHRD Central Office, and respective RHRDCs were conducted from 18 April to 6 June 2017 (Table 1). The HDI was responsible for the logistical and secretarial needs for all regional consultations. The PCHRD Central Office sent invitations to and coordinated the schedules with the regional consortia. The RHRDCs invited participants to the consultations and prepared presentations on their respective regional development plans.

Table 1. List of regional consultations held.

Date	Venue	Region
18-19 April 2017	Davao City	ARMM
25 April 2017, 8 May 2017	Manila	NCR
25-26 April 2017, 1 June 2017	Iloilo City	Region 6
27-28 April 2017	General Santos City	Region 12
27-28 April 2017	Angeles City	Region 3
4-5 May 2017	Quezon City	MIMAROPA
4-5 May 2017	Cebu City	Region 8
10-11 May 2017	Davao City	Region 11
10-11 May 2017	Legazpi City	Region 5
11-12 May 2017	Baguio City	CAR
11-12 May 2017	Cebu City	Region 7
15-16 May 2017	Zamboanga City	Region 9
18-19 May 2017	Cagayan de Oro City	Region 10
18-19 May 2017	Tagaytay City	Region 4
23-24 May 2017	Laoag City	Region 1
25-26 May 2017	Cauayan City	Region 2
5-6 June 2017	Butuan City	Caraga

In the 17 regional consultations conducted, 387 different stakeholders participated. Of this, 56% were from government agencies, 34% from academe, 7% from NGOs, and 3% from the private sector (Annex F).

The research priorities and perceived needs of each representative were raised through small focus group discussions. These topics were grouped into themes. The stakeholders also established their criteria and scoring weights to clarify the specific values and principles that would guide the prioritization of research topics. The following indicate the entire range of criteria used by the participants during the regional consultations:

- Acceptability
- Alignment with national and local directives
- Applicability of research
- Availability of resources
- Capacity and feasibility
- Equity
- Ethical acceptability
- Feasibility
- Impact or benefit
- Innovation
- Magnitude of problem
- Novelty
- Political will
- Public health impact
- Relevance and responsiveness
- Responsiveness to national and regional policies and goals
- Significance, impact, magnitude of the problem and concern
- Urgency and timeliness
- Utilization

In preparation for the national consultation, the following were also reviewed: Philippine Health Agenda 2016-2022, DOH Philippine Medium Term Research Agenda, DOST Harmonized Research Agenda, Philippine Development Plan (PDP) 2017-2022, and the Sustainable Development Goals.

National consultation

The national consultation was held on 23 June 2017. Invited stakeholders were identified by PNHRS RAC and PCHRD (Annex G). One week prior to the national consultation, each invitee was provided with the national consultation package which includes a project brief, the draft of NUHRA containing the list of all research priorities from the regions, DOH, and DOST, and

the four technical papers. Each participant was enjoined to review the documents and to prepare items for inclusion into the NUHRA.

The national consultation was attended by 26 stakeholders, 16 of which were from government agencies, eight from NGOs, and two from international development partners. The participants gathered as a plenary of national stakeholders and raised their institutional research priorities for inclusion into the NUHRA. Representatives who were unable to finish presenting their priorities were advised to relay their suggestions via e-mail.

Seventeen regional consultations produced 17 RUHRAs. These priorities represent the topics and areas of concern that the regional stakeholders considered needed research. Each list of research priorities also contains specific topics and subtopics under each priority (Annex H). The number of research priorities generated by the regions averaged at 16, lowest is eight from Region I and highest is 26 from Region VI. A total of 243 research priority themes were identified, with 1,364 sub-topics. This was reduced to 1,210 after removing exact duplicates(Annex I).

The national research priorities of DOH and DOST-PCHRD and the 17 regional outputs from the regions were combined and analyzed through thematic analysis (Braun and Clarke, 2006). The topics raised by stakeholders and from the reviewed documents served as the initial coding units. An Excel sheet was used to tabulate the initial coding units for ease of reference. These topics were reviewed singly, in relation to each other, and in toto, vis-a-vis the aforementioned documents from the national agencies and international publications. Several attempts at categorization of the codes were done using varied adaptations of frameworks (*e.g.*, World Health Organization Health System Building, and the PDP 2017-2022) for grouping health concerns and health research topics. The first cycle of coding was conducted using the inductively generated codes, that is, similar topics were grouped into codes. The codes generated in this first cycle were then further grouped. Through inductive and iterative grouping, **six research themes** were determined to be the best fit. This process was followed for all additional topics to the agenda development process.

NUHRA document

The final version of the NUHRA 2017-2022 incorporated and synthesized the regional research topics, the research priorities of the PNHRS core agencies, and national stakeholders' research priorities under the six themes, each with corresponding research areas and description (Annex J). These are: (1) responsive health systems, (2) research to enhance and extend healthy lives, (3) holistic approaches to health and wellness, (4) health resiliency, (5) global competitiveness and innovation in health, and (6) research in equity and health.

The NUHRA 2017-2022 also makes use of an icon that serves as a graphical representation of the identified health research priorities (Figure 2). The different health research themes and their relation to each other are illustrated as concentric arcs. The length of each arc provides a visual estimate of the number of research topics in each research theme. Each theme is not mutually exclusive and the concentric arrangement of each arc in the icon signifies a theme's close relation to the other components of the diagram. The concentric circles may also be viewed as a telescopic lens, focusing on one theme at a time (Annex K).

Figure 2. The NUHRA icon is a graphical representation of the identified health research priorities.

Five rounds of technical revisions were done to address the comments and concerns of RAC members and representative from the core agencies of PNHRS. Two rounds of copy editing were also done to improve the consistency and readability of the document. The NUHRA 2017-2022 will be disseminated as a booklet that includes a brief background on health research agenda setting in the Philippines, how the NUHRA 2017-2022 was developed, and the six health research themes and corresponding topics.

C. Post-implementation phase

The post-implementation phase included the development of a Communications and Advocacy Plan (CAP) and Monitoring and Evaluation Plan (MEP). The proposed CAP was developed to enhance financing support and the buy-in of partners, universities, and research institutions. The MEP aims to allow closer examination of the extent of impact of the NUHRA to the national health research environment.

Initial drafts of the plans were developed through reviews of the implementation of past NUHRAs, literature review, and interviews with key persons. These were presented to stakeholders during a consultation meeting held on 22 September 2017, attended by representatives from the different committees of the PNHRS, as well as from the private sector (Annex L). Following the discussions and comments from the consultations, the plans were further improved and presented to RAC members during the RAC meeting held on 5 October 2017.

Communications and Advocacy Plan

The CAP framework is composed of three main elements, namely: Objectives, Key Messages, and Stakeholder Mapping (Annex M). The objective of the advocacy plan is to systematically inform, influence, and enhance buy-in of partners, universities, and research institutions to support the NUHRA. The specific objectives of the plan are:

1. Determine the best messaging strategy and medium of communication per stakeholder group
2. Determine the interests of the different stakeholder groups

3. Ensure all targeted stakeholder groups are informed of the nature, purpose, and structure of the NUHRA and PNHRS
4. Prepare a draft communication plan with budget, timelines, and people in charge
5. Ensure ownership of the CAP by key stakeholders

The identified key message for the CAP is: *"The NUHRA enables high-impact health research across the Philippines.*" Stakeholder mapping was done to identify how the NUHRA can be advocated to each target audience. Stakeholders of the NUHRA include researchers and enablers from national and local public and private organizations, policymakers, the academe, medical and health societies, people's organizations, and others who are concerned with and affected by health and development. The stakeholders were mapped in terms of behavior, content, delivery, evaluation, and financials. In addition, a slide deck which can be used as a template for dissemination of the CAP was also prepared (Annex N).

To accompany the CAP, an AVP was also developed to aid the promotion and dissemination of the NUHRA to researchers, funders, and the general public. The AVP includes a brief background on PNHRS and NUHRA, how the NUHRA 2017-2022 was developed, the six research themes, and where/how the NUHRA will be disseminated (Annex O).

Monitoring and Advocacy Plan

The MAP framework is composed of its aims and objectives, methodological approach, and performance indicators. The overall aim is to systematically and objectively monitor and evaluate the efficiency, effectiveness, influences, and impact of NUHRA. The specific objectives are:

1. Determine the extent of advocacy and dissemination of NUHRA
2. Analyze funding patterns and efficiency of resource allocation
3. Describe the generated research outputs and outcomes aligned with the NUHRA
4. Determine cross-institutional collaborations and partnerships established
5. Examine the NUHRA and RUHRA implementation
6. Determine the impact of NUHRA and RUHRA in the national and local research environment

Although the NUHRA is directly under RAC, the MEP extends beyond RAC's function due to the wide range of influence of the NUHRA (Annex P). This plan also contains objectives that will require coordination among other committees of the PNHRS. Objectives number 1, 3, 5, and 6 will be directly under the responsibilities of RAC. Objective number 2 is for the Resource Mobilization Committee, while objective number 4 is for the Capacity Building Committee.

The methodological approach section maps the data collection process using the online monitoring system developed by the Research Information, Communication, and Utilization Committee. The online system consists of four monitoring forms which are meant to collect PNHRS-related information from regional consortiums, institutions, researchers, and research projects. While the monitoring cycle will be done yearly, two evaluation periods are recommended - a midterm evaluation in 2020 and a final evaluation in 2022 - to be spearheaded by RAC, with the help of the four core agencies of PNHRS. Lastly, performance indicators were identified through recommending targets for each objective that should be reached by 2022. In addition, a slide deck which can be used as a template for dissemination of the MEP was also prepared (Annex Q).

III. Review of PNHRS Guidelines for Health Research Priority Setting

The PNHRS Guidelines for Health Research Priority Setting established by RAC was utilized in the process of the development of NUHRA 2017-2022. NUHRA 2017-2022 is the first research agenda to be developed using the new guidelines. The project team, as the first user of the guidelines, reviewed its technical content as well as how it was in implemented. While the project team reviewed and implemented the principles of the guidelines, most of the actual operational details and tools were developed by the team.

The guidelines divided the process of health research agenda setting into 3 phases namely, pre-implementation, implementation and post-implementation. The guidelines describes a linear process to health research agenda setting, and suggests several strategies and ways in coming up with a health research agenda especially in the areas of criteria setting and topic prioritization. The PNHRS guidelines do not provide a prescriptive and step-by-step methodology that will encourage the standardization and formalization of a health research agenda setting process attuned to the Philippine context. Its focus on broad principles without step-by-step guidance may be all that is needed since systems and institutions (who may apply the guidelines at different times and contexts) vary.

In addition, the guidelines provide commendable technical and theoretical content, with only some gaps. In reality, Health Research Agenda Setting is a political process. The Guidelines does not describe the political process and the operations/ project management side which require a lot of work and political-operational-management expertise. Skills and principles on working with decision-makers, bureaucrats and managers should be mentioned. General principles of project management should be included e.g. project design, budget-duration-cost equilibrium, planning, timing, hiring of staff, monitoring, finance management, etc.

Revision of the current guidelines based on the lessons and experiences in the preparation NUHRA 2017-2022 is suggested. The general recommendations are:

1. The guidelines should reflect the cyclical nature of research and policy agenda in the Philippines. Cyclical refers to the period when national plans are drafted, how budget is mobilized, the proposal-technical-bioethical review process, procurement and implementation. The cyclical approach to research agenda setting may be adapted to provide a continuity with current and succeeding health research agenda.
2. The experiences of agenda setting should be published, and space for publication and communication should be included. There is a dearth of researches on the process of health research agenda setting at the global level. The Philippine experience to health research agenda once documented and published, will positively contribute to the advancement of this field.
3. Inclusiveness must be emphasized at the inception stage of NUHRA development. Fiscal, time, and communication resources must be channeled appropriately to involve underrepresented stakeholders such as patient groups, non consortia members, indigenous peoples, professional associations, independent researchers, nongovernment and private sector representatives
4. The guidelines should also discuss with equal weight monitoring and evaluation and formalize funding mechanisms for the NUHRA

A more detailed set of comments are also provided below, organized according to the three phases of the guidelines: Preparatory, Implementation, and Post-Implementation. Each are, in turn, discussed according to its technical content and its operational value.

In the **preparatory stage**, there is good content and emphasis on contextualizing the process, and on strategies and methods in developing this contextual understanding, though the definition of context may be better refined. In addition, the definition of “Implementation Plan” may also be revisited. Inclusiveness is a principle and can be placed as a guiding principle for the process. Inclusiveness should however be balanced with vision, direction and strategy, otherwise the resulting agenda will turn out to be a wish list and a hodge podge of everything. Stakeholder mapping as a step in the process has to be emphasized. “Who decides and who should participate” is an important political process that will eventually define the content of the agenda. Operationalizing the stakeholder mapping requires varied skills not explicitly mentioned here, in particular, diplomacy, negotiation, political savvy, and project management.

PREPARATORY
Technical: ● There is strong emphasis on defining the context, initial planning for monitoring and evaluation, information/evidence for agenda setting, and the importance of stakeholder inclusiveness. ● The guidelines suggested strategies and methods borrowed from existing literature on health research prioritization and is up to date with current advances on the subject. ● Though it could potentially outside the scope of the document, the objective and purpose of developing an agenda for health research should be defined. In particular, emphasize that the development of a research agenda is part of the overall goals of the organization that wishes to conduct agenda setting. ● The guidelines do not contain tools on how visioning and forecasting can be done. Hence, it is more reactionary rather than strategic and proactive. ● What is meant by context or contextualization? Does it refer to the organizational or institutional context or the overall environment affecting health research? ● Defining how Monitoring & Evaluation, and Dissemination will be done at the beginning of the project is good. But this is only to describe, and not to prepare M&E and Dissemination plan in the beginning. This is important as these are critical activities after the agenda is completed. ● The implementation plan as mentioned seems to refer to the implementation of actual research, not the implementation of the research agenda development process. The steps mentioned for developing the implementation plan, such as identifying funding sources and describing governance mechanisms, may be better placed as part of situational analysis. ● The section on inclusiveness is, in essence, a section on stakeholder mapping. Inclusiveness is a principle for the research agenda development, and may be better placed before the implementation phase. This section may be better understood as, and therefore renamed as, Stakeholder Mapping. Inclusiveness, among other principles can then be used to guide the stakeholder mapping. ● Inclusiveness should be balanced with organizational or system vision, strategy and direction. These are not mentioned in the guidelines. ● In addition, though inclusiveness is a principle that should guide the process, it should serve to anchor a strategy and vision of the organization that is conducting the priority setting process. It is therefore important that the organization be clear on their goals and how the process of developing the health research agenda allows them to achieve their goals. ● An important principle in developmental-policy-process work e.g. agenda development is the iterative process, going back and forth. Strong coordination with

the owners and drivers of the agenda is important. Regular feedback and meeting should be done.

- On the summary flowchart, as well as in the section headings itself, these are suggested revisions:
  - Begin with “Defining the Objectives/Goals of Research Agenda Setting”
  - Followed by “Understanding the Context and Vision”
  - Change “Planning for M&E, Implementation and Dissemination” to “Understanding the M&E Process, Implementation and Dissemination”
  - Change “Information Gathering” to “Situation Analysis”
  - As previously mentioned, change “Ensuring Inclusiveness” to “Mapping of Stakeholders and Participants”

Operational:

- First it is important to identify who owns the agenda and who will eventually fund the researchers. Persons/ institutions Responsible, Accountable, Consulted and Informed (RACI) for the agenda and institution (in this case the PNHRS) should be well identified. The objectives of the research agenda and how the team in charge of research development will be influenced by the above stakeholders.
- There is lack of a coherent approach to defining an evidence-based, context-specific, value-driven, and measurable approach to health research agenda setting.
- The project team, to supplement and ease the operationalization of the guidelines, used a policy-process framework (the Kingdon multiple streams of public policy framework).
- To aid in operationalizing, the team also felt the need to identify guiding values-based on previous health research agenda setting reports and employed evidence-based approaches in the preparation of technical papers and regional situationers that fed into the implementation phase.
- There is a description and emphasis on choosing the stakeholders to be engaged in the process. It will be helpful if further guidance on selecting stakeholders to be involved is also guided.
- During stakeholder mapping, users should be warned that the more stakeholders involved in the process, the more complex the development process will be, and the more time and costs it will take.
- Stakeholder engagement requires political, diplomatic, advocacy, marketing, management, and technical skills. The process requires relationship building with organizations and institutions. This should be communicated to the reader of the guide, though it is understandable if non-detailed guidance is given on how to develop these skills, as that is beyond the scope of the document.
- The guidelines proceed directly to gathering of information from stakeholders and criteria setting. The reality is that a lot of time is consumed in preparing the stakeholders, creating a conducive environment for working together, organizing the consultations, and designing the consultations.
- Operations is an iterative process. Regular feedback, coordination and communication with responsible and accountable stakeholders (e.g. PCHRD Secretariat and RAC) should be done.

In the **Implementation** phase, clear descriptions and definitions of listing, criteria setting, and ranking of research priorities are presented. Adequate description of the methods is also given. This could benefit from stronger recommendation on ranking the priorities, connecting

the criteria to organization goals, and processing the generated topics and producing meaningful themes from these. As in the previous section, operationalizing these steps requires varied skills not explicitly mentioned here, such as networking, dialogue, budgeting, staffing, and scheduling. Mention of these in order to guide the reader will strengthen the document.

IMPLEMENTATION
Technical: ● This section provides clear descriptions of the three step process of initial listing, setting a criteria for prioritization, and ranking health research priorities. This is commendable. ● Strategies from various methodologies in research agenda setting were adequately described. However, guidance on which method is most appropriate to and specific for the context of setting the NUHRA or RUHRA is absent. ● There is a recommendation for ranking of developed research priorities but the guidelines can benefit from stronger recommendation for the need of ranking priorities and the principles and process of conducting rankings. ● Emphasize that the selection of criteria should be based on the goals of the organization conducting the priority setting process. ● There is need for further discussion on the process of analyzing and triangulating discussions and combining them to form meaningful themes and topics.
Operational: ● The guidance on developing the initial list of priorities, criteria for ranking, and conducting rankings was straightforward and easy to operationalize. To further develop this, it will be helpful to provide stronger recommendations on the process of facilitating brainstorming sessions in developing the initial list, the criteria for prioritizing and ranking, and conducting the ranking. ● The guidelines are clear to the development team but may possibly be less so for organizations, institutions, and groups with little experience in priority setting processes. ● The guidelines were flexible enough to be used for the devolved structure of the Philippine health research system, and was used for both the regional consultations and the national consultation. ● There are good suggestions on how ideas can be collected, particularly in the section “Information from Stakeholders.” Operationalizing this can be quite challenging, and the users of this document should carefully consider how they will collect the needed information. These will have implications on budget, staffing, time, and logistics. ● Implementation is given a few pages in this guide but may actually be difficult to conduct, particularly because it requires a lot of work with the key stakeholders. Skills and principles in diplomacy, policy dialogue, operations, organization, communication, active listening, mitigation, contingency, consultation design, iteration, budget management, hiring of staff, staff security, etc. must be included here, if not in detail, then at least in brief. ● Design of consultation meetings is important, as well as excellent facilitators. These are extremely important for the output of consultations. Best facilitators should not only have skills in communication but should be well-grounded on the goals and vision of the agenda-setting.

● Documentation should be well-supported.

In the **Post-Implementation** phase, the guidelines can benefit from emphasizing that advocacy, communications, monitoring, and evaluation be done in line with overall organizational strategies. Mention of a mid-term assessment of the agenda can also be added. The writing of the agenda document itself, particularly how the agenda is framed both from a creative and technical viewpoints, can either aid or deter the organization/ system in attaining its objectives and fulfilling its vision. These are not clearly mentioned and the document.

POST-IMPLEMENTATION
Technical: ● Guidance on this portion of the guidelines must be consistent with established mechanisms for advocacy, communication, monitoring and evaluation within PCHRD and PNHRS, for development of RUHRA and NUHRA. ● The inclusion of developing a mid-term assessment of the RUHRA/NUHRA as a post-implementation activity can be explored. ● More emphasis is needed on framing of the agenda - how it will actually be written down. This requires going back to the objectives and the vision. How the agenda is framed determines that narrative: the research system in an environment of helplessness and need OR possessing the aspiration and will to contribute to global knowledge.
Operational: ● There should be statements on the framing of the document, the drafting, copy editing and finalization, including approval processes.

IV. Publications, reports on proceedings/activities and other publishable reports

The NUHRA and RUHRA 2017-2022 development process was an experience of the Philippines that should be documented and shared. During this project, various documents were produced in support of the agenda development project, including the technical papers, situation analyses, workshops, and consultations.

A. Priority Agenda Setting Process

The recently concluded NUHRA development project was the first time that the PNHRS Guidelines for Health Research Priority Setting was utilized. The experience of facilitating the development of the NUHRA generated invaluable lessons for developing a research agenda that befits local and international dissemination. It is important that NUHRA and the 17 RUHRAs be published and disseminated in peer-reviewed articles, official websites (*e.g.*, PCHRD and Regional Consortia website), social media, and other mida. Peer-reviewed publication and dissemination of related documents will greatly enhance uptake of NUHRA among professionals and will facilitate its implementation.

B. Technical papers

Technical paper 1: Synthesis of national socio-economic development and health directions, and setting the working framework for NUHRA 2017-2022 (Salisi and Orano)

Various influences arising from international, national, and local actors characterized the country's health sector and agenda setting. Landmark national developments and initiatives - recent economic growth, sin taxes, and social protection mechanisms (*e.g.*, conditional cash transfers and PhilHealth packages, health facility enhancement, deployment of health workforce to geographically isolated and disadvantaged areas, and increased PhilHealth coverage) - are expected to influence how the health system advances. The PDP 2017-2022 and *AmBisyon Natin* 2040 are setting directions that will also guide health care, health technology development, and research. Despite the potential borne from these health system achievements and the greater attention afforded towards health, persisting health problems of global and national scale continue to challenge the gains of the health system. Apart from reinforcing a robust service delivery network and supporting universal health insurance, central to the Philippine Health Agenda 2016-2022 is the recognition of the problems of maternal and infant mortality, communicable diseases, non-communicable diseases, diseases of industrialization and globalization, and increasing costs of healthcare.

Technical paper 2: A 20/20 vision of the Philippine health sector by 2040: review of current trends, developments, and challenges (Klingel and Zuñiga)

While current efforts are directed towards subduing present health problems, the study of future and evolving health issues merit equal attention. A responsive health system is crucial to accommodate the changing needs and manage potential issues in an evolving societal, economic, and political landscape. This can be achieved through better delivery and fiscal management of government health services in the face of increasing fiscal and political decentralization. Integrated service delivery models and networks with strong thrusts in primary care and health promotion must be designed to meet the needs of increasing workforce and ageing population. Increasing investments in human and intellectual capital through research and development, and an enabling policy environment for public-private-people collaboration are essential to facilitate reforms.

Technical paper 3: Enabling greater private sector participation in health research in the Philippines (Magtubo and Mauricio)

Health research has produced innovation and marketable products that benefited patients and healthcare. The government remains a strong generator, driver, and funder of health research, but there is increasing evidence in support of engaging the private sector in health care in view of their positive impact on advancing scientific knowledge, productivity, and economic growth. Two case studies highlighted successful collaboration on health research. The products included the Axis Knee System, a collaboration of the DOST and Orthopedic International, Inc., and the development of the *Blumea balsamifera* (Sambong) as a medicinal drug through the partnerships of University of the Philippines Manila (UPM), DOST-PCHRD, and Pascal Laboratories, Inc. Essential actions and lessons learned are outlined in the paper. Through the NUHRA, DOST aims to further enhance collaborative work towards the development of new products that can contribute to healthcare in the Philippines and in other countries.

Technical paper 4: Towards a relevant and actionable Philippine health research agenda: a review (Lopez and Dizon)

Healthcare and academic practitioners are highly aware of the gaps and challenges that limit a health environment for health research. These policy, funding, management, and capacity gaps require a more proactive role by core government agencies. There is a call for national institutions to initiate steps, namely: 1) increase budgetary allocation to strengthen the capacity of regional consortia; 2) improve policies for procurement and funding of research; 3) streamline technical, ethical, and funding approval processes; 4) build capacity of researchers in research proposal, management, and implementation; 5) capacitate end-user agencies and

stakeholders in utilizing research for policy and program implementation, decision making, and creation of technologies; and 6) establish a monitoring and evaluation system for health research utilization.

C. Regional Unified Health Research Agenda

While regional research priorities have been identified, these can be developed into booklets for dissemination, similar to that of NUHRA. The RUHRAs will contain identified regional research priorities, as well as contextual analysis of the region, descriptions of their research agenda, description of the agenda setting process, and discussions on ways forward. To facilitate dissemination and uptake in the regions, these documents are targeted to be edited, distributed to regional offices, and summarized into infographics and other related media.

D. Communication and Advocacy Plan

The proposed CAP was developed by a communications specialist through reviews of the implementation of past NUHRAs, literature review, and interviews and consultations with key persons. Its main objective is to enhance financing support and the buy-in of partners, universities, and research institutions.

E. NUHRA AVP

To accompany the CAP, an AVP was also developed to aid the promotion and dissemination of the NUHRA to researchers, funders, and the general public. The AVP includes a brief background on PNRS and NUHRA, how the NUHRA 2017-2022 was developed, the six research themes, and where/how the NUHRA will be disseminated.

F. Monitoring and Evaluation Plan

The MEP was developed by a consultant through reviews of the implementation of past NUHRAs, literature review, and interviews and consultations with key persons. It aims to allow closer examination of the extent of impact of the NUHRA to the national health research environment.

V. Findings and suggested solutions

There were some problems and concerns met during project implementation, including difficulties in coordination and organization of regional consultations, the existence of RUHRAs in some regions, the development of website/resource portal, deliberation on the need for a national consultation, gathering comments for the finalization of the NUHRA document, the involvement of the private sector and other PNHRS committees in the development of the CAP and MEP, and difficulties in the production timeline for the AVP. While these delayed or skewed the timeline of implementation, the team came up with solutions to address these concerns and to be able to deliver promised outputs.

Coordination with regional consortia for regional consultations. The AIHO team initiated contact with the Regional Consortia regarding the regional consultations. However, some Regional Consortia required official communication from Regional Project Officers (RPOs) of PCHRD to proceed. This was resolved by supplementing an endorsement letter earlier disseminated with consistent inclusion of RPOs in all communications of cluster teams with respective Regional Consortia.

Organization of regional consultations. In the process of developing the workplan for regional consultations, and after consulting the Regional Project Staff of the Regional Consortia and the RPOs of PCHRD Institution Development Division, it was made clear that the originally allotted budget for the consultations can only cover the facilitation, RUHRAs, coordination, and technical reports. The RPOs advised the need to cover transportation and

meals of participants and the Regional Consortium did not have additional funds to cover their respective consultations. In this regard, HDI was subcontracted to help organize the regional consultations in terms of accommodation and transportation logistics. Additionally, it was decided that participants requiring transportation and lodging costs will be covered by the Regional Consortia.

There were also challenges in terms of scheduling the regional consultations as some regions had issues with the original schedules provided. In particular, Region XI and CARAGA had to reschedule their consultation due to unforeseen schedule conflicts. Region VI decided to postpone the second day of their consultation due to the absence of pertinent stakeholders, but proceeded with it on another day to finish the rest of the activities. Lastly, NCR initially conducted a consultation that was different from the consultation package developed by the AIHO team, but was able to conduct another consultation similar to what was conducted in other regions.

Staffing adjustments. In order to better facilitate the work in Mindanao, one additional Research assistant was provided, with one assigned to Eastern Mindanao (Caraga, Region XI, Region 10) and the other assigned to Western Mindanao (Region 9, Region 12, ARMM). This was due to the greater size of Mindanao compared to the others clusters, with six regions versus 3 in Mindanao and 4 each in Northern and Southern Luzon.

Existence of RUHRA in some regions. Regions VI and VII already had existing RUHRAs upon implementation of the priority setting methods which endangered the consistency of the consultation method and design implemented in all regions. It was decided that the regions with existing RUHRAs will still undergo the approved consultation method and design with their existing RUHRAs serving as an input in the consultation process.

Involvement/Participation of PCHRD officials and RAC in Regional Consultations. During the regional consultations, representatives from both the PNHRS RAC and the PCHRD presented the mission, vision, and programs of the PNHRS and PCHRD. These were not originally included in the consultation design but was quickly perceived as a good practice to strengthen the relationship of the PNHRS and PCHRD with their regional counterparts. A uniform PPT presentation was also used in order that the message communicated to the participants was consistent.

Development of website/resource portal. It was originally planned that the dissemination of materials for consultations will be aided by publishing materials through a website dedicated solely to the NUHRA. However, some concerns served to prevent this, such as, 1) there were limited materials for generation for open and public consumption, 2) the PNHRS website also already had an existing section for the NUHRA, and 3) it was quicker and more efficient to disseminate materials directly to participants through email.

Deliberation on the need for a national consultation. Since regional perspectives and interests were already collected, analyzed, and synthesized, and national documents and agenda were already reviewed, it was deliberated whether or not the national consultation should push through. Upon deliberation of the project team with RAC, it was decided that the national consultation would push through in order to gather perspectives at the national level that may not have been captured during the regional consultations. The purposes set for the national consultation were to review, to add missing points, and to vet the agenda.

Gathering comments from RAC members for the NUHRA document. While retrieving comments from all RAC members for the NUHRA document is essential, it is a time consuming task which slowed down the production timeline of the document. It may be quicker if the document was reviewed and commented on by RAC members during a meeting so that

comments can be agreed upon as a group and can be produced after the meeting to be addressed by the editing team.

Involvement of private sector and PNHRS committees in the development and implementation of CAP and MEP. Representatives from the private sector were invited to the consultation meeting for their insights on the CAP and MEP, however, only Unilab Foundation, St. Luke's Medical Center, and the Philippine Leprosy Mission were able to attend. The private sector's inputs could have been useful to enhance the plans in terms of reaching out to researchers and funders in the private sector. More rigorous communication can be done in the form of emails or calls in order to further reach out to the invitees. In the longer term, a closer but independent relationship between private sector and the government will enhance intersectoral cooperation.

Additionally, as mentioned during the consultation and RAC meetings, the involvement of different PNHRS committees is crucial to the implementation of the proposed CAP and MEP activities. Since some of the proposed activities overlap with the function of other committees, an intercommittee meeting, spearheaded by the steering committee, was suggested wherein the proposed CAP and MEP will be presented. This meeting will ensure that all efforts in support of the NUHRA will be aligned.

Production of the NUHRA AVP. The AVP was originally intended to be shown during the PNHRS celebration, but was repurposed to serve as a possible promotional video for the NUHRA upon dissemination due to delays in production. A speech by Dr. Otayza served as the announcement of the NUHRA during the PNHRS celebration instead (Annex R). It will be beneficial to ensure that the video producers are in direct communication with PCHRD to ensure that comments are relayed accurately and quickly, while still being monitored by the project team. This also ensures that the production and editing timetable of the video producers is discussed and agreed upon with PCHRD.

VI. Recommendations and next steps

The NUHRA is simply one step in a series of initiatives towards a healthy Filipino nation that benefits from research based solutions and innovations. While the NUHRA provides focus and direction on health research and development efforts, the investments still need to be made, the evidence based solutions still need to be generated, and the resources still need to be utilized. The aforementioned gaps noted in the evaluation of the previous two NUHRA are not resolvable by a change in the agenda alone. Health research is generated by an entire system of institutions and individuals that does planning, procurement, research implementation, communication, and utilization of research, which is beyond the guidance of the NUHRA. Resolution of these gaps, then, will be on work towards improving that entire system. The end goal of developing the new NUHRA to guide an improved system is, of course, a healthy Filipino nation that benefits from research based solutions and innovations.

The PCHRD has multiple responsibilities in its mandate that direct it towards improving the health research system. This includes the formulation of plans and strategies, the strengthening of capacity for health research generation, ensuring dissemination of health research, monitoring of science and technology initiatives, and establishing linkages with local and international organizations. The PCHRD already has programs and projects aimed at fulfilling this mandate, such as the Balik Scientist program, and the communication of the Institutional Development Division with the various Regional Health Research and Development Consortia. These were designed and conducted prior to the new NUHRA, and these are good practices, but these cannot by itself allow the PCHRD fulfill its stated mandates. Recommendations to allow the PCHRD to enhance its current efforts may be

divided into activities that can provide quick progress within the current research system, and activities that lead towards an improved health research system better able to fulfill the aspirations of the national health research system.

An immediate step that can be taken is the **publication of the NUHRA/RUHRA development experience**. During the development of the agenda, 4 technical papers were completed to review the context of agenda development and to provide an initial vision of how that agenda can lead towards health benefits for Filipinos. The experience of developing the agenda also highlighted the political, technical, and operational skills required. A full documentation of how the previous two national agenda was not available to guide the development of the new agenda. Neither is there much international literature on how research agenda are developed. It is recommended then that the experience of developing the agenda be done, both in order to inform research agenda development within the Philippines, and to allow our research community to provide lessons to international health professionals, thereby enhancing our standing and reputation. The publication may also provide critical perspectives on research agenda development, the nature of the health research priorities throughout the past three iterations of the NUHRA, and provide a fuller vision of how health research agenda can lead to health benefits. These can also serve to provide the content necessary in communicating and engaging various stakeholders.

While each region has identified its own research priorities, their capacity to implement their agenda varies. This is reflected in the consultations conducted for the agenda development, with discussions oftentimes turning towards the ease of producing research, not on determining what research to do. As part of the mandate to strengthen capacity, it is recommended to support **regional capacity building for implementation of the RUHRA and the management of research**. Regions have varying stages of implementation of their RUHRAs but for most regions, research outputs are lower than expected, and lower despite existing financial resources provided for research projects. The several consultations conducted point towards the technical capacity in the regions to produce research, a rigid process of the research cycle with low incentives, and limited understanding of procurement mechanisms. Technical assistance can be provided to regions to strengthen their capacity to generate research. These can include assistance in program planning, Terms of Reference development, mapping of experts and institutions, development of proposals, technical and bioethics review, procurement, implementation, and review and dissemination. Best practices sharing among regions can also be facilitated. These practices may refer to identifying training opportunities for researchers, and providing access to researcher education.

Studying the **Impact of key PCHRD funded studies** may also be conducted, as a way to know gauge the value of the research previously conducted, and provide recommendations on how future research can be done.

Recommendations that lead towards an improved health research system better able to fulfill the aspirations of the national health research system, include moving forward on a monitoring and evaluation plan, strengthening the policy environment for health research, and strategies for private sector engagement.

The evaluation of the previous two national agenda used different methods, and part of the recommendations were to develop a monitoring and evaluation system to ensure that health research conducted addresses the priority areas identified in the agenda. Due to the absence of a comprehensive monitoring system for the previous two agenda, a new M&E system is devised. Depending on the design of the M&E system that the PNHRS and the PCHRD adopts, in particular if a baseline assessment is required, there may be a need to conduct a **pilot testing of the PCHRD-PNHRS M&E plan and indicators**. The plan may develop indicators that will be monitored and evaluated. These indicators may need to be further

refined to provide a clearer picture on the sources and availability of information, and how these data can be collected.

It was clear, from the multiple consultations conducted, that there were considerable concerns with the systems that enable development of research. For example, concerns were raised on procurement policies that are difficult to work with, and that incentive mechanisms are not sufficient, discouraging researchers from investing time and effort into producing research. A review to **strengthen the policy environment for research development** may be done to provide recommendations in order to improve the ease of doing research. This can include a review of national policies and protocols that influence research supply-demand, such as on research governance, budget allocation, capacity-building, production of researchers based on national/ regional strategy and need, among others. The procurement of research in particular is noted as a special difficulty, and may require special attention. Open dialogue with consortia and researchers, as well as with the PCHRD, should be observed in this work.

Last, given that the scope of the national agenda encompasses both public and private sectors, it will be useful to develop a **strategy for private sector engagement on the NUHRA**. The private sector can include private health institutions, private universities, private firms, pharmaceutical industry, and professional societies. Best practices for this exist, such as in the development of the axis-knee system and the sambong, but that these two are the only clear examples point to the work that still needs to be done to better engage the private sector in contributing to the national agenda. Recommendations include providing clear projections on the benefits of private sector engagement; impact study on private sector engagement e.g. axis-knee system, lagundi discovery and sambong; and identifying incentives for private sector to engage in or support research. In addition, proactive partnership with selected private sector as funders/ donors, advocates or researchers may be explored.

References

1. Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology,* 3 (2). pp. 77-101.
2. Kingdon, John W. (1984) Agendas, Alternatives, and Public Policies. Boston: Little, Brown.
3. Klingel, L, and Zuñiga, Y. (2017) *A 20/20 vision of the Philippine health sector by 2040: review of current trends, developments, and challenges*. Manuscript in preparation.
4. Lopez, J. and Dizon, T. (2017) *Towards a relevant and actionable Philippine health research agenda: a review*. Manuscript in preparation.
5. Magtubo K.M. and Mauricio, M. (2017) *Enabling greater private sector participation in health research in the Philippines*. Manuscript in preparation.
6. Philippine National Health Research System. (2016) PNHRS Guidelines for Health Research Prioritization.
7. Ramos-Jimenez, P. et al.(2015) Assessment of the 2011-2016 National Unified Health Research Agenda (NUHRA) and the 2011-2015 Regional Unified Health Research Agenda (RUHRA). Philippine National Health Research System - Research Agenda Committee.
8. Salisi, J. and Oraño, J. (2017) *Synthesis of national socio-economic development and health directions, and setting the working framework for NUHRA 2017-2022.* Manuscript in preparation.