World Health Organization

National Health Workforce Accounts

Implementation Guide

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DATA AND INFORMATION SYSTEM

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Table of Contents

Abbreviations iv

Contributions and acknowledgements iv

Introduction 1

Purpose of this Guide 2

Target audience 2

Guiding principles 2

How to use this Guide 3

NHWA implementation structure overview 3

Summary of steps 4

Schedule for implementing and reporting on NHWA 5

Bodies and roles 5

Overview of NHWA implementation 8

+ Phase I Conceptualization 11

Step 1. Governmental "buy-in" 12

Step 2. Governance 14

Step 3. Scoping and planning 16

+ Phase II Operationalization 19

Step 4. Legal framework 20

Step 5. Data compilation and analysis 22

Step 6. Validation 24

Step 7. Dissemination 25

+ Phase III Scaling up and sustainability 27

Step 8. Process revision 28

+ References 31

Abbreviations

HRH	human resources for health
IT	information technology
NHWA	National Health Workforce Accounts
SOP	standard operating procedure
WHA	World Health Assembly
WHO	World Health Organization

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Introduction

With the objective to accelerate progress towards universal health coverage, and to facilitate adoption of the Global strategy on human resources for health: Workforce 2030 **(1)**, the Sixty-ninth World Health Assembly resolution WHA69.19 **(2)** in 2016 urged all Member States to consolidate *"a core set of human resources for health data […] as well as progressive implementation of national health workforce accounts".*

Reporting on standardized indicators on HRH was further encouraged by the Health Assembly in 2017 **(3)**, which called for the enforcement of the recommendations recently published by the High-Level Commission on Health Employment and Economic Growth **(4)**. In line with the Global strategy on human resources for health, the 10th recommendation of the High-Level Commission, established by the United Nations Secretary-General in 2016, specifically highlights the need for data, information and accountability to *"undertake robust research and analysis of health labour markets, using harmonized metrics and methodologies, to strengthen evidence, accountability and action".*

The National Health Workforce Accounts (NHWA) is a system through which countries progressively improve the availability, quality, and use of data on their health workforce, and thus achieving universal health coverage, the United Nations Sustainable Development Goals and other national and global health objectives. While this Implementation Guide uses the generic wording of the NHWA, an equivalent system may already exist in a country to monitor information on the health workforce, using similar terminology such as human resources for health (HRH) registry or health workforce observatory, that fulfils the same objective.

The NHWA follows a labour market analysis framework **(5)** in which key indicators have to be monitored to provide a comprehensive overview of the dynamics of the health workforce in the country. This framework encompasses several sectors to produce an inclusive assessment of HRH data, requiring not only information on the density of health workers, but also information on health workforce education, finance, migration, etc. The indicators are described in detail in the 10 modules of the WHO NHWA Handbook **(6)**. In addition, a web platform was elaborated for countries to store data, monitor their indicators and report key national statistics on their health workforce to WHO. Access to the web platform and to NHWA supporting documents is available on the WHO Health Workforce Department website.[1]

Implementation of the NHWA is based on the commitment of all Member States. It requires organization and coordination at the national level to ensure sustainable processes to identify,

[1] National Health Workforce Accounts, www.who.int/hrh/statistics/nhwa/en/.

collect, monitor, use and report on harmonized HRH data in a progressive way. It is expected that the data to be gathered will be from existing national health and HRH information systems, complemented by available data from other sectors such as education and finance. This Guide has been developed to assist such an integration of data sources within wider health reporting frameworks. It should also provide a valuable insight for Member States to better interpret the impact of HRH capacity on health systems delivery and efficiency, and to identify any changes required.

Purpose of this Guide

Member States need a comprehensive overview of the dynamics of their health workforce. The Guide proposes recommendations that enable countries to develop or improve systematic gathering and use of relevant HRH information in a sustainable and standardized manner to achieve this goal.

Target audience

The document is primarily addressed to:

- Policy-makers and programme managers involved in HRH policy and strategy in the Ministry of Health, or bodies delegated to undertake this function.
- Policy-makers, officials and programme managers in relevant areas such as education, employment and labour, social affairs and economy and finance; civil service commissions, statistical organizations and institutes for health at the national level; academia, health worker organizations, health professional councils, and public and private insurance representatives.
- Other organizations and advisors involved in the monitoring and use of HRH data at national and international level.
- Researchers with interest in the production and analysis of HRH data.

Guiding principles

The following key guiding principles should be borne in mind when reading this document.

- NHWA terminology is proposed throughout this document, but need not replace existing terminology that describes the HRH information system, such as HRH registries, health workforce observatories or other equivalent systems.
- To be effective, activities to strengthen HRH data within the NHWA framework should be collaborative, where stakeholders define their responsibility within a national structure.
- Member States implementing the NHWA do so systematically and in harmony with existing health information systems, that is to say with a “do-no-harm” approach.
- Implementation of the NHWA Guide does not replace existing systems that monitor and report on health data, nor lead to the creation of additional organizational structures. The proposed steps should be seen as complementary to those used within the existing framework in each country.

How to use this Guide

- The Guide can be used to check whether health workforce data, reporting objectives and tasks can be achieved within the existing national framework, and whether the latter requires adaptations to align with the NHWA principles and framework.
- In Member States where all or many elements of the NHWA Guide already exist, there may only be a need for coordination, networking and a communication stream to produce NHWA. In other Member States, more work may be required.
- The proposed steps do not need to follow the order described. Member States may choose a different order to achieve the objectives depending on what they have already achieved in implementing their HRH information system.
- Policy-makers and programme managers may select the steps that are applicable and useful to the national situation for improved health data collection.

NHWA implementation structure overview

Eight steps are proposed over three phases to strengthen HRH data monitoring and to report on HRH at national and international level, such as to WHO **(Figure 1)**.

Fig. 1. NHWA phases to strengthen HRH data monitoring through NHWA

The conceptualization phase defines the NHWA framework and governance, and identifies key partners who will constitute a working group to monitor, analyse and report health workforce statistics. The operationalization phase covers the operationalization process, i.e. data gathering from elaborating the data workflow, identifying data types and format, working on legal aspects, and finally aggregating the data. The last phase ensures mainstreaming, the revision process, and sustainability of the NHWA, by identifying new perspectives and adopting any changes required.

Summary of steps

Figure 2 outlines the eight steps of the NHWA process.

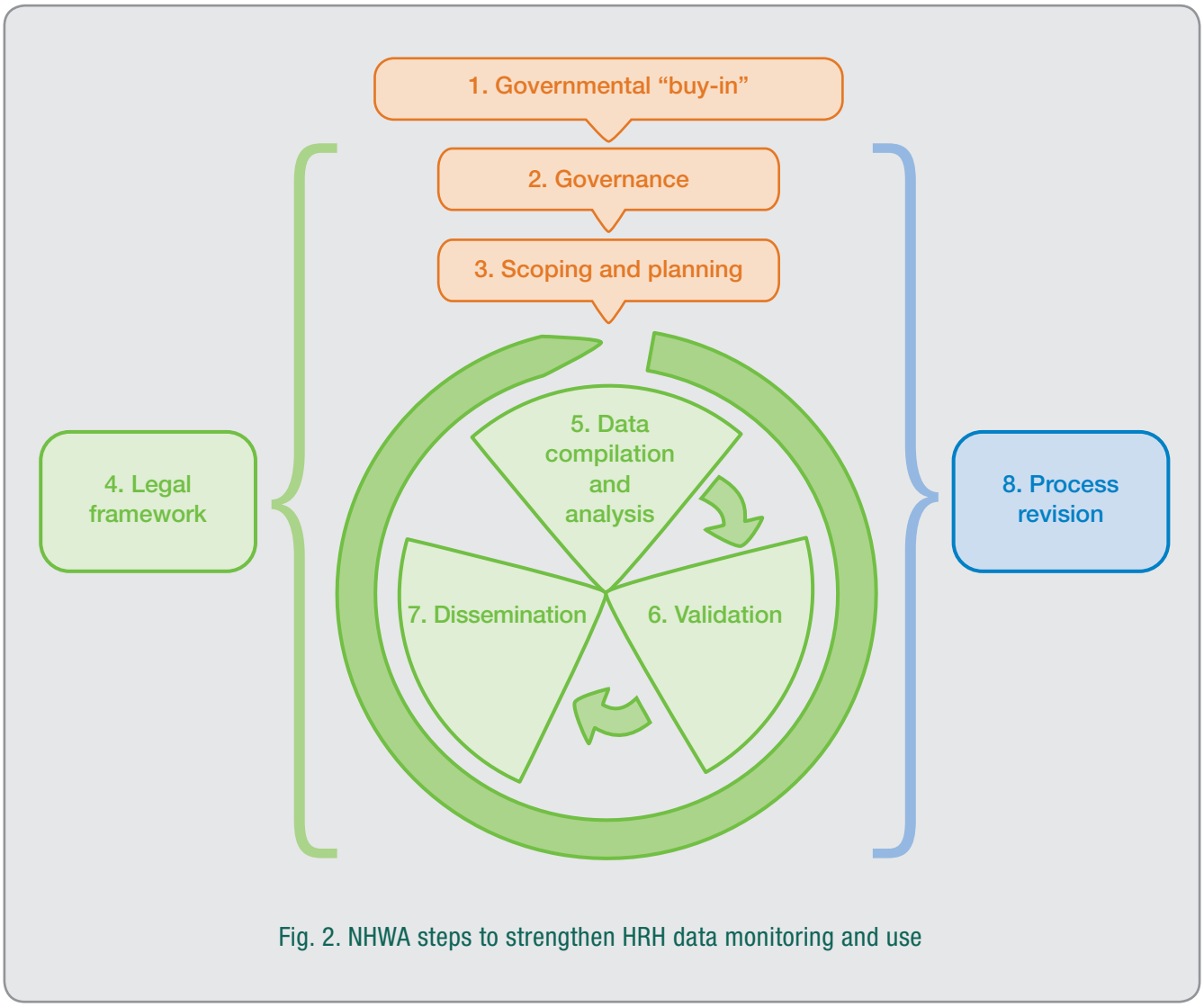

Fig. 2. NHWA steps to strengthen HRH data monitoring and use

Steps for conceptualization

The first steps deal with the formation of processes and, if necessary, structures essential to enforce the NHWA. Governmental "buy-in" is the first priority. A governing structure should then be convened with stakeholders from multiple sectors who will supervise and coordinate application of the processes. Data requirements and scoping of national resources need to be identified at this point. These initial steps require specific effort, but once in place further changes should be minor and incremental. Any governance structure should build, as far as possible, on existing structures.

Steps for operationalization

These are routine steps that are taken on a regular (e.g. annual) basis for the indicators described in the NHWA. They cover data compilation, exchange, validation and dissemination of the results. The legal framework under which the NHWA is set up is specific to the country's national laws, and thus a review of the legal environment is needed periodically to ensure "local" governance considerations.

Step for process revision and sustainability

The entire process should be reviewed regularly to revise, as necessary, the processes, governance, stakeholders, and adopt new sources of data, etc. Regular reviews will ensure that the system established to produce HRH information is efficient and effective.

Schedule for implementing and reporting on NHWA

Member States will need to plan for implementation of the NHWA. In particular, in cases where the process requires changes, the planning should consider the timing of reporting as described in the NHWA Handbook for each indicator. Most indicators require annual monitoring, while others may be reported every three years.

Bodies and roles

While this Guide provides an indicative list of entities that may be involved in implementing the NHWA, it should be adapted to suit Member States' particular circumstances and structures.

- **Ministry of Health focal point:** a person or body in charge of HRH within a Member State's government. Examples might be the Head of Human Resources for Health or Planning and Statistics, or any other individual or body who has the authority and mandate to take forward and/or commission the activities required to implement the NHWA.
- **Multistakeholder coordination working group:** a group of representatives from different stakeholders and sectors with knowledge on HRH, such as the Ministry of Economy, Ministry of Employment and Labour, Ministry of Finance, Ministry of Health, Ministry of Social Affairs, National Statistical Office, professional associations and councils, health workforce employers and other interested parties. Each stakeholder is represented by a focal point. In some countries, this could be the HRH observatory. The multistakeholder coordination working group will be structured through governance and coordination mechanisms.
- **Secretariat:** a small group or institution within the multistakeholder working group responsible for coordination and administration. The secretariat also organizes meetings of the multistakeholder group, provides support for the legal framework, and drafts reporting documents to be approved by the multistakeholder working group.

- **Technical working group:** a sub-group of experts in HRH data within the multistakeholder group may be commissioned to deliver specific technical activities, supported as necessary by external expertise. Examples of such activities are: to conduct a scoping analysis of the current situation of HRH data in the country; to provide guidance on the selection of data sources; to identify data gaps and organize multiple sources to fill these gaps; and to draft summary reports on the data analysed for validation by the multistakeholder working group.
- **Communications team:** a group of persons nominated by the multistakeholder working group to ensure a cogent, widespread, consistent communication strategy to disseminate and publish results from the NHWA in relevant media. The communications team also assists the technical working group in the publication of NHWA results in scientific journals.

Participants may have overlapping roles in different groups. The focal point from the Ministry of Health, in particular, could have a useful role in all groups.

Overview of NHWA implementation

Step 1: Governmental "buy-in"

Objectives

- Obtain political commitment to strengthen HRH data
- Ensure adoption of the NHWA framework by the Ministry of Health
- Fulfil initial steps to coordinate intersectoral health workforce agenda

Tasks and activities

- A health workforce representative within the Ministry of Health is identified to become the NHWA focal point
- All available support resources are grouped together for the NHWA
- A short paper (brief) is prepared to recapitulate the need for the NHWA
- Existing information systems relevant for NHWA are identified
- Documents and other requirements for obtaining Ministry of Health approval are prepared

Main outputs

- Ministry of Health takes leadership to strengthen HRH data for the NHWA
- Implementation is initiated, with a multiyear plan

Step 2: Governance

Objective

- Establish a governance structure for the NHWA with representatives from relevant sectors and stakeholders

Tasks and activities

- Stakeholder mapping is conducted/updated by the Ministry of Health focal point
- A focal point is nominated by each stakeholder
- A multisector, multistakeholder coordination working group is set up and adopted with governance, coordination mechanisms and terms of reference
- A secretariat is nominated in charge of centralizing summary data and organizing the preparation of documents and meetings
- A technical working group is nominated by the multistakeholder working group be in charge of data gathering and analysis
- A series of key policy questions is agreed upon by the multi-stakeholder working group

Main outputs

- A multisector, multistakeholder coordination working group is established
- Governance and coordination mechanisms are defined
- Key policy questions are adopted
- A secretariat is established
- A communications structure is set up

Step 3: Scoping and planning

Objectives

- Produce evidence of the state of HRH in the country as the foundation to the NHWA
- Develop a national and global dissemination plan
- Define the business plan of NHWA implementation, including gathering of catalytic funding for the initial phase

Tasks and activities

- The technical working group is complemented, if necessary, by co-opted external experts
- A scoping analysis is conducted, NHWA indicators are reviewed, and a maturity model assessment is carried out on the NHWA online platform
- A data analysis and dissemination plan is prepared in line with the key policy questions defined in step 2
- A meeting of the multistakeholder working group is held to cost the first year and plan for a rolling budget for the NHWA

Main outputs

- A scoping analysis is conducted and the status of HRH provided
- Costing of first year of NHWA is prepared with a plan for a rolling budget
- An analysis plan is prepared

Step 4: Legal framework

Objectives

- Assess national legal environment for governance of the multistakeholder working group, data protection rules and regulations
- Obtain legal authorization for data extraction, exchange and dissemination
- Ensure legal requirements are shared, and standard operating procedures (SOP) are adopted by the multi-stakeholder working group

Tasks and activities

- Relevant national bodies for ethics, data confidentiality, anonymization, and data exchange to be identified by the secretariat
- Legal advice is sought by the secretariat to ensure that terms of reference and governance rules comply with national regulations
- Standard operating procedures (SOPs) are prepared by the secretariat for each type of data covering legal aspects for the dissemination of results
- SOPs include a plan to identify, report on and correct any data breach during data gathering, exchange and reporting

Main outputs

- SOPs are elaborated
- Formal authorizations are granted for each data source
- A mitigation plan for data breach is established

Step 5: Data compilation and analysis

Objectives

- Define data quality and eligibility criteria
- Collect data for NHWA through different focal points

Tasks and activities

- A quality assessment of data sources is produced by the technical working group
- Standards are adopted on data quality, flow, periodicity and use, and on databases for NHWA
- Data are gathered and aggregated from the multistakeholder working group focal points, and indicator statistics submitted to the secretariat
- Potential new sources of data and surveys are defined by the technical working group, and an extraction strategy is designed to cover gaps in the next implementation round
- A cost/value evaluation is prepared for gathering new data

Main outputs

- A process document is developed (including legal requirements)
- The final list of data with information on quality is produced
- Indicator statistics are centralized by the secretariat

Step 6: Validation

Objective

- Obtain validation of NHWA data analyses, the dissemination plan and documents from the multistakeholder working group

Tasks and activities

- Feedback and guidance on HRH data, subject to legal and practical issues, are collated from a national workshop
- A document is drafted by the secretariat and the technical working group synthesising and translating the data for a non-specialized audience
- A formal executive meeting is convened by the secretariat with the multistakeholder group to validate the results and adopt interpretation
- A final report is prepared and adopted by the multistakeholder working group
- Based on interpretation of findings, a series of key messages will target decision-makers in each sector, and others for a broader audience

Main outputs

- Political and technical validation of the NHWA process is formalized
- Key messages to decision-makers in each sector, and to the public, are prepared

Step 7: Dissemination

Objective

- Disseminate data and documents on NHWA to raise awareness on HRH

Tasks and activities

- Target audiences are defined by the multistakeholder working group
- Preparation of a communication plan and diffusion of messages in various media is supported by a solid communication team
- Messages on HRH are monitored by the communication team, who gathers feedback and prepares a report for the multistakeholder working group
- Scientific publications on NHWA findings could be prepared
- If authorizations allow, disaggregated data could be released in the public domain

Main outputs

- A system to track dissemination of messages from HRH data is set up
- A series of communication products is released and followed up

Step 8: Process revision

Objectives

- Understand the successes and failures of the initial seven steps
- Revise and update the NHWA mechanism from past experiences
- Gain political commitment and repeat elements of step 1, including obtaining sustainable funding

Tasks and activities

- A strategic meeting with the multistakeholder working group is convened by the secretariat
- Governance of the NHWA is evaluated and revised accordingly, potential new members are identified and invited, and HRH indicators are revised
- The budget for the next implementation phase is defined, such as transforming catalytic funding to a regular budget

Main outputs

- The NHWA implementation and governance framework is revised
- A plan for inclusion of new indicators and stakeholders is established

Phase I

Conceptualization

Governmental "buy-in"

To move towards the delivery of NHWA, it is essential that Member States show significant political commitment and strong national leadership. This commitment will normally come from the Ministry of Health, who will develop a plan to strengthen HRH data using the NHWA framework.

The creation and adoption of any plan to strengthen HRH data capture will normally be led by an appointed focal point within the Ministry of Health. This official should possess the appropriate delegated authority and decision-making powers. The plan developed will need to be accepted and agreed upon, according to local processes, so that it has the weight of adopted Ministry policy.

Where a system is already in operation in a Member State, the Ministry should undertake an analysis of its capability and the required NHWA outputs, and take steps to address identifiable gaps by introducing adaptations or changes. In line with the "Do No Harm" approach, existing systems should be used and adapted wherever possible.

As HRH by nature touches several topics, including education and finance, awareness of the importance of the NHWA should be raised with senior decision-makers and relevant departments and ministries across the Government. To achieve this, technical documents and briefs should be produced based on NHWA documents and HRH teams in WHO country or regional offices if required. This step will fulfil the first two milestones of the Global strategy on human resources for health: Workforce 2030.

Objectives

- Obtain political commitment for a plan to strengthen HRH data using the NHWA framework.
- Ensure adoption of the NHWA framework by 2020 by the Ministry of Health.
- Fulfil the initial steps to coordinate an intersectoral health workforce agenda with a dedicated HRH unit.

Main outputs

- The Ministry of Health and its relevant departments, and relevant ministries acknowledge the critical role of the health workforce through advocacy documentation such as briefs, brochures, and technical notes.
- The Ministry of Health initiates NHWA implementation with a sustainable, realistic long-term plan.

Description of possible tasks and activities

- The Ministry of Health could consider the nomination of a lead official – or an existing unit, for example an HRH unit or agency – to become the Ministry of Health focal point in charge of reporting NHWA data.
- The focal point could gather resources available on the NHWA, including the NHWA Handbook, access the NHWA data platform and any other materials available at the WHO country or regional office, or from WHO headquarters. Contact with the WHO regional and country office would facilitate the launch of this initial step. Other contacts and support could raise awareness of senior decision-makers and departments within the Ministry of Health.
- The lead official could prepare an adoption plan in collaboration with the relevant ministers and senior leaders to agree and sanction the activities in the plan. Under normal circumstances, such submissions should incorporate sufficient background to explain the reason for the plan, for example World Health Assembly resolutions, the Global Strategy and the benefits of HRH planning and capability.
- The focal point could identify existing information systems and working groups or committees relevant for the NHWA and its governance structure, and prepare documents for approval of the Minister of Health to initiate NHWA implementation.
- The focal point could organize internal meetings with all relevant departments in the Ministry of Health and in wider government or agencies (e.g. those in charge of health education or health financing), and organize briefing sessions with the Minister of Health.
- Letters to stakeholders and draft terms of references will also be prepared.

Resources available

See References 1–7.

The purpose of the multistakeholder, multisectoral working group is to coordinate NHWA implementation and strengthen HRH data. This working group will build as much as possible on existing structures and mechanisms such as HRH units, observatories and committees, as well as any other committee involved in collecting and reporting of HRH or related data. Representatives from stakeholders should be included to speak for their organization, which should include communication and data expertise.

The multistakeholder group will be assisted by two additional nominated entities: a secretariat to conduct daily supervision of the implementation of the NHWA; and a technical working group to conduct data-related activities and prepare material to report to the multistakeholder working group.

Objective

- Establish a governance structure for NHWA implementation with representatives from relevant sectors and stakeholders.

Main outputs

- A multisector, multistakeholder coordination working group is established with representation from various organizations with expertise relevant for the NHWA. Members may include for example, nominees from the Ministries of Health, Employment and Labour, Economy and Finance, Education, and Defence, the National Civil Service Commission, as well as National Institutes of Health, legal bodies, national statistical organizations, academic organizations, health worker organizations and other interested parties, public and private insurance representatives, and health professional councils.
- Clear lines of responsibility and accountability are established, preferably in writing, for the working group and for the individual members.
- The multistakeholder working group agrees on a series of key policy questions.
- A secretariat function provides support for the legal framework and reporting documents to be approved by the multistakeholder working group.
- A communication structure is established for disseminating recommendations on planning and policy-making on various aspects of the health workforce, including education and training, and human and financial resources.

Description of possible tasks and activities

- Stakeholder mapping could be carried out to identify and engage participants with the appropriate skill set for the multistakeholder coordination working group on the NHWA.
- The terms of reference and funding of the new working group or existing body to be defined, clearly articulated, and agreed by minister(s).
- A first meeting of the multistakeholder working group should be organized to adopt the terms of reference, discuss and agree on governance and mechanisms, including accountability and responsibility. (Step 4 on the legal framework should be initiated.)
- The nature and mechanisms of the multistakeholder working group should be adopted. The WHO country office could join the working group, either as a core or an additional member, to provide support and advice. Additional membership should ideally include donors, both for the catalytic first year, and for establishing a regular budget. A cost roadmap could usefully be elaborated.
- The multistakeholder working group should nominate a secretariat to supervise the various activities. This role most likely falls within the Ministry of Health, depending on the structure on which NHWA implementation is built in the country (health workforce registry, observatory, other national accounts framework).
- The multistakeholder working group should nominate, from its members and co-opted experts, a technical working group with responsibility to gather and analyse data, and to conduct the scoping analysis in step 3.
- The multistakeholder working group should agree on a series of key policy questions to be addressed by the scoping and HRH data compilation and analysis.

Resources available

See References 8–10.

Scoping and planning

During the scoping and planning step, the technical working group will map available data and data systems in the country and will elaborate a plan for any additional HRH data gathering. From the key policy questions defined in step 2, core indicators should be defined before collecting data. Understanding and defining the hierarchy of data sources and the availability of data will allow the working group and data analysis sub-group to give priority to sources that best answer the policy questions and fulfil the requirements of the NHWA.

The scoping analysis will identify potential gaps in the various HRH data sources that require specific data gathering efforts during the next steps. It should also review potential divergences in information when the same indicator can be estimated from different sources. A prioritization of sources should be established for such indicators based on considerations including accuracy, completeness, and efficacy of data gathering.

While this mapping is being conducted, the multistakeholder working group should develop a global dissemination plan for HRH data.

To finalize this initial phase, a business plan is required to outline data collection and propose new data capture that may be required. The business plan size will depend on the availability of funding and the amount of data to gather. It should define:

- core funding
- human resources
- infrastructure and technology for data processing available from stakeholders
- potential use of national catalytic funding
- how any necessary external catalytic funding can be obtained.

It should also describe the process for the administration of finances and evaluation of risks. The communication plan and business plan could be developed during the multistakeholder working group meeting outlined in step 2, depending on the framework in place in the country.

Objectives

- Provide the foundation of the NHWA through an evaluation of the state of the HRH Information System in the country. This evaluation identifies available HRH information and possible actions to fill any gaps in knowledge.
- Develop a national and global dissemination plan for the established NHWA.
- Define a business plan, for example through catalytic financing for moving forward the Sustainable Development Goals, or for the collection of existing or new HRH information necessary to improve completeness of data on NHWA indicators.

Main outputs

- A scoping analysis document is available informing on the current situation of HRH in the country, data gaps, and on the sources of information across stakeholders.
- A costing is completed on the first year of the NHWA and a plan for a regular rolling budget is defined with identification of potential donors, catalytic funding and grants.
- The list of indicators, roles, responsibilities and data flows is established with a view to an update and analysis in the terms of reference for the multistakeholder working group.

Description of possible tasks and activities

- The technical working group established in step 2 could be complemented by co-opted external experts to conduct the scoping analysis on the current situation of HRH and sources of data, using the NHWA to identify topics to be covered.
- During the scoping analysis, consultations with health bodies, health academics, health economists and others bodies with interest in HRH could be organized to identify additional sources of data (surveys, research projects, etc.) of interest to the stakeholders.
- The technical working group could investigate how to maintain, process and integrate the data held in each source; this may include understanding information technology (IT), compatibility between sources and strategies to provide compatible data exchange including modified or new platforms. Stakeholder IT departments could provide assistance. The NHWA online data platform contains a maturity assessment, which should be used to summarize available indicators.
- From the list of identified data sources and projects for data gathering, an analysis plan should be prepared to answer policy questions posed by the multistakeholder working group in step 2.
- A public, insofar as possible, dissemination plan for the scoping analysis and results of the HRH data collection and analysis should be prepared by the technical working group, containing recommendations at the national level. International dissemination can use existing channels such as WHO regional offices.
- Academic bodies should be involved to trigger and encourage new research activities on HRH in the country.
- The multistakeholder coordination working group should meet to define the costing of the first year of implementation and to plan the establishment of a regular rolling budget.

Resources available

See References 6, 11.

Phase II

Operationalization

Legal framework

Understanding the legal framework or environment that exists in the country, and how it impacts on HRH data collection, analysis and use, is essential. Failure to do so at an early stage can lead to wasted time and resources.

This step is required to ensure that the NHWA activity led by the multistakeholder working group can operate legally. It must be initiated in the early phase of establishing the governance structure, and continue during the entire process. This is especially relevant when defining data gathering, management, confidentiality, ownership and exchange, which are usually covered by specific national regulations. In particular, data exchange between partners may have to follow clearances, an anonymization process, and removal of sensitive information.

Reporting policies should be established in line with the legal requirements and authorizations required for HRH data exchange and sharing. The secretariat, with the help of each responsible body for the different data sources, will ensure that all necessary authorizations and clearances have been granted. The secretariat will also set up a process for reporting and correcting any breach during data exchange.

Objectives

- Assess the existing legal environment for governance of the multistakeholder working group and for data protection rules and regulations.
- Obtain legal authorizations for all data extraction and exchange, and for the dissemination phase.
- Ensure legal requirements are clearly communicated to all stakeholders and standard operating procedures (SOP) are adopted to ensure compliance.

Main outputs

- The terms of reference and regulations, defined for the governance in step 2, are prepared in line with the national legal environment.
- All legal aspects of data gathering and exchange are formalized, including the anonymization process and removal of sensitive information. When required, formal authorizations have been obtained for access to each type of data, including exoneration from any specific restrictions according to the source of data and national regulations.
- SOPs are defined and put in place, including a mitigation plan for potential breaches during data exchange.

Description of possible tasks and activities

- The secretariat should identify all national bodies relevant to stakeholders in the working group, notably those in charge of ethics, data confidentiality, anonymization of data, and data exchange. The selection could be discussed at the stakeholders meeting in step 2 and any issues addressed.
- The secretariat could obtain legal advice to ensure that the terms of reference are aligned with national regulations and that a legal framework covers the rules of governance outlined in step 2. A legal advisor could be invited to participate in the multistakeholder working group.
- Institutions and bodies with access to data could be identified, and an SOP established covering access for each type of required data (access to data will vary according to the source, level of confidentiality, and aggregation).
- The SOP should cover legal aspects of dissemination of results emanating from the NHWA platform, from dedicated national information systems, and from reports and technical documents, in order to ensure the broadest possible access to information in the public domain.
- The SOP should also include identification, reporting and correction of any data breach that may occur during data gathering, exchange and reporting. This may include clearing data in line with authorizations received for each data set prior to any analysis, aggregation and reporting.

Resources available

See Reference 12.

Data compilation and analysis

This step considers data collection and managing data from multiple sources. Data are analysed according to the plan defined in step 3 in order to answer key policy questions and to identify potential data gaps. Whenever several sources of data exist, it is essential that relevant meta-data are available to aid interpretation and determine potential conclusions that can be drawn from data from different sources e.g. information on the source, method of data capture, description of individual elements used in composite variables, computation methods for rates, percentages and ratios.

The technical working group will play a significant role in defining quality and eligibility criteria, and in harmonizing the data to be used in the NHWA. Given that data quality often depends on the source, quality and eligibility criteria are required to define how and what data can be included in the NHWA. Triangulation through comparison and hierarchy of data sources could be established in cases of multiple sources of information for the same indicator.

Objectives

- Define the data that need to be progressively included in the NHWA, based on data quality and eligibility criteria.
- Clarify data flow and collect all relevant data for the NHWA from different stakeholders and contributors using a compatible database and IT environment.

Main outputs

- A process document describing data sources and flows across stakeholders with meta-data is developed, defining legal requirements for access and sharing of data (step 4). The definition of indicators in this document is harmonized across stakeholders.
- The final list of data sources for the NHWA is prepared, defining a set of data quality standards.
- Data on NHWA indicators are centralized by the secretariat.

Description of possible tasks and activities

- In a phased approach, the technical working group would provide a quality assessment of the sources of data identified in the scoping analysis. This highlights potential data gaps to guide the stakeholder working group. A set of standards and data quality criteria, data flow, periodicity of data compilation and use of databases should be defined in a technical document. References below provide links to existing data quality frameworks for statistics.
- A working document describing harmonized data definitions and data sources could be elaborated. This document would also evaluate the IT environment, database and interoperability.
- The secretariat should supervise NHWA data collection through a formal network of focal points and ensure centralization of aggregated NHWA data.
- Each data provider should collect raw data, perform data aggregation and produce a summary of indicators to transfer to the secretariat. The secretariat can use existing platforms for data sharing in the country and/or make use of the NHWA online platform for this purpose among participants.[2]
- The technical working group could identify potential new sources of data (e.g. surveys) and data extraction strategies to generate new data to cover gaps identified.
- An accompanying cost/value evaluation could assist stakeholders to review information before data are commissioned.

Resources available

See References 6, 13–18.

[2] The NHWA platform hosted by WHO enables standardized data and provides a series of tools to analyse and visualise the data. The WHO country or regional office could provide support during the data collection phase.

Step 6 Validation

Validation of the data and information produced is essential. At this step, the technical working group will translate the data to help the multistakeholder working group interpret and understand the implication of the findings and develop recommendations based on the analyses. The multistakeholder working group will define which key messages should be disseminated to decision-makers in various sectors and other target audiences, including the general public and academia.

Objectives

- The multistakeholder working group analyses and interprets the results of the HRH data.
- Recommendations are adopted based on their findings.

Main outputs

- Political and technical validation of the NHWA process is formalized by the multistakeholder working group to make recommendations in policy briefs to improve data collection and delineate actions to implement the next round of data collection.
- Guides and briefings containing key HRH messages for decision-makers in different sectors, the general public and for academia are prepared for dissemination.
- A report on the state of HRH data – highlighting data quality, possible gaps, and actions for improvement – is developed, adopted and produced.

Description of possible tasks and activities

- If early access to data is both legally and practically possible, a national workshop with external expertise on the health workforce could support the NHWA process.
- An online or remote consultation could also be useful to gather evidence from stakeholders outside the core working group, including academics.
- With help from the technical working group, the secretariat could draft a document to synthesize the preselected NHWA indicators, translate results for a non-specialized audience, and address current gaps in HRH data with proposals to improve them. This document would be reviewed by the multistakeholder working group before it is finalized.
- In the case of a national consultation, the secretariat would invite members of the multistakeholder working group to a formal executive meeting with the aim of validating and adopting the compilation and interpretation of the NHWA.
- A final report should be prepared by the secretariat and approved by the multistakeholder working group. The report should include recommendations on a sustainable model for NHWA data collection, management and dissemination for policy-makers.
- The multistakeholder working group could also develop a series of key messages for decision-makers tailored to each sector in the dissemination process. The audience would include, for example, international bodies, government ministries, public and private sector providers, academia and the general public, to support further research on HRH.

The use of HRH information collected with the NHWA will lead to a series of findings, with implications for stakeholders and the general public. A cogent and realistic communication plan is essential to guide the dissemination of findings to target groups and relevant bodies, including academia, nationally and internationally.

If required, Member States can use the NHWA platform hosted by WHO to disseminate national data internationally, allowing country comparisons at the regional level, for example.

Objective

- Disseminate data and documents on the NHWA to raise awareness of HRH issues.

Main outputs

- The communication team appointed in step 2 sets up a system to track the dissemination of messages produced from HRH data.
- A report on the state of HRH in the country is produced, with a summary suitable for dissemination to a wide audience.
- Policy briefs are prepared for policy-makers.
- Peer-reviewed publications could be prepared by the technical team.

Description of possible tasks and activities

- The multistakeholder working group defines the different target audiences based on the key messages (this may have been anticipated and incorporated as an item in step 3).
- The multistakeholder working group can disseminate NHWA conclusions to the government and parliamentarians for their use in taking action to improve HRH components in all aspects of the health labour market. Actions may include HRH policies, education and training, social protection, working conditions, etc.
- The secretariat works with the multistakeholder working group to finalize a report on the state of HRH in the country, as well as a summary for a broad audience.
- The communication team helps the multistakeholder working group to identify different media, and elaborates a communication plan.
- Messages are then disseminated through these media that target different audiences, from the general public to the medical community, to specialized medical journals.
- The communication team should monitor the diffusion of messages across the various domains, gather feedback from different audiences, and prepare a report on how well the messages were received for the next round of implementation.
- The technical working group should prepare publications on any new findings identified during the gathering and evaluation of HRH data.
- Notwithstanding any legal restrictions identified in step 4, complete or partial disaggregated data could be released in the public domain through specific platforms for data exchange. The custodian of these data will depend on the data provider.

Phase III

Scaling up and sustainability

Step 8 Process revision

This step reviews the work conducted to gather, interpret and disseminate HRH information as part of the NHWA. The purpose is to understand the strengths and weaknesses of the processes used and identify improvements to help the progressive and sustainable implementation of HRH data monitoring using the NHWA framework.

Process revision facilitates the transition from the initial launch of the NHWA to a regular activity with a regular budget. It is expected that the multistakeholder working group becomes more technical over time, mainly for the interpretation of results and dissemination of findings, and can affect political decisions.

Similarly, while the first round requires a certain effort, the technical working group will benefit in subsequent rounds from a strengthened HRH information system, improved interoperability among systems, and any newly created systems, progressively reducing the amount of efforts required.

Steps 5–7 cover the annual gathering, monitoring, disseminating and improving HRH data, and developing new sources and providers. However, the inclusion of more stakeholders, or changes in ministerial support and national governance structures, can affect the long-term sustainability of the NHWA. Regular revision and strategic planning, every few years, should update the NHWA process. New members may be included and the governance revised accordingly.

Objectives

- Understand the successes and failures of the initial process through a review of Steps 1–7, including the governance, legal environment, data gaps and flow, the analysis plan, and the communication plan.
- Prepare the next round of data collection based on lessons learnt from the previous HRH evaluation and any need for new sources of data.
- Gain political commitment (repeat elements of step 1) so that the secretariat can regularly convene a multistakeholder working group and obtain sustainable funding.

Main outputs

- The NHWA implementation framework is revised to reflect experience gained and any necessary changes in the participation of stakeholders.
- A plan is prepared by the multistakeholder working group to generate health workforce data needed to meet health policy requirements.
- Existing core indicators are reviewed and deleted or replaced as necessary; and any new NHWA indicators added. Additional stakeholders are identified as potential responsible bodies for these new indicators.

Description of possible tasks and activities

- The multistakeholder working group is convened by the secretariat on a regular basis (e.g. every year) to review and update the composition and terms of reference of the working group as necessary.
- During this review meeting, members evaluate the governance structure and approve any necessary amendments; confirm or update focal points; and identify new stakeholders to provide data or assume responsibilities at national level.
- The secretariat presents the conclusions of an overview on successes and failures in the last round of the NHWA implementation, along with proposals to improve the framework.
- The multistakeholder working group recommends a process to ensure that continued and sustainable funding is available. Additional catalytic funds could be mobilized to produce indicators beyond the core indicators gathered during the preceding round.

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