

# ASSESSING PARTNER ALIGNMENT IN SUPPORT OF THE HEALTH INFORMATION SYSTEM IN BANGLADESH







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# **Acronyms and abbreviations**

AeHIN Asia eHealth Information Network

AusAID Australian Aid

BBS Bangladesh Bureau of Statistics

**BDRIS** Birth and Death Registration Information System

CHW community health worker

CIDA Canadian International Development Agency

COVID-19 coronavirus disease 2019

CRVS civil registration and vital statistics DGHS Directorate General of Health Services DHIS2 District Health Information Software DHS Demographic and Health Survey

DQA data quality assessment

**FCDO** Foreign, Commonwealth & Development Office

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH

GoB Government of Bangladesh HDC Health Data Collaborative HIS health information system

**HMIS** health management information system

HMN Health Metrics Network

**HPNSP** Health, Population and Nutrition Sector Programme

**HRIS** Human Resources Information System ICD International Classification of Diseases JICA Japan International Cooperation Agency

M&E monitoring and evaluation

MFL master facility list

MICS Multiple Indicator Cluster Survey MoHFW Ministry of Health and Family Welfare NGO non-governmental organization OpenHIE Open Health Information Exchange ORG Office of the Registrar General RHIS routine health information system SDG Sustainable Development Goal

SHR Shared Health Record

Sida Swedish International Development Cooperation Agency

SWAp sector-wide approach

UNFPA United Nations Population Fund UNICEF United Nations Children's Fund

USAID United States Agency for International Development

WHO World Health Organization



# 1. Introduction

# **Background**

The Health Data Collaborative (HDC) was established in 2016, with the aim of strengthening national and subnational systems for integrated monitoring of health programmes and performance. It aims to contribute to the goal of data-driven performance and accountability through supporting the collection, analysis and use of timely and accurate data. HDC's strategies for doing this are by enhancing country statistical capacity and stewardship, and for partners to align their technical and financial commitments around strong nationally owned health information systems (HIS) and a common monitoring and evaluation (M&E) plan. With stronger HIS, data generated will be more timely, accurate and comparable, and thus be more reliably used to design and monitor effective health interventions and policies.

# Study objectives

The HDC's Theory of Change (see Figure 1) aims to align partner technical and financial investments with countrydriven plans. The current HDC workplan specifies the two main objectives as follows:

- Objective 1: To improve efficiency and alignment of technical and financial investments in health data systems through collective actions.
- Objective 2: To strengthen country capacity to plan, implement, monitor and review progress and standardized processes for data collection, availability, analysis and use to achieve national healthrelated targets (and therefore eventual Sustainable Development Goal [SDG] health targets).

This assessment was commissioned by UNICEF, in support of HDC, with the overall aim of understanding the status of the HIS in Bangladesh, the investments that the Government of Bangladesh (GoB) is making to strengthen its HIS, and the alignment status of partner technical and financial investments to GoB priorities for strengthening the HIS.

# 2. Concepts and definitions

Key concepts that are referred to throughout this report include the following:

Alignment: This study takes as a starting point that alignment refers to the extent to which available and allocated resources from partners - both technical and financial - support a government's national health objectives and strategies.

**Technical investments**: These investments include technical expertise and interventions by governments as well as national and international partners in support of national health objectives.

Financial investments: These investments include funding and finances allocated or spent in support of national health objectives.

Health information system (HIS): An HIS has "four key functions: data generation, compilation, analysis and synthesis, and communication and use."1 The HIS generates and collects health-related data through the health sector or civil registration and vital statistics (CRVS) systems, as well as other relevant data (e.g., data that pertain to social determinants of health); provides a means for analysis of the data; and then converts that data into information to be used for decision-making.

Country capacity: This refers to the ability of a country to generate, collect, analyse and use health-related data to achieve national health objectives.

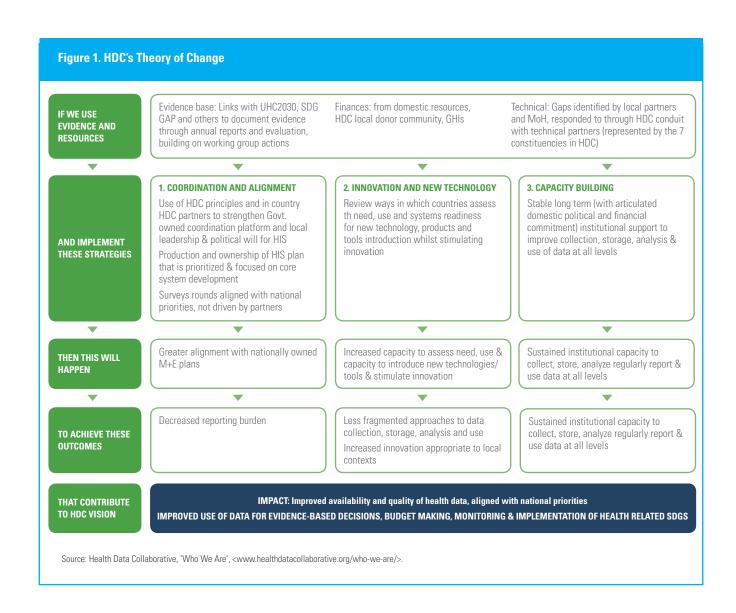
# 3. Methods

In support of HDC's workplan, UNICEF commissioned two consultants to conduct five case studies, covering Bangladesh and Nepal in South Asia, and Cameroon, Kenya and Zambia in sub-Saharan Africa. The consultants worked together to develop a conceptual framework (see Figure 3) and interview/topic guides for data collection, and to frame and structure the various country case studies/assessments on alignment. UNICEF and the HDC Secretariat provided technical feedback and inputs into this process.

For this case study of Bangladesh, due to time and capacity constraints, only a desk review was conducted to provide an overview of the HIS and status of partner alignment to national HIS objectives.

#### a. Desk review

A desk review was carried out on available information, including national strategies and publicly available



planning documents, located through an internet search or on GoB websites. An internet search was carried out to identify and collect country planning documents of major health sector partners for review. For the purposes of this assessment, the review was limited to the most recent country plan/strategy available from each of the major health sector partners, along with supplementary documents as available. Additionally, a limited review of recently published literature relating to the HIS in Bangladesh was carried out. Due to a lack of translation capacity, only English-language documents were reviewed.

The desk review identified and collated information relevant to the areas of interest, namely: identifying the national objectives and strategic priorities on HIS, identifying partner investments into HIS, assessing areas

where they are aligned and/or misaligned, and what gaps exist that may benefit from further investment.

### b. Stakeholder mapping

Based on the desk review, as well as consultations with WHO and UNICEF regional and country offices, a list was developed of global, regional and country stakeholders involved in strengthening the HIS. This could form the basis for future consultations or partner engagement incountry.

# c. Data analysis and development of final report

Data gathered through desk review were synthesized and analysed according to the conceptual framework. The HDC Steering Group, UNICEF and country stakeholders were invited to provide comments and feedback on the draft report prior to finalization.

# 4. Findings

# 4.1 Bangladesh's Health Information System (HIS)

## Overview of the HIS

In Bangladesh, the Ministry of Health and Family Welfare (MoHFW) oversees the public health sector. Public health-care services are provided at tertiary level (e.g., specialized hospitals, medical college hospitals), secondary level (e.g., district hospitals, general hospitals), primary level (delivered through rural health centres, union subcentres and family welfare centres, and upazila health complexes), and community level (e.g., community health facilities). The private sector accounts for approximately 70 per cent<sup>2</sup> of health services in Bangladesh and encompasses for-profit private providers (e.g., private hospitals), not-for-profit private providers (e.g., non-governmental organizations [NGOs]), and other informal providers (e.g., village doctors).3

The National Health Policy 2011 provides an overarching framework for the health sector's principles, goals and priorities. Five-year programmes are implemented by the MoHFW, and the current Health, Population and Nutrition Sector Programme (HPNSP) 2017–2022 explicitly commits to strengthening health data and information systems in its "Strategic Objective 6: Improve health measurement and accountability mechanisms and build a robust evidence base for decision-making".

Bangladesh's HIS includes the health management information system (HMIS), as well as surveys overseen by the MoHFW, such as the Multiple Indicator Cluster Survey (MICS), Service Provision Assessments, regular Demographic and Health Surveys (DHSs) and health facility surveys. Disease-specific surveillance systems such as for dengue, malaria, and several other diseases have also been established and data from these feed into the HIS via the District Health Information Software (DHIS2).

For non-routine health data, the Bangladesh Bureau of Statistics (BBS) is responsible for carrying out different types of statistics and data collection and reporting, including the census. The BBS is also the main agency responsible for vital statistics.

The Directorate Generate of Health Services (DGHS) uses DHIS2 to collect and compile aggregated health data. Technical staff trained in DHIS2 compile the data

and share the generated summary reports with district and divisional health managers. Managers review the data to assess service delivery achievements and gaps, and present findings at monthly review meetings. Trends are monitored with reference to baseline and annual national targets.4

While Bangladesh is regarded as data rich in terms of survey data,<sup>5</sup> the routine HIS (RHIS) remains weak. Ahsan et al. (2017) indicate that only 15 of the 100 Core Health Indicators established by the World Health Organization (WHO) to track the health situation and trends for reporting of post-2015 health goals can be monitored through the RHIS in Bangladesh.<sup>6</sup> There is no system in place for data quality assurance or for providing oversight on the quality of routine data. In addition, despite the large share of the sector occupied by private and NGO providers, data from these providers have not historically been systematically reported into the RHIS and captured in the national HIS.

# Civil registration and vital statistics (CRVS)

The Birth and Death Registration Act of 2004 provides a legal framework to ensure birth and death registration using a unique identifier - for any event in-country; the act made it compulsory for every birth and death to be registered within 45 days. To improve coordination on CRVS across government agencies, the GoB established the CRVS Steering Committee in 2014. This Steering Committee is convened by the Cabinet Secretary, with membership from various government agencies. Further, in 2016, the Office of the Registrar General (ORG) was established as the authority for birth and death registration in the country. The ORG collaborates with the MoHFW's DGHS on birth and death registration by front-line medical workers.

The MoHFW has been working on improving the health sector links with CRVS, including implementing medical certification of cause of death (currently being scaled up in government hospitals), using International Classification of Diseases (ICD) coding, and implementing the use of verbal autopsy to better capture community mortality (piloted in 2017, scaled up in additional sub-districts in 2019, with a plan for scaling up to nationally representative sample sub-districts by 2024).78 In addition, the online Birth and Death Registration Information System (BDRIS) has been linked with DHIS2 to ensure that vital statistics are captured in the HIS.

However, birth registration coverage and timeliness remains weak. In 2019, it was estimated that 5.1 per cent of births were registered within 45 days, and 22 per cent within one year. This dropped to 4.5 and 18.5 per cent, respectively, in 2020, due to the coronavirus disease 2019 (COVID-19) pandemic.9 The MICS 2019 estimates that 56 per cent of children under 5 have had their births registered.10

# Health sector funding, planning and budget cycles

The current sector programme, the Health, Population and Nutrition Sector Programme (HPNSP) 2017-2022 is estimated to cost US\$14.7 billion over a five-and-a-halfyear period. 11

The MoHFW established a sector-wide approach (SWAp) modality for the health sector beginning in 1998.12 This modality has enabled funds - including aid from development partners - to be programmed according to the MoHFW sector priorities, as opposed to from a project-based approach.

SWAp partners include the United Kingdom Foreign, Commonwealth & Development Office (FCDO), Canadian International Aid Agency (CIDA), Swedish International Development Cooperation Agency (Sida), Development Bank, United States Agency for International Development (USAID), Australian Aid (AusAID) and the United Nations Population Fund (UNFPA). 13 To support the SWAp, a monitoring mechanism has been put in place by the MoHFW along with development partners. Programme performance indicators are agreed upon by MoHFW together with development partners, and reviewed each year for progress.

There are still a considerable number of public sector health programmes that are not encompassed within the SWAp; one example is the urban health programme under the purview of the Ministry of Local Government. Other health programmes implemented outside of the public sector, inclusive of NGOs, are also not captured within the SWAp.14

# Health sector indicators and monitoring

The HNPSP has a results framework comprising goallevel indicators, process/output-level indicators, and biannual programme reporting. The DGHS also developed a Monitoring and Evaluation (M&E) Strategy and Action Plan for the health sector, with a focus on strengthening

the RHIS and nationally representative surveys, which feeds into the SWAp monitoring system. 15 The DGHS also monitors health-related SDGs via a dashboard system, although some challenges have been identified with SDG monitoring, including weak coordination between different government agencies, gaps in data from private sector facilities, and issues around the completeness and data quality of the routine HIS.<sup>16</sup> It is unclear what strategies are in place to address these issues.

The MoHFW's capacities for M&E appear to have improved with each successive sector programme.<sup>17</sup> Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), USAID, and other development partners have also supported the MoHFW in the past with technical assistance to strengthen monitoring and management efforts of the health sector, and continue to provide support to the MoHFW.

## Digitalization of the HIS

A national e-Health policy was introduced in Bangladesh in 2011. In 2014, an electronic HIS was introduced and a HMIS unit was established within the DGHS.

DHIS2 has been used nationwide since 2011. Current estimates for its use range from 75 to over 90 per cent of public health facilities. 18 It is used to collect and compile aggregated health data, and support data analysis and reporting in the health sector. DHIS2 is also being integrated with other vertical programmes and data systems, such as with the e-TB Manager tool for tuberculosis. As an electronic system, DHIS2 has facilitated better and faster monitoring, as well as crosschecking and tabulating of data, and thus contributes to better use of data for decision-making.

There have been some challenges to DHIS2 implementation, including human resource constraints and challenges – including a shortage of trained personnel for data collection and analysis, lack of training for community-level health workers - and infrastructural constraints, such as slow internet connectivity in some public facilities and areas of the country. 19,20 Data quality through DHIS2 is also considered poor and incomplete.

There are also gaps in the national e-Health programme - for example, the private sector is not included in it.<sup>21</sup> Indeed, the vast majority of private facilities do not report to the national HMIS because the private health system in Bangladesh is not obligated to do so.<sup>22</sup>

Other e-Health initiatives ongoing in Bangladesh include the Shared Health Record (SHR) system and the Open Health Information Exchange (OpenHIE).

#### Status of the HIS

With the support of WHO, Bangladesh has been implementing WHO's SCORE framework to strengthen the country's health data systems.<sup>23</sup> According to the SCORE framework last updated in 2021, Bangladesh ranks as lower capacity, particularly on full birth and death registration, certification and reporting of causes of death, having a routine facility reporting system with patient monitoring, and country-led governance of data. The MoHFW is currently engaged with the WHO Health Metrics Network to evaluate its HMIS and develop solutions to strengthen the HIS in the country.

A MEASURE Evaluation analysis of the status of the HIS in Bangladesh was conducted in 2019. Table 1 shows the MEASURE Evaluation indicators, along with current and updated information as of January 2022. Data were found for 23 out of 30 indicators.

Table 1. MEASURE Evaluation indicators of status of the HIS in Bangladesh

| Indicators  | Description  | HIS strengthening model component | Bangladesh   |
|---|--|-----------------------------------|--|
| 1. Country has a national health strategy (year)                    | A national health strategy outlines a country's vision, priorities, budgeting and planned action to improve and maintain people's health. Ideally, any activities for strengthening HIS are documented in the national health strategy.  | HIS governance and<br>leadership  | Yes — Health, Population and Nutrition Sector Programme (HPNSP) 2017—2022.   |
| 2. Country has a health sector monitoring and evaluation (M&E) plan | Once a country has a national health strategy, it should have an accompanying M&E plan. An M&E plan provides feedback on the effectiveness of the country's strategic plan for all major disease programmes and health systems. The motivation to improve HIS is often driven by national M&E needs.   | HIS governance and<br>leadership  | Yes, although it is not current – the M&E Strategy and Action Plan 2014.   |
| 3. Country has HIS policy (year)                                    | Policies that govern national HIS are one indicator of its strength. HIS policies outline a deliberate system of principles to guide decisions and achieve better HIS outcomes.  | HIS governance and leadership     | No.  |
| 4. Country has an HIS strategic plan (year)                         | Strategic plans for HIS are based on HIS assessments, such as those that were developed based on the Health Metrics Network (HMN) Framework (see #8 below). Strategic plans outline approaches to strengthen an HIS and describe costed interventions to achieve results.  | HIS governance and<br>leadership  | Yes — the Health Information<br>System (HIS) & eHealth Operational<br>Plan 2011—2016.  |
| 5. Country has set of core<br>health indicators (year<br>updated)   | A list of core health indicators helps track progress. Availability of indicators and information on definitions, data sources and data collection methods are indicative of HIS performance and organization. Data should be comprehensive and cover all categories of health indicators: determinants, inputs, outputs, outcomes and health status. A core list of indicators can be part of the health sector M&E plan.         | HIS governance and<br>leadership  | Yes — core indicators are included in the HPNSP.   |
| 6. National HIS coordinating body/ committee                        | An inter-agency body or steering committee should oversee implementation of the national HIS strategy. This body should include representatives from the ministry of health, national statistics office, academia, telecommunications, local government and the private health-care sector. This committee can provide a technical advisory role for health and social welfare data managers in collaboration with other partners. | HIS management                    | The Management Information<br>Systems Department at the DGHS<br>coordinates partners working<br>on HIS. However, there is no<br>inter-agency body or committee re-<br>lating specifically to HIS (there are<br>general health sector inter-agency<br>coordinating mechanisms). |
| 7. Country has master facility list (year updated)                  | A master facility list (MFL) is a list of health facilities in a country (both public and private) and includes information that identifies each facility (unique ID). An MFL is important in monitoring health infrastructure and the services provided; it assists in calculating the percentage of facilities included in routine health data collection. This list should be updated regularly.                                | HIS governance and<br>leadership  | Yes — see <a href="http://facilityregistry.dghs.gov.bd/">http://facilityregistry.dghs.gov.bd/</a> >.   |

| Indicators  | Description  | HIS strengthening model component      | Bangladesh  |
|---|--|--|---|
| 8. Conducted HMN assessment (year)  | This is a self-assessment tool to: identify strengths and weaknesses of the national HIS, identify priorities for improvement, establish a baseline to monitor progress, and provide a basis for strategic planning.   | HIS management                         | Unknown if there have been recent specific assessments on the HIS.  |
| 9. Population census<br>(within the last 10 years)  | A population census collects data on the size, distribution and composition of the population, plus social and economic information. It provides sampling frames for surveys (household and other types). These population projections are used to calculate health indicators.  | Data sources                           | No – the last census was carried out in 2011.   |
| 10. Availability of national health surveys   | National surveys include data collection on health-related behaviours and bioclinical measurements — e.g., DHS, MICS and living standards measurement survey.  | Data sources                           | Yes – the last DHS was in 2017–2018. The MICS was last completed in 2019.   |
| 11. Completeness of vital registration (births and deaths)  | Vital registration systems record the occurrence and characteristics of vital population events (e.g., births and deaths) and are a main source of population statistics. Countries with complete vital statistics registries (at least 90 per cent coverage) may have more accurate and timely demographic indicators.  | Data sources                           | No. National targets are to achieve 100 per cent of births in any given year being registered; however, at the midterm mark (2017), this was 28 per cent. For death registration, it was 20 per cent in 2017. See <a href="https://getinthepicture.org/country/bangladesh">https://getinthepicture.org/country/bangladesh</a> . |
| 12. Country has electronic system for aggregating routine facility and/or community service data  | Many countries are transitioning from paper-based systems of aggregating routine health data from facilities and community services to electronic systems. Electronic systems assist data collection, data transmission, data quality, and aggregation. This can be DHIS2 or another system.   | Data management                        | Yes – DHIS2.  |
| 13. Country has national statistics office  | This government agency should be a designated and functioning mechanism charged with analysis of health statistics, synthesis of data from different sources, and validation of data from population-based and facility-based sources.   | Data management                        | Yes — Bangladesh Bureau of<br>Statistics.   |
| 14. National health statistics report (annual)  | This report summarizes the status of health indicators. It is produced annually and should provide information on health statistics nationally and by region, and can include service delivery statistics and specific health outcomes. It can be called by various names, such as an annual HMIS report, annual performance report, health and health-related indicators report, etc. | Information products and dissemination | Yes. A Bangla-language version from 2018–2019 was located. A more recent updated report was not found, although it may exist.   |
| 15. Country's ministry of<br>health has an updated<br>website   | A health ministry website should have the most recent health data and make available various reports covering different health and health programme areas. It may link to other national and subnational departments and websites.   | Information products and dissemination | Yes — see <www.mohfw.gov.bd></www.mohfw.gov.bd> .<br>The latest annual Health Bulletins<br>are published on the website.  |
| 16. Data quality assessment (DQA) conducted on prioritized indicators aligned with most recent health sector strategy (year of most recent) | DQAs are important for gauging the overall quality of routine health data. DQAs are conducted at the facility level where essential data are gathered for monitoring interventions to address specific health areas such as HIV, tuberculosis and malaria. DQAs should be conducted within the current health sector strategy cycle.   | Data management                        | Unknown.  |
| 17. PRISM assessment conducted in any regions/ districts  | This is an assessment of the performance of a RHIS or HMIS. The framework consists of tools to assess RHIS performance; identify technical, behavioural and organizational factors that affect RHIS; aid in designing priority interventions to improve performance; and improve quality and use of routine health data.   | HIS management                         | Unknown.  |
| 18. Percentage of facilities represented in HMIS information  | Countries should define core data that all facilities report at prescribed times throughout the year (monthly, quarterly, biannually, or annually). The percentage of facilities that report should be recorded in HMIS reports (the number of facilities reporting [numerator] divided by the total number of health facilities [denominator]).                                       | Data quality                           | Unknown.  |

| Indicators  | Description  | HIS strengthening model component | Bangladesh  |
|---|--|-----------------------------------|---|
| 19. Proportion (facility, district, national) offices using data for setting targets and monitoring   | Use of routine and non-routine data helps in setting annual targets and monitoring key indicators. It is critical for evidence-informed decision-making. This information may be available from country reports, meeting minutes, or through special studies.  | Data use                          | Unknown.  |
| 20. Measles vaccination<br>coverage reported to<br>WHO/UNICEF   | The ability to report the proportion/percentage of children aged 1 who received one dose of measles vaccine is a measure of HIS performance. The WHO site that is the data source for this indicator presents information from both the United Nations/WHO estimates and official government figures, which allows comparison of the two.                          | HIS performance                   | Yes.  |
| 21. Number of institutional<br>deliveries (births) available<br>by district and published<br>within 12 months of<br>preceding year                            | Births that occur in institutions (e.g., hospitals and health clinics) and that are attended by skilled and trained staff can provide necessary supervision, care and advice to women during pregnancy, labour, and the postpartum period. The number of institutional deliveries is the numerator in determining coverage and is an indicator of HIS performance. | HIS performance                   | Yes — reported monthly by district.<br>Ainul et al. (2020) provides an<br>analysis of 2020 data.                              |
| 22. Existence of policies, laws and regulations mandating public and private health facilities/ providers to report indicators determined by the national HIS | Countries should have a regulatory framework for the generation and use of health information, which helps to ensure data availability from public and private providers. This may include specific laws; however, in some cases, it may be contained in other policies or regulations.  | HIS governance and<br>leadership  | Partial. There are ongoing efforts to collect basic information from some NGO-supported health facilities.                    |
| 23. Availability of<br>standards/guidelines<br>for RHIS data collection,<br>reporting and analysis  | To ensure uniformity and standardization in the collection of RHIS data, countries need standards or guidelines describing how data should be collected, reported and analysed. This information is used for training and should be available as reference documents.  | HIS management                    | Unknown, although MEASURE<br>Evaluation reports that these do<br>exist.   |
| 24. Presence of procedures to verify the quality of data (accuracy, completeness, timeliness) reported  | As part of an effort to assure data generated by the HIS is of high quality, countries need procedures to assess data quality. This can include data accuracy checklists prior to report acceptance, internal data quality audits and written feedback forms.  | Data management                   | Partial – there are some processes for validating reported data and some DQA systems for specific vertical health programmes. |
| 25. RHIS data collection forms allow for disaggregation by gender   | To ensure gender equity in health, countries need to collect and analyse data by gender. Data collection forms should allow for gender disaggregation in RHIS.   | HIS governance and leadership     | Partial – DHIS2 allows some forms to be disaggregated by gender.  |
| 26. At least one national health account completed in last five years   | This is a process through which countries monitor the flow of money in their health sector. The information is needed to determine the level of financing provided to the HIS.   | Data sources                      | The Bangladesh National Health<br>Account was last completed in<br>2015.  |
| 27. National database with health workers by district and main cadres updated within the last two years   | This database gathers data from multiple sources, including census, labour force surveys, professional registers, training institutions and facility assessments. The information is needed to estimate the current workforce and plan for future staffing needs.  | Data sources                      | Yes — the DGHS introduced a Human Resources Information System (HRIS) in 2018.,   |
| 28. Annual data on availability of tracer medicines and commodities in public and private health facilities   | This indicator assesses the availability of data to measure the use of medicines and health commodities, both to measure service provision and to monitor availability of medicines and commodities to ensure there are no stockouts and that necessary commodities are available in facilities.   | Data sources                      | Yes — available on the MoHFW<br>Supply Chain Management Portal<br>(https://scmpbd.org/).                                      |
| 29. e-Health strategy   | With the introduction of information and communications technologies into health care, countries should set a strategy for how e-Health will be organized and used. This strategy should be current with the national health planning cycle.   | HIS governance and leadership     | Yes — there is a national Digital<br>Health Strategy, currently in draft<br>form.   |
| 30. Completeness of disease surveillance reporting  | Percentage of disease surveillance reports received from districts to the national level compared to the number of reports expected. This percentage will indicate whether such data are available and note the most recent compilations (by year or month).   | Data quality                      | Partial – disease surveillance reports are received through DHIS2 but the exact percentage is unknown.                        |

Figure 2. Health sector partners and stakeholders working on HIS in Bangladesh COORDINATION MECHANISMS MINISTRY OF HEALTH AND FAMILY WELFARE (NOT EXHAUSTIVE): • Development Partners Consorium · SDG Data Group **BANGLADESH BUREAU OF STATISTICS** • Local Consultative Group • Urban Health Forum (for partners working in urban health) **HEALTH SECTOR STAKEHOLDERS** • Federation of NGOs in Bangladesh **Global Health Initiatives:** Multilateral and intergovernmental organizations: GAVI Global Fund World Bank • Asian Development Bank • WH0 Civil society organizations (not UNICEF exhaustive listing): • BRAC UNFPA • Save the Children · Care Bangladesh Donor (bilateral foundations, and regional funding entities): • UK FCDO Research, academic and technical USAID networks: Germany (BMZ/GIZ) icddr.b JICA • Rockefeller Foundation Private sector: · Private sector health providers GAVI, Gavi, the Vaccine Alliance; GIZ, Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH; Global Fund, The Global Fund to Fight AIDS, Tuberculosis and Malaria; JICA, Japan International Cooperation Agency; NGO, non-governmental organization; UK FCDO, United Kingdom Foreign, Commonwealth & Development Office; UNFPA, United Nations Population Fund; UNICEF, United Nations Children's Fund; USAID, United States Agency for International Development

# 4.2 Partners and stakeholders working on HIS and health data in Bangladesh

Figure 2 shows the various partners and stakeholders working on HIS and health data in Bangladesh.

# 4.3 Alignment of partner technical and financial investments in Bangladesh

Back in 2005 and 2008, development stakeholders committed to improve the quality and effectiveness of aid and its impact on countries' development. This was reflected in the Paris Declaration (2005), a road map towards better aid effectiveness, formulated around five principles: Ownership, Alignment, Harmonization, Results, and Mutual Accountability. The Paris Declaration was further strengthened with the Accra Agenda for Action (2008), which took stock of progress made since

the Paris Declaration was made, and proposed to focus on the following main areas for improvement: Ownership, Inclusive partnerships, Delivering results, and Capacity development.

Reflecting the principles of ownership, alignment and inclusive partnerships in the Paris Declaration and the Accra Agenda for Action, a conceptual framework of alignment (Figure 3) was developed that situated alignment by partners within a context of nationally owned HIS plans, strategies and priorities. Where possible, ongoing efforts by partners working on Bangladesh's HIS were analysed according to this framework.

CRVS, civil registration and vital statistics; HIS, health information system; HMIS, health management information system; HR, human resources; M&E, monitoring and evaluation

# Figure 3: Conceptual framework of alignment

# POLICY AND REGULATORY ALIGNMENT

Partners' activities linked to:

- National HIS plan or strategy
- National M&E plan
- National coordination, legal or regulatory authority

## **SYSTEMS ALIGNMENT**

Partners integrate and synergize their:

- HR capacity-building approaches and renumerations
- Finances for strengthening all aspects of HIS: CRVS; HMIS; digital health; community HIS; population surveys, etc.
- · Data collection tools, standards, indicators and typology

## **OPERATIONAL ALIGNMENT**

Partners' coordinate activities within:

- Geographical/spatial coverage (regions/district/village)
- Set time frame and duration levelsshort, medium, and long term

## 4.3.1 Policy and regulatory alignment

Alignment in the policy and regulatory environment includes whether there is a national plan or strategy on HIS that detail a common vision and plans for progress, and how aligned partners are to this plan. Further, it includes assessing whether there are formalized governmentled coordination mechanisms, and whether partners are represented or participate in these coordination mechanisms. It also includes assessing whether partners' M&E efforts are aligned to a national-level HIS M&E framework, and if indicators and reporting are harmonized across partners, donors and national reporting agencies.

## 4.3.2 Systems alignment

Systems alignment refers to the harmonization of partners' technical and financial resources – that is, how partners' technical and financial resources are used in support of identified national priorities. Harmonization of technical resources might include, for example: providing technical expertise or guidance in development of policies and guidelines, and capacity-building for government personnel and field staff. Harmonization of financial resources speaks to how partners' financial resources are aligned or harmonized towards the achievement of common goals.

Systems alignment also includes alignment of programme systems, such as ensuring that capacity-building approaches and remuneration of health personnel working on data systems are harmonized.

## 4.3.3 Operational alignment

Operational alignment includes how partners communicate with each other, and also with local, provincial and central health authorities. This may include formal and informal coordination mechanisms, as well as how information and data flow, are shared and used between partners. Partners also align operationally by coordinating their activities - for example, NGOs working in the same community may coordinate to ensure that the services provided are harmonized, cases are referred between providers according to need, and that there is no overlap in time and space.

## 4.3.4 Enabling factors for partner alignment

Some of the enabling factors for partner alignment include:

## (i) Existence of SWAp framework supporting the HPNSP

It has been argued that the SWAp model can increase national ownership while allowing for continued engagement from donors.<sup>24</sup> In Bangladesh, the MoHFW ownership for SWAp implementation appears to have improved over the years, as seen by the MoHFW increasingly taking the lead in planning, administration and monitoring of SWAp programmatic activities.<sup>25</sup> Continued support from health sector development partners to the HPNSP, and channelling their funds through the SWAp, has greatly helped to improve partner alignment for the health sector as a whole in the country.

# Table 2.

|   | I. Policy and regulatory alignment   |
|---|--|
| Existence of a nation-<br>al strategic plan and<br>alignment of partners  | The guiding policy for the health sector is the National Health Policy 2011. Health sector programmes are implemented in five-year phases with the current one being the Bangladesh Health, Population and Nutrition Sector Programme (HPNSP) 2017–2022. Strategic Objective 6 of the HPNSP is "To improve health measurement and accountability mechanisms and build a robust evidence base for decision-making".   |
| around this   | Further work is needed to assess the degree of partner alignment around the national strategic plans.  |
| Existence of govern-<br>ment-led coordination<br>mechanisms and the<br>level of participation/<br>representation by<br>partners | No formal government-led coordination mechanisms exist specifically for HIS; however, there are other broader health sector coordination mechanisms, such as the Development Partners Consortium35 – established by the main development partners to improve harmonization of development assistance from health – which meets every three months; and a Local Consultative Group (with a health subgroup) that meets every six months. The latter is jointly chaired by the MoHFW and the Chair of the Development Partners Consortium.36 Other health sector coordination mechanisms exist, such as the Urban Health Coordination Committee. The MIS Department within the MoHFW holds monthly call with partners to identify progress and gaps, and to coordinate on support requested. |
|   | The DGHS also holds coordination meetings for aligning the HIS (frequency unknown), and an annual review of the health sector programme is conducted, presumably including HIS priorities.   |
|   | Begum et al. (2020) found that partner organizations have deployed their staff as monitoring officers at division level, and participate during monthly coordination meetings at the divisional and central levels.37  |
| Alignment of partners   | There is a results framework in the 4th HPNSP.   |
| to the national HIS<br>M&E framework  | There is a national M&E plan, with outputs as defined in the HNPSP 2016–2021. Further analysis is required to assess whether and how partners' M&E activities are aligned with the national HIS M&E framework.   |
|   | II. Systems alignment  |
| Harmonization of technical resources  | Development partners in Bangladesh provide both financial support (whether as part of the SWAp or outside of the SWAp) and technical expertise. Development partners participate in various MoHFW technical working groups. Partners providing technical assistance to support HIS in Bangladesh include WHO, UNICEF, UNFPA (on population statistics) and USAID.  |
|   | Begum et al. (2020) found that international donors were highly committed to strengthening Bangladesh's HIS, both through contributing financial resources for capacity-building and purchasing equipment, as well as by providing technical support (e.g., by organizing trainings on DHIS2).38   |
| Harmonization of financial resources  | The introduction of the SWAp in 1998, in five-year phases, shifted Bangladesh's health sector strategy "from disease-specific, project-based "vertical" funding and programming to a "horizontal" approach supporting the health sector as an integrated whole."39   |
|   | The SWAp approach represents a significant step towards harmonization of financial resources in the health sector, since aid funding was channelled in support of a broader health sector programme that was owned and led by the GoB in cooperation with partners. Detailed operational budgets and plans were also developed for each programme under the SWAp, further strengthening alignment and harmonization between partners and the GoB.  |
|   | The financial management of the SWAp has improved over time, as reflected by the "timely preparation of financial reports, the use of the government treasury system for channelling of development partner financing".40 Development partners have worked with the MoHFW to build and improve financial management systems and reporting.41 This has all contributed to streamlining funding arrangements and ensuring efficient financial utilization.   |
|   | However, there is a significant proportion of health sector financing that falls outside of the SWAp, and it is unclear whether and how these funding flows are aligned to government priorities. Further work is recommended to assess the current status of alignment of development partners' financial resources.  |
|   | III. Operational alignment   |
| Communications and<br>nformation flow   | Assuming that the main development partners do communicate and share information with the MoHFW and each other at a national level, it is not clear whether there are formal mechanisms to aid those information flows. In addition, it is not clear how the various non–public sector health providers – such as private sector providers and NGOs – communicate and coordinate with each other.  |
|   | For example, there is a wide network of government-supported community health workers (CHWs) in Bangladesh, and they are an important point of access to the health system for many households. The various CHW programmes (both government-supported and NGO-supported) all collect different data at different times and from different sources. CHWs supported by BRAC, for example, are able to use household visits to collect data, and thus compile household-level health data and basic demographic information. These data are usually shared with their supervisors, and used for planning purposes.42  |
|   | Further work is required with stakeholders in-country to understand whether there is a mechanism for sharing these data between partners and what efforts exist to ensure that the national HIS captures data from NGO activities, including from their CHWs.  |
| Coordination of activities between  | It is unknown to what extent partners are able to coordinate their activities with each other, particularly those partners who are not part of the main Development Partners Consortium.   |
| partners  | Further study is needed to examine how different stakeholder constituencies might coordinate with one another. For example, the MoHFW has partnered successfully with local research organizations such as icddr,b43 on various research initiatives which have successfully influenced local policy.  |

However, the MoHFW also has projects and activities implemented by non-state actors and funded and supervised directly by development partners that are outside the SWAp (i.e., off-budget support). These projects and activities have contributed to achieving the results of the ongoing health sector programme, but may not have been formally accounted for by the MoHFW.

(ii) Existence of nationally defined strategic plans for HIS and e-Health, supported by partners and with mutually defined performance indicators

The HPNSP and the national e-Health policy appear to be supported by partners, either via SWAp funding or direct non-pooled funding (e.g., from UNICEF).

4.3.5 Constraining factors for partner alignment on HIS

Some of the constraining factors for partner alignment include:

(i) Coordination mechanisms for partners to engage with the GoB and each other on regular review processes

While there are some coordination mechanisms in the country, most notably the Development Partners Consortium and the Local Consultative Group, it is unclear to what extent the GoB/MoHFW uses these as forums for strategy planning, priority setting and review processes. Ahmed et al. (2019) found that health sector stakeholders were concerned about the lack of coordination amongst various ministries of the GoB and other agencies, and also between the GoB and non-state actors. 26

(ii) Absence of a portal or updated repository of information and data on the various health sector programmes and projects being undertaken by the GoB and partners

The MoHFW website is not regularly updated and there does not seem to be a central repository for documents and resources published by the MoHFW and health sector partners. There have been efforts to address this in the past by GIZ, which supported the MoHFW and other partners in creating a health partners repository website; however, this website does not appear to be live any longer. The lack of easily accessible information creates obstacles to coordination and aligning of partners' efforts.

With the national focus on digitalization of the HIS and e-Health, there is also a need to map out or provide a repository of current investments and resources in digital health, so as to provide a basis for better coordination and synergizing of efforts.

(iii) Lack of framework to engage with the private and NGO sectors on data collection, reporting and use, with implications for inclusion and equity

Currently, the national HIS does not include data from private sector health facilities, nor from NGO-supported health facilities. In addition, a large proportion of the country's population live in urban areas and obtain health care through out-of-pocket payments to private providers, and these data may not be fully integrated into the national HIS.<sup>27</sup> The national HIS therefore can only provide an incomplete picture of the country situation and risks omission of information for large segments of the population.

Community organizations, NGOs and the private sector play a significant role in health service delivery in Bangladesh. Efforts to improve harmonization and alignment around health data and HIS in the country thus require engaging with the private sector and NGOs to ensure that there are mechanisms for information exchange between those stakeholders and the MoHFW. Where there may be multiple HIS amongst the non-public sector health-care providers, the GoB should engage with these stakeholders to explore means to ensure interoperability between the different systems and the national HIS. Some efforts are beginning in this space, with the goal of supporting the MoHFW to build a data warehouse to integrate datasets from different providers, and to build interoperability between systems.<sup>28</sup>

# 5. Recommendations for further work

Based on findings as outlined above, a key avenue for HDC partners to strengthen alignment around HIS would be to support and bolster existing country coordination mechanisms for the health sector. These coordination mechanisms would provide a critical forum for partners to be involved in planning and priority-setting discussions for the health sector, technical discussions around the development and maintenance of the HIS, and also support data sharing and use across the HIS ecosystem.

As the private sector and NGOs/CSOs are key players in health service delivery in the country, HDC partners should support the GoB in developing a framework for engagement and inclusion of data from the private sector and NGOs/CSOs.

To encourage data sharing and use, partners could support the MoHFW to publish and make available national health data and information resources.

To increase aid transparency and efficiency efforts more generally, thus promoting technical and financial alignment, the HDC could advocate for the MoHFW and

development partners to collaborate on implementing and maintaining a portal/repository for documents and information on all the various health sector programmes and activities. Similarly, HDC partners could support a stocktake/mapping of various investments currently being undertaken in the area of digital health in Bangladesh.

Finally, some general areas for partners and stakeholders to focus HIS strengthening efforts on include: CRVS, data quality of the RHIS, and data sharing and use.

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# **Annexes**

# Annex 1. Partners and stakeholders working on the health information system and health data in Bangladesh

| Stakeholders   | Role   | Coordination mechanisms | Priorities for health information system  |
|--|--|-------------------------|---|
| National   |  |                         |   |
| Bangladesh Ministry<br>of Health and Family<br>Welfare   | Responsible for overall policy formulation, planning, organization and coordination of the health sector at national, provincial, district and community levels. |                         |   |
| UNICEF   | Multilateral<br>development partner  |                         | Based on UNICEF's Country Programme Document for 2022–2026:  21. The focus is towards Universal Health Coverage through support for policies, strategies, investment cases, fiscal space analyses and delivery models for primary health care within the coronavirus disease 2019 (COVID-19) response. Innovative technology will support the strengthening of the health management information system for an integrated data warehouse for improved decision-making.  48. Together with other United Nations funds and programmes and partners, UNICEF will support the Bangladesh Bureau of Statistics (BBS) and sectoral management information systems to produce, analyse and disseminate high-quality data to: track equity and gender disparities; inform policy development; and support the General Economics Division to monitor progress towards the Sustainable Development Goals.   |
| World Health<br>Organization (WHO)                       | Multilateral<br>development partner  |                         | WHO Country Cooperation Strategy 2017–2021:<br>Strategic Priority 4, Health Systems: Support effort toward improved measure-<br>ment and accountability with a view of monitoring and reporting health status,<br>financial risk protection and health system performances, in line with the country's<br>UHC and SDG commitment  |
| United Nations<br>Population Fund<br>(UNFPA)             | Multilateral<br>development partner  |                         | UNFPA Country Programme Document, 2022–2026:  A, Sexual and Reproductive Health: Output 1: Updated and improved legal and policy frameworks, regulations and compliance, accountability and data management systems will strengthen the health system and decrease maternal morbidity and mortality and unmet need for family planning, using integrated, multisectoral and human rights-based approaches across the development and humanitarian continuum.  This will be achieved through advocacy, technical assistance, evidence generation and support to vertical and horizontal coordination across the Government to (b) strengthen comprehensive knowledge management, data generation and analysis in the public and private systems.  D, Population Dynamics: Output 1: Use of demographic intelligence and disaggregated population data for national policies, plans and programmes is increased to enable Bangladesh to harness the demographic dividend, advance the International Conference on Population and Development Programme of Action and achieve the 2030 Agenda.  Sector-wide approach (SWAp) partner. |
| Canadian International<br>Development Agency<br>(CIDA)   | Bilateral cooperation  |                         | SWAp partner. Unable to locate specific information.  |
| United States Agency<br>for International Aid<br>(USAID) | Bilateral cooperation  |                         | USAID Country Development Cooperation Strategy, 2020–2025:  Under IR 2.3 (Increased Capacity of Bangladeshis to Pursue Prosperous and Healthy Lives) USAID will work with the Government of Bangladesh and the private sector to strengthen human resources planning for the health sector, establish and strengthen health-care quality improvement systems, increase high-quality health product availability, strengthen logistics and supply chain systems, address service shortages in underserved areas and among vulnerable populations, encourage technology adoption to improve health information systems, and promote evidence-based programming in both public and private sectors.  SWAp partner.   |

| Stakeholders  | Role                                 | Coordination mechanisms   | Priorities for health information system  |
|---|--------------------------------------|---|---|
| National  |                                      |   |   |
| British Embassy<br>(United Kingdom<br>Foreign,<br>Commonwealth &<br>Development Office<br>[FCDO]) | Bilateral cooperation                |   | FCDO Profile for Bangladesh, 2018–2020:<br>Strategic partnership agreement with BRAC.<br>SWAp partner.  |
| Deutsche Gesellschaft<br>für Internationale<br>Zusammenarbeit<br>GmbH (GIZ)                       | Bilateral cooperation                |   | None currently.   |
| Japan International<br>Cooperation Agency<br>(JICA)   | Bilateral cooperation                |   | JICA Rolling Plan for Bangladesh, as of April 2020:  Health System Strengthening Programme. Unclear whether there is specific support for health information management system/health data.   |
| KfW Development<br>Bank   | Bilateral cooperation                |   | SWAp partner but no other information.  |
| Swedish International<br>Development Agency<br>(Sida)   | Bilateral cooperation                |   | SWAp partner.   |
| World Bank  | International financial institution  |   | Country Partnership Framework for Bangladesh, 2016–2020:  The WBG [World Bank Group] engagement in health will increasingly shift toward addressing systemic reforms and will aim to assist the Government to gradually achieve universal health coverage (UHC). The Bank will continue [to] support the Ministry of Health's Sector Program—including through a multi-donor trust fund. Emphasis will be on reducing malnutrition, maternal and child mortality, incidence of non-communicable disease and fertility among vulnerable population and on strengthening the Government's stewardship role to help establish a district health system. On the knowledge front, a programmatic series of analytical work will aim to inform government efforts to reform the production, delivery, financing and management of health services in pursuit of UHC.  SWAp partner. |
| Regional  |                                      |   | own p paration  |
| Asian Development<br>Bank   | International financial institution  | Health Sector Development Partners Group  | Project 54201-001 Support to Address Outbreak of COVID-19 and Strengthen Preparedness for Communicable Diseases in South Asia:  |
|   |                                      | (federal level), and the<br>Health Financing and<br>Public Financial Man-<br>agement expanded | Output 2: Preparedness of health, education, and social protection systems in Sustainable Agriculture and Rural Development developing member countries to respond to outbreaks strengthened.   |
|   |                                      | working group   | For health sector, activities will include (i) review of risks and health resources mapping; (ii) assessments of procurement capacity and recommendations for developing flexible systems for procuring necessary supplies; (iii) technical support for strengthening response plans and mechanisms including systems for maintaining stockpiles of essential drugs and PPE [personal protective equipment], strengthening reporting, and improving surveillance systems; and (iv) strategic advice for containing cases and managing treatment, including a gender-sensitive approach to providing treatment. This output will also support data analytics to explore use of existing telecommunications data in managing testing logistics and treatments in epidemiological clusters.  |
| Gavi, the Vaccine<br>Alliance (GAVI)  | Global public-private<br>partnership |   | Approximately US\$39.3 million has been channelled through SWAp in support of the Bangladesh Health Sector Support Project, aiming to "strengthen core management systems in health and delivery of essential HNP [health, nutrition and population] services with a focus on Chittagong and Sylhet divisions." SWAp partner.   |
| World Bank  | International financial institution  |   | The World Bank is currently undertaking an assessment on improving the health information system in Bangladesh.   |

| Stakeholders   | Role   | Coordination mechanisms  | Priorities for health information system   |
|--|--|--|--|
| Regional   |  |  |  |
| The Global Fund<br>to Fight AIDS,<br>Tuberculosis and<br>Malaria (Global Fund) | International financing<br>and partnership<br>organization   |  | Bangladesh was allocated US\$146.2 million for investments in fighting HIV/AIDS, tuberculosis and malaria for the 2017–2019 allocation period. The Ministry of Finance and three non-governmental organizations are the Principal Recipients for all Global Fund grants. The Ministry of Health and Family Welfare, through the national programmes for the three diseases, implements the grants on behalf of the Ministry of Finance. Each disease programme is implemented by a government implementer and non-governmental organization (BRAC for tuberculosis; icddr,b and Save the Children for HIV/AIDS). |
| Non-governmental o   | rganizations (NGOs)/ civ   | ril society organizatio  | ns   |
| Save the Children  | NGO  |  |  |
| BRAC   | NGO  |  |  |
| Academic/ research   | institutes   |  |  |
| icddr,b  | Research institute   |  |  |
| Asia eHealth<br>Information Network<br>(AeHIN)                                 | AeHIN functions as a regional "shadow informal digital health network" — it supports government-to-government relations, and relationships with multilaterals such as the Asian Development Bank and WHO | AeHIN does not participate in formal coordination mechanisms; contact or support is via ad-hoc emails and annual meetings are organized with ministries of health and development partners | AeHIN structures its priorities according to its Mind the GAPS model — Governance, Architecture, Programme Management, Standards.  |
| Regional   |  |  |  |
| Private health facilities  |  |  |  |



