



POLICY BRIEF

Improving HRH Data and Evidence to Support National Policy and Planning

Statement of the Issue

Human resource for health data and evidence is an important component of resilient health systems.¹ It provides the capacity to learn from experience and adapt according to changing needs. With the Global HRH goal of ensuring universal accessibility, acceptability, coverage and quality of HRH, the implementation of HRH policies need to be effective at all levels. Any responsible HRH policy change is dependent on the availability, completeness and quality of health workforce data.² Therefore, strengthening health workforce data, evidence and knowledge is critical to achieve desired HRH policy goals. In the Philippines, much progress has been made in the development of the HRIS.³ Yet, availability of quality HRH data that is used to make decisions remains limited due to issues on multi-stakeholder coordination, lack of real policy responses to address the problems, insufficient data analysis and use to inform HRH planning and policy development. Variations in data standards, poor data quality, non-interoperability of existing information systems and operational barriers to data sharing, serve to fragment information and prevent effective changes. With the passage of the Universal Health Care (UHC) law, data and evidence is vital to warrant effective HRH policy changes and monitor health workforce improvements. This policy brief explores what the DOH can do to strengthen HRH information systems to improve HRH data and evidence, so that it is complete, consistent, accurate, available and used effectively to influence national HRH policy development, planning and monitoring in support of UHC goals.

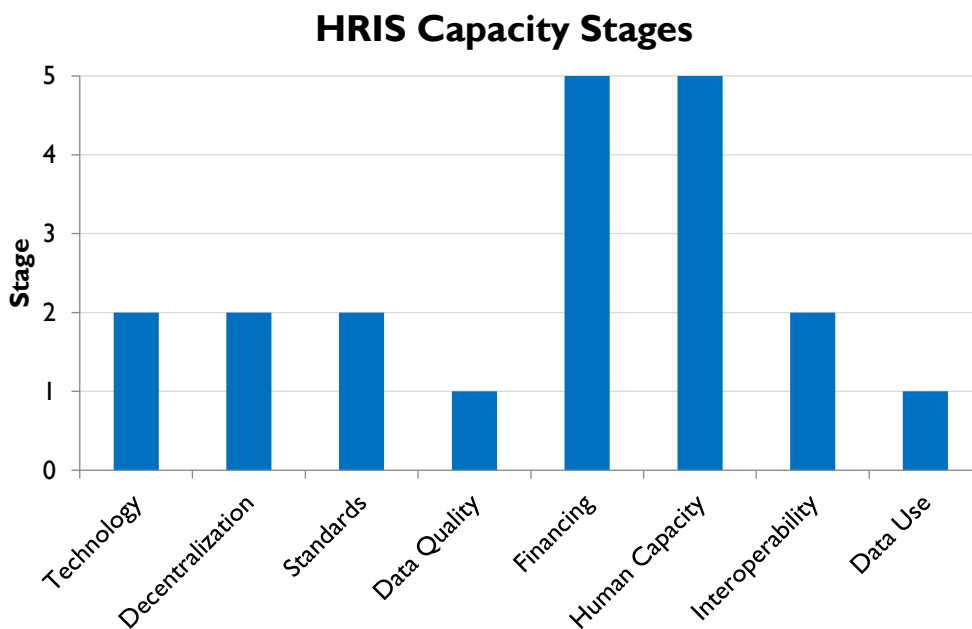
Background

One objective of the Global Strategy on Human Resources for Health: Workforce 2030 is to strengthen data on human resources for health for monitoring and accountability of national and regional strategies and the global strategy.⁴ By 2020, all countries are expected to have made progress in establishing registries to track health workforce stock, education, distribution, flows, demand, capacity, and remuneration. Countries are expected to share HRH data through national health workforce accounts and submit core indicators to the WHO Secretariat annually.⁵ To achieve this objective, countries have several policy options, such as establishing health workforce registries, strengthening capacity to use data for decision-making, and creating incentives and policies to collect, report, analyze and use quality data.⁶

To strengthen the health workforce data and evidence in the country, the Philippines explored options to adopt the World Health Organization (WHO) National Health Workforce Accounts (NHWA), “a system by which countries progressively improve the availability, quality, and use of health workforce data through monitoring of a set of indicators to support achievement of UHC.”⁷ In 2018, a joint mission was conducted by the USAID HRH2030 Philippines project with the Department of Health and the WHO to prepare a roadmap that would guide the conceptualization, operationalization, monitoring and evaluation of NHWA in the Philippines.⁸ Priority indicators were selected from NHWA modules to guide HRH data needs and evidence. This roadmap also aimed to strengthen data quality and sharing by

standardizing the data architecture and interoperability as well as assisting in tracking HRH policy performance towards UHC. NHWA seeks to contribute to the overall management and development of the health workforce and strengthen national health systems to support the achievement of UHC.

Given the importance of Human Resource Information Systems (HRIS) as a repository of HRH data and management thereof, the USAID HRH2030 project assessed the maturity of the HRIS in the Philippines. The assessment, conducted in June 2018, investigated the Department of Health’s (DOH) and the HRH Network’s multiple HRIS using the Human Resource Information System Assessment Framework (HAF) tool.⁹ It investigated the developmental stages of the HRIS in terms of the eight capacity and functional areas and ranked the maturity level based on a scale of 1 – 5, with 1 as the lowest and 5 as the highest. Findings indicated that HRIS capacity is at an **average developmental stage of 2.5** with the strongest capacity of 5 in local financing and human capacity and least developed area in data capacity and use. The assessment of the functional areas showed an average developmental stage of 2.3 with pre-service training, workforce exit/attrition and health worker registry at level 3 and registration and licensure, payroll information, personnel action and in-service training at level 2.¹⁰ The least functional area is staffing gaps and needs.



Findings of the HAF assessment also showed that multiple government agencies and non-governmental organizations play a role in managing functional areas of the HRIS.¹¹ This is significant because it indicates that other agencies are also authorized to collect HRIS data and health information beyond the DOH. However, HRH data standards, data ownership, data sharing, coordination, and governance structures (including policies) are not in place or require strengthening. Inadequate and limited policies and data standards have led to the development of multiple systems, difficulty in harmonizing data, and gaps in data quality. HRIS within and outside the DOH are fragmented, and financial reporting drives the management of HRIS data. Although several mature HRIS have existed for years, the assessment found that data use for HRH management and policy development was limited, likely a result of data quality gaps and other factors that enable data use.

To strengthen the health workforce information system in the country, the Philippines recently explored options to adopt the World Health Organization (WHO) National Health Workforce Accounts (NHWA), “a system by which countries progressively improve the availability, quality, and use of health workforce data through monitoring of a set of indicators to support achievement of UHC.”¹² In 2018, a joint mission was conducted by the USAID HRH2030 Project and the WHO to prepare a roadmap that would institutionalize the NHWA in the Philippines.¹³ The Philippine NHWA Implementation Roadmap was formulated to strengthen health workforce information systems by standardizing the data architecture and interoperability as well as assisting in tracking HRH policy performance towards UHC. NHWA seeks to contribute to the overall management and development of the health workforce and strengthen national health systems to support the achievement of UHC.

Existing Policies

The government of the Philippines has launched policies on health resource information, communication and technology to strengthen development and management of HRIS at various levels.

The **eGovernment Master Plan** aims to harmonize all information technology resources, programs, and projects of the whole government.¹⁴ For the health sector, the plan aims to establish an integrated health information system that is harmonized and beneficial to the broader public health sector and makes quality and timely health data accessible to decision makers at the operational and policy levels.¹⁵ This plan is financed by the Department of Budget and Management’s Medium-Term Information, Communication and Technology (ICT) Harmonization Initiative (MITHI).

This plan is supported by the DOH and the Department of Science and Technology (DOST) **Joint Memorandum No. 2013-0200**, which created the National Governance Steering Committee and Technical Working Group on eHealth.¹⁶ This memorandum supports the eHealth agenda of both the DOH, as incorporated in their **Philippine eHealth Strategic Framework and Plan (PeHSFP)** 2014-2020, and DOST’s research agenda on the use of ICT in health to support research programs and initiatives to generate local eHealth technologies and innovations. The Philippine eHealth Strategic Framework and Plan (2014-2020) reflects the use of the ICTs by the DOH as a strategic approach to improve health services and achieve goals of the DOH towards Universal Health Care. International commitments of the DOH also promoted the use of eHealth services to reach vulnerable populations and communities.

The joint undertaking established and implemented the **Philippine Health Information Exchange (PHIE)**¹⁷ platform to secure electronic access and efficient exchange of information. This platform facilitates PhilHealth reimbursements and data access and exchange of health data. This plan provides for an impetus to the creation of an HRIS and the interoperability of such a system with other information systems.

At the DOH, the HHRDB manages the **National Database of Human Resource for Health Information System (NDHRHIS)**¹⁸. Established through **Administrative Order No. 2015-2017**, the NDHRHIS keeps a permanent HRH registry of all licensed hospitals. As the system owner, the Health Human Resource Development Bureau (HHRDB) uses the NDHRHIS to facilitate the collection of data on HRH from the hospitals and other health facilities, in order to produce a statistical report for HRH planning, management, policy development and research. It is also used to generate information on the current distribution and skill mix of HRH for deployment purposes, collected from on-line and manual registration and encoding. An annual inventory of NDHRHIS facility users is conducted to

monitor and evaluate facility users in reference to the total number of facilities registered under the HFSRB.

The HHRDB also manages the **Integrated Database System for the Human Resources for Health (IDSHRH)**¹⁹ which serves as a platform to share data among seven agencies: DOH, POEA, CFO, National Reintegration Center for OFWs, TESDA, CHED and PRC. Organized by the Human Resource for Health (HRH) Network, the IDSHRH aims to “capture, process, store and report vital information on HRH” that covers production, utilization, deployment, migration, re-entry and retirement at the national level. Terms and conditions related to the roles and responsibilities of agencies, accessibility, security and confidentiality, data storage retention, ownership of data, copyright and license are contained in a Memorandum of Agreement (MOA).

In addition to policies and strategies, the Philippines has established legislation that influences HRIS development and management. **Republic Act 10173** or Data Privacy Act of 2012,²⁰ governed by the National Privacy Commission, provides a comprehensive and strict legislation about “protecting the fundamental right of privacy of communication while ensuring the free flow of information to promote innovation and growth.”²¹ This law applies to the processing of all types of personal information and to any person involved in the processing of personal data located in the Philippines or maintain offices in the country. It allows for the processing of personal data, subject to compliance with the requirements of the Act and other laws allowing disclosure of information to the public. Written consent is required and full disclosure to the individual of the purpose in order to protect the rights of the data subject. Penalties under the Act include imprisonment and a fine, as well as private right to action for damages.

The Republic Act 11055, an Act Establishing the Philippine Identification System, aims to establish a valid proof of identity for all citizens and residents to simplify public and private transactions. It also aims to eliminate the need to present other IDs when transacting with government and private institutions. The Philippine Statistics Authority, the repository of data, is currently pilot testing the national ID system until June 2020, after which they will scale up registration to the public. Overseas Filipinos are targeted to be registered in 2021.

Current policies provide the necessary mandate to establish, coordinate, and integrate HRIS in the country to inform HRH policy decisions. However, the development and implementation of HRIS still lack specific policy guidelines, standards, and integrated systems to strengthen these systems to effectively inform decision-making and policy development. Although the presence of a governing body on eHealth could push forth the use of ICT to improve efficiency of services in government, HRH data standards, data sharing, and interoperability of current information systems are not yet in place. There is a lack of HRH registries, data collection systems, and mechanisms for data sharing and use among agencies and organizations. The need to protect information as indicated in the Data Privacy Act would also need to be considered in the development of HRIS.

Policy Goals

To achieve UHC, the government of the Philippines must increase availability and accessibility of HRH data, ensuring regular and reliable sharing of data between stakeholders that results in improved HRH data quality and use. To further support achievement of this goal, it will be essential to develop an efficient governance structure to track progress of HRH development and facilitate decision-making around critical HRH issues.

Policy Alternatives

Three alternatives exist to address the limited availability of quality HRH data to inform HRH management and policy development in support of UHC.

Continue with Existing Processes, Procedures, and Non-Integration of Systems

This option supports the continued use of multiple HRIS that are managed by various agencies. Individual agencies collect, consolidate, analyze, and use HRH data for their respective purposes. Processes and procedures in data collection, consolidation, and analysis established by individual agencies are maintained. Data definitions are determined by the respective agencies and access to HRH information is limited to the agency collecting the data. Sharing of data is dependent on the approval of the agency that has ownership of the data. Under this option, individual policies of different agencies on HRIS remain and no new policies need to be crafted. No interventions are made to build capacities and expand functions of agencies on information systems. Because no additional investments are needed, implementation can continue without interruption.

This option may not provide an efficient and effective system of HRH data collection, consolidation, analysis, and use due to the lack of standard processes and procedures for data collection and use, which makes data migration and sharing difficult. The fragmented data system means critical information may not be available to provide a comprehensive profile of the HRH situation and inform HRH decision-making and policy development.

Individual agencies have the necessary personnel available to administer their systems, which means that reliance on current HRIS may be technically feasible. On the other hand, agencies may be unable to share and consolidate information on HRH because the information systems do not have agreed minimum data sets and standards and are not interoperable.

While this option will not require additional costs in the short-term, it may not be financially feasible in the long-term since it requires each agency to purchase and maintain their own information systems and equipment. The use of individual HRIS may be politically acceptable to agencies since it provides them with the option to develop their HRIS in accordance with their respective mandates and information needs. However, if the goal is to provide a national profile of HRH and track progress of HRH policy development that transcends agency mandates and requires a multi-sectoral approach to data collection and use, this option is not viable.

Adopt a multisectoral and integrated system or approach, such as NHWA, to improve availability, quality, and use of data to inform policy and manage HRH

Under this option, the DOH can adopt an integrated system, like the NHWA, to improve the availability, quality, and use of health workforce data. NHWA enables the standardization and interoperability of national health workforce data across all agencies and sectors, allowing the Philippines to better collect, analyze, and use comprehensive HRH data to develop evidence-based policies and manage HRH in support of UHC.

NHWA provides an efficient way of collecting, consolidating, analyzing, and using HRH data from multiple agencies and stakeholders. The DOH can adopt a whole-of-government approach to ensure that appropriate principles and methodologies are assumed in collaborating with other agencies participating in the implementation of NHWA, including linking with existing ICT infrastructure and lead agencies responsible for implementing eGovernment strategic plans. The DOH determines policy

priorities for UHC and, based on these priorities, selects the core indicators from among the NHWA modules. This prioritization ensures that the measures identified provide the information needed to monitor progress of HRH policy performance in the country. The DOH, in collaboration with other agencies and stakeholders, can establish minimum data sets and data standards, which will facilitate use of a common database. The DOH can issue an administrative order (AO) to specify the manner of data collection, consolidation, analysis and use to facilitate aggregation of data from individual agencies, which can be used to develop a comprehensive profile of the HRH situation in the Philippines.

The DOH, in collaboration with the eHealth Governance Committee, can develop a central repository of data to be managed by an assigned administrator with technical and administrative capacities. Data from the different agencies will feed into a common database where data will be consolidated and analyzed. HRH information for the country can then be processed and accessed from this central source instead of collecting data from the different agencies. Orientation and training on the data standards and operational procedures of the system may be also be required for assigned information technology staff at each agency to ensure appropriate capacities in the management of the system. Due to the need for additional policies, infrastructure, and capacity building to operationalize this option, implementation can be achieved in the medium term (2-3 years).

If lodged at the Department of Health, the HRH Network members composed of collaborating government and private agencies can be mobilized to generate and collect HRH data, share information, analyze and evaluate data, act as custodian of HRH information and monitor progress of HRH policies for the UHC. Use of data to inform policy and planning will be facilitated.

Initial investments will be needed to set up the central repository of data but in the long run, when the system is used by the different agencies, redundancies in data management are reduced, data quality and accuracy is improved, expenses may be reduced. The option to adopt NHWA may likewise be acceptable to both national and local government agencies since comprehensive HRH data will be made available and accessible to them at a reduced cost to their organization. Aggregated data will likewise be made available in a timely manner for the national agencies to have the necessary evidence to inform HRH policies for UHC.

Establish and operationalize a mechanism, such as a Human Resources for Health Observatory, to formalize policy, research, advocacy, and data analysis on the health workforce

As defined by the WHO, the HRH Observatory is “a place or making observations of natural phenomena.”²² Recent definitions describe it as “mechanisms of organizations that monitor events and trends in various fields such as education, security, justice, environment, economic development, and health.”²³ Observatories initially focused on diseases, conditions or populations but later on also looked into organizational and policy issues. HRH Observatories serve as platforms where valid information is available and where policy discussion can be informed and conducted in a more neutral manner. HRH observatories aim to provide independent analysis and policy advise. The general purpose of HRH observatories is to inform policy makers, ensure that valid and reliable data is available, relevant stakeholders are involved in the process, and the implementation of policies are evaluated.

This option proposes to establish and operationalize a Human Resources for Health Observatory, where information on key HRH issues are collected, analyzed and disseminated to stakeholders through policy discussions. Through these fora, all concerned sectors interact on HRH matters and address HRH challenges in the country using valid and reliable HRH data. The HRH Observatory performs various

functions such as informing policy making and evaluating policies, building capacity on HRH, conducting research, producing knowledge products, conducting advocacy, and facilitating dialogue between stakeholders.

The DOH can issue an AO to establish an HRH Observatory and formalize this mechanism for policy, research, data analysis, and advocacy on the health workforce. Given the multisectoral nature of the HRH Observatory, strong stakeholder commitment is required for it to succeed. The DOH can develop a stakeholder engagement strategy to gain early buy-in and commitment. Establishing an observatory requires financial resources to formalize the platform, and so the DOH can collaborate with other agencies to develop a resource mobilization plan and advocate for resources. Because of the extensive reforms needed to operationalize this option, implementation can be achieved in the long-term (3-5 years).

Under this option, efficiency may be achieved since the Observatory consolidates various functions such as research, capacity building, data analysis, and policy advocacy under one multisectoral platform. The option is also technically feasible since DOH and other stakeholders have expertise in conducting the various functions performed by the observatory; they may need external technical assistance to design the observatory and make the transition to working multi-sectorally. Initial financial investments will be needed to set up the platform and support operations of the HRH Observatory. The option may also be politically acceptable since it provides valuable HRH information that can inform future policy directions and achievement of UHC. However, not all views advocated by the HRH Observatory may be acceptable to all politicians or government agencies.

Discussion

To determine the most feasible policy option that will increase the efficiency of HRIS, each policy alternative is evaluated based on a set of criteria aimed to meet the policy goals. Four criteria are selected: efficiency, technical feasibility, financial feasibility, and political feasibility.

Efficiency is defined as being able to accomplish tasks with a minimum expenditure of time and resources. Technical feasibility is defined in terms of the agency's technical capability to implement the policy. Financial feasibility is defined as the viability of the cost to government and long-term financial sustainability. Political feasibility refers to the expected level of acceptance of the policy option by decision-makers.

Policy options are scored on each criterion and assigned a score between 1-3. The score of "1" means that the policy alternative is least likely to achieve the policy goals. The score of "2" means that the policy alternative is likely to achieve the policy goals, but some factors may inhibit its achievement. The score of "3" means that the policy option will most likely achieve the policy goals. Table 1 below presents the evaluation of the policy alternatives based on Equity, Efficiency and Feasibility.

Table I. Assessment of Policy Alternatives for Efficiency and Feasibility of HRIS

Criteria	Definition	Policy Alternatives		
		Non-integration of systems	Multi-sectoral and integrated approach	Mechanism to formalize policy, research, advocacy and data analysis
Efficiency	Ability to accomplish tasks with minimum time and resources	1	3	3
Technical feasibility	Capacity of the agency to develop and implement the approach	2	3	3
Financial Feasibility	Least cost to government and long-term financial sustainability	1	3	1
Political Feasibility	Acceptability to the decision-maker of the system or approach	2	3	2
	TOTAL SCORE	6	12	9

Option 1: use of current HRIS to track progress of HRH policy performance in the country, may not achieve efficiency since the various HRH data do not have common data standards nor agreements on a minimum data set. HRIS may also not be interoperable. Therefore, the systems may provide incomplete workforce data and take a long time to process. Individual agencies may not have the technical capacity to share and analyze consolidated data, and therefore this option may not be technically feasible. This option may not be financially sustainable since it requires each agency to purchase and maintain their own information systems and equipment and substantial costs may be required for future expansion and upkeep of the program. Maintaining HRIS may be acceptable to decisionmakers since the data meets agencies' needs, but it will not provide comprehensive information needed to track progress of HRH development as the country moves toward UHC.

Option 2: use of the NHWA, may achieve efficiency since the system reduces fragmentation and data siloes, providing a coordinated and integrated approach to improving HRH data and use. This option may be technically feasible but will require the presence of an administrator or central custodian and training for the IT staff at each of the agencies to ensure appropriate capacities in the management of the system. Financial costs may be higher at the onset for this option to establish the central repository and train users, but in the long run, overall costs may decrease as redundancies in data management are reduced. Political feasibility is high since results may provide the government with the necessary, more comprehensive HRH evidence to track progress towards achievement of UHC.

Option 3: operationalize an HRH Observatory, may achieve efficiency since various functions are performed under one unified platform. This option is technically feasible because the required expertise is available; although some external technical assistance may be needed to design the platform. This option may not be financially feasible since an initial investment is needed to establish the HRH Observatory and continued investments are needed for its operations. The HRH Observatory may be politically feasible because it provides valuable HRH information that can inform future policy directions

and achievement of UHC. However, as the HRH Observatory is an independent body, not all positions advocated by the HRH Observatory may be acceptable to all politicians or government agencies.

Based on the assessment of the three policy briefs, option 2, adoption of a multi-sectoral and integrated system seems to be most feasible to address the policy goals.

¹ World Health Organization. (2016). Global Strategy on Human Resources for Health: Workforce 2030. Accessed through <https://www.who.int/hrh/resources/globstrathrh-2030/en/>

² World Health Organization. (2017). National Health Workforce Accounts: A Handbook. Accessed through https://www.who.int/hrh/documents/brief_nhwa_handbook/en/.

³ USAID HRH2030 Philippines. (2019). Philippines Human Resource Information System Assessment Framework Report. (Cooperative Agreement No. AID-OAA-A-15-00046).

⁴ World Health Organization. (2016). Global strategy on human resources for health: Workforce 2030. Accessed through

⁵ Ibid

⁶ Ibid

⁷ World Health Organization (WHO). (2017). National Health Workforce Accounts: Better Data and Evidence on Health Workforce.

⁸ USAID HRH2030 Project. (2019). Joint Mission on the National Health Workforce Account (NHWA) and Workload Indicators of Staffing Needs (WISN). (Cooperative Agreement No. AID-OAA-A-15-00046)

⁹ USAID HRH2030 Philippines. (2019). Philippines Human Resource Information System Assessment Framework Report. (Cooperative Agreement No. AID-OAA-A-15-00046).

¹⁰ Ibid

¹¹ Ibid

¹² World Health Organization (WHO). (2017). National Health Workforce Accounts: Better Data and Evidence on Health Workforce.

¹³ USAID HRH2030 Project. (2019). Joint Mission on the National Health Workforce Account (NHWA) and Workload Indicators of Staffing Needs (WISN). (Cooperative Agreement No. AID-OAA-A-15-00046)

¹⁴ Department of Health – Department of Science and Technology Collaboration. (2013). eHealth Program for a Smarter Philippines. Powerpoint presentation.

¹⁵ Ibid

¹⁶ Joint DOH-DOST Department Memorandum No. 2013-0200. (2013). Creation of Joint DOH-DOST National Governance Steering Committee and Technical Working Group on eHealth. Manila

¹⁷ Joint Administrative Order No. 2016-0001. (2016). Implementation of the Philippine Health Information Exchange (PHIE). Manila

¹⁸ Administrative Order No. 2015-2017. (2017). Guidelines on the Use of National Database on Human Resource for Health Information System (NDHRHIS). Manila

¹⁹ Department of Health. (2012). Memorandum of Agreement on the Data Sharing for the Integrated Database System for the Human Resource for Health.

²⁰ Republic Act 10173. (2011). An Act Protecting Individual Personal Information in Information and Communications Systems in the Government and the Private Sector, Creating for the Purpose A National Privacy Commission, and for Other Purposes.

²¹ Ibid

²² World Health Organization. (2012). *Human Resource for Health Observatories: contributing to evidence-based policy decisions*. Human Resource for Health Observer, Issue No. 10. Geneva, Switzerland.

²³ Ibid