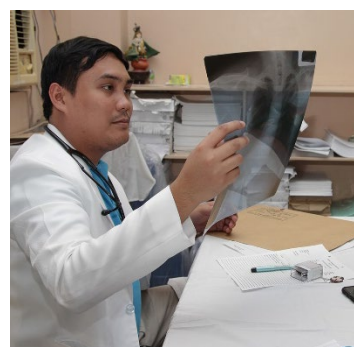
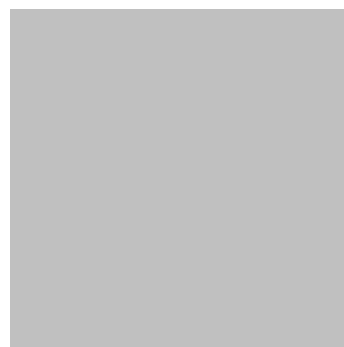
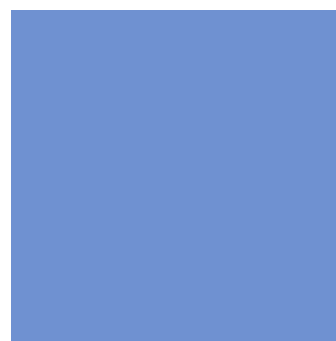
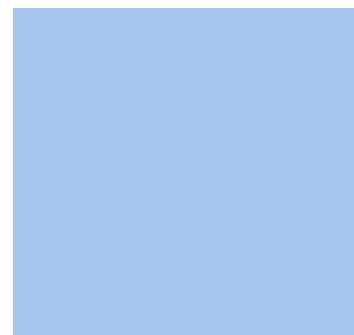




USAID
FROM THE AMERICAN PEOPLE

HRH2030
HUMAN RESOURCES FOR HEALTH IN 2030



NHWA Implementation Roadmap | February 2020

Philippines National Health Workforce Accounts Implementation Roadmap

USAID HRH2030/Philippines: Human Resources for Health in 2030 in the Philippines

Cooperative Agreement No. AID-OAA-A-15-00046

Cover photo: Patients seek medical assistance at Canossa Health and Social Center in Tondo, Manila (Credit: USAIDHRH2030/Philippines)

February 10, 2020

This publication was produced for review by the United States Agency for International Development. It was prepared by members of the HRH2030 consortium.

DISCLAIMER

This material is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of cooperative agreement no. AID-OAA-A-15-00046 (2015-2020). The contents are the responsibility of HRH2030 consortium and do not necessarily reflect the views of USAID or the United States Government

Contents

Acronyms.....	ii
Background.....	I
Purpose of NHWA in the Philippines.....	I
Target Audience of Roadmap	2
Roadmap Development Process	3
Limitations.....	4
Roadmap Activities.....	4
1. Conceptualization Phase.....	7
2. Operationalization Phase.....	14
3. Monitoring and Evaluation Process	22
Monitoring and Evaluation Phase Milestones.....	22
Capacity Building.....	23
Costing Inputs.....	23
Sustainability.....	25
Conclusion	27
References.....	28
Annex A. NHWA Tools	30
Annex B. NHWA Frameworks.....	31
Annex C. Sustainability Action Plan	32
Annex D. Policy Brief	35

Acronyms

BI	Bureau of Immigration
BWC	Bureau of Working Conditions
CHED	Commission on Higher Education
CSC	Civil Service Commission
DBM	Department of Budget and Management
DOH	Department of Health
DOLE	Department of Labor and Employment
DPA	Data Privacy Act
DQA	Data Quality Assessment
DSA	Data Sharing Agreement
EB	Epidemiological Bureau
GSIS	Government Service Insurance System
HHRDB	Health Human Resource Development Bureau
HPDPB	Health Policy Development and Planning Bureau
HR	Human Resource(s)
HAF	Human Resource Information System Assessment Framework
HFSRB	Health Facilities and Services Regulatory Bureau
HRH	Human Resources for Health
HRH2030	Human Resources for Health in 2030
HRIS	Human Resource Information System
IDSHRH	Integrated Database System for Human Resources for Health
IST	In-Service Training
KMITS	Knowledge Management Information Technology Services
LDD	Learning and Development Division
LGU	Local Government Unit
NCRO	National Reintegration Center for Overseas Filipino Workers
NDHRHIS	National Database of Human Resources for Health Information System
NGO	Non-Governmental Organization
NHDD	National Health Data Dictionary
NHWA	National Health Workforce Accounts
NTRL	National Tuberculosis Reference Laboratory
POEA	Philippine Overseas Employment Agency
PRC	Philippine Regulatory Commission
RHU	Rural Health Unit
TB	Tuberculosis
TESDA	Technical Education and Skills Development Authority
TWG	Technical Working Group
UHC	Universal Health Care
USAID	United States Agency for International Development
WHO	World Health Organization

Background

Purpose of NHWA in the Philippines

Human resources for health (HRH) are an essential component for strengthening health systems; they are critical actors for delivery of quality healthcare services and extending tuberculosis (TB) detection, treatment, and prevention and family planning, maternal and child health (FP/MCH) services to rural, remote, and underserved communities in the Philippines. Complete, accurate, and up-to-date data on the number, production, skill mix and budget allocation of health workers are key to increase and maintain the availability, accessibility, acceptability, and quality of HRH, as well as to develop effective, evidence-based HRH policies and strategies. To achieve this, multi-sectoral stakeholders managing HRH data from entry, workforce, exit and re-entry must work together to set up a system for sharing reliable, standardized, and high-quality health workforce information.

Led by the Philippines Department of Health's (DOH) Health Human Resources Development Bureau (HHRDB), and supported by the United States Agency for International Development (USAID), through the Human Resources for Health in 2030 (HRH2030) Project¹, the Philippines is endeavoring to progressively implement National Health Workforce Accounts (NHWA)². NHWA, developed by World Health Organization (WHO) and implemented by member states, provides a means by which the Philippines can systematically review and improve the availability, quality, and use of health workforce data. NHWA consists of 78 indicators across 10 modules. The WHO recommends a progressive implementation of NHWA, with emphasis given to the country's priority HRH policy directions and questions when selecting among the 78 indicators. The WHO has clearly outlined the process by which to develop, maintain, and use HRH data in the context of NHWA in the NHWA Implementation Guide.³ During Phase I — Conceptualization — countries begin by soliciting buy-in from the government; defining the governance framework for developing and maintaining NHWA; scoping data sources, data flows, and potential data quality issues; identifying key stakeholders that are critical to the successful functioning of NHWA; and planning development and implementation of the NHWA system. Building on Phase I, Phase II — Operationalization — involves gathering data, addressing legal aspects, aggregating and disseminating data. Phase III — Scaling Up and Sustainability — involves a continuous process to mainstream and revise NHWA to respond to the country's needs, as well as ensure sustainability of the system. These phases have been adapted for implementation in the context of the Philippines and are described in this NHWA Implementation Roadmap.

NHWA will allow key stakeholders of the Philippines to access comprehensive and multi-faceted data, strengthen the decision-making process to eliminate TB, meet communities' FP needs, and ultimately fulfill the Human Resources for Health mandates that have been proposed as part of the Universal Health Care (UHC) Republic Act 11223 and HRH Master Plan.

The NHWA structure follows the same health labor market framework that was adopted by the DOH as the Human Resources for Health Framework for UHC (see figure 1 below) and reflects Strategic Objective 5 of the HRH Master Plan on strengthening information systems and data, and Chapter 6, Section 23 of the UHC law, which necessitates the development of a Health Worker Registry. NHWA can not only be used as a mechanism to convene stakeholders to collect, analyze and interpret data along the framework for policy and decision making in line with UHC, but support the DOH to monitor and evaluate progress on HRH areas related to UHC, as is described in the HRH Master Plan, National

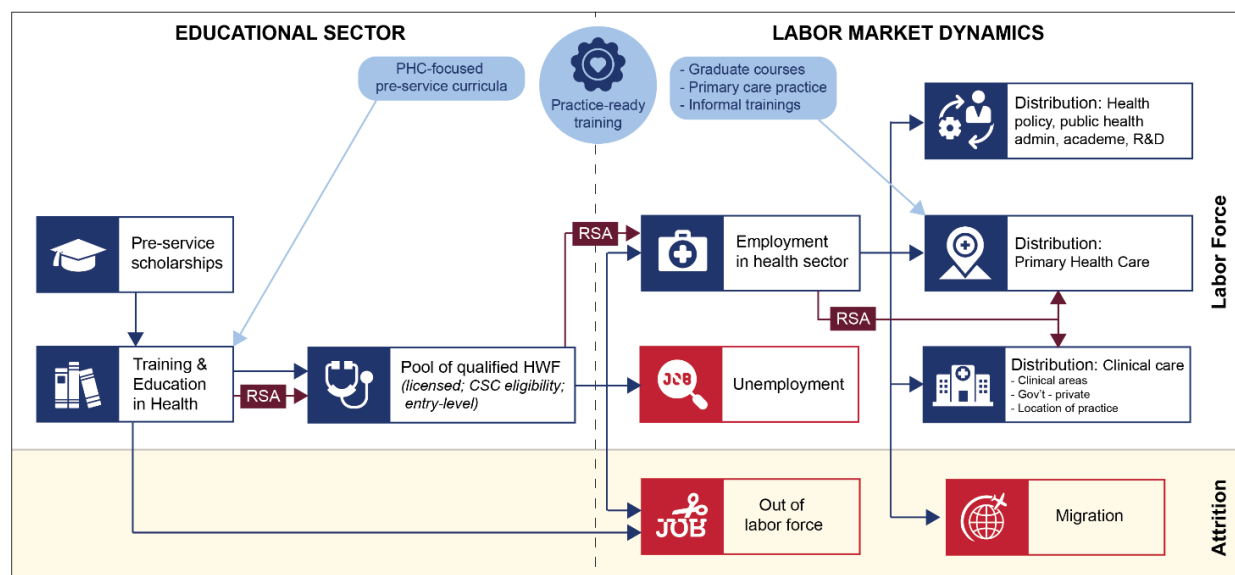
¹ USAID HRH2030/Philippines provides technical assistance to build the capacity of the Government of the Philippines towards a strengthened health workforce to improve FP/MCH and TB services.

² <https://www.who.int/hrh/statistics/nhwa/en/>

³ https://www.who.int/hrh/documents/brief_nhwa_imp-guide/en/

Objectives for Health 2017-2022 and the Philippine Health Agenda. In addition, NHTA in the Philippines will be implemented in alignment with the National eHealth Strategic Plan and the Philippines Health Information Exchange in terms of data standards, data sharing and information systems strengthening and use.

Figure I. Human Resources for Health Framework for UHC



The purpose of this document is to share the process by which NHTA will be implemented in the Philippines. This roadmap should be a living document that is updated annually based on lessons learned during implementation and evolution of HRH policy directions.

Target Audience of Roadmap

To assist in the development and deployment of NHTA, the DOH with support from the USAID HRH2030 Project developed this roadmap to guide the NHTA stakeholders who will manage the progressive implementation of NHTA.

The objectives of this document are to:

- Provide a description of all NHTA activities, as well as how to monitor and evaluate progress; and
- to serve as a guide for implementation of NHTA.

Key stakeholders should use this roadmap to guide activity planning for NHTA. NHTA implementation is progressive in nature, and the roadmap activities do not need to be conducted in sequential order. Rather, activities should be implemented as resources and inputs are available, prioritizing quick wins and demonstrating proof of concept to encourage stakeholder participation in the process. This roadmap will not only guide start up activities to establish NHTA but will also guide implementation of recurring activities such as data collection, cleaning, and use in response to evolving HRH issues and policy questions. Activities for NHTA should be cyclical in nature as NHTA data are used for decision-making, stakeholders should redefine policy and problem areas to respond to emerging needs and trends. The roadmap is a living document therefore, activities will change as new HRH issues and policy questions are identified, and as information systems and data sharing processes mature. As the context evolves, NHTA stakeholders must revisit and redefine activities under conceptualization, operationalization and process, representing the progressive nature of NHTA.

The target audience of the roadmap is the Steering Committee for HRH Initiatives (referred to as the “Steering Committee”), the HRH Network, HRH Information Technical Working Committee and Technical Secretariat, NWAHA Focal Person, and finally, the NWAHA Data Clerk. For the Steering Committee and NWAHA Focal Person, the roadmap should serve as a general reference for how NWAHA will be implemented. For the HRH Information TWC, the roadmap should serve as a detailed guide for the implementation of NWAHA. For the NWAHA Data Clerk and Technical Secretariat, the roadmap will serve as a key document to coordinate efforts between stakeholders and partners. The period of monitoring and review of Roadmap activities will be based on the indicators and timelines of the different milestones. Overall, the period of monitoring will be determined by the various stakeholders, as well as the TWC, who will review this roadmap and then determine and agree on frequency of updating. Updates can be conducted in various ways, but overall should be done through simple reviews by the NWAHA Data Clerk, with edits shared with the HRH Information TWC for approval.

Roadmap Development Process

The NWAHA Implementation Roadmap was developed based on the inputs of several different activities, including the USAID HRH2030 and WHO Joint Mission, the Human Resource Information System (HRIS) Assessment and data mapping activities.

USAID’s HRH2030 and WHO conducted a Joint Mission (September 22-27, 2018) to engage key stakeholders in the preparation and institutionalization of NWAHA and Workload Indicators of Staffing Need (WISN) in the Philippines. During the Joint Mission, with stewardship from the DOH Health Human Resource Development Bureau (HHRDB), representatives from HRH Network, DOH, other HRH stakeholders, and implementing partners designed strategies to introduce and sustain NWAHA implementation within the Philippines context. During a workshop co-facilitated by USAID HRH2030 and WHO, members from HRH Network, and other stakeholders from academe, local government units, private sector, etc. identified challenges and gaps and proposed priority actions for the focus of NWAHA. Following this workshop, a more focused workshop occurred with a smaller group of participants, primarily from HHRDB, to identify the framework for priority strategies. This framework supported the development of the first draft of the NWAHA implementation roadmap, which was presented in a debriefing session with DOH undersecretaries on September 21, 2018 by the DOH HHRDB.

In addition, USAID HRH2030 supported an assessment of the capabilities and functionalities of the various HRIS in the Philippines. The assessment found that several governmental organizations, including the DOH, and nongovernmental organizations play a significant role in managing various HRH data sources, yet there is lacking coordination between the groups. In addition, lack of data standards, data sharing and a coordination and governance structure have led to significant fragmentation of data. This information was critical to understand and serve as a base for the development of the NWAHA Implementation Roadmap. USAID HRH2030 also supported the development of a Sustainability Action Plan (See Annex B), which served to set the key activities, milestones and indicators for institutionalizing NWAHA and developed a policy brief (See Annex C) which describes the policy and environment and options for improve HRH data and evidence, serving as a base reference for NWAHA conceptualization and operationalization.

Finally, the DOH, through HHRDB, consulted with HRH Network members, other HRH stakeholders, and DOH bureaus to further develop the initial NWAHA implementation roadmap during the NWAHA Data Mapping activities conducted on December 7, 2018 and January 24, 2019. The NWAHA Data

Mapping allowed the HHRDB to identify availability of data points responsive to the NHWA modules and the stakeholders managing the same.

All these activities generated inputs to develop the final NHWA implementation roadmap, which was supplemented by the WHO's NHWA Implementation Guide as a reference to outline the tasks, milestones, and timelines of this NHWA Implementation Roadmap document. Throughout the document and the annexes you will find links to these complementary resources for reference in use of implementing the Roadmap.

Limitations

Overall, it should be noted that this Roadmap should serve as a guiding document for the implementation of NHWA. The Roadmap does not set the strategic direction for use of NHWA, nor mandate the stakeholders that should be involved, but provides guidance on key activities and processes that should be taken into consideration when conceptualizing, operationalization and monitoring and evaluating NHWA implementation in the Philippines. This roadmap must be reviewed by several stakeholders outside of the DOH prior to finalization, which will require additional time and effort.

Roadmap Activities

The NHWA roadmap activities have been broken up into three sections representing the three phases of NHWA: **Conceptualization**, **Operationalization**, and Process Revision and Sustainability, which is referred to as **Monitoring and Evaluation**. A cross cutting phase has been determined as **Capacity Building**. **Conceptualization** will discuss activities related to developing a strong base for NHWA, which will establish the ecosystem by which NHWA will operate. **Operationalization** will dive deep into the “how” to collect, manage, and analyze data for NHWA, as well as use NHWA for decision making and establishing the policy agenda. **Monitoring and evaluation** will describe the steps needed to systematically track and review NHWA implementation. Finally, **capacity building** will be emphasized to ensure that the HHRDB, as the secretariat and focal point for NHWA, is able to carry forward implementation of the system, coordination with key stakeholders and dissemination and use of the data.

The process flow in Exhibit 1 demonstrates how NHWA will be implemented. Exhibit 2 demonstrates the timelines for each of the activities under the process flow. Further in the Roadmap, milestones for each of the activities will be noted, as well as cost considerations.

Exhibit I. NHTA Implementation Roadmap Process Flow

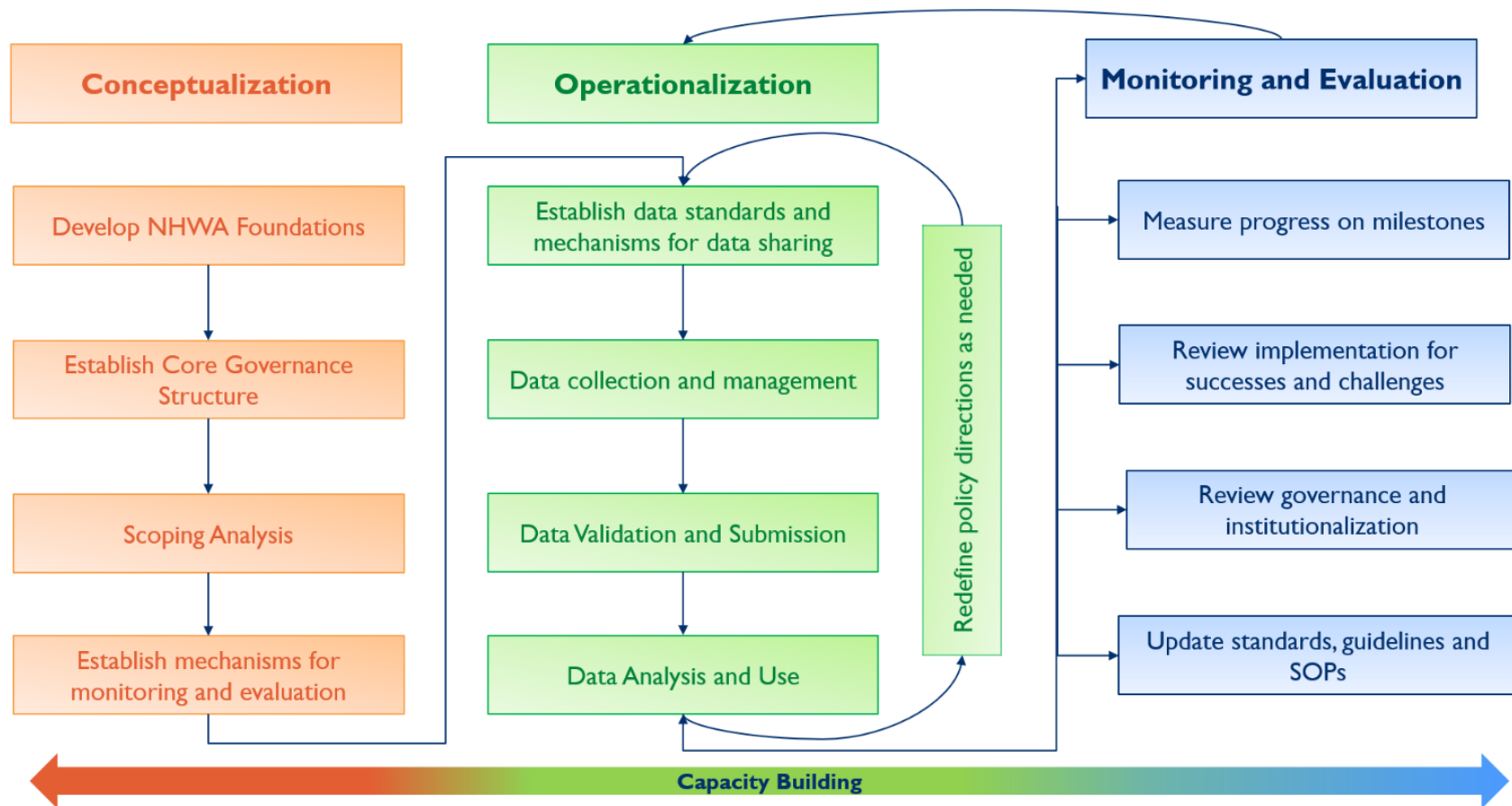
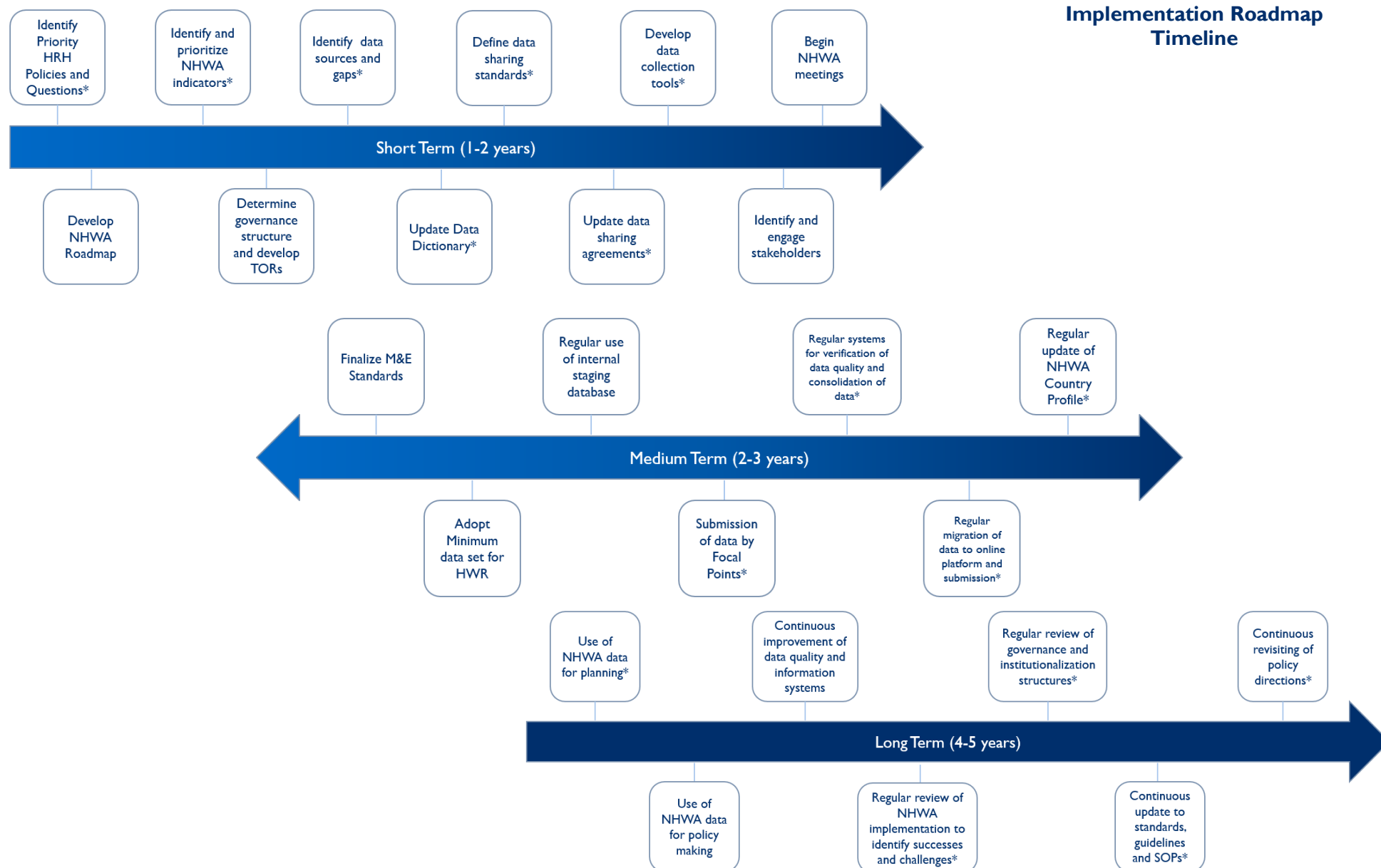


Exhibit 2. NHWA Implementation Roadmap Timeline



I. Conceptualization Phase

Conceptualization lays the foundation on which NHTWA operates. This phase will involve setting priority policy directions, developing this roadmap, establishing a governance structure, identifying data sources and assessing the quality of that data, and establishing mechanisms for monitoring and evaluation. While most activities for conceptualization will be completed in the short term (1-2 years), activities should regularly be revisited as NHTWA grows in maturity.

Conceptualization Phase Activities

I.1. Develop NHTWA Foundations

I.1.1. Identify priority policies directions

Identifying the priority policy directions establishes the purpose of collecting data for NHTWA and sets the foundation for the progressive implementation of NHTWA. The policy directions are defined by the Steering Committee and HRH Network, providing the basis on which the HRH Information TWC will operationalize NHTWA. To initiate this process, the DOH, through HHRDB, established the priority HRH policy directions during the USAID HRH2030 – WHO Joint Mission week in 2018. These priority policy directions include mandatory return service for HRH, redistribution of health workforce, improving working conditions, strengthening leadership and management capacities, and strengthening human resource data and information systems. From this definition of priority policy directions, NHTWA indicators were selected for the initial operationalization of NHTWA (see Section 2 on Operationalization). While the initial policy directions were set in 2018, these directions should be regularly redefined based on changes in policy direction of the health sector in particular those related to TB, FP, and UHC.

I.1.2. Develop NHTWA roadmap with milestones for NHTWA implementation

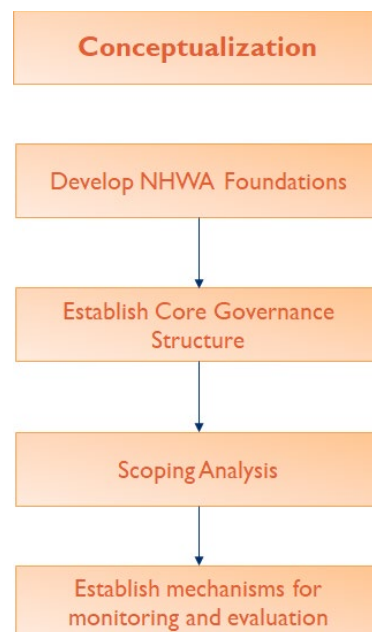
To assist in NHTWA implementation, the DOH developed a roadmap to guide conceptualization, operationalization, process revision, and sustainability. See the Section on “Purpose and Target Audience” in this roadmap for more details about this document.

I.1.3. Define the process and infrastructure for data storage, review, and submission

The NHTWA Data Clerk will define the process for internal data entry, storage, review, and submission, as well as infrastructure needs for NHTWA data storage. When defining this process, the NHTWA Data Clerk will consider the amount of priority NHTWA indicators and if they are numerical in nature (such as number of medical doctors) or capability indicators (which are answerable qualitatively as yes, no, or partly).

I.1.4. Identify and act on areas for institutionalization

To institutionalize NHTWA, responsibilities will be explicitly integrated into the roles and performance indicators of relevant individuals. While NHTWA will not be the sole role of any one individual or individuals, staff involved in NHTWA implementation, will have the NHTWA-related tasks incorporated into their job description. Adding NHTWA to the formal responsibilities of an individual can justify interventions to build the capacity of that individual to deliver on the NHTWA-related tasks. To reinforce these responsibilities, progress on these NHTWA-related tasks will be measured in the HHRDB's formal job performance management system. Adding the NHTWA functions to a position will start with the NHTWA Data Clerk at the HHRDB. Their job functions will be aligned to the agreed upon functionalities of the individual based on their role in the NHTWA Governance Structure but could include tasks or



competencies related to data collection, management, entry, and quality assurance, stakeholder management, and data analysis and interpretation. Overall, this shall be in accordance to the process prescribed by the Civil Service Commission and the Department of Budget and Management.

I.2. Establish Core Governance Structure

I.2.1. Identify governance and coordination mechanisms

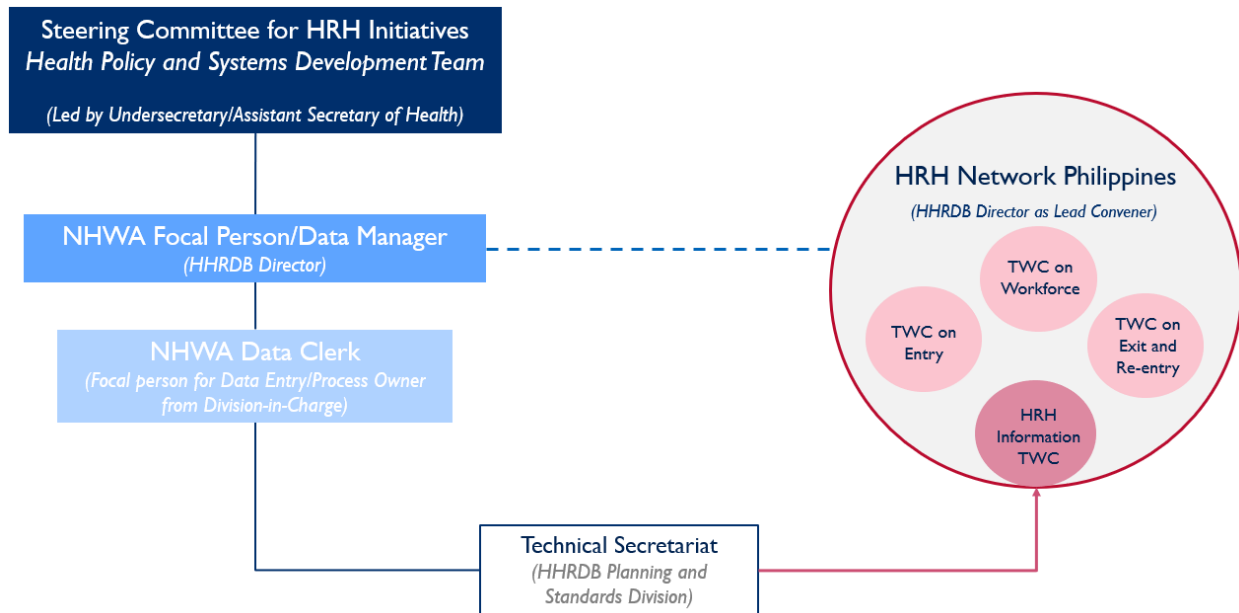
A core NHWA governance structure is needed to institutionalize the system. Having a core governance structure is critical for determining the strategic direction of NHWA; mandating the sharing of data between institutions; ensuring complete, quality, and harmonized data; and disseminating and using data. The core structure will leverage existing will stem from the establishment of the components illustrated in Exhibit 3.

Department of Health	Multi-Sectoral Coordination
Overall, NHWA will be led by the Steering Committee for HRH Initiatives which is managed by the Health Policy and Systems Development Team (HPSDT), with the Undersecretary and Assistant Secretary of Health at the lead. These actors will guide the policy directions for NHWA, oversees NHWA implementation at a high level, advocate for multi-sectoral coordination and promote use of HRH data and evidence.	To ensure multi-sectoral coordination, the HRH Network will serve as the multi-sectoral committee that harmonizes the policy directions, participates in NHWA implementation at a high level, and mandates the sharing of data between institutions.
The Director of the HHRDB will be the official designated as the NHWA Focal Person/Data Manager for the Philippines who will have the authority to officially submit NHWA data to WHO via the online platform. They will be charged with overseeing the implementation of NHWA in the Philippines and serve as the chairperson of the Philippines HRH Network.	The HRH Network is comprised of several Technical Working Committee, one of which will be the HRH Information TWC , which will serve to will operationalize NHWA. This group, coordinated by the Technical Secretariat will collect data from their respective institutions, work with the TWC to standardize and harmonize the data and may participate in the review and analysis of data and assurance of data quality and results for feedback. Each Agency will designate a Point of Contact for this group. They will be responsible for coordinating within their agencies the generation, consolidation and processing of data for submission to DOH as the national NHWA Data Clerk. The TWC will also be in charge of translating the processed data into policy brief/notes, news report, etc.
The NHWA Data Clerk , from the Division in Charge of NHWA, will be the overall process owner of the charged with managing the coordination of all NHWA activities in the country. The NHWA Data Clerk also oversee managing data and entry of data into the system and ensuring that key stakeholders are informed of progress and analysis. The NHWA Data Clerk should have experience in management, entry and quality assurance for HRH data. Most importantly, the NHWA Data Clerk will manage all NHWA data; thus, data sharing roles and responsibilities must be clear.	
The Technical Secretariat , based within the HHRDB Planning and Standards Division will be tasked with assisting the HRH Information TWC on planning and coordinating meetings, taking and distributing minutes, and managing follow up action points, as well as other duties to assist the operations of NWHA.	

Other task forces or working groups will be established as needed. In addition, the NHWA Data Clerk will be linked to the DOH eHealth TWG to ensure coordination between the various groups.

Periodically, the HHRDB may wish to review the various roles and responsibilities, examine the current groups and structures, and identify if any changes need to be made to the governance structure of NHWA as the system matures.

Exhibit 3. Proposed Governance Structure



1.2.2. Identify stakeholders for the HRH Information TWC

Stakeholders will be identified to participate in the HRH Information TWC group based on the following criteria:

- Participation in the HRH Network
- The role of the stakeholder's institution in decision-making for HRH or the health sector
- The stakeholder's role within their institution (e.g., leadership role and/or manager of data)
- Their access to and responsibility for the various types of HRH data needed for NHTA

Stakeholders identified to participate in the HRH Information TWC will be oriented to the NHTA system and briefed on their roles and responsibilities (as per the documentation of their functionalities).

1.2.3. Develop terms of reference and other instruments to facilitate governance structure

Documentation on the functionalities of each group needs to be completed for all participants to understand their roles and responsibilities. The documentation will describe the overall purpose of the group and the roles of each participant, specific tasks and responsibilities of each of the groups, and expected inputs and outputs.

1.2.4. Conduct orientation of key members of the core groups

As the governance structure matures, it is critical that the right stakeholders are identified, oriented, and comprehend their responsibilities. In addition, a process will be defined to ensure that if the appointed stakeholder focal point is not able to participate in a stakeholder meeting, then the designated representative is briefed on the role and responsibilities of the institution.

1.3. Conduct a Scoping Analysis

1.3.1. Identify NHTA indicators that address the country's policy directions

The NHTA contains 78 indicators spread over 10 modules that aim to support national level policies (identified in activity 1.1.1), achieving universal health care, and reaching sustainable development goals. The NHTA Data Clerk will lead the process of identifying which of the 78 NHTA indicators will

support the identified priority HRH policy directions. The NHWA indicators in each module are clustered into dimensions (e.g., Stock, Distribution, Migration) to better help with the selection. Some of the NHWA indicators capture similar information with different stratification, so it is imperative to be specific when determining which indicators are needed. Selected NHWA indicators should relate to issues targeted by the priority policy directions. NHWA indicators may contribute to one or more priority policy directions. It is not necessary to have an indicator chosen for every module. Indicators that address key policy issues need to be prioritized. Furthermore, the country should not limit itself to choosing the indicators as specified in NHWA and can identify its own indicators or data to support the identified priority policy directions. It is possible that the Philippines may not need to use all 78 indicators to respond to policy needs, and it should be emphasized that NHWA is a progressive process and should evolve as policy needs evolve.

The DOH and other HRH stakeholders initially identified 34 NHWA indicators to support the priority HRH policy needs, then refined the list to the 18 indicators in Exhibit 4 for the first phase of NHWA implementation. The criteria used for the selection were the availability and accessibility of data from existing sources.

Exhibit 4. Priority NHWA Indicators

No.		NHWA Indicator
Module 1: Active health workforce stock		
1	1-01	Health worker density
2	1-02	Health worker density at subnational level
3	1-05	Health worker distribution by facility ownership
4	1-06	Health worker distribution by facility type
Module 5: Health Labor Market Flows		
5	5-04	Voluntary& exit rate from health labor market
Module 6: Employment Characteristics and Working Conditions		
6	6-01	Standard working hours
7	6-03	Regulation on working hours and conditions
8	6-04	Regulation on minimum wage
9	6-05	Regulation on social protection
Module 7: Health workforce spending and remuneration		
10	7-06	Policies on public sector wage ceilings
Module 8: Skill mix composition for models of care		
11	8-01	Percentage of health workforce working in hospitals
12	8-03	Percentage of health workforce working in ambulatory health care
Module 9: Governance and health workforce policies		

No.		NHWA Indicator
13	9-01	Mechanisms to coordinate an intersectoral health workforce agenda
14	9-02	Central health workforce unit
15	9-03	Health workforce planning processes
16	9-05	Institutional models for assessing health care staffing needs
Module 10: Health workforce information systems		
17	10-06	HRHIS for tracking the number of active stock on the labor market
18	10-07	Ability of HRHIS to generate information to track exits from the labor market

1.3.2. Conduct a scoping analysis and maturity assessment of possible data sources

Conduct a scoping analysis. After the priority HRH policy directions and questions have been determined (activity 1.1.1), the NHWA Data Clerk conducts a scoping analysis to identify the types of data collected and processed by various HRH data sources. In particular in the Philippines, the scoping analysis was informed by the USAID-WHO Joint Mission, HRH Masterplan, development of the data dictionary and the indicator readiness assessment discussed in 1.3.1. For data that are not available for one of the indicators, there are several options available; first, the NHWA Data Clerk, in consultation with the HRH Information TWC, can consider a different data source for the indicator. If no alternative data source exists, the TWC can decide to collect the data, or the indicator can be de-prioritized. Since NHWA is meant to be progressively implemented as data availability grows, de-prioritized indicators can be prioritized again at a later date.

Conduct a maturity assessment. In conjunction with the scoping analysis, the NHWA Data Clerk will make use of the NHWA Maturity Assessment module that is available within the NHWA Online Data Platform⁴ to determine the capacity of the relevant information systems in the Philippines to generate NHWA indicators. Conducting the maturity assessment with key stakeholders of the HRH Information TWC will allow stakeholders to determine whether these agencies are capable of immediately sharing the data with the NHWA Data Clerk. The NHWA Maturity Assessment can be conducted based on the results of the HRIS Assessment Framework⁵ (HAF), as the HAF is broader than NHWA but can inform such an assessment that is NHWA specific. The Maturity Assessment can be conducted annually based on the progressive implementation of NHWA.

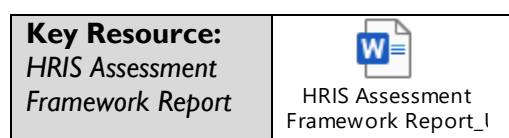
After the assessment, any identified gaps will be complemented by a data mapping activity with the HRH Information TWC focused on the priority NHWA indicators. At this point, the indicator's stratification should be considered, for example, whether data are collected at subnational or activity level. A data collection and collation framework will be created for data that were identified to have multiple data sources, such as the active health workforce stocks. In addition, conducting the data mapping activity could define gaps not only in the availability but also in the consistency of the data or the meaning of the data across different agencies. Based on this mapping, the HRH Data Dictionary will be updated to standardize data definitions.

⁴ To learn more about the NHWA Online Data Platform, visit <https://www.youtube.com/watch?v=N0Q5e5p00js&feature=youtu.be>

⁵ The HRIS Assessment Framework (developed by PEPFAR) is a tool to assess the capabilities and functionalities of the human resource information systems of the country.

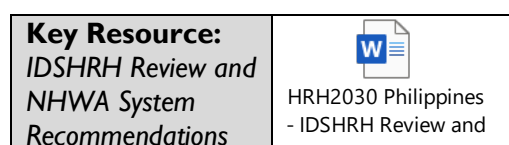
Once data are identified, the NHWA Data Clerk, with the NHWA Technical Secretariat, will lead the HRH Information TWC to design the detailed data flow for implementation during the operationalization phase. In addition, the HRH Information TWC must determine what data can be shared, in what format, and how often (see detailed activities in Operationalization). Specifically, in the Philippines, a more thorough scoping analysis could be done by building upon the existing HRH Network agencies contributing to the Integrated Database System for Human Resources for Health (IDSHRH) and working with these respective agency’s focal points to identify which data relevant to NHWA are already contributed by these agencies.

It should be noted that to realize these activities, the NHWA Data Clerk should be designated the mandate and authority to collect and process HRH data. As such, current mechanisms for data sharing should be leveraged for NHWA implementation (such as the HRH Network’s MOU which includes a data sharing agreement).



1.3.3. Assess hardware and software needs for NHWA internal staging database

NHWA should be implemented with a “do no harm” approach that utilizes existing structures and mechanisms, including existing information systems. As the DOH has determined that they prefer not to use the WHO NHWA Online Data Platform for initial data collation, a NHWA staging database⁶ will be needed to collect, store, and eventually migrate the data to the online NHWA platform. The NHWA Data Clerk, with HHRDB leadership and in collaboration with the eHealth TWG, will determine whether an existing information system can serve as the staging database to collate all the data received from multi-sectoral stakeholders. After identifying this information system, the next step is to determine whether the system’s functionalities are sufficient to serve as the NHWA internal staging database, or whether the system needs to be enhanced. Should the NHWA Data Clerk and others decide that no existing information system can be adopted or enhanced to serve as the staging database, then a decision must be made whether to create a new system as the NHWA internal staging database. In this decision, capacity issues — such as storage and bandwidth — must also be considered. Therefore, an assessment must be made of the respective IT infrastructures. For this assessment, it is recommended to seek advice from IT and information systems technical experts, such as those in the eHealth TWG. After which, a recommendation must be made by the NHWA Data Clerk in consultation with the HRH Information TWC for the approval of the Steering Committee for HRH Initiatives.



1.3.4. Present findings to Steering Committee and HRH Network and discuss plan for resolving gaps and quality issues in data, as well as moving forward with design and development of internal staging

⁶ A staging database is working area, where data can be entered or loaded from various sources for cleaning and validation before final uploading to the main database. In this case the WHO NHWA Online global platform.

After the scoping analysis, maturity assessment, data mapping activity, and staging database assessment are completed, the results will be presented to the Steering Committee and HRH Network for discussion and agreement on a way forward. Regarding data gaps and data quality issues, the NHWA Data Clerk will identify which indicators have issues with data availability, timeliness, accessibility or completeness. Proxy indicators relevant to NHWA could then be defined by the Steering Committee to address these gaps. Regarding the design and development of the internal staging database, the results will be presented by the NHWA Data Clerk and NHWA Technical Secretariat along with recommendations on next steps for data storage. Once the Steering Committee and HRH Network have reviewed the recommendations and plans, a decision will be made on next steps.

I.4. Establish mechanisms for monitoring and evaluation

I.4.1 Develop monitoring and evaluation standards and system to track progress

The HRH Information TWC and Steering Committee will monitor progress by establishing mechanisms to monitor and evaluate (M&E) the roadmap milestones with detailed timelines and regular review meetings. Milestones will include stakeholder engagement, availability of data for NHWA indicators, and use of NHWA analyzed data to make HRH policy decisions. This M&E plan will be reviewed during HRH Information TWC meetings and revised annually as per the progressive implementation approach of NHWA.

Conceptualization Phase Milestones

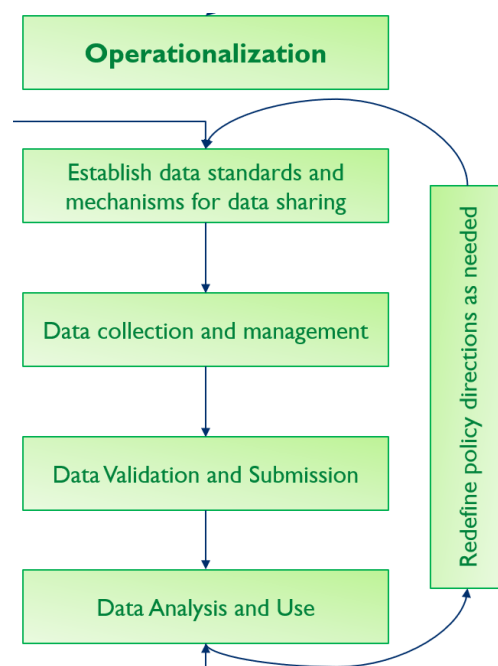
The Milestones in Exhibit 5 have been identified to measure progress on NHWA implementation in the Conceptualization Phase.

Exhibit 5. Conceptualization Phase Milestones

Short Term (1-2 years)		Medium Term (2-3 years)	Long Term (4-5 years)
Policy Priorities Identified	Stakeholders identified and engaged	Monitoring and evaluation standards developed	Review of Conceptualization milestones (seen in Process Revision and Sustainability)
NHWA Roadmap Developed	Governance Structure designed with TORs		
NHWA Indicators identified and prioritized	Data sources mapped and gaps identified		
NHWA Steering Committee Meetings Enacted			

2. Operationalization Phase

The Operationalization phase is where actions are taken to facilitate the collection, analysis and use, of data needed for the priority NHTW indicators that are aligned with the country's priority policy directions. There are several cross cutting elements for the Operationalization phase to be successful. To begin it is critical for the NHTW Data Clerk to have a legal mandate or basis to collect HRH data from various data sources, especially for sources outside the DOH. To comply with the Republic Act 10173 or the Data Privacy Act of 2012, data sharing agreements should be in place to guide the proper collection and sharing of HRH data from multi-sectoral stakeholders. In addition, Data standards must be in place to clarify the format of the HRH to be collected, such as the minimum data set for a health worker registry. Data standards are imperative to enable the eventual consolidation and triangulation of HRH data by the NHTW Data Clerk. Finally, strong engagement of the Steering Committee, the HRH Network, and HRH Information TWC is critical in this phase to improve availability and quality of the data needed for the priority NHTW indicators.



Operationalization Phase Activities

2.1. Establish data standards and mechanisms for data sharing

2.1.1. Develop standards for data quality, flow, periodicity and use of databases

Exhibits 6 and 7 show the NHTW Data Flow Conceptual Frameworks that describe how the data should flow through the NHTW governance structure from multi-stakeholder groups in charge of education, labor force, and population health needs data. The NHTW Data Clerk should receive the pre-defined data from the respective Points of Contacts (or HRH Information TWC members) of contributing agencies. The NHTW Data Clerk should process the data in the internal staging server, for validation with the HRH Information TWC prior to submitting it to the NHTW Focal Person for validation. After validation, the NHTW Data Clerk will upload the data to the WHO NHTW Philippines Dashboard of the global platform for submission by the official NHTW designated submitter (NHTW Focal Person). The WHO dashboard offers analytics, that the NHTW Data Clerk will use to extract, analyze and present data to the HRH Information TWC, HRH Network and Steering Committee as necessary for use in decision-making.

The HRH Information TWC, will determine data standards and data quality criteria to be shared with all key stakeholders. The data standards guide the efficient sharing of HRH data among government agencies to improve the quality of the data required for NHTW indicators. The data standards will define the common rules, formats and terms for the NHTW implementation. The WHO NHTW Handbook⁷ states that the data reporting frequency can serve as a reference when defining the periodicity of HRH data sharing from other data sources to the NHTW Data Clerk. The defined standards will guide the design and use of an internal staging database for NHTW compilation. Specifically, the NHTW Data Clerk should consult with the proposed HRH Information TWC to finalize the minimum data set for health worker registry.

⁷ To access the handbook, visit https://www.who.int/hrh/documents/brief_nhtw_handbook/en/

Regarding data quality, there are six primary dimensions to determine data quality criteria: completeness, uniqueness, timeliness, validity, accuracy, and consistency. The NHWA Data Clerk, with support from the Technical Secretariat, will design the data quality criteria for these data quality dimensions and use the existing data quality frameworks for statistics as references in the NHWA Implementation Guide. The NHWA Data Clerk could prioritize the six data quality dimensions in improving the data quality, but the level of prioritization could be limited by whether aggregated or an individual level data is available. The data quality criteria will also determine the HRH data quality gaps.

Exhibit 6. Overview NHWA Data Flow Conceptual Framework

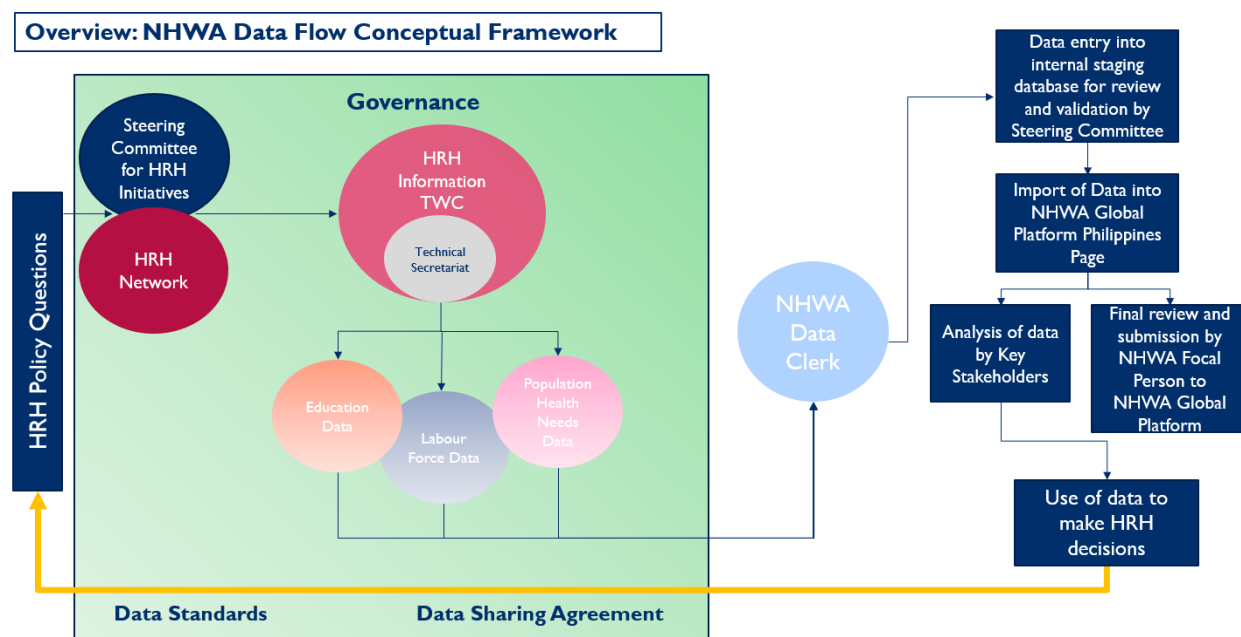
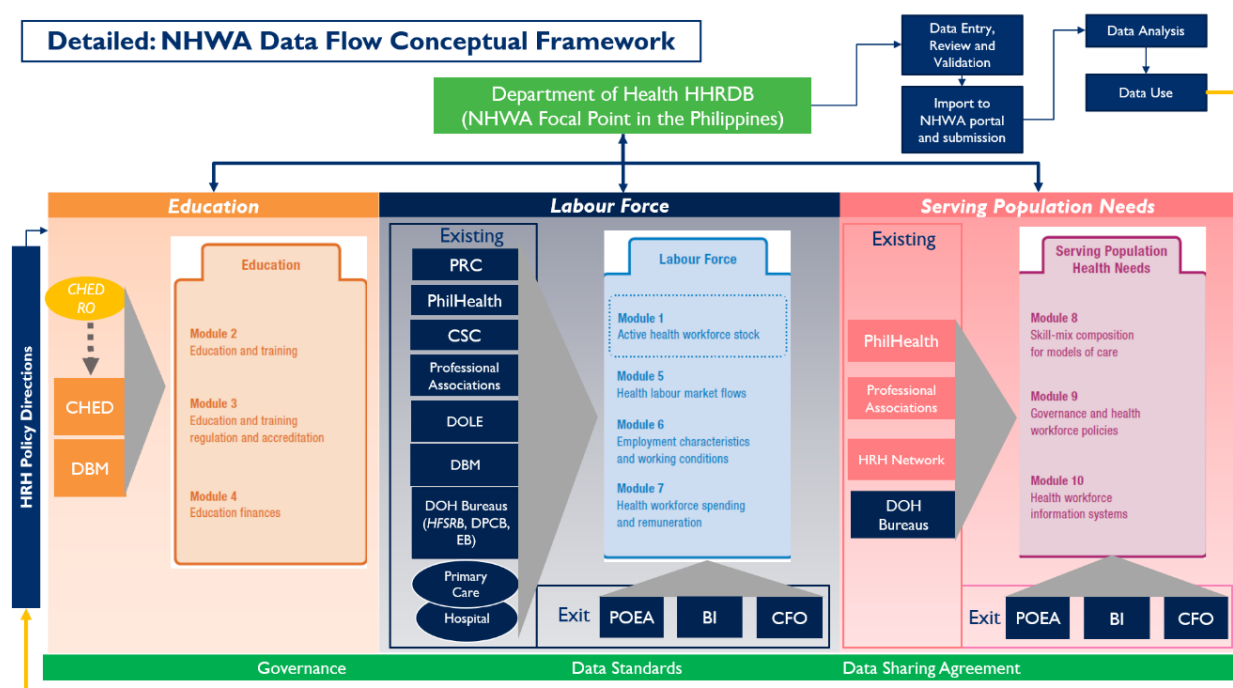


Exhibit 7. Detailed NHWA Data Flow Conceptual Framework




2.1.2. Update health data dictionary and existing policies to ensure standard definitions of HRH data

An HRH data dictionary is essential to guide the data collection and sustain the NHWA implementation. An HRH health data dictionary must be created to ensure that data are collected uniformly, with the same meaning and format. This is especially important given that the HRH data comes from multi-sectoral stakeholder groups. This activity will include updating the definition of HRH related terms in the health data dictionary (contains data that are beyond the scope of HRH) or develop an HRH data dictionary.


The first step is to identify which data relevant to HRH needs to be updated or defined in accordance to the country context by reviewing the priority NHWA indicators and the national health data dictionary. Then, scoping of existing data definitions should be done, emphasizing definitions from the national regulatory body such as the Professional Regulatory Commission for professionals and the Health Facilities Services Regulatory Bureau. The NHWA Data Clerk will review the proposed data definition changes with the key HRH stakeholders. A separate document will be created for ease of dissemination to the HRH Network and other multi-sectoral groups. The data dictionary output will be reviewed and updated regularly — at least annually, but more often if necessary.

Aside from the creation of a separate HRH Data Dictionary for NHWA Implementation, the NHWA Data Clerk should explore submission of the updated HRH data terms to the National Health Data Dictionary. The HRH Data Dictionary metadata (or information about data) will be aligned with the National Health Data Dictionary, including acceptable formats and data types.

Key Resource: <i>HRH Data Dictionary</i>	 HRH Data Dictionary_USAID HI
--	--

2.1.3. Develop data collection matrices and templates

After identifying the data sources and the data flow of HRH data, data collection matrices will be developed in order to guide the data sharing process of different HRH data producers. The data collection matrices and templates will be included in the Data Sharing Agreement identifying which data the agencies contribute to the NHWA. The data collection matrices and templates should be available in Excel. For data that is available in reports or other references, the soft or hard copies of the data should be sent as per the Data Sharing Agreement guidelines to the NHWA Data Clerk and Technical Secretariat.

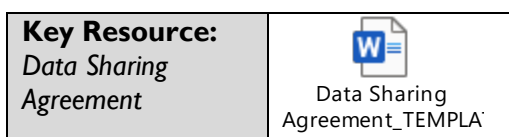
Key Resource: <i>HRH Data Collection Guidelines</i>	 HRH Data Collection Guidelines
---	---

2.1.4. Review existing Data Sharing Agreements or other instruments

The Data Privacy Act (DPA) was passed into law in 2012. This act protects individual personal information in information and communications systems in the government and the private sector. To comply with the DPA, data sharing between government agencies for the purpose of a public function or provision of a public service must be covered by a data sharing agreement (DSA), as per the National Privacy Commission. The DSA may be in the form of a contract, joint issuance, or any similar document that contains the terms and conditions of a data sharing arrangement between two or more personal information controllers. The DSA should contain the purpose, including the public function and public

service it facilitates, agreeing parties, duration of the agreement, overview of operational details, general description of security measures, and how data subjects can exercise their rights. The DSA should also contain the type of personal data to be shared, who will have access to the data, corresponding processes, and types of processing. Additional guidelines are provided in the National Privacy Commission website.

Overall, it is recommended as a starting point for this process, that an agreement should be reached on data standards such as the minimum HRH data set for health worker registry, data dictionaries, and data collection templates.



2.1.5. Develop internal staging database for NHWA data

By this point, the decision to adopt and enhance an existing system or to create a new information system for the NHWA internal staging database should be finalized. If the decision is to develop the staging internal database for NHWA, the next step is to decide on the technologies and approach to be used. The approach means a determination if the system will be developed in-house or will be outsourced to a third-party vendor. To reduce maintenance costs, it is recommended to adapt to existing data standards for where the information system will be deployed. Prior to development, a decision must also be made as to whether to focus first on the priority NHWA indicators or to develop the internal staging database in such a way that all 78 NHWA indicators can be accommodated. Starting with only the priority NHWA indicators will allow for faster development of the system but may require extensive redesign and additional development costs in the future. In contrast, developing the system to collect all 78 NHWA indicators from the start will require greater startup costs and take longer to build, but will allow for rapid expansion of NHWA data collection without many additional costs. Either way, the data used should be aligned to the agreed upon data standards and data collection templates.

2.1.6. Long term conceptualization activities

Develop standards for sharing data between information systems and plan for interoperability. Data standards are fundamental to enable successful data exchange between and among different information systems. It is critical to identify the unique data identifier of an individual prior to entry, as part of the workforce, and exit. Since the HRH data are captured in different HRIS at different stages (entry, exist and exit) by different stakeholders, data standards should be in place to support the development of standardized information systems by different stakeholders. The minimum data set for health worker registry should be set and adopted by the information systems owners collecting health worker data, enabling interoperability⁸. By setting the minimum data sets, integration and deduplication of individual level data from different data sources into one information system can be fully achieved.

Develop linkages with the eHealth Working Group to support continued interoperability. The NHWA Data Clerk will continuously engage the eHealth TWG. The National eHealth TWG comprises six components: Governance, Legislation, Policy and Compliance, Strategy and Investment, Standards and Interoperability, eHealth Solutions, and Human Resource. Since 2013, the Standards and Interoperability component of the eHealth TWG has developed and institutionalized several standards to guide the

⁸ Interoperability is the exchange of data between two or more information systems.

interoperability development process. The NHTWA Data Clerk will regularly inform and consult with the eHealth TWG on the HRH data standards initiatives and progress.

Update/enhance information systems based on data standards and formats. The participating NHTWA data sources will enhance their information systems in accordance to the agreed upon data sets and standards. Each respective information system may collect the HRH data in the same form as they are collecting the data currently but should enhance their information system in such a way as to facilitate the exchange of data. To reiterate, the DOH should adopt a minimum data set for health worker registry, followed by other agencies within and outside the HRH Network and professional organizations.

Establish a health worker unique identifier. While this topic extends beyond the health workforce, there is an urgent need to establish a unique identifier to allow tracking of an individual from their pre-service training, through their employment as a health worker, and throughout their professional lifecycle. While a unique identifier is being determined, proxies for unique identifiers will be identified to enable a more accurate picture of the health workforce.

2.2 Data Collection and Management (see Exhibit 6 and 7 for more details)

The NHTWA indicators are either capability indicators or numerical indicators. Capability indicators mostly evaluate the existence and implementation of laws or policies and are generally answerable by yes, no, or partly. Numerical indicators are represented by numbers or percentages that are calculated using predefined numerators and denominators. Therefore, the data to be collected for NHTWA can be either numerical or involve a review of policies.

The NHTWA Data Clerk should receive the data in the agreed upon timelines from the identified data sources. The NHTWA Data Clerk should also triangulate data from other data sources.

As NHTWA progresses, and information systems mature, a key element of sustainability will be the ability of the NHTWA internal staging database to capture data in real time from stakeholders, either through interoperability or other data sharing mechanisms.

2.2.1. Gather needed data from identified data sources

The data relevant to NHTWA can either be aggregated data or raw data. While the HRH Information TWC will strive to improve the quality of data, it is important to see the data in its current format to inform plans for improvement. Data will be received in whatever form is officially approved by the submitting stakeholder. For example, if the data is in a report format, that can be accepted. However, all data owners should conduct data quality checks within their own institutions prior to submitting aggregated data to the NHTWA Data Clerk. The NHTWA Data Clerk will perform the initial analysis of aggregated data prior to presentation to the HRH Information TWC.

2.2.2. Conduct and document data quality checks

For NHTWA numerical indicators, the process of consolidating data will differ depending on whether the stakeholders agreed to share aggregated or individual level data. The NHTWA Data Clerk should receive the data in the accordance with standards — such as the formatting and templates — that have been agreed upon with the data sources.

During this step, the NHTWA Data Clerk will conduct data quality checks and document assumptions and limitations, taking care to note any gaps and quality issues in the data. For aggregated data coming from multiple data sources, assumptions should be in place to minimize the duplication of count,

specifically for numerical indicators. The NHWA Data Clerk could consider the stratifications specified in the indicators to determine which aggregated data to consider when completing the numbers or percentage for numerical indicators. All aggregated data received from the data sources should be evaluated and triangulated by the NHWA Data Clerk, who will ultimately decide which aggregated data to use from the multiple data sources. The final step will be to clean the data.

2.2.3. Consolidate gathered data into the internal staging database

After data has been gathered, cleaned, and verified for quality, the NHWA Data Clerk will enter the data into the internal staging database for review and validation prior to submission to NHWA online database.

2.3 Data Validation and Submission (see Exhibit 6 and 7 for more details)

2.3.1. Review and validate data in internal staging database

After the cleaned data are validated in the internal staging database, the NHWA Data Clerk will present the consolidated data by indicator to the Steering Committee to determine if the data is ready for submission to the WHO NHWA Dashboard. The NHWA Data Clerk should prepare a summary on the state of data based on the data quality criteria. S/he should also be ready to present the disaggregated data and relevant policies and laws supporting the NHWA capability indicators to the Steering Committee. If the internal staging database does not yet have the functionality to generate automated reports or analytics, the NHWA Data Clerk could prepare spreadsheets and slides for presentation to the Steering Committee. To do this, the NHWA Data Clerk could seek assistance from a person who is knowledgeable in generating data from a database. It is recommended that the data is generated in an Excel file that can be readily imported in the NHWA Online Data Platform. (NB: Excel files prepared for data upload are available in the NHWA Online Platform for download and use).

The NHWA Data Clerk should contact the assigned NHWA Points of Contact in other bureaus or departments — preferably those that are part of the HRH Information TWC — when validation is required from the Steering Committee, and should provide a summary of the feedback to the Steering Committee after. The NHWA Data Clerk should receive a formal validation or sign off on the data in the internal staging database prior to submission. Key stakeholders involved at this stage include the NHWA Data Clerk, Steering Committee, and HRH Information TWC.

2.3.3. Data entry into the Philippines page of NHWA Online Data Platform

The validated NHWA indicator responses should be encoded in the Philippines page of the NHWA Online Data Platform. The NHWA Online Data Platform was developed by WHO to enable countries to record, analyze, and visualize HRH information primarily for their own use. Data entry into the NHWA Online Data Platform can be done in two ways: either directly through the system web page or by uploading separate Excel documents for each module in the Excel Data Importer page. Data will not be considered final by WHO until it is officially submitted, and WHO will not review the data in the platform until October of each year unless otherwise agreed with the DOH.

2.3.4. Conduct final review of data and submit in Philippines page of NHWA Online Data Platform

It is recommended that after data entry, that the NHWA Data Clerk utilize the Data Quality function in the NHWA Online Data Platform to check each indicator. Data quality checks such as validation and standard deviation outlier analysis can be run using this function. Conducting this final data quality check enables the country to correct or update the data as required. Finally, the NHWA Online Data Platform has a function that enables users to approve the data submitted in the system.

Readers should be aware that WHO is in the process of developing the NHWA Web Portal, a publicly available website that displays aggregated data for public use by countries. The NHWA Web Portal also provides data to the Global Health Observatory⁹ and other global reports.

2.4. Data Analysis and Data Use

2.4.1. Analyze or review dashboards and calculations resulting from NHWA Online Data Platform

The NHWA Online Data Platform has a built-in feature to generate dashboards using the data submitted by the countries. The NHWA Data Clerk can either use the pre-designed visualizations or customize how the information will be displayed. The NHWA Data Clerk should pull out these dashboards in the NHWA Platform for presentation to the NHWA Steering Committee and inclusion in the HRH Annual Report or the HRH Country Profile.

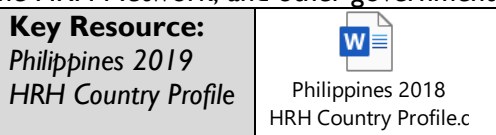
The NHWA Data Clerk could also utilize the information in the NHWA Online Data Platform to compare the country's data to other countries in similar or different regions, with similar or different demographics.

2.4.2. Develop HRH Documents: Annual Report/Country Profile

Dashboards generated from the NHWA Online Data Platform can be utilized to create the HRH Country Profile. The NHWA Data Clerk will lead the creation of an HRH Country Profile containing the initial priority NHWA indicators with graphs for numerical indicators and a summary of the capability indicators. The HRH Country Profile should be created in such a way that it can provide information in a single glance on the NHWA indicators.

The creation of HRH Annual Report will be led by the NHWA Data Clerk. The HRH Information TWC members and other relevant HRH stakeholders should be engaged as needed to provide insights and inputs to generate the final report for submission to the Steering Committee and HRH Network. The HRH Annual Report contains the disaggregated data and studies the NHWA indicators to better understand the underlying issues and challenges and the current state of the health workforce in the country.

Both the HRH Country Profile and the HRH Annual Report should be approved by the Steering Committee, and presented to the HRH Network, and other government officials as deemed necessary.



2.4.3. Present analyzed data at HRH Forums and use for planning and policymaking

The analyzed data and products utilizing the priority NHWA indicators, such as the HRH Country Profile and HRH Annual Reports, will be used in developing evidence-based policies and health workforce planning. However, before the data can be used for workforce planning, the data quality criteria should be considered. Following data quality checks, the NHWA Data Clerk can share the NHWA indicators or NHWA products to individuals, groups, or institutions that want to create policy briefs supporting HRH. Policy-making and programmatic planning are the culminating activities in cyclical NHWA implementation. All activities, starting with the collection of data, are done with the intent to

⁹ See <https://www.who.int/gho/en/>

support tracking of HRH policy performance and inform actions towards progress on the HRH Masterplan and achievement of Universal Health Care.

2.4.4. Conduct other dissemination of data as necessary

The NHWA Data Clerk could set up an online NHWA Knowledge Portal on the DOH server containing all relevant NHWA documents and outputs. The NHWA Data Clerk can manage the NHWA Knowledge Portal to ensure documents are up-to-date and that historical data are properly displayed and archived.

2.5. Redefine policy directions as needed

Since NHWA is cyclical in nature and NHWA is intended to respond to the country's evolving HRH issues, and thus policy directions, it is recommended that the Steering Committee and HRH Network redefine NHWA policy directions each year. Ensuring that the Steering Committee and HRH Network are able to effectively and efficiently adapt in data collection efforts to respond to these policy directions will be critical to sustainability.

Operationalization Phase Milestones

The Milestones in Exhibit 8 have been identified to measure progress on NHWA implementation in the Operationalization Phase.

Exhibit 8. Operationalization Phase Milestones

Short Term (1-2 years)	Medium Term (2-3 years)	Long Term (4-5 years)
Data Dictionary Updated	Data submitted by Stakeholders to the NHWA Focal Point*	
Data Sharing Standards Defined	Data quality checked and consolidated*	
Data Sharing Agreements Updated*	Data internally validated*	
Data collection tools developed*	Data migrated to NHWA online platform and submitted*	
	Use of NHWA data for HRH Country Profile*	
	Use of NHWA data for HRH Planning*	
	Use of NHWA data for HRH Policies*	
	Internal staging database developed	
	Minimum Data Set for HWR adopted	Data quality improved and information systems strengthened*
		Continuous revision of policy directions*

*Repeating activities as NHWA progresses and HRH Policy directions are defined

3. Monitoring and Evaluation Process

The monitoring and evaluation phase of NHWA is critical to measuring progress and documenting issues as NHWA is implemented. If monitoring and evaluation of activities does not occur, then the Steering Committee and HRH Information TWC will not be able to identify and address implementation challenges. While the following steps may seem obvious and simple in documentation, they are imperative for implementation. Activities noted in 2.1.6 should also be considered at this stage.

3.1 Measure progress on milestones

The conceptualized mechanisms for M&E, such as benchmarks with more detailed timelines and regular review meetings, will be realized with the HRH Information TWC and Steering Committee to monitor progress on milestones. Benchmarks will include stakeholder engagement, availability of data for NHWA indicators, and use of NHWA analyzed data to make HRH policy decisions. An M&E plan will be developed based on these determined milestones, reviewed during NHWA meetings, and revised annually as per the progressive implementation approach of NHWA.

3.2 Review implementation for successes and challenges

During Steering Committee and TWG meetings, the M&E plan will be reviewed to understand activities implemented against the M&E framework and to identify successes, failures, and areas for improvement. The purpose of the review will be to determine what works and what does not work to inform improvement in the cyclical NHWA implementation. From this review, the process for identifying HRH policy issues, data cleaning and standardization, data sharing, and data use will be reviewed, and improvements defined.

3.3 Review governance and institutionalization

In addition, the NHWA governance structured will be reviewed to understand if key stakeholders are being engaged appropriately and even to identify new stakeholders to participate in NHWA implementation given newly identified policy questions. As policy questions are identified, new stakeholders should be engaged and data standardization and sharing agreements adapted and applied to the same.

3.4 Update standards, guidelines and standard operating procedures

As NHWA is implemented, new HRH issues and policy questions will be identified. In addition, governance processes and information systems will mature and as such, new data standards, data sharing practices, guidelines, and standard operating procedures (such as this roadmap) will be adjusted and revised by the HRH Information TWC and NHWA Data Clerk based on lessons learned. NHWA is a system to be implemented progressively, thus updates must continually occur to ensure that NHWA as a system is evolving with the HRH issues and policy needs of the Philippines.

Monitoring and Evaluation Phase Milestones

The Milestones in Exhibit 9 have been identified to measure progress on NHWA implementation in the M&E Phase.

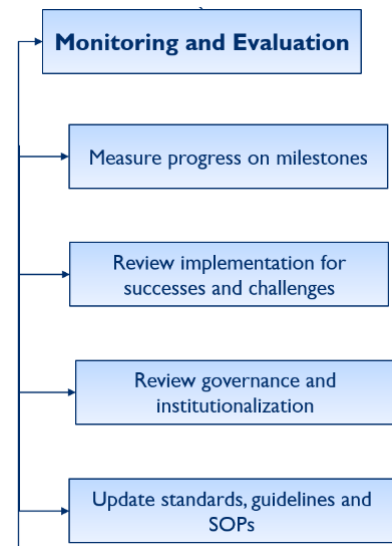


Exhibit 9. Monitoring and Evaluation Phase Milestones

Short Term (1-2 years)	Medium Term (2-3 years)	Long Term (4-5 years)
Milestones measured		
		Review implementation for successes and challenges
		Review governance and institutionalization
		Update standards, guidelines and SOPs

Capacity Building

The following capacity building activities will be conducted with the NHWA Steering Committee, HRH Information TWC, and NHWA Data Clerk, with some activities conducted with the DOH specifically. These activities should inform planning and provide HRH technical assistance partners with guidance on how to support NHWA.

Exhibit 10. Capacity Building Activities

Activity	Descriptions and Participants
Training on NHWA	The HRH Information TWC, and NHWA Data Clerk should be provided with training on NHWA to gain a more structured understanding of the system, its intended function and the purpose. The trainings could be tailored to each group's roles and responsibilities for NHWA. The trainings would provide important insights on NHWA implementation and increase the depth of key stakeholders' knowledge on the purpose of NHWA implementation, which is central to the NHWA process.
Mentorship on data standardization and sharing	Partners should provide technical assistance to the HRH Information TWC on data standardization and sharing, such as establishing standard definitions and forms of HRH data and developing data sharing agreements.
Support to strengthen information systems	Technical support should be provided on information system strengthening. All relevant information systems that have HRH data should be reviewed, with gaps and issues identified for strengthening of the information systems. In addition, support should be provided to the partners in the systems strengthening process for future efforts. This may involve technical capacity building on information system standards revitalization, building of new information systems, and interoperability efforts.
Coaching on use of data for HRH planning	As data is input and analyzed into the various NHWA platforms, coaching should be provided on use of the data. Analysis should be reviewed in the perspective of HRH issues in the Philippines. Mentorship should focus on building the capacity of key stakeholders in NHWA to analyze and understand data.
Support for NHWA institutionalization	As part of all of the above efforts, NHWA should be institutionalized. This includes ensuring that processes, procedures, and data systems are developed and ready to respond to NHWA. It also assumes that key stakeholders understand the importance and promote the centralization of NHWA for continued future use.

Costing Inputs

The below costing inputs have been defined to serve as a guide for consideration in implementation of NHWA. The below are simply considerations and estimates for the DOH's HHRDB only (save Point of Contact incentives), these inputs do not include the costing for other stakeholders outside of the

HHRDB at this time. Please note that these inputs may not entail purchase or hire but indicate the potential cost drivers for NHWA.

Exhibit II. Costing Inputs

Budget Line Item	Descriptions Cost Considerations	Illustrative Timelines
Personnel	<p>Personnel costs should include the following:</p> <ul style="list-style-type: none"> Approximately 50% time for the NHWA Data Clerk (see role described above) Approximately 5-15% time for select staff at DOH HHRDB involved in the Technical Secretariat, for support or oversight to the focal point, participation on various NHWA teams, the TWC or Steering Committee, liaising with WHO and other partners on NHWA implementation progress, ensuring engagement at a higher level of key stakeholders, ect. Approximately 10% time for systems and network administration 	Continuous recurring costs
Travel	<p>International Travel</p> <ul style="list-style-type: none"> 1-2 trips/year to various conferences or workshops to further develop internal capacity on NHWA implementation through learning and to share experiences, as well as benchmark progress with other countries 	Annual recurring costs
	<p>Domestic</p> <ul style="list-style-type: none"> Consideration of travel costs to visit other stakeholders within or near Manila to sensitize the stakeholders on NHWA, collect data and/or discuss findings or analysis further and promote use of data 	Monthly recurring costs
Consultants	<ul style="list-style-type: none"> Consultant to support information system strengthening and strengthening of systems for data standardization and sharing for the NHWA database and linking to other health information systems 	Short term one time cost
	<ul style="list-style-type: none"> Consultant to support data analysis and interpretation to use HRH data collected to respond to key identified policy questions 	Ad hoc short and long term costs
Operations	<ul style="list-style-type: none"> Office space related to NHWA associated staff Meeting space at HHRDB for internal meetings or small stakeholder meetings Phone credit for coordination of meetings, follow up calls, etc. Internet access for communications, access to NHWA platform, etc. Office stationery such as paper, pens, ink for printer, etc. 	Monthly recurring costs
Information Technology	<ul style="list-style-type: none"> Laptop for NHWA associated staff with standard software and antivirus subscription Projector for use during NHWA meetings Server, cloud or physical, for NHWA internal database, including data security package 	<p>Initial immediate costs with upgrades every three to five years for hardware and standard software for computer</p> <p>Monthly or annual costs for antivirus and data security</p>

Budget Line Item	Descriptions Cost Considerations	Illustrative Timelines
Activities	<ul style="list-style-type: none"> Meeting/workshop costs for HRH Network (4/year) Meeting/workshop costs for HRH Information TWC Meetings (6/year) Meeting/workshop costs for internal DOH HHRDB NHWA Meetings (approx. 12/year) Activity costs (meetings, review visits, system audits) for quality assurance Meeting costs for dissemination of NHWA data collection and analysis results Costs for printing of technical briefs or other documents to disseminate NHWA findings or knowledge products Incentives for HRH Information TWC and Points of Contact 	Annual regular costs
Capacity Building	<ul style="list-style-type: none"> Workshop and/or trainings domestically or international for NHWA Data Clerk Coaching and mentoring for HRH Information TWC and Points of Contact Technical assistance to HRH Information TWC members to improve data management 	Higher initial in the short term, decreasing towards the medium term

Sustainability

To ensure sustainability of NHWA, actions related to installation, institutionalization and sustainability were identified in relation to various critical drivers: achieving critical mass, maintaining a continuity of change agenda, establishing accountability mechanisms, operationalizing the system, and building awareness, acceptance and engagement of key stakeholders. These actions identified ultimately built off the Roadmap, mirror the Roadmap activities with a sustainability lens.

Readers to use the Roadmap as more of an operational step by step guide, with this section highlighting the actions and indicators for sustainability alone.

To begin the following the drivers of sustainability that were identified based on two factors: 1) the operational activities in the Roadmap; and 2) to develop and maintain an enabling environment for sustainability.

Drivers of Sustainability	Activities and Actions		
	Installation	Institutionalization	Sustainability
Achieving Critical Mass	<ul style="list-style-type: none"> Capacity building products for end users of NHWA at all levels of the health system Training of staff in data quality improvement and data processing in the first four identified institutions: DOH, Philippines Overseas Employment Administration, Commission on Higher Education, and PRC 	<ul style="list-style-type: none"> Adoption of data standards by first four institutions NHWA Manual of Procedures used by Stakeholders 	<ul style="list-style-type: none"> Integrated HRH data used in SOPs for policy design Using data to address HRH-specific issues at all levels of the health system

Drivers of Sustainability	Activities and Actions		
	Installation	Institutionalization	Sustainability
Maintain a Continuity of Change Agenda	<ul style="list-style-type: none"> • Securing a written agreement with involved government offices accepting the need to establish and develop NHTA with DILG policy/issuance • Include NHTA in the HRH Network Bill 	<ul style="list-style-type: none"> • Policy protocol adopted by stakeholders • Include NHTA concerns in eHealth agenda • Develop policy to mandate registration of HRH in NDHRHIS • Conduct full costing of NHTA operations and maintenance 	<ul style="list-style-type: none"> • NHTA included as part of the eHealth budget • Continuous identification of new HRH issues and policy questions, with corresponding updates to data sourcing and collection on additional NHTA indicators
Establish Accountability Mechanisms	<ul style="list-style-type: none"> • Establishment of TWC for HRH Information within the HRH Network • Development of Regional NHTA Committee Policy 	<ul style="list-style-type: none"> • Monitoring and Evaluation • Identify Focal Persons (dedicated staff) per agency to participate in HRH Information TWC and build the capacity of these agencies • Include NHTA in the Local Government Unit Scorecard to secure adoption in the Local Investment Plan for Health 	
Operationalize the System	<ul style="list-style-type: none"> • Develop standard operating procedures for data transfer to central system • Develop the NHTA Manual of Procedures and Data Dictionary • Build skills on data demand and use within the DOH • Harmonize data collection tools • Enhance data mapping to be more specific on data and data flows 	<ul style="list-style-type: none"> • Final approval of NHTA policy/protocol • Develop the NHTA Staging Information System • Submission of data by key stakeholders to the NHTA Data Clerk and Technical Secretariat 	<ul style="list-style-type: none"> • Data and information on the health workforce updated in real time in the NHTA internal staging database. • Use of NHTA to address HRH issues and policy development • Availability of HRH indicators in the international WHO NHTA Platform
Build Awareness, Acceptance, and Engagement of Stakeholders	<ul style="list-style-type: none"> • Engagement of other stakeholders such as DILG (LGU), PHAPI (PHA), NPC, Regulatory & Licensing (Checklist) • Conduct of regular inter-agency meetings through HRH Information TWC 	<ul style="list-style-type: none"> • Development of information products on use of NHTA and NHTA data • Conduct Regional and National dissemination on information and analysis from NHTA 	

In addition, indicators for each of the phases of sustainability were identified:

Installed	Institutionalized	Sustained
HRH Dictionary developed	HRH Data dictionary integrated in the National Health Data Dictionary	HRH Data Dictionary and National Health Data Dictionary are used by all Health Information Systems
NHWA Operational Manual developed --- including tools on data collection and M&E	Data are collected regularly	
Focal persons/agency identified with acceptance of their roles and functions (governance structure)	Dedicated person/s to handle NHWA-related implementation activities e.g. encoding	
Regular quarterly interagency meetings occurring		
Agencies/partner willing/accepting to collect essential data for NHWA (based on agency mandate)	Designated/dedicated staff and office for NHWA operations for all agencies involved	Reports generated from NHWA are used for HRH policy and planning
HRH Network Bill to include NHWA	HRH data standards validity endorsed to eHealth TWG	
Data transfer/consolidation SOP	NHWA is part of the over-all eHealth strategies/goals/objectives	
NHWA Roadmap finalized	NHWA operations and maintenance costed	HRH Data and Evidence Law drafted
NHWA Info System developed		

The full version of the Sustainability Plan can be found in **Annex B**.

Conclusion

This roadmap was developed in collaboration with the DOH to serve as a guide for the NHWA stakeholders that will manage the progressive implementation and establishing the governance structure of NHWA. It is recommended that the progress of all NHWA related activities be monitored and the roadmap edited and updated based on lessons learned during implementation and evolution of HRH policy directions.

As has been noted above, key stakeholders should use this roadmap to guide activity planning for NHWA. It should be emphasized again that roadmap activities do not need to be conducted in sequential order; rather, activities should be prioritized and implemented as resources and inputs are available, prioritizing quick wins and demonstrating proof of life to encourage stakeholders to participate in the process. This roadmap should not only guide start up activities to establish NHWA, but also guide implementation of recurring activities such as data collection, cleaning, and use as per newly identified HRH issues and policy questions as NHWA activities are cyclical in nature. As NHWA data are used for decision-making, HRH policy directions should be redefined to respond to emerging needs and trends, as well as the growing maturity of information systems and data quality in the country.

Overall, NHWA will be the system by which to improve the data accessibility, availability, and quality of data to respond to HRH issues in the Philippines, and this document provides a road to follow not merely to reach a destination, but to guide the journey towards a well-trained, well managed and optimized health workforce that supports UHC in the Philippines and enables progress toward sustainable development goals.

References

Health Human Resource Development Bureau, Department of Health. (September 29, 2018). "Human Resources for Health: Philippines; Counting What Matters."

National eHealth Program. "National Health Data Standards Experts Group." Retrieved from <http://ehealth.doh.gov.ph/index.php/transparency/organizational-structure#openModal50>. (Accessed November 2018).

Republic of the Philippines, Department of Health. "Ejobs for Health." <http://www.ejobs.doh.gov.ph/ejobs/>. (Accessed November 2018).

World Health Organization. (2006). "The World Health Report 2006." Retrieved from https://www.who.int/whr/2006/whr06_en.pdf?ua=1. (Accessed November 2018).

World Health Organization. National Health Workforce Accounts: Better Data and Evidence for Health Workforce. <https://apps.who.int/iris/bitstream/handle/10665/311853/WHO-HIS-HWF-NHWA-2019.1-eng.pdf>, accessed May 2019

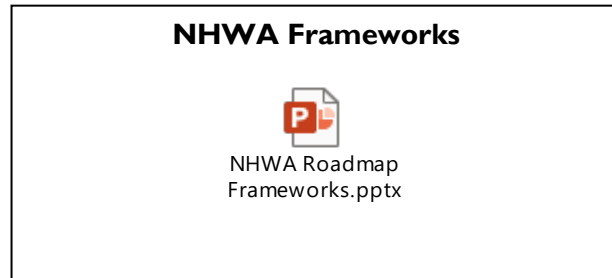
Annex A. NHWA Tools

The below tools are those that have been developed by WHO and compiled by HRH2030 for use by countries when orienting or training on NHWA, as well as for general reference use when implementing NHWA.

Tools, resources, and global communities for implementing NHWA	
<i>To learn more about NHWA, WHO has developed several global goods for use by countries and implementing partners:</i>	
WHO Website	The WHO National Health Workforce Accounts website (https://www.who.int/hrh/statistics/nhwa/en/) provides a links to all tools, YouTube tutorials, meeting reports and a link to the NHWA web portal. (All of the below can be found on the WHO website).
NHWA Tools	Several important tools have been developed by the WHO to support countries in NWA development and implementation: <ul style="list-style-type: none"> ▪ National Health Workforce Accounts Implementation Guide: A guide through the eight steps of NHWA implementation ▪ National Health Workforce Accounts – A Handbook: A detailed guide on all 10 modules of NHWA including indicator reference sheets ▪ Understanding National Health Workforce Accounts: A briefer on the nuts and bolts of NHWA
NHWA YouTube Videos	There are several YouTube videos development by the WHO to support advocacy on NHWA and use of the NHWA Online Platform: <ul style="list-style-type: none"> ▪ WHO: Health workforce data platform- NHWA serves as promotional video for NHWA ▪ WHO: Health Workforce- NHWA platform tutorial: Maturity Assessment provides a tutorial on use of the maturity model ▪ WHO: Health Workforce- NHWA platform tutorial: Data Entry provides a tutorial on data entry into the NWA Online Platform
Key Stakeholder Meeting Reports	To support knowledge sharing and capacity building, reports for consultations conducted by WHO, in coordination with other partners (such as USAID/PEPFAR), from the SEARO region , Mozambique and Dakar can serve as a reference for planning for NHWA and learning from other countries experience.
NHWA Webportal	The WHO has created a webportal to access data visuals and infographics on health workforce data using NHWA. This website is currently in progress, but the current link can be found here .
Global Health Workforce Network	As part of the Global Health Workforce Network, the Data and Evidence Hub has been established to support exchange and coordination between networks, partners and experts to enhance adoption, implementation and reporting on NHWA.
NHWA Training Resources	For the training of NHWA Focal Points, these slides and references were utilized and could be used by other teams to build capacity, advocacy, and as a reference for implementation.
NHWA Data Collection Templates	These data collection templates are representative samples of the data points, and the format of the data points, that will be captured in the NHWA Online database.
NHWA Orientation Presentation	Overview PowerPoint that describes what NHWA is, the components of NHWA, and recommendations on stakeholders and activities for implementation.

Annex B. NHWA Frameworks

The NHWA Roadmap contains many visual frameworks to support the reader and user in understanding the NHWA process in the Philippines. As the Roadmap is a living document, the PowerPoint containing these frameworks can be found here for future modifications as NHWA progresses.



Annex C. Sustainability Action Plan

The Sustainability Action Plan describes the activities and actions for each of the unique drivers for sustainability, as well as denotes a timeline and key stakeholders to be included. The sustainability action plan was developed based on two factors: 1) the operational activities in the Roadmap; and 2) to develop and maintain an enabling environment for sustainability.

Sustainability Action Plan						
ACTIVITIES / ACTIONS						
Drivers for Sustainability	Installation		Institutionalization		Sustainability	
Achieve Critical Mass	Training of staff in data quality & data processing in the first four institution : DOH (WF) , POEA (Mig), CHED (Educ), and PRC (Reg)	2021 Q2 [HHRDB, partner agencies]	Adoption of data standards by first four (4) institutions	2021 Q3 [HHRDB, partner agencies]	Integrate HRH data in SOPs for policy design	2023 Q3 [HHRDB]
	Orientation & roll-out of NHTWA at the Regional and LGU level	2019 Q3 - 2020 Q1 [HHRDB, HRH2030, CHD]	NHTWA MOP used by phase 2 stakeholders	2022 Q2 [DOH, CHDs, othe stakeholders]	Using data to address National and Regiona HRH issues (specific test case)	2019 - continous [HHRDB]
Maintain a Continuity of Change Agenda	Securing a written agreement with involved government offices accepting the need to establish and develop NHTWA. Should also include DILG (policy/issuance)	2020 Q3 [HRH2030, DOH, 6 Network Agency of IDHRNIS: CHED, PRC, POEA, TESDA, DOH,PSA]	Policy adopted by stakeholders	2022 Q2 [DOH, CHDs, othe stakeholders]	NHTWA as part of the eHealth budget	2021 Q1 [HHRDB]
			final approval of NHTWA policy / protocol	2020 Q2 - 2021 [HHRD]	Include NHTWA in the HRH Network Law provision	2023 [DOH]
	Include NHTWA in the HRH Network Bill	2020 Q1 - 2023 [DOH, HHRDB]	costing of NHTWA operations and maintenance	2020 Q2 [HHRDB, HRH2030]		
			Include NHTWA concerns in eHealth agenda	2020 Q1 - 2021 [HHRDB, HRH2030,HPDPB, KMITS, EB]		
Establish Accountability Mechanism	Final approval of the AO for formation of the National NHTWA TWG (DM, DPO)	2020 Q3 [HRH2030, DOH]	Monitoring and Evaluation of Roadmap implementation	2020 Q2 [HHRDB, HRH2030]		
			Identify focal person (dedicated	2020 Q2 [HHRDB]		

Sustainability Action Plan							
ACTIVITIES / ACTIONS							
Drivers for Sustainability	Installation		Institutionalization		Sustainability		
			staff) per agency				
	Create a regional TWG Policy	TBD	(NDHRHIS) HCPN Focal Persons – link to capacity building = Roles + Functions	2020 Q2 - 2021 [HHRD]			
			Include NHWA in the LGU Scorecard to secure adoption in the LIPH (AOP) = infra, HRH complement, tech cost	2021 Q3 [HHRDB, partner agencies]			
Operationalize the System Program	Develop SOPs, ISOs, SOLs for data transfer to central System	2020 Q1 - 2021 [HHRDB, HRH2030,HPDPB, KMITS, EB]	M&E of Data Collection	2020 Q4 - 2023 [HHRDB]	Use of NHWA for HRH issues and policy development	2023 Q3 [HHRDB]	
			Final approval of NWA policy / protocol	2021 Q1 [HRH Network, DOH]			
	Develop the HRH MOP & Data Dictionary	2019 Q3 - 2020 [HHRDB, HRH2030]	Develop the NHWA info system	2021 Q4 - 2023 [DOH]			
	Build skills on data demand and use in DOH	2021 Q4 - 2023 [DOH]	Submission of data to NHWA secretariat	2020 Q3 [6 Network Agency of IDHRNIS: CHED, PRC, POEA, TESDA, DOH,PSA]			
	Enhance data mapping to be more specific on data and data flows	2019 Q4 - 2020 Q1 [HHRDB, HRH2030] dovetail data dictionary					
	Harmonization of Data Collection Tools	2020 Q1 - 2021 [HHRDB, HRH2030,HPDPB, KMITS, EB]	Roadmap Implementation	2020 Q2 [HHRDB, HRH2030]		Availability of HRH indicator in the internation WHO NHWA Platform	2020 Q4 - 2023 [HHRDB]
	Roadmap acceptance	2019[HHRDB]					
Build Awareness, Acceptance, and	Conduct of regular inter-agency meetings	2020 Q2 [HHRDB, HRH2030]	Development of information products (HPCS)				

Sustainability Action Plan					
ACTIVITIES / ACTIONS					
Drivers for Sustainability	Installation		Institutionalization		Sustainability
Engagement of Stakeholders	Engagement of other stakeholders (NHWA National TWG formation per stakeholder) DILG (LGU), PHAPI (PHA), NPC, Regulatory & Licensing (Checklist)	2019 [HRH2030]	Regional and National Dissemination	2022 Q2 [DOH, CHDs, othe stakeholders]	

Annex D. Policy Brief

This policy brief provides background and information on the options and policy environment for improving HRH data and evidence for national policy and planning. This policy brief provides the contextual background needed for conceptualization and operationalization of NHWA, as well as provides other options if needed as a reference in the future.

**Policy Brief:
Improving HRH Data and Evidence to
Support National Policy and Planning**



NHWA Policy
Brief_USAID HRH203

U.S. Agency for International Development

1300 Pennsylvania Avenue, NW

Washington, D.C. 20523

Tel: (202) 712-0000

Fax: (202) 216-3524

www.usaid.gov