

Health Data Collaborative (HDC) External Evaluation

World Health Organisation

13 October 2023

FINAL REPORT: COUNTRY CASE STUDY APPENDIX





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Appendix A BOTSWANA CASE STUDY

This appendix presents the summary findings from the Botswana case study. It has been developed based on (i) stakeholder consultations (Section A.6. includes a list of consultees) and a review of documentation and data (Section A.5 includes a bibliography).

A.1. BACKGROUND INFORMATION AND CONTEXT

A.1.1. Key country characteristics, with regards to data systems

Health care is provided at four levels in Botswana: hospitals (referral, district and primary), clinics, health posts, and mobile stops. In total there are 1,855 health facilities in Botswana, with a mixed private and public system.¹ Of the 940 facilities currently listed on the Ministry of Health's online Master Health Facility Register, roughly 60% are public and 40% are private.² The Government has achieved the target of contributing 15% of total government expenditure to health, representing around 75% of total health expenditure.³

The Ministry of Health and Wellness (MoHW) provides overall guidance to the health sector with regards to policy, regulations and standards.⁴ The Department of Health Services Monitoring Evaluation and Quality Assurance (DHSMEQA) was established in 2015 as part of a restructuring of the MoHW and has authority over data asset management and use. DHSMEQA reports to the Deputy Permanent Secretary (DPS). In addition to DHSMEQA, the Civil and National Registration department registers all births, deaths, marriages and divorces and Statistics Botswana coordinates population surveys (including the demographic health survey and census).

An assessment of the Health Information and M&E system in 2019, carried out by the MoHW with support from WHO African Regional Office (AFRO) and the WHO Country Office, highlighted multiple challenges in the health information system (HIS) space in Botswana. Although the development of policies and guidance documents by the MoHW was a positive development, these policies were poorly aligned in terms of timelines, priorities, and indicators for monitoring of health sector performance limiting their effectiveness.⁵ Similarly, advancement in the digital health systems (e.g., the role out an electronic health system in public hospitals and the development of a central warehouse hosted by the Government Data Network) were offset by weak interoperability of systems and infrastructure issues which limited full usability. Other challenges included limited capacity with regards to data collection and analysis across the health system, fragmented and duplicative data systems requiring multiple data collection registers and reports at the facility level, and weak coordination.⁶ The latter point was raised quite strongly, as prior to 2019 there was no formalised multi-sectoral stakeholder coordination platform targeting HIS and M&E issues, and the three major donor agencies in this space (UNAIDS, PEPFAR, and the Global Fund) planned activities with limited oversight from the MoHW. Because of these challenges, routine health data,

¹ Botswana Ministry of Health and Wellness, 2020, Annual Health Sector Performance Report

² Botswana Master Health Facility List, https://www.healthfacilities.gov.bw/, accessed 06/07/2023. Note that given the large gap between the number of health facilities listed in the register and the number of facilities reported in the 2020 Annual Health Sector Performance Report, the percent breakdown of private versus public facilities may not be entirely accurate.

³ Botswana Ministry of Health and Wellness, Integrated Health Service Plan: A Strategy for Changing the Health Sector for Healthy Botswana (2010-2020)

⁴ Botswana Ministry of Health and Wellness, 2020, Annual Health Sector Performance Report

⁵ Policies and guidance documents included the National Development Plan II (2017-2023), National Development Performance framework (2017-2023), National Health Policy 2011, Integrated Health Service Plan (2010-2020), Botswana National Health M&E Plan (2014-2019), Botswana National Health Data Management Policy 2014.

⁶ BHDC, 2020, Roadmap



surveillance data, and CRVS were not being collected or analysed comprehensively and data quality was generally weak.

The 2020 WHO Score Assessment (using data from 2013-2018) corroborates what was found in the HIS/ M&E assessment, rating Botswana at lower capacity across the HIS/ M&E spectrum (surveying population, CRVS optimising health service data, reviewing health sector progress and performance, and enabling data use for policy and action).⁸

The MoHW responded to the 2019 assessment with political momentum and energy around HIS strengthening. In collaboration with WHO AFRO and the WHO Country Office, the MoHW sought to identify possible solutions to address the challenges raised. Stakeholders agreed that the lack of a formal coordination structure in Botswana around HIS/ M&E was a major gap as well as 'low-hanging fruit', leading eventually to the establishment of the Botswana Health Data Collaborative (BHDC). This process is described in detail below.

A.1.2. HDC country support and engagement

Botswana HDC

Following the 2019 HIS/ M&E assessment, WHO AFRO sourced a consultant to support the MoHW to address the issue of stakeholder coordination and alignment (alongside other challenges raised), specifically by creating a Botswana HDC. The consultant had an in-depth knowledge of the HDC and its principles, given previous experience with the Kenya HDC. While a coordinating body within M&E/ HIS would have been established in Botswana regardless, the development of a detailed roadmap as well as structures such as the technical working groups (TWGs) was reportedly facilitated by the chosen HDC approach. The Botswana HDC (BHDC) was formally launched in 2020, with buy-in from different MoHW departments as well as the President's office.

The BHDC Roadmap refers to the Health Measurement and Accountability Summit Roadmap and 5-point Call to Action. The guiding principles of the BHDC described in the roadmap are similar to those of the global HDC (for example, alignment and harmonised support for one country led platform and promotion of country stewardship and ownership of health data). The specific strategic goals are adapted to the local context however, and include leveraging on the digital revolution to improve HIS and strengthening CRVS.¹⁰ Simultaneously to the Roadmap, the BHDC launched the 2020-2024 eHealth Strategy which spelled out an approach to addressing challenges such as an ineffective governance system, inadequate technological infrastructure, and limited human resources in the digital health space.¹¹

Figure A.1 depicts the BHDC governance structures, as conceived in the design stage and described in the Roadmap. The secretariat of the BHDC is drawn from the DHSMEQA and plays an administrative, coordination and communication role. A BHDC Steering Committee advises on strategic and technical direction and serves as a decision-making body with representation from stakeholders in government, NGOs, the private sector, and CSOs. The BHDC is an arm of the Health Partners Forum, a platform coordinating government and non-government stakeholders working in health. The BHDC is chaired and reports to the DPS of DHSMEQA, who serves as the link to the Permanent Secretary and therefore the Health Partners Forum. It was envisaged that BHDC committees would be established at the regional/ district level but this has not been implemented (see Section A.2.2 on Efficiency below). ¹²

⁷ BHDC, 2020, Roadmap

⁸ BHDC, 2020, Roadmap

⁹ The ToR for the consultancy specifically referred to establishment of a Botswana HDC.

¹⁰ BHDC, 2020, Roadmap

¹¹ Botswana Ministry of Health and Wellness, 2020, eHealth Strategy

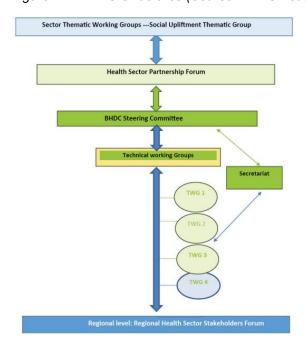
¹² BHDC Country Position



Four Technical Working Groups (TWGs) were established to focus on specific goals and deliverables laid out in the BHDC roadmap. These TWGs have representation from civil society, NGOs, private sector, academic institutions, and national and district-level government stakeholders, and are accountable to the BHDC Steering Committee. The four TWGs are:

- Data and Information Use TWG, to promote the use of information for decision making and planning;
- Civil Registration TWG, to strengthen CRVS and ensure relevant information is available for use by stakeholders for decision making;
- Digital Health TWG, to strengthen relevant skills to coordinate digital systems development, implementation and deployment;
- Quality of Care TWG, to improve the quality and safety of care across the health sector.

Figure A.1: BHDC Structures (Source: BHDC Roadmap, 2020)



Engagement with the global HDC

The global HDC platform did not directly engage with BHDC during its design and inception in 2019-2020. However, the connection was made through the hired consultant who brought experience working with the HDC and insight into its processes and principles, as well as through the WHO CO in collaboration with WHO AFRO which played a pivotal role in championing the idea of the HDC. The HDC Secretariat formally approached the BHDC after its launch in 2020. Following this, the DPS of DHSMEQA took over as Co-Chair of the SRG which strengthened the connection between BHDC and the global HDC and increased access to materials produced by the global HDC. Occasionally, the Director and staff of DHSMEQA have joined global Stakeholder Representative Group (SRG) meetings, Global Partners Meetings (GPM), and various global TWG meetings with a focus on sharing progress updates and country best practices from Botswana.

A.2. KEY FINDINGS

A.2.1. Pillar 1: Relevance and coherence

Relevance of the "re-orientation" of the HDC 2018-19

The WHO country and regional office have been pivotal in explaining and supporting the concept of the HDC, which was not previously known to country stakeholders. Prior to engagement with WHO AFRO and the



consultant sourced, there was little visibility of the role and mandate of the HDC among stakeholders in Botswana. The WHO CO was aware of the existence of the HDC but did not have a strong knowledge of the details. Government stakeholders did not report prior knowledge of the HDC. The decision to coordinate stakeholders through a Botswana HDC rather than a different option was supported by WHO AFRO and WHO CO.

There has been strong buy-in with regard to the HDC at country level. Since its establishment and following advocacy by WHO AFRO and the WHO CO, excitement and buy-in from government stakeholders around the concept of the BHDC has been maintained. For example, there was representation from the President's office at the BHDC launch, and the DPS who came on board following the launch of the BHDC adopted the Roadmap as a workplan for the DHSMEQA. Outside of government, BHDC has strong buy-in from partners such as the CDC as well as private sector stakeholders. Implementers being supported by the CDC have been explicitly directed to support the TWGs and align workplans to the BHDC Roadmap.

With regard to country perceptions on the overall relevance of the (global) HDC platform, country stakeholders who were aware of the objectives were supportive but felt that they required further unpacking. Stakeholders felt that focused and prioritised actions needed to be identified at the global level, with clear milestones and timelines established. For example, while capacity-strengthening was seen as an important potential value-add of the global HDC, stakeholders questioned what exactly capacity-strengthening would entail. One stakeholder in particular stressed that a clearer understanding of the role and activities supported by the global HDC platform would allow for a mixture of bottom-up and top-down technical assistance. The HDC on the one hand could respond to direct country requests (although it may not have the comparative advantage in this area compared to other organisations with funding, etc.), and on the other hand shed light on areas which country stakeholders may have little previous exposure to but which could provide helpful solutions to complex challenges (given the breadth of technical expertise housed within the HDC, this may be an area where it does have a comparative advantage.)

Value add of support from the HDC

The value-add of the BHDC was clear to stakeholders, in that it formalised a coordination structure around M&E/ HIS in Botswana where previously there was none. There was political momentum and interest in establishing a coordinating body to better align partner activities following the HIS/ M&E assessment in 2019. The concept and principles of the HDC therefore met a need that had already been identified in country, and received strong support from national stakeholders.

The value-add of the global HDC platform is less clear, as the global HDC did not provide direct support in the development of the BHDC or in the years that have followed. The MoHW was able to establish the BHDC independently from technical and financial aid from the global HDC although as discussed previously, HDC principles and approaches were adopted by the external consultant with support from WHO AFRO and the WHO CO. Stakeholders noted that the documents used in the design and development of the BHDC were mainly global-level documents outlining the general principles and approach of the HDC, and that there was some difficulty in adapting and practically applying these to country-level contexts and the establishment of country coordinating mechanisms. Following the launch of the BHDC, national stakeholders have primarily engaged with the global platform through participation of the DPS in the SRG as Co-Chair, as well as presentations on country updates and best practices by DHSMEQA staff at WG and GPM meetings when requested by the HDC global Secretariat. Non-government stakeholders reported limited or no contact with the global HDC. Generally, stakeholders suggested that the benefit of being a member of the global-level structure had so far been limited (see Section A.2.2 below on Efficiency for greater detail).

A.2.2. Pillar 2: Efficiency

Efficiency of the HDC governance and operational structure

In-country BHDC

Stakeholder involvement in BHDC governance and the design of operational structures was seen as positive. Stakeholders invited to join BHDC TWGs were mapped out from the start during the process of



developing the BHDC roadmap, based on already existing informal networks. Actors that traditionally fall outside of the health sector, for example the private sector and Police Force, were also engaged through the TWGs which was seen as a strength of the BHDC. Additionally, each TWG was set up with a co-chair from outside the Ministry and was assigned a focal point from within the MoHW. This structure ensured engagement of key non-governmental stakeholders, but also ensured that each TWG had access to DHSMEQA resources including human capacity. DHSMEQA staff are able to act as coordination and administrative leads.

The fact that the BHDC is embedded within DHSMEQA was also regarded as a strength, as it encourages strong government ownership of HIS/ M&E and alignment of partners around government priorities. The DPS has expressed support for the BHDC Roadmap and work of the TWGs. The BHDC Roadmap acts to an extent as the workplan for DHSMEQA and is aligned with and subsumed into MoHW tasks. DHSMEQA staff are therefore able to advance BHDC activities as it falls within their institutional roles and responsibilities, regardless of whether TWGs are functioning efficiently enough to do so. In some cases, the TWGs act as multi-stakeholder bodies to validate and vet work primarily being led by the government.

However, there have been challenges in ensuring that BHDC structures are operationalised and functioning efficiently due to COVID-19, staff turnover and competing priorities of TWGs members. All stakeholders highlighted that planning and political momentum were strong when the BHDC was launched, but that operationalisation has been challenging. Within weeks of the launch of BHDC and the Roadmap, Botswana went into lockdown due to COVID-19. Interruption of workflow and a prioritisation of pandemic response derailed the regularly planned TWG meetings (with the except of the Quality and Safety of Care TWG, which was prioritised further in the acute phase of the pandemic). Staffing changes including at the DPS level and within TWGs also contributed to a loss of momentum. Finally, the fact that TWG members are volunteering their time in addition to full-time jobs has made progress difficult. Although fruitful forums for discussion, TWGs have struggled to translate discussion into concrete activities, with clear responsibilities assigned to particular stakeholders and timelines. Due to these challenges, TWGs are no longer meeting regularly on a monthly basis. There is substantial variety in the frequency of meetings, with the last Data Use TWG meeting in May 2023 and the last Digital Health TWG meeting having been in 2022. The Quality and Safety of Care TWG is now considered inactive.

Additionally, the Steering Committee meets irregularly and on a yearly basis. It is therefore not able to fully fulfil its role as an accountability and decision-making mechanism for the TWGs and BHDC, exacerbating the impact of some of the challenges described above especially with regard to accountability. There is also substantial overlap between the Steering Committee and the Health Partners Forum, but it is not clear how they are meant to interact

Recently, the creation of the Digitalisation Project within the MoHW has muddled the scope and responsibility of the BHDC, in particular the Digital Health TWG. There is overlap in membership of the two initiatives, and the exact role and function of the Digitalisation Project in relation to the Digital Health TWG has not been sufficiently clarified.

Global HDC platform

At the global level, HDC meetings are not being run in a way that maximises benefit for national stakeholders. While it is indicative of considerable political buy-in that the DPS is co-chair of the SRG, most other government and non-governmental stakeholders in Botswana are not regularly engaged with the global HDC or participating in meetings. Country stakeholders have mainly participated in global HDC meetings (GPM, SRG, and TWGs) upon Secretariat or WHO request, giving presentations on country best practices. However, stakeholders did not identify a strong direct value-add from these presentations for themselves. They reported that presentations were somewhat duplicative with those given to other partners, and they were disappointed by the lack of follow-up after global meetings. Stakeholders felt that they would benefit more strongly from meeting formats which encourage active participation from country stakeholders- including time for discussions between country representatives and for feedback related to specific challenges.

Merger with SDG Gap data and digital accelerator supported the functioning of the HDC

Not relevant in Botswana.



A.3. PILLAR 3: EFFECTIVENESS, SUSTAINABILITY AND IMPACT

Extent to which the HDC has achieved its objectives

The BHDC experienced early wins, contributing to improved coordination, and strengthened Health Information and M&E Systems.

- The BHDC Roadmap itself was a major achievement, successfully bringing stakeholders together around the concept of a coordination platform for M&E/ HIS. The Roadmap was evidence-based and adapted to the Botswana context, building off of the 2019 M&E/ HIS assessment. It was developed through a highly consultative process and included prioritised actions, initial costing and suggestions for monitoring progress. Three years later, DHSMEQA continues to use the Roadmap to guide work planning.
- The BHDC has made modest gains in terms of improving coordination to-date. Improvements in coordination that were explicitly noted by stakeholders including 1) strengthening alignment between the MoHW and Ministry of Nationality on CRVS; 2) greater engagement with the private sector and academia as well as stakeholders traditionally considered to be outside of the health sector through the TWGs; and 3) requests from the CDC to implementing partners to support the BHDC TWGs in their work and align activities to the BHDC workplan.
- Members of the TWGs also highlighted several key achievements contributing to strengthen HIS capacity in Botswana:
 - The Digital Health TWG has supported the roll-out of electronic health records in health facilities, interoperability of systems, centralisation of data in a warehouse through the Government Data Network, and sensitisation of DHIS2 amongst stakeholders as a national reporting system.
 - The Data Use TWG developed the Health Sector Indicators manual ¹³SOPs on data quality and routine quality assessment, and the 2020 Annual Health Sector Performance Report. It is supporting the establishment of five Data Management Centres at the district level (funded by the Global Fund), and receives support from Bummhi (*Botswana- University of Maryland School of Medicine Health Initiative, CDC Implementer*) to improve data visualisation dashboards. ¹⁴
 - The CRVS TWG negotiated stronger links and data sharing between the Ministry of Nationality and MoHW in order to strengthen collection and analysis of CRVS, is currently conducting trainings on ICD11, and monitors national progress of death and birth registration.
 - The Quality and Safety of Care TWG: brought together stakeholders involved in health service delivery across different types of facilities including the Botswana Defence Force, Police Service, Prison management, and academia and developed a Patient Charter, Service Provider Charter, Patient Safety Strategy and Quality Improvement Strategy (some still in draft form, and not yet disseminated).

Recent progress has been slow however, attributed mainly to the COVID-19 lockdown and staffing changes.

These challenges have been described in detail in Section A.2.2 and have resulted in disruption of regular TWG meetings and a loss of momentum. An inability to regularly make quorum for the TWGs has led to bottlenecks in the vetting and validation of key documents and tools. The BHDC has struggled to catch-up following COVID-19, as noted in a presentation to the SRG in April 2022 which highlighted that most of the interventions outlined in the BHDC Roadmap were just being started.¹⁵

¹³ Botswana Ministry of Health, National Health Indicator Reference Manual, 2023

¹⁴ Botswana Ministry of Health, Annual Health Sector Performance Report, 2020

¹⁵ SRG Meeting, April 2022, Botswana HDC update



Engagement of the global HDC platform in Botswana has been limited, and therefore has not resulted in significant progress towards its three objectives. Advancements described above related to improved technical and financial alignment, and improved country capacity to strengthen HIS are mainly attributable to the BHDC. With regards to Objective 3, increasing impact of global public goods, effectiveness of the HDC has been somewhat limited. As discussed in Section A.2.1, the BHDC referred to HDC documents in the development of the Roadmap, but stakeholders highlighted the lack of documents and tools available to aid in the establishment of country coordinating mechanisms and the adaptation of global HDC principles to country contexts. Stakeholders did not refer to global public goods following this initial design phase, and the effectiveness of knowledge-sharing through HDC global meetings has been limited due to challenges noted in Section A.2.2.

Extent to which the HDC platform and its activities are financially and programmatically sustainable

The BHDC is politically, programmatically and financially sustainable in that it has been operating independently from external support, but therefore is reliant on the long-term capacity of government to maintain it (DHSMEQA in particular). The BHDC is not dependent on programmatic, political or financial support from the global HDC platform. It is currently being championed by stakeholders within the WHO CO and MoHW. The interventions prioritised by the BHDC Roadmap have been subsumed into the workplan and activities of DHSMEQA- ensuring that some level of human capacity and resources will be dedicated to their advancement. Botswana also has domestic health sector resources with which to support the BHDC. All of these factors contribute to the sustainability of the BHDC. However, challenges discussed in Section A.2.2 related to COVID-19, staffing issues, and redirecting of resources towards the MoHW Digitalisation Project are a threat to the long-term sustainability of the BHDC. TWGs are struggling to meet regularly and deliver progress against the Roadmap, and stakeholders felt they were at risk of becoming completely inactive.

Extent to which the HDC has contributed to (i) the improved availability and quality of health data, aligned with national priorities and (ii) improved use of data for evidence-based decisions, budget making, monitoring and implementation of health-related SDGs

Despite a strong start with substantial political will and momentum as well as the development of a comprehensive Roadmap, the BHDC does not appear to be achieving its full potential. Disruptions due to COVID-19, staff turnover, and competing priorities amongst the members of the TWGs has derailed some of the early progress made by the BHDC. An internal review process by DHSMEQA prior to the development of a 2023-2024 annual performance plan identified challenges related to inadequate stakeholder coordination and support, poor quality data, underreporting, and infrastructure issues- demonstrating that as of now the BHDC has not yet had the desired impact. Additionally, the average completeness levels of facility reporting to DHIS2 decreased from 69.1% in 2019 to 65% in 2020 according to Botswana's Annual Health Sector Performance report. However, it is very difficult to accurately assess impact as there have been no performance reports or assessments of HIS/ M&E Systems since 2020. The impact of recent initiatives such as the Health Sector Indicators Manual is therefore unknown.

A.4. CONCLUSIONS

There is a strong value-add in the creation of a country-led coordinating platform following the HDC
principles in country contexts without an existing formalised coordination mechanism. Although the
BHDC was developed independently of the global HDC platform, it drew on HDC concepts and principles
which helped fill an important gap in Botswana. The design of the BHDC was strong and involved a detailed

¹⁶ DHSMEQA, 2023-2024 Annual Performance Plan

¹⁷ Botswana Ministry of Health and Wellness, Annual Health Sector Performance Report, 2020.



and consultative planning process and creation of four TWGs aligned with country priorities. There was good political buy-in from different levels of the MoHW and partners, facilitated by WHO AFRO and the WHO CO. WHO AFRO in particular served as an entry point of the HDC concepts and principles in Botswana which national stakeholders had limited awareness of prior to 2019, highlighting the benefits of strong regional engagement. Without advocacy from WHO AFRO, although a country-led coordinating platform likely would have been created it would not have been linked to the HDC.

- The BHDC has made several early advancements towards improving technical and financial alignment and strengthening country capacity with regards to HIS/ M&E but is full potential has not been achieved due to operationalisation challenges. Stakeholders highlighted that planning around HIS/M&E strengthening had been strong and had garnered significant political momentum initially. The development of such a comprehensive Roadmap was in itself an achievement, as were certain TWG outputs such as development of the Health Sector Indicator Manual. Improvements in coordination included strengthening alignment between the MoHW and Ministry of Nationality on CRVS and fostering greater engagement with the private sector and academia as well as stakeholders traditionally considered to be outside of the health sector such as the Police Force through the TWGs. However, the full potential of the BHDC has not been achieved due to major challenges in implementation including COVID-19 related disruptions, staff turnover, and competing priorities. These challenges are offset by the fact that the BHDC is embedded and being taken forward by the DHSMEQA but represent major risks to the sustainability of the BHDC. Stakeholders therefore stressed the need to strengthen mechanisms for distributing responsibility for certain actions amongst stakeholders and improving accountability.
- There is a need for the HDC global platform to strengthen its approach to country engagement. Progress towards improved technical and financial alignment, and improved country capacity to strengthen HIS are mainly attributable to the BHDC without financial and technical support from the HDC. The global HDC's value add in terms of disseminating global public goods and as a knowledge-sharing platform has also been limited. Country stakeholders suggested that they would benefit more from global meetings where more engaged discussion and feedback related to specific challenges was possible, especially with stakeholders from different countries. They also suggested focused and prioritised actions needed to be identified at the global level, with clear milestones and timelines established such that the HDC could communicate a vision of formalised coordinating platforms at the country level more strongly.
- This case study is quite unique, as it showcases an example of a country where there was strong political buy-in for the ideas and principles of the HDC despite not receiving any political and financial support. As result, it is important to highlight the limited generalisability of this case study. Botswana had the capacity to independently establish a BHDC based on the concept and principles, because of strong domestic resources invested in health. In other countries, resources would be needed simply to support a coordinating body and WGs.

A.5. RECOMMENDATIONS

- There is a need to rebuild momentum within the BHDC and improve operationalisation of the BHDC Roadmap. Stakeholders highlighted that while planning around HIS/M&E strengthening had been strong and had garnered significant political momentum initially, there have been major challenges in implementation due to COVID-19 related disruptions and staff turnover. TWGs are meeting very irregularly, the scope of the work of the BHDC compared to the new Digitalisation Project is unclear, important structures such as the Steering Committee and district-level HDC has not been established, and progress against the Roadmap has been somewhat limited. Stakeholders stressed the need to strengthen mechanisms for distributing responsibility for certain actions amongst stakeholders and improving accountability.
- Stakeholders recommended that HDC global strengthen its engagement in countries.



- Improved communication- Despite the existence of a BHDC, stakeholders had limited visibility on the activities of the global HDC. They emphasised the need for the HDC to more strongly communicate its vision with regards to country-led formalised coordination in HIS/ M&E.
- Changes to meeting structures- Stakeholders suggested that the HDC should aim to host more physical meetings outside of Geneva, to foster participation by country stakeholders. They also suggested that the HDC shift away from a model in which country stakeholders are invited to present on good practices, which brings little benefit to the presenters themselves without any kind of follow-up. Instead, stakeholders suggested meetings should be organised to allow greater opportunity for feedback on challenge areas and discussion with stakeholders from different countries. They felt that the link between country level and global TWGs should also be strengthened through two-way communication.
- Clarify how Global HDC can support countries- Additionally, stakeholders felt that while aligning to country priorities is important there was a need for the HDC to further unpack and develop its objectives to create a clear workplan at the global level. A clearer understanding of the role and activities supported by the HDC would allow for a mixture of bottom-up and top-down technical assistance: where the HDC on the one hand responds to direct country requests (although it may not have the comparative advantage in this area compared to other organisations with funding, etc.), and on the other hand sheds light on areas which country stakeholders may have little previous exposure to but which could provide helpful solutions to challenges (given the breadth of technical expertise housed within the HDC, this may be an area where it does have a comparative advantage.) Stakeholders also suggested that the global HDC should develop tools and templates to support the adaptation of global HDC principles to country contexts, as well as the process for establishing a country coordinating mechanism.
- WHO AFRO served as an entry point of the HDC concepts and principles in Botswana, and stakeholders recommended that regional engagement be further strengthened. Given that HDC does not have country presence, stakeholders suggested that a regional focal point would provide greater understanding and visibility on local context and challenges in country. They would also help increase acceptance of the HDC, because of a greater understanding of how to communicate with stakeholders at the country level. This would help the HDC to potentially scale-up, and gain traction in a larger number of countries. Additionally, a regional focal point would facilitate the HDC and partners responding to requests for TA at the regional level where appropriate, taking a more comprehensive approach rather than implementing stop gap approaches at the country level.



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A.7. LIST OF STAKEHOLDERS INTERVIEWED

Table A.1: List of country level stakeholder consultees for Botswana

Organisation	Name	Position
WHO Country office	Tebogo Madidimalo	Head of Communicable Disease cluster
Department of Health Systems, Monitoring & Evaluation, and Quality Assurance (DHSMEQA), Ministry of Health and Wellness	Onalenna Kgogwe	Deputy Permanent Secretary
DHSMEQA	Judith Nawa	Director
DHSMEQA, Health Informatics Unit	Tony Cheboni	Chief Health Officer of Health Informatics Unit, Digital Health TWG Secretariat
DHSMEQA, Health Statistics Unit	Mary Mmakuotso	Health Data Processor, Health Statistics Unit, CRVS WG
DHSMEQA, Monitoring & Evaluation Unt	Patrick Tema	M&E Specialist, Data and Information Use TWG Secretariat (part of all WGs)
DHSMEQA, Customer Care Unit	Siwulani Sebetso	Chief Health Officer, Quality and Safety of Care TWG
Bummhi	Kagiso Sebina	Project Director, Strategic Information, Digitalisation WG
Bummhi	Boago Shimane	M&E Specialist, CRVS WG



Organisation	Name	Position
Palladium	Tom Lere	Health Informatics Manager (Health Information Exchange & eHealth Enterprise Architecture), Digital Health TWG



Appendix B CAMEROON CASE STUDY

This appendix presents the summary findings from the Cameroon case study. It has been developed based on (i) stakeholder consultations (Section B.6. includes a list of consultees) and a review of documentation and data (Section B.5 includes a bibliography).

B.1. BACKGROUND INFORMATION AND CONTEXT

B.1.1. Key country characteristics, with regards to data systems

Cameroon's 2016-2027 health sector strategy (HSS)¹⁸ envisages reforms to enable the progressive adoption of universal health coverage (UHC) in the country. The HSS was developed in response to challenges related to the verticalization of the health information system (HIS), the existence of a multitude of data subsystems supported by partners, and data collection tools with more than 300 indicators. The Ministry of Health (MoH) does not have a broader strategy¹⁹ for the Health Information System (HIS) but has developed a digital health strategy for 2020-2024.

The digital health strategic plan²⁰ is led centrally by i) the Directorate of HealthCare Organisation and Medical Technologies, responsible for quality assurance of medical equipment, ii) the Information Technology Unit tasked with implementing the MoH IT master plan, and iii) the Health Information Unit (HIU) which establishes the databases and collects and processes statistical health data. These three structures have clearly defined missions in the MoH organisational chart but lack a framework for coordinating their interventions. The HIU operates in collaboration with the National Public Health Observatory (NPHO). In addition to these structures, the Division of Operational Research (DROS) promotes data generation through operational research and disseminates the research results, translating them into actionable recommendations to the MoH. The National Institute of Statistics (NIS) supports the conduct of population surveys and data analysis. Finally, the Division of Cooperation (DCOOP) coordinates the activities of all partners in the health sector, irrespective of whether those activities are related to HIS or not.²¹

The 2020 Survey, Count, Optimise, Review, and Enable (SCORE assessment)²² found that Cameroon performed strong compared to other African countries in terms of the review of health sector progress and performance, with high quality analytical reporting on health sector progress done regularly and particularly strong capacity within the NIS to implement surveys and analyse data. Population based surveillance was also rated that the MoH has sustainably high capacity in the use of data for review and progress monitoring of the health system, with more capacity at the NIS to implement surveys and analyse data. Cameron was also rated as higher capacity than 45% of African countries in terms of enabling data use for policy and action, with well-developed and evidence driven policy and planning. The District Health Information System 2 (DHIS2) is the main platform for transmission of health data collected from the health facilities, and the country has improved system capacity for regular population-based surveillance, having conducted 4 population surveys (MICS, PHIA, bed net use, adult tobacco survey) in the past 5 years.

The SCORE assessment also found major limitations in the data system, including a lack of data from population census in the past 10 years, no data on death registration, no data on certification and causes of death, no compulsory registration of deaths, no collaboration between state agencies for civil registration and vital statistics

¹⁸ Ministry of Public Health. 2016. Health Sector Strategy 2016-2027.

¹⁹ UNICEF & Health Data Collaborative. Assessing partners alignment in support of the Health Information System in Cameroon.

²⁰ Ministry of Public Health. 2020. The 2020-2024 National Digital Health Strategic Plan.

²¹ Ministry of Public Health. Organizational Chart of MINSANTE. https://www.minsante.cm/site/?q=fr/organigram-vue

²² World Health Organization. March 15, 2021. SCORE Assessment Summary-Cameroon.



and poor systems for health facility reporting and patient monitoring. Despite the availability of DHIS2 there is no centralised and highly secured system that enables data synchronisation and oversight of the health sector in Cameroon.

B.1.2. HDC country support and engagement

In September 2016, the idea of the Cameroon HDC (CHDC) was born following the Measurement & Accountability Summit in 2015. The initiative was supported by the WHO, NPHO, HIU and DLMEP, as well as the CDC and GIZ. Following several in-country technical meetings, this group expressed their desire to join the HDC network and align itself with the global HDC platform.

In December 2016 with over 90 partners present, the CHDC was launched in Yaoundé.²³ The key messages of the initiative centred on minimising duplication, bringing resources together, supporting the need for high quality data, and having every partner on board for an improved health data system. The CHDC provided a platform where all partners (despite their individual organisational goals and targets) involved in producing health-related data could come together to discuss a central vision for the health data system, and support and encourage practices aimed at reducing reporting burden and making data more available and useful for decision making.

The CHDC is comprised of the general membership group, a coordinating committee, focal points (made up of representatives from participating organisations), and four thematic working groups focused on: (a) harmonisation and standardisation of indicators and tools, (b) data collection process and quality assurance, (c) data analysis, use and data sharing, and (d) HIS strengthening. The NPHO bears the core coordinating function for CHDC activities, working in collaboration with the HIU and the DLMEP. The CHDC held quarterly meetings following its initial launched but in 2018, they resolved to meet at least once every two months, which stakeholders confirmed is still being implemented.²⁴ Key participating partners include the WHO, CDC, GIZ and the UNFPA.

The HDC Secretariat also engaged with the CHDC after its launch, through country retreats and virtual calls during which a follow up review of the activities of the CHDC was conducted and recommendations for key HIS priorities made. The CHDC participated in two HDC conferences in Geneva, in 2018 and 2022.

In 2018, the work plan of the CHDC²⁵ was developed with three objectives; 1) "enhance country capacity to monitor and review progress towards the health-related sustainable development goals (SDGs), 2) "improve efficiency and alignment of investments in health data systems" and 3) "increase the impact of global public goods on country health data systems through increased sharing, learning and country engagement". Inspired by information on health data fragmentation in Cameroon that was presented in 2018 during the HDC meeting in Geneva, the CHDC held high level meetings at national level to sensitise partners on the need to align investments in the data system.²⁶

Through the advocacy of the CHDC, harmonised data collection tools were produced, and all health facility data became integrated into the DHIS2 by the HIU in 2018²⁷. Although a previous version of DHIS (DHIS1) existed in Cameroon prior to 2016, it did not capture all health facility data (including mortality data, and data from the HIV programme).²⁸ During CHDC meetings, global discussions were made among global partners on aligning resources to support the DHIS2 expansion. Various international partners provided different voluntary support functions to the CHDC including:

²³ Health Data Collaborative (HDC). 2016. Report of the Launch of Cameroon HDC (CHDC).

²⁴ Cameroon HDC. 23-26 May 2018. Retreat Resolutions.

²⁵ Ministry of Health. March 2018. Cameroon HDC Deep Dive. Notes for the Record.

²⁶ Ministry of Health & CHDC. Gouvenance des donnes et du numerique

²⁷ Ministry of Health & CHDC. Gouvenance des donnes et du numerique.

²⁸ Ministry of Health & CHDC. Gouvenance des donnes et du numerique



- In 2017, the WHO supported the NPHO in developing a reference list of key health indicators adapted for the Cameroon context²⁹
- In 2018, the CDC supported the rollout of the DHIS2 and collaborated with the University of Oslo (a member of the global network of HDC) to leverage expertise to improve DHIS2 system.
- GIZ provided support to reduce data system fragmentation, by reviewing the data quality review guidelines and framework and piloting a harmonised data quality review.

B.2. KEY FINDINGS

B.2.1. Pillar 1: Relevance and coherence

Relevance of the "re-orientation" of the HDC 2018-19

In Cameroon, the awareness of the HDC and its objectives is revealed to be poor among stakeholders. Apart from a few (mainly international) partners, most stakeholders lacked knowledge and understanding of the HDC objectives. Consultations revealed a convergence of opinions among most stakeholders that the HDC and the detail about its mandate is not clear. What it is supposed to be doing and the question of how it should better function was unclear to many stakeholders. One stakeholder expressed that "most often we will just hear about health data collaborative but were not informed about it".

More informed stakeholders think that the objectives of the HDC generally makes sense but do not see how they can be achieved. A few stakeholders with advanced understanding of the HDC thought that the objectives generally make sense, but the initiative needs clear operational aims and more concrete objectives. When asked about the extent to which the HDC is capable of achieving its objectives, one stakeholder said: "Sometimes we discuss but we do not really say we want concrete changes about the management of health data in Cameroon". Stakeholders viewed objective 1 positively, but expensive and questioned the extent to which capacity strengthening could be done by the HDC. They further explained that there are offices in the MoH with clear responsibilities to build capacity for data systems e.g., HIU for DHIS2. A stakeholder expressed that the HDC could frame objectives that aim at capacity strengthening by focusing on gaps not covered by project specific investments, for example capacity strengthening in data consolidation and integration. Also, some stakeholders think capacity strengthening should be specifically directed outside the MoH. The second and third objectives are also viewed as not concrete enough and difficult for the HDC to achieve. Stakeholders expressed that there was a need to specify concrete actions and investments which offer potential for alignment to achieve objective 2. With regards to objective 3 of the HDC, the 100 key health indicators were adapted from the WHO reference list for the Cameroon context.³⁰ However, the monitoring reports of the 100 key health indicators in Cameroon for 2017³¹ and 2019³² state that the WHO provided technical support to the MoH for the adaptation of the reference list of health indicators, and the HDC was not mentioned in any of these publications.

Value add of support from the HDC

Stakeholders were consistent in their views that the CHDC added value by contributing to a vision for the health data system in Cameroon. Stakeholder remarked that for the first time, the CHDC has brought together partners involved in health data production. It has helped "reignite discussions among partners and served as a hub to address certain questions or launch discussions about data systems". Through the CHDC, partners have shared their visions about the data system and data sharing. An outstanding example of the value add of the HDC is improved data sharing between the MoH and the national bureau of civil registration (Bureau Nationale d'Etat Civil

²⁹ Ministry of Public Health. 2020. The 2020-2024 National Digital Health Strategic Plan.

³⁰ Ministry of Health & CHDC. Gouvenance des donnes et du numerique

³¹ Rapport 2017 de suivi des 100 indicateurs clés de Santé de la République du Cameroun. Yaoundé

³² Rapport 2019 de suivi des 100 indicateurs clés de Santé de la République du Cameroun. Yaoundé



(BUNEC)). The CHDC connected the two state offices and now, the MoH shares HF data collected on birth registration with BUNEC which helps to reduce duplication and reporting burden. This data-sharing was not in place before the introduction of the HDC initiative in Cameroon. Below are more stakeholder illustrations of the value-add of the CHDC.

- Partners now conduct joint health facility surveys that reduce the burden of reporting using harmonised data collection tools. This is attributed to the contribution from CHDC platform- in advocating for the alignment of programmes and the integration of data collection tools during meetings of the CHDC³³.
- The CHDC has improve data sharing, helping in the elaboration of the various country profile reports.
 These national documents are not specific products of the HDC but are produced with contribution of the CHDC.
- The need for evidence-based decision making is better understood, due to the advocacy of the HDC.
 Multiple actors within and outside of the MoH now understand the need for high quality data to take decisions.

Stakeholders expressed the global HDC platform has had a limited role in supporting the functioning of the CHDC after its launch. The HDC Secretariat engaged with the CHDC shortly after its launch, through country retreats and virtual calls during which a follow up review of the activities of the CHDC was conducted and recommendations for key HIS priorities made. Since this initial period however, the global HDC platform has had limited engagement with the CHDC, apart from inviting the CHDC to attend two HDC conferences in Geneva. Invitations to the HDC conference were limited to two senior MoH personnel who were supported by the WHO to attend however, whereas members of the CHDC working group had no opportunity to attend global events, limiting the reach of this engagement.

B.2.2. Pillar 2: Efficiency

Efficiency of the HDC governance and operational structure

Some stakeholders attributed poor in-country knowledge of the HDC and its objectives, and insufficient communication within the platform to weak governance of the global HDC. Stakeholders thought that the HDC secretariat should improve advertising strategies to increase the awareness of the HDC in countries.

With regards to the CHDC, stakeholders pointed to the high turnover of personnel taking part in the CHDC meetings and working groups as a challenge. Some stakeholders believe that a legal context for the HDC in Cameroon will be vital for the survival of the CHDC. There was an opinion that the government of Cameroon should formally create a national working group for the HDC by decree and/or service notes.

All stakeholders shared similar view on poor functioning of the CHDC working groups (WGs). This was thought to be linked to a lack of funding for their meetings, turnover of working group members and poor motivation of the working group and focal points. Some stakeholders thought that the government should formally commit WG members to HDC activities which they could include in their work plans.

The inclusiveness of CHDC WGs was viewed as a strength. To improve inclusiveness in the working group, actors outside of the MoH are included in the CHDC working groups. The WGs comprised of i) the MoH partners (WHO, GIZ, MaSANTE, Global Fund, CDC, VITAL strategies), ii) members from MoH structures (DLMEP, HIU, IT unit, DROS, DPML (Department of Medicine and Laboratory), National AIDS Control Committee, Malaria Programme, TB programme) and iii) National stakeholders outside the MoH (from Ministry of Territorial Administration (MINAT), Ministry of Agriculture and Rural Development (MINADE), National Institute of Statistics, Police, Gendarmerie).

³³ CHDC. 23 May 2018. Notes for the record.



B.2.3. Pillar 3: Effectiveness, sustainability, and impact

Extent to which the HDC has achieved its objectives.

Historical challenges with regards to data systems in Cameroon led most stakeholders to believe that simply bringing partners together has been a key achievement of the CHDC. The CHDC successfully convened all partners producing health data to discuss and share opinions and approaches about health data collection, analysis and use in Cameroon, including various units collecting data in the MoH, international partners, and actors traditionally outside of the health sector such as the police and military. Stakeholders revealed that prior to 2016, actors like the police and gendarmes who collect data on injuries, mortality, and other health events on the national roads and in some communities were not involved in the health data systems. Furthermore, the CHDC led to the establishment of a database of all NGOs and major health actors in the country, including their spectrum of activities, and the creation of working group made up of focal points in different institutions cited above (although as discussed in Section B.2.2 WGs are not functioning efficiently).

The platform of partners is believed by stakeholders to have improved utilisation of resources. Partners with greater resources available have directed more funding towards CHDC workshops, meetings, or trainings. For example, the WHO financed the meetings for the elaboration of the 2018-2019 work plan of the CHDC. Also, GIZ financed the review and pilot of the health data quality review guidelines in the West Region of Cameroon as a contribution for the CHDC.

All stakeholders agreed that the platform has successfully advocated for data sharing in the interest of national priorities. For example, i) the MoH and the National Bureau of Civil Registration now share data collected from health facilities and ii) the Situation Report (SITREP) is now shared every month, and the epidemiologic bulletin shared every 3 months, by the DLMEP. Without the CHDC, stakeholders believe this data sharing would not have occurred.

The quality of data collection and harmonisation has improved. Stakeholders revealed that since 2018, structures in the MoH, Ministry of Territorial Administration (MINAT), BUNEC, police and gendarmeries have been involved in health-related data collection. Among these structures are institutions (MINAT, police and gendarmerie) that prior to the CHDC were traditionally not engaged in health data collection. Stakeholders revealed that data availability has improved, and data collection in health facilities is harmonised using the health facility survey tool. The contribution of the CHDC was mainly in the form of high-level sensitisation on the need to align investments for the data system. Following a presentation on a fragmented data system in Cameroon during the HDC meeting in Geneva, the CHDC sensitised actors in a campaign to nationally launch the DHIS2 as the main tool for health data reporting from health facilities with integrated data from all programmes. The tools themselves are a function of the HIU in the MoH rather than a product of the CHDC however.

Despite these achievements, stakeholders raised multiple challenges.

- Firstly, partners have their action plans that do not incorporate CHDC activities. Partners tend to focus on their organisational objectives and put less effort into the CHDC activities.
- Secondly, generally CHDC meetings were holding but due to lack of funding, the working groups had
 irregular meetings and were difficult to coordinate. Many actors are therefore less aware of the objectives
 and mandate of the CHDC.
- Thirdly, complete data is still a challenge to get especially data coming from the community. The desk review³⁴ and stakeholder interviews revealed that registration of death and causes of death is not mandatory, causing it to be deprioritised.³⁵ Civil registration clerks are reported to be poorly trained.

³⁴ World Health Organization. March 15, 2021. SCORE Assessment Summary-Cameroon.

³⁵ World Health Organization, March 15, 2021, SCORE Assessment Summary-Cameroon.



Stakeholders think the CHDC should collaborate with the concerned stakeholders to address such issues and provide necessary technical support to fill this gap.

The role of the global HDC platform in progress described above is perceived as being quite limited in Cameroon outside of giving the impetus for the launch of the CHDC. When asked about what support the global HDC provided to enable the continued functioning of CHDC, stakeholders revealed that the global HDC platform did not regularly interact with the CHDC stakeholders currently. The global HDC was involved in the launch of the CHDC and engaged in the early phases of its establishment, however the global HDC has done little since then to support operationalisation. Stakeholders noted that the global HDC does have direct contact with the WHO CO, but mainly to request CHDC work plans.

In terms of participating in global events, a MoH stakeholder revealed that they have been invited by the global HDC twice (in 2018 and in 2022) to Geneva to take part in the global HDC meetings. This participation, sponsored by the WHO, was limited to one person per meeting, and only the Secretary General at the MoH and the NPHO Director attended. Stakeholders expressed this was the only support they were aware of having received from the global HDC platform and did not credit the global HDC platform for the achievements of the CHDC.

Extent to which the HDC platform and its activities are financially and programmatically sustainable.

The CHDC has no funding to finance its activities, and therefore relies on partners to support activities. Stakeholders see this as a major setback of the CHDC. For example, the elaboration of the CHDC work plan was supported by the WHO CO. However, while this work plan was adopted by the CHDC meeting, the CHDC has not been able to begin implementation due to lack of funds. The CHDC working groups exists but are not functioning due to lack of funding. While views are mixed on whether the CHDC should have funding of its own, most stakeholders believe that sustaining the platform at country level requires financing.

Extent to which the HDC has contributed to (i) the improved availability and quality of health data, aligned with national priorities and (ii) improved use of data for evidence-based decisions, budget making, monitoring and implementation of health-related SDGs.

Improved availability and quality of health data, alignment with national priorities

• Views are convergent on the convening role of the CHDC to improve data sharing among data producers. A few stakeholders' consultations and documents review revealed that CHDC advocacy has facilitated the harmonisation of data collection systems through the joint health facility survey, development and implementation of a data quality review framework, and launch of the DHIS2^{36,37,38.} Some stakeholders expressed that even though the CHDC advocated for the need to harmonise data collection tools, the harmonised tools were produced by the responsible unit (HIU) in the MoH, and not because the CHDC asked them to harmonise the tools. The CHDC played more of an advocacy and guidance role rather than an active role in these achievements.

Improved use of data for evidence-based decisions, budget making, monitoring and implementation of health-related SDGs.

 There is no evidence from documents and consultations to suggest that the CHDC has contributed to improvement in the use of data for decision-making, budget making and M&E of the health-related SDGs.

³⁶ Health data collaborative: global partners meeting 23rd-24th September 2020. Cameroon

³⁷ Ministry of Public Health. March 2018. Cameroon HDC deep dive. Notes for the record.

³⁸ Ministry of health: http://onsp.minsante.cm/en/cameroon-health-data-collaborative



However, stakeholders pointed out that through CHDC advocacy, the need for high quality data for decision making is well understood among actors.

B.3. CONCLUSIONS

- The CHDC was launched in 2016, shortly after the Measurement & Accountability Summit and in alignment
 with the global HDC platform. During the early stages of the design and establishment of the HCDC, the
 global HDC platform engaged more regularly with the CHDC, including through country retreats and virtual
 calls during which a review of the activities of the CHDC was conducted and recommendations for key HIS
 priorities were developed.
- The CHDC has played an important role in facilitating convening of HIS stakeholders, leading to some improvements in data sharing and availability as well as strengthened coordination between different MoH units and involvement of actors outside the MoH not traditionally involved in data collection in the health sector. However, the global HDC is viewed as having played a less visible role in ongoing support for the operationalisation of the CHDC since then and stakeholders do not consider that there has been a strong contribution of the HDC platform to the success of the CHDC besides providing some momentum as part of the launch.
- Most stakeholders were unaware of the HDC objectives. The few HIS stakeholders with a good
 knowledge of these objectives agree that they are relevant but feel that they are too broad to be actionable,
 and that the HDC has no to limited power to implement them.
- Since 2016 there have been improvements to the HIS in terms of implementation of harmonised data tools, data quality reviews, joint health facility surveys and roll out of DHIS2 in Cameroon. The CHDC has mainly played an advocacy role in these advancements, sensitising stakeholders of their importance.
- The CHDC WGs are functioning poorly, because of a lack of resources. Operationalisation of the workplan by the CHDC is limited by a lack of resources including funding, but also human capacity due to staff turnover and competing priorities.

B.4. RECOMMENDATIONS

- The CHDC should develop clear operational aims: The CHDC should develop key operational aims, annual work plans with timelines, and SMÁRT objectives around identified gaps in the country data system. The HDC objectives should not be the same for each country in the Global South. As a platform, a country situational analysis to identify specific gaps in technical capacity and high-level consultations could be conducted to guide country-specific operational aims and work plans. Capacity building which fills specific gaps could then be prioritised (including technical support provision to partners producing and using data outside of the MoH such as in academia).
- Invest to raise awareness of HDC and provide more opportunities for South-South learning: There is a need for increased awareness of the CHDC among stakeholders, including its mandate and objectives. This advocacy effort should begin at the global level and include opportunities for South-South learning so that the CHDC could learn from other countries through participation in HDC events.
- Develop innovative ways to improve voluntary participation: CHDC should explore innovative ways to
 motivate stakeholders' engagement in the HDC working group activities. The strategy should consider not
 only the interest of the HDC but also the personal career aspiration of the working group members. For
 example, stakeholders in key data management positions could be offered training in software of interest,
 which can motivate participation in working group meetings.
- Make available a minimum budget for CHDC: A minimum of budget should be sought for the CHDC and the working groups. Stakeholders think the government budget should include financial support for the



HDC. Alternatively, the CHDC platform could consider gathering voluntary contributions from partners to enable ongoing meetings and working group activities of the HDC.



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Ministry of Public Health & Health Data Collaborative. Gouvenance des donnees et du numerique



B.6. LIST OF STAKEHOLDERS INTERVIEWED

Table B.1: List of country level stakeholder consultees for Cameroon

Organisation	Name	Position
BUNEC (Bureau National d'Etat Civil- National Bureau of Civil Registration)	Mr Ottu Ottou Prosper	Director of Information Systems
BUNEC (Bureau National d'Etat Civil- National Bureau of Civil Registration)	Toumbai Japonais Fils	Director at BUNEC
BUNEC (Bureau National d'Etat Civil- National Bureau of Civil Registration)	Tatah Peter Ntaimah	Retired Director at BUNEC
MoH-Department of Disease Control, Epidemics and Pandemics (DLMEP)	Theodore Ntamack	IT Expert and Focal Point for CHDC at DLMEP
National Public Health Observatory (Observatoire Nationale de la Sante Publique)	Dr Bello Djamila Epse Mohamadou	Director of the NPHO
Deutsche Esellschaft Für Internationale Zusammenarbeit (GIZ) Gmbh	Dr Juilus Murke Caspa	Specialist, Management and Health Information System Strengthening
MoH-Cellule d'Information Sanitaire (Health Information Unit (HIU))	Mr Guy Ekani	Assistant to the Director at HIU
MoH- Computer Department	Mr Guy Emmanuel Batoum	Head of IT Unit
United Nations Childrens' Fund (UNICEF)	Dr Belyse Halmata Ngum	Medical Doctor at UNICEF
World Health Organization CO- Cameroon	Dr Gatcho Modeste	Health Information System Expert
World Health Organization CO- Cameroon	Ms Alupo Loy	Strategic Health Information Officer



Appendix C MALAWI CASE STUDY

This appendix presents the summary findings from the Malawi case study. It has been developed based on (i) stakeholder consultations (Section C.6. includes a list of consultees) and a review of documentation and data (Section C.5 includes a bibliography).

C.1. BACKGROUND INFORMATION AND CONTEXT

C.1.1.Key country characteristics, with regards to data systems

Healthcare services in Malawi are delivered at the community, primary, secondary, and tertiary level by the Ministry of Health (providing 60% of services), the Christian Health Association of Malawi (faith-based and not-for-profit providing 39%), and a small remaining contribution by non-governmental organisations and the private for-profit health sector. The goal of the health sector's strategic plan (HSSP II and HSSP III) is to move towards Universal Health Coverage of quality, equitable and affordable health care.³⁹

At the national level, HMIS activities are currently coordinated by the **Central Monitoring and Evaluation Division (CMED)** and **Digital Health Division (DHD)** which are part of the Department of Planning and Policy Development (DPPD) within the Ministry of Health. CMED is responsible for data management, whereas DHD develops and maintains ICT tools and infrastructure. At district level, HMIS is being implemented by District Health Management Teams (DHMTs) and HMIS focal persons. The National Registration Bureau, National Statistics Office, and Quality Management Division are also involved in data management and use, in addition to specific health and research programmes within the government which produce and use data.⁴⁰

Malawi has made progress over the last decade in improving health-related indicators and access to services and is generally considered to be a data-rich country despite limited infrastructure and human resources. Malawi's UHC Service Coverage Index was estimated at 48% in 2021, comparing favourable to other low-income countries (average 42%) and Sub-Saharan Africa (average 43%). The 2020 WHO SCORE assessment rated Malawi as having a higher capacity than 68% of African countries in population surveillance and 83% of countries in enabling data use (Malawi was rated as average or lower capacity on CRVS, optimisation of health service data, progress and performance review). Pata Subject of the programme of the Department of HIV and AIDS, the data management tool for the programme on immunisation, commodity management system, etc. are gradually being integrated into the central DHIS2 platform. According to a recent HIS rapid assessment conducted by the Country Health Information Systems and Data Use programme (CHISU), since 2015 there have also been notable improvements in terms of government leadership in HIS/M&E, improved financing for HIS/M&E, and stronger guidance through development of relevant policies and strategies in Malawi.

However, HIS has historically been fragmented, preventing health workers and decision makers from using data sources to improve service quality. Despite progress made in the last decade challenges persist. CRVS remains

³⁹ CHISU, 2023, Rapid HIS Assessment

⁴⁰ CHISU, 2023, Rapid HIS Assessment

⁴¹ Global Health Observatory, 2023, World Health Organization. Accessed 06/07/2023.

⁴² WHO SCORE, 2020

⁴³ Note that WHO SCORE is based on data from 2013-2018, and therefore somewhat outdated.

⁴⁴ CHISU, 2023, Rapid HIS Assessment

⁴⁵ Policies and strategies regulating M&E/ HIS include the Health Sector Strategic Plan II (2017-2022), Monitoring, Evaluation and Health Information System Strategic Plan (2017-2022), Digital Health Strategy (2020-2025), Health Sector Strategic Plan III (2023-2030), and National Indicator Handbook (2018). See Section A.8 (Annex 3) for further information.



weak, with 67% of births registered and no data available on registration and reporting of cause of death according the 2020 SCORE assessment.⁴⁶ Additionally, excessively high data collection and reporting burden, fragmentation and parallel vertical reporting systems, limited human resources and capacity to collect and analyse data at the facility and district level, lack of functional electronic registries leading to manual transfer of paper reports to district offices for DHIS2 entry, and limited interoperability of digital systems negatively impacts data quality, lessening trust in its use for evidence-based decision-making.^{47,48}

A brief overview of Malawi's Health Management Information System is provided in Table C.2 in Annex C.7.

C.1.2.HDC country support and engagement

- In 2015, there was significant internal and external political momentum to address issues related to HIS leading to a more formalised and structured approach to HIS / M&E building on HDC principles. MoH representatives attended the Measurement & Accountability Summit in Washington D.C. in June 2015. Shortly after, Malawi was selected as a pathfinder country by the newly launched HDC. At the country level, this resulted in the integration of a "Malawi HDC" coordination platform within an existing M&E Technical Working Group (TWG) led by CMED. The M&E TWG adapted HDC principles and was responsible for coordinating work across partners in HIS and ensuring close alignment of activities with government priorities. The M&E TWG brought together government stakeholders and around twenty development partners⁴⁹ and was also point of contact for engagement with the HDC Secretariat. The CMED team received substantial support from HDC partners including through short-term consultants as well as longer-term embedded TA staff. In parallel, there was a general push towards supporting stronger coordination and enhancement of the data system in Malawi. This was partly driven by the introduction of the SDGs which had reinforced the need to effectively monitor health sector progress as well as increased partner engagement in this space with Global Fund, PEFPAR, DFID, and the Bill & Melinda Gates Foundation increasing resources earmarked for M&E improvements in Malawi.^{50,51}
- 2015-2018 is the period in which HDC was most active, engaged and visible in Malawi in terms of both the global and country platform. This was evidenced by the existence of an M&E TWG/ Malawi HDC workplan for 2016⁵², strengthening of the M&E TWG through secondment of technical advisors to CMED, multi-stakeholder efforts to develop the National Indicator Handbook and M&E and HIS Strategy, mapping of partner investments HIS/ M&E amounting to \$23.1M, implementation of harmonised data quality reviews, and integration of data into DHIS2, as well as regular national and global meetings. ⁵³⁵⁴ During this period, there was bilateral engagement between a programme officer within the HDC Secretariat and the M&E TWG. In the country, activities were primarily driven forward by technical and financial support from partners including the WHO, Bill & Melinda Gates Foundation, the Global Fund, CDC, and PEPFAR. There were also several 'champions' within the MoH who were remembered for having been critical in pushing

⁴⁶ WHO SCORE, 2020

⁴⁷ CHISU, 2023, HIS Assessment

⁴⁸ Government of Malawi, 2023, HSSP III

⁴⁹ Partners included the Bill and Melinda Gates Foundation, GIZ, Vital Strategies, WHO, UNICEF, UNFPA, USAID, CDC, the Global Fund, PEPFAR, DFID among others.

⁵⁰ HDC, no year, Malawi Country Case Study

⁵¹ Tyler Smith, Global Fund, 2015, Achieving a Unified System for Monitoring and evaluation of the Health Sector in Malawi

⁵² M&E TWG, 2016, Priority Actions

⁵³ Ministry of Health, 2018, M&E and HIS Strategy

⁵⁴ Ministry of Health, 2018, National Indicator Handbook



forward key HDC principles. These champions were primarily technical advisors supported by HDC partners. ⁵⁵

- From 2018 to 2022, there was a gap in engagement with the HDC. The M&E TWG led by CMED continued to function (with operational challenges in implementing MEHIS discussed further below) but with aspects around digitalisation being taken forward by the Digital Health sub-TWG shifted to sit underneath the new DHD at the MoH. During this period, the DHD as well as the Quality Management Department led development of a digital health strategy in 2020. The government received technical support from partners such as the Bill & Melinda Gates Foundation, UNICEF, GIZ, Vital Strategies, CDC, and the WHO amongst others (including support for the use of WHO's global strategy on digital health) to develop a national digital health strategy. The two TWGs were involved at the country level. Stakeholders did not identify any additional support specifically from the global HDC platform in its development, however. With regards to engagement with the global HDC, in 2021 CMED participated in an international HDC conference to present a progress update. Stakeholders participated in an ad-hoc manner in HDC SRG meetings and WG meetings.
- In June 2022, a joint mission was organised focused on CRVS and GIS by SDG GAP and HDC
 including the CRVS WG and supported by WHO, UNICEF, and UNFPA. Through this mission, a white
 paper with recommendations for strengthening CRVS and GIS was developed by the partners in
 collaboration with WHO.

A more detailed list of HDC activities and partner contributions can be found in Section C.8.

C.2. KEY FINDINGS

C.2.1.Pillar 1: Relevance and coherence

Relevance of the "re-orientation" of the HDC 2018-19

All stakeholders consulted supported the mission and principles of the HDC, which were embedded into the Ministry's way of working following the Malawi HDC launch in 2015. Stakeholders involved in establishing the "Malawi HDC" through the TWGs, stressed that the principles of the global HDC were integrated into the MOH's approach with a strong focus on technical and financial alignment of partners around a single health sector plan, with an accompanying M&E / HIS strategy and budget. The "one plan, one budget, and one reporting framework" championed by HDC was regarded as crucial for strengthening M&E/ HIS in Malawi, reducing fragmentation of systems and reporting burden, and increasing access to quality data. At the country level, creation of the Malawi HDC fulfilled demand around country-led formalised coordination in the HIS/ M&E space.

Stakeholders were unaware that there had been a reorientation of the global HDC in 2018, but generally supported the three objectives of the HDC. Increased financial and technical alignment, country capacity to strengthen M&E/ HIS, and impact of global public goods all met needs relevant to the Malawi context. However, stakeholders were unsure about the HDC's comparative advantage in fulfilling these objectives, discussed further below.

Value add of support from the HDC

Multiple stakeholders felt unable to comment on the value-add of the HDC given low visibility. There was some confusion amongst stakeholders around what was an HDC-supported activity versus support from individual partners including the WHO, making attribution challenging. Additionally, given that creation of the Malawi HDC

⁵⁵ HDC, 2020, Malawi Country Position

⁵⁶ Malawi Ministry of Health, 2020, National Digital Health Strategy (2020-2025)



leveraged the existence of the M&E TWG as the primary coordinating body, the HDC Malawi platform is not recognised as being differentiable from government structures.

Among stakeholders who were aware of the HDC's mandate and more heavily engaged, most stakeholders failed to identify a strong tangible value-add and comparative advantage of the HDC in its current form. This relates to direct support provided by the global HDC, and value add of the "Malawi HDC" above and beyond what would have occurred anyways through government coordination. Stakeholders interviewed felt that the HDC in its current form is not in the best position to fulfil its objectives and does not have a comparative advantage compared to other organisations. In particular, the HDC was considered to lack (i) funding or at least the ability to effectively coordinate and support access to funding from HDC partners; (ii) country presence, or at the very least regular and close engagement with country stakeholders, to ensure that technical assistance is targeted, aligned with country priorities and sustainable with regard to follow-up activities. These aspects are discussed in more detail in the effectiveness and impact section below.

C.2.2.Pillar 2: Efficiency

Efficiency of the HDC governance and operational structure

A strength of HDC engagement in Malawi is that the CMED led M&E TWG was leveraged as coordination mechanism to serve as 'Malawi HDC'. This coordinating structure already included multiple government and partner stakeholders, but was strengthened and consolidated through the HDC. The M&E TWG used to meet on a quarterly basis and includes sub working groups, including the Equity TWG, Digital Health TWG, Community Data TWG, and Data Principles TWG.⁵⁷ CMED as the primary division originally responsible for implementation of HSSP II M&E and the M&E/ HIS strategy was also strengthened through HDC engagement and TA seconded by partners. Although this model of embedding the HDC within existing government structures decreased its visibility as a separate structure, it ensured that coordination with stakeholders as well as development of tools and strategies was government-led and avoided further duplication and fragmentation.

Internal political shifts and available resources affected efficiency of the Malawi HDC structures. In recent years there has been a weakening of the mandate, resources and technical capacity of CMED and the M&E WG affecting implementation of the M&E and HIS Strategy. In particular, the Digital Health Division has been strengthened relative to CMED, with much of the technical staff seconded by HDC partners to the Ministry of Health moving to DHD. The former sub-working group on digital health under the M&E TWG was also moved to become its own digital health TWG headed by the Digital Health Division. This restructuring took place over a number of years (and back-and-forth around responsibilities across MoH teams) leading reportedly to coordination issues and a lack of clarity regarding responsibilities, impacting implementation of MEHIS. In addition, donors often support specific disease programmes and departments who then feel ownership over investments even when directed into M&E and HIS as a whole- further splintering responsibilities and coordination. Without strong capacity and resource availability, the M&E TWG are meeting less frequently and outputs have been limited more recently. When the M&E TWG does meet, meetings are not very organised and long with agenda items often left outstanding at the end of meetings. COVID-19 further weakened government coordination structures. The WHO CO recently sought to address this gap and developed a workplan for 2023, however this was done without strong involvement of other partners and, by the time of writing, there has been no agreed way forward to integrate the workplan with other government and partner priorities.

At the global level, HDC current governance structures are not conducive to supporting the Malawi HDC. The following aspects were highlighted as limitations of the current HDC governance structure:

 There is currently limited engagement between country stakeholders and HDC global, and country stakeholders do not understand how to request support from the global HDC platform. At the time of the launch of Malawi HDC, there was a full-time programme officer working within the HDC Secretariat who

⁵⁷ Though engagement across these sub-groups has been much more sporadic and sub-working groups have changed over time.



coordinated closely with Malawi to understand the overall strategy and vision, priorities, identify areas where TA would be useful, and where global goods could be integrated. Stakeholders felt that a country presence, at a minimum through regular engagement with HDC Secretariat staff, would be a key prerequisite to making use of the HDC platform.

- The current website and TWGs were not considered conducive to identifying which global public goods would benefit Malawi and disseminating these to country stakeholders. While several stakeholders felt that the HDC could generally play a knowledge-brokering role, the current format of the website, TWGs and general country engagement was not seen as supporting the dissemination of global goods in a contextualised and digestible way (reflecting also overall of slower processes for communication between the HQ of organisations and country offices, but also of a lack of connection between the global WGs and national stakeholders).
- Although some stakeholders have participated in HDC Global Partner Meetings, SRG meetings, and WG meetings in an ad-hoc manner, views were mixed on whether these meetings are run in a way that maximises country benefit. Stakeholders felt that their role in the meetings apart from when specifically invited to present is unclear, and that opportunities to participate in a more in-depth way and communicate with other country stakeholders were limited or non-existed. The global WGs in particular were cited as having limited country participation, including in development of workplans and priorities.

Merger with SDG Gap data and digital accelerator supported the functioning of the HDC

The merger with the digital accelerator at global level had a positive impact Malawi, as the mission focused on CRVS/GIS included SDG GAP members notably UNFPA. Enhanced coordination between WHO and UNFPA, especially through the 2022 mission, was considered a positive outcome of the merger. However, given a context of low visibility around the HDC and SDG Gap there was limited awareness amongst stakeholders that a formalised merger had occurred.

C.2.3. Pillar 3: Effectiveness, sustainability and impact

Extent to which the HDC has achieved its objectives

Although there are examples of positive developments in Malawi's' HMIS attributed to HDC engagement, effectiveness is generally regarded to be limited. Stakeholders felt that an important limitation to effectiveness across all three objectives was the lack of clear action plan for both the national and global HDC, as well as clear outputs and deliverables tied to missions, trainings, meetings, and presentations. The extent to which the HDC in achieved progress towards 1) financial and technical alignment, 2) country capacity-strengthening, and 3) increased impact of global public goods is discussed below.

The benefits with regard to technical and financial alignment supported through the HDC have been most pronounced between 2015-18 but results directly linked to the HDC are more limited since then. National stakeholders pointed to three specific value-adds of the HDC which accelerated progress towards a unified M&E platform and improved coordination: (i) the Measurement & Accountability summit and initial HDC mission to Malawi helped to build interest amongst government stakeholders on a coordinated one strategy, one budget, and one measurement framework approach; (ii) coordination through the M&E TWG accelerated development of the various strategies and tools generated from 2015-2018; (iii) participation in the HDC brought higher-level engagement from partners and donors, including an increase in financial commitments. It is important to note however that while HDC was instrumental in building and maintaining political momentum around a unified M&E platform, it acted within a network of interest and support from government and partner stakeholder that already identified this area as needing support.

Key achievements in the 2015 to 2018 period as a result of better financial and technical alignment and increased political momentum include development of MEHIS, the National Indicator Handbook, integration of data systems into DHIS2, and implementation harmonised data quality reviews in a collaborative process with participation from



multiple stakeholders. Following the 2015-2018 period, Malawi HDC does not seem to have maintained the same momentum due to internal political shifts, continued use of vertical health programme funding and resourcing issues (see Section C.2.2 on efficiency above for details). Stakeholders continue to report issues related to fragmentation and a lack of coordination in HIS/ M&E, stating for example that HIS for the HIV/AIDS sector is far more advanced than the system as a whole due to donor support and funding. Thus, while some progress has been made with regard to technical and financial alignment this has not been sufficient to properly overcome some of the underlying challenges within the HIS space and, with the exception of digitalisation, there seems to be stalling with regard to the momentum to align and coordinate in the HMIS space, at least through HDC supported structures.

Beyond strengthening the M&E TWG as discussed above, there have been some examples of targeted strengthening of country capacity, but overall stakeholders considered that the lack of country presence and regular engagement has limited the effectiveness of the HDC in this regard. Stakeholders positively referenced technical support to the M&E TWG including inputting on key policy outputs especially between 2015-18, targeted trainings (e.g., IDC11) as well as the country mission (discussed below). However, overarchingly, it was considered that the effectiveness of provided TA has been too ad-hoc and, at times, was not targeted sufficiently to the country context and priorities. While most stakeholder considered a key potential value-add of the HDC at the global level to provide technical support (given the lack of being able to provide financial resources), they thought that other organisations are often better placed to provide that technical support – due to their country presence and/or ability to link technical guidance with financial resources (e.g., to fund consultants, TAs or more elaborated trainings). Additionally, some stakeholders are not aware of what the HDC can offer or of any avenues for requesting technical support from the collaborative.

The CRVS/ GIS mission organised by HDC/ SDG GAP was credited with improving engagement of stakeholders within the CRVS space and generating important insights – but to-date these insights have not been translated to any tangible changes. Prior to the mission, CRVS was funded primarily by UNICEF and the CDC and was considered to be mainly an initiative of the National Registration Bureau. The mission was effective in facilitating collaboration in the CRVS space by bringing on board the National Statistics Office and Ministry of Health, as well as partners and donors such as UNDP, UNICEF, UNPFA, and WHO. Additionally, the findings from the mission were well perceived and stakeholders agreed with identified next steps and priorities. However, aspects in the planning and follow-up of the mission limited effectiveness with regard to translating generated insights into tangible policy or resource changes. In particular, the following aspects have been flagged to have room for improvement:

- Misunderstanding on funding available of identified CRVS priorities. Through the course of the mission, national priorities in CRVS/ GIS were developed. National stakeholders thought that development of CRVS/ GIS priorities through the mission would then lead to direct investment through financial and technical resources in those priorities by the partners involved. It was only later that stakeholders realised this would not be the case. While this may have been due to a miscommunication, greater efforts to onboard national partners prior to the start of the mission might have pre-empted misaligned expectations. Besides expectation management, stakeholder also commented that the mission should have been planned from the start with the aim to support the raising of additional resources for the CRVS space.
- Delays in the output of the mission and insufficient planning to take generated insights forward. The white paper outlining recommendations and prioritised actions for strengthening CRVS/ GIS was finalised with Ministry endorsement in July 2023, one year after the mission. Stakeholders felt that as this was the primary output of the mission, efforts should have been made to capitalise on momentum garnered through the mission by having clear timelines that aimed for a timely release of the white paper. Additionally, it was felt that a clear action plan on next steps (including raising funding) should have been part of the initial mission planning, and that a tangible way forward has yet to be identified.
- The focus of the mission on CRVS/ GIS was not decided transparently with government stakeholders
 or partners at the country level. Some key stakeholders felt they were not given enough time to
 adequately prepare and felt that the mission was "top-down" and decided at the global level.



Global public goods had only a limited impact in strengthening HIS in Malawi, in part due to the lack of access and dissemination. Stakeholders involved in the development of government strategies from 2015-2018 pointed to the use of some global goods, including WHO's Reference List of 100 Health Indicators, WHO's harmonised Data Quality Review, and WHO's Global Strategy on Digital Health (used in the development of Malawi's Digital Health Strategy). Additionally, a minority of stakeholders also found assessment and alignment tools and studies to be a rich resource. However, the majority of stakeholders identified multiple barriers impeding access and therefore effectiveness of these goods. As highlighted in Section C.2.2, stakeholders were unsure as to how to access global goods and technical expertise available through the global HDC platform and WGs. Global public goods are not disseminated and contextualised sufficiently for country stakeholders through the HDC or partners. In particular, stakeholders emphasised that other partners (such as WHO) can be more easily approached with regard to technical guidance or best practices due to their country presence and can provide more detailed guidance tailored to Malawi's country context.

Extent to which the HDC platform and its activities are financially and programmatically sustainable

The principles of HDC continue to be applied at the national level in Malawi. The recently developed HSSP III is explicit in making digital health, HIS strengthening, and the approach of 'One Plan, One budget, One M&E framework" central to the GoM's strategy for making progress towards the SDGs. It is important to note that coordination, alignment and country-led approaches are not exclusively an HDC concept however and were being implemented simultaneously by other partners.

Embedding HDC within the M&E TWG of the Ministry of Health appears to be a strong model with regards to sustainability, but there are risks to sustainability including a weakening of CMED's M&E TWG. The M&E TWG continues to function as a coordinating platform eight years after its integration with the HDC which is a testament to the sustainability of the Malawi HDC. However, a redistribution of responsibilities across government departments, as well as a lack of human and financial resources within CMED and the DHD threaten the long-term sustainability of the MHDC (see Section C.2.2 on efficiency for greater detail regarding limited human and financial resources within the MoH). Although embedding the HDC within government structures fostered country ownership, it also places the MHDC at risk based on internal political shifts.

While the integration of HDC principles at the national level in Malawi is regarded as more sustainable, the current model of the global HDC platform has been criticised as unsustainable. The lack of physical presence, and clear follow-through actions limits the sustainability of any technical support provided by the global HDC platform. The CRVS/ GIS mission was critiqued in particular for being unsustainable, due to the lack of planned follow-through actions after the priority-setting exercise. Objective 6 of HSSPII around HIS, M&E and Research was 97% funded by external donors. A priority setting exercise without dedicated technical and financial resources in the follow-up is therefore unlikely to have any kind of sustainable impact. Additionally, stakeholders felt that some kind of physical presence or closer engagement was needed to understand the Malawi HIS context in order to meet country needs.

Extent to which the HDC has contributed to (i) the improved availability and quality of health data, aligned with national priorities and (ii) improved use of data for evidence-based decisions, budget making, monitoring and implementation of health-related SDGs

As has been discussed above, the concrete value-add of the HDC in Malawi and therefore impact was difficult for stakeholders to identify. As outlined in the effectiveness section, the achievement of HDC objectives has been limited affecting impact to which the HDC contributed. Additionally, the HDC was one actor within a

⁵⁸ Ministry of Health, 2017-2020, Health Sector Resource Mapping



landscape of increased technical and financial support for M&E/ HIS in Malawi from partners, making it difficult to identify impact generated by the HDC that is not also attributable to intervention from development partners.

Since 2015 however, there has been an increase in the availability of health data available. The 2020 WHO SCORE assessment (based on data from 2013-2018) rated Malawi as having a higher capacity than 68% of African countries in population surveillance. While at the time of the assessment only 67% of births were registered in Malawi and there was no data available on death registration⁵⁹, since then the government has rolled out ICD trainings and birth registration in all districts of Malawi (the impact of which has yet to be assessed). Additionally, routine health data collected from both public and private facilities, as well as parallel data systems established for the Department of HIV and AIDS for example, are being integrated at the district level into DHIS2 according to a recent 2023 HIS Assessment.⁶⁰

The quality of this data remains fairly weak however, due to a number of challenges identified by stakeholders and corroborated by the HSSP II assessment and CHISU rapid assessment). While data is readily available, quality is low which is a barrier to effective use of evidence for decision-making. ICT infrastructure remains unreliable, and interoperability of systems continues to be a major challenge. The processing of records at the facility-level is still paper-based in most health facilities. There is a lack of capacity among health workers to utilise HIS technologies, and CMED and DHD are inadequately staffed. Additionally, programming and M&E remains extremely fragmented and vertical.⁶¹

Likely the greatest and most sustainable impact attributed to the HDC at country level however has been in the creation of an enabling environment for data use by strengthening leadership and governance structures. The 2020 WHO Score Assessment rated Malawi as having a higher capacity than 83% of other African countries in enabling data use, due to strong country-led governance of data and evidence-driven policy and planning. ⁶³ This was corroborated by the 2023 CHISU/ USAID rapid assessment of Malawi HIS which found that HIS Leadership and Governance was strong, scoring a 4 out of 5. The review cited development and operationalisation of many of the strategies and guidelines which HDC supported (MEHIS, Indicator Handbook, etc.) as well as coordination structures such as the M&E TWG as reasons for this positive assessment. ⁶⁴ These assessments are corroborated by stakeholders, who identified the primary achievement of the HDC in Malawi as the strengthening of the M&E TWG by connecting it to global level advocacy efforts and therefore elevating its coordination capacity. While this impact is perhaps the most attributable to the HDC and efforts made to leverage and strengthen CMED's M&E TWG, this was done alongside significant financial and technical support from partners.

Importantly the CHISU HIS Rapid Assessment and WHO SCORE assessment based scores off of the *presence* of defined coordination structures with processes to implement activities, develop goals, collect feedback and measure progress. Stakeholders expressed the view that the M&E TWG has faced challenges in recent years discussed in Section C.2.2, and the CHISU assessment also noted inadequate staffing in particular as an issue.

C.3. CONCLUSIONS

At the country level, coordination and alignment has improved since engagement of the HDC.
 CMED's M&E TWG, leveraged and strengthened through engagement with the HDC, played an important role in maintaining political momentum around M&E/ HIS issues and formalising coordination. CMED

⁵⁹ WHO, 2020, Malawi SCORE Assessment

⁶⁰ CHISU, 2023, Rapid HIS Assessment

⁶¹ Malawi Ministry of Health, 2023, HSSP III

⁶² CHISU, 2023, Rapid HIS Assessment

⁶³ WHO, 2020, Malawi SCORE Assessment

⁶⁴ CHISU, 2023, Rapid HIS Assessment



ushered through a number of strategies and policies, including the M&E and HIS Strategy of Malawi and the National Health Indicator Handbook, and helped steward the process of integration of different systems into DHIS2. Although certainly attributable in part to engagement of the HDC, technical and financial support from partners as well as champions within the government made critical contributions to improvements in coordination and alignment achieved by the M&E TWG. However, while some progress has been made with regard to technical and financial alignment this has not been sufficient to properly overcome some of the underlying challenges and stakeholders continue to report fragmentation and a lack of coordination within the HIS space. In recent years, progress has been hampered and stalled by internal political shifts, continued use of vertical disease funding and resourcing issues including a relative weakening of CMED.

- Although there have been some examples of targeted strengthening of country capacity and strengthened impact of global public goods, overall stakeholders considered the effectiveness of the global HDC limited in regard to these two objectives. Overall, it was considered that the effectiveness of provided TA has been inconsistent and at times, was not targeted sufficiently to the country context and priorities. This included the CRVS/ GIS mission which was credited with improving engagement of stakeholders within the CRVS space and generating important insights. However, these insights have not translated to any tangible changes due to a lack of concrete follow-up actions and designated funding to support prioritised activities leading to some stakeholders to question whether the HDC platform is in the best position to conduct sustainable TA. The impact of global public goods has also been somewhat limited, as for the most part global public goods are not disseminated and contextualised sufficiently for country stakeholders through the HDC or partners. Stakeholders expressed uncertainty as to how to access global goods and technical expertise available through the global HDC platform and WGs. In general, stakeholders questioned whether the HDC had the comparative advantage to fulfil these two objectives at the country level in comparison to partners such as the WHO, given the lack of consistent presence and engagement as well as funding to appropriately tailor technical assistance to country context and needs.
- Since the launch of the Malawi HDC in 2015, significant progress has been made with regards to HIS strengthening attributable to a mixture of factors including HDC engagement but also increased activity by partner and government stakeholders in the HIS/ M&E space. Notably, there has been increase in the availability of data and a strengthening of an enabling environment for its use through strong leadership and governance by the MoH. The quality of data in Malawi remains relatively weak however, negatively impacted by continued challenges related to fragmentation and a lack of alignment within data systems.

C.4. RECOMMENDATIONS

- Multiple stakeholders felt that sustained physical presence was necessary for HDC to have an impact at the country level. This was in part so that the HDC could understand country context with enough detail to direct TA appropriately to the most pressing issues. Additionally, in recent years without financial and technical support the M&E TWG serving as the country platform of the HDC has weakened substantially and there has been limited engagement post-2018, indicating a need to reinvigorate the HDC in Malawi. Finally, stakeholders felt that the low visibility of the HDC's mandate, activities, and what it could offer countries meant that national stakeholders did not feel able to request technical assistance. Country allow the HDC to more effectively offer a mixture of bottom-up technical assistance (requested by the national stakeholders directly), and top-down technical assistance (identifying areas which national stakeholders may not have been previously exposed but which could offer an interesting solution to local challenges).
- While establishing country presence in HDC member countries may be quite difficult given limited resources, the regional consultants should be leveraged to work more closely with national stakeholders. Greater regional presence would allow for a more intimate knowledge around specific



country context and issues, where TA is needed, how the HDC can support, and would increase HDC visibility. Other approaches to strengthening country 'presence' could be adopting more sustainable approaches to technical support including providing trainings that could be disseminated across the country, or working through the staff of key partners such as the UNFPA or WHO CO for example.

- Although all stakeholders expressed an understanding that the HDC was not a funding a body, they felt that the HDC should at the minimum play a role in directing financial resources from partners towards certain activities and priorities. This could also take the form of advocating for partners to set money aside to specifically address HIS strengthening, rather than partners funding standalone surveys for example. In a context where 97% of HIS/ M&E related activities are funded by external donors, activities cannot move forward without funding. A set of prioritised activities, as developed through the CRVS/GIS mission, then becomes simply a technical exercise (and an expensive on at that, for both national and global stakeholders.)
- Stakeholders suggested that HDC meetings at the global level should be improved to allow for more country engagement. In particular, stakeholders wanted greater opportunity to engage with stakeholders from different countries in a practical way that allows for troubleshooting shared problems, rather than the main role of country stakeholders to be presentations at the various SRG/ WG/ GPM meetings. At the moment, the meetings and public goods developed at the global level are not serving country stakeholders. In a similar vein, stakeholders suggested updating the HDC website so that it serves as a repositor of global public goods but in a way that is useful and targeted towards countries.
- Despite a repository of global public goods and technical experts, these resources are not reaching
 country stakeholders. The management of global public goods and technical expertise needs to be
 better handled in order to address this gap. For example, the website should be restructured to facilitate
 use by country stakeholders in order to identify relevant tools. Additionally, the HDC needs to clarify
 processes for providing technical assistance or support.



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C.6. LIST OF STAKEHOLDERS INTERVIEWED

Table C.1: List of country level stakeholder consultees for Malawi

Organisation	Name	Position
UNICEF	Bejoy Nambiar	Health Systems Specialist
WHO- Malawi CO	Solome Nampewo	Health Systems Coordinator
	Michal Waga	Strategy Health Information Officer
	Albert Galandi	Data Manager
Ministry of Health,	Isaac Dambula	Deputy Director
CMED	Vincent Maso	Statistical Officer
National Registration Bureau	Rhodric Langwe	Chief Registration Officer, Head of CRVS
UNFPA	Bill Chanza	Population and Development Specialist, Country Programme Officer
Previously Ministry of Health (seconded by Vital Strategies)	Thoko Sambakunsi	Data Impact Coordinator/ Technical Advisor
CHISU	Jacob Kawonga	Programme Implementer for Data Systems Strengthening Project
Digital Health Division, Kuunika Project (seconded by Bill & Melinda Gates Foundation)	Maganizo Monawe	Technical Advisor
EGPAF	Veena Sampathkunar	Malawi Country Programme Director/ Regional Director
Baobab Health Trust	Chimango Munthali	Former Programme Manager



C.7. Additional information

Table C.2: Brief overview of Malawi HMIS

Area	Description
HMIS governance structures	 HMIS implemented through Central Monitoring and Evaluation Division (CMED) and Digital Health Division (DHD) which are part of the Department of Planning and Policy Development (DPPD) at Ministry of Health.
	 CMED is responsible for data management, whereas DHD develops and maintains ICT tools and infrastructure. At district level, HMIS being implemented by District Health Management Teams (DHMTs) and HMIS focal persons.
	 In addition to the institutions identified above, the National Registration Bureau, National Statistics Office, and Quality Management Division are all involved in data management and use.
HMIS platforms	 DHIS2 is the main integrated platform used by the Ministry of Health to manage data. Apart from the DHIS2, there are also parallel program specific systems such as the Department of HIV and AIDS Management Information System (DHAMIS) and the Expanded Programme on Immunisation (EPI) District Vaccination Data Management Tool (DVDMT); OpenLMIS for commodities, Laboratory Management Information System (LMIS), and the Integrated Community Health Information Systems implemented at the community level. DHAMIS and DVDMT are being integrated into DHIS2.
Policies and Strategic Frameworks	Health Sector Strategic Plan II (2017-2022): Objective 6 of HSSP II is to "Generate quality information and make it accessible to all intended users for evidence-based decision-making, through standardised and harmonised tools across all programmes."
	 Monitoring, Evaluation and Health Information System Strategic Plan (2017-2022): To ensure alignment, continuity, and harmonisation of M&E activities and information systems, CMED developed a unified Monitoring, Evaluation, and Health Information Systems (MEHIS) strategy, to serve as both the M&E plan for the HSSP II and an action plan for strengthening HIS in Malawi.
	Digital Health Strategy (2020-2025): Mission is to improve the delivery of health services by providing digital health solutions that are harmonised, sustainable, reliable, interoperable, secure and comply with standards in order to increase efficiency and enable provision of quality services at the point of service.
	Health Sector Strategic Plan III (2017-2030) Objective 6 is to develop a sustainable and harmonised country led digital health system that covers all areas of service provision and enables efficient delivery of health services at all levels of the health system, and covers aspects related to M&E/ HIS. HSSP III continues to push forward the "One Plan, One Budget, One Report" agenda, and stresses the importance of a strong health information system to support decision-making at all levels of the health system.

Detailed list of HDC engagement and activities from 2015-2023 in Malawi:

- In 2015, there was significant internal and external political momentum to address issues related to HIS/M&E and accelerate progress towards a unified M&E platform including:
 - o Government of Malawi commitment to integrate and enhance data systems for health;
 - o Introduction of the SDGs and the need to effectively monitor progress;
 - An increase in resources earmarked for M&E improvements from the Global Fund, PEPFAR, DFID, and the Bill and Melinda Gates Foundation;



- The Measurement & Accountability Summit in DC, and selection of Malawi as a 'pathfinder country' by the HDC shortly after its launch.
- 2015-2018 is the period in which HDC was most active, engaged and visible in Malawi in terms of both the global and country platform.
 - In June 2015, CMED representatives attended the Measurement & Accountability Summit in DC. Shortly after, Malawi HDC was launched in November 2015. This involved a multi-partner mission to Malawi,, and development of a roadmap of priority actions. HDC was integrated within an existing M&E TWG within the Ministry of Health led by CMED.⁶⁵
 - Efforts were made to strengthen M&E TWG which brought together government stakeholders and around twenty development partners including the Bill and Melinda Gates Foundation, GIZ, Vital Strategies, WHO, UNICEF, UNFPA, USAID, CDC, the Global Fund, PEPFAR, DFID, amongst others.⁶⁶ Sub working groups were also created, including an Equity WG, CRVS TWG, digital health TWG, community health TWG, and data standards TWG.
 - To address staffing challenges within CMED, MHDC partners including GIZ, Data 4 Health, the Bill & Melinda Gates Foundation, USAID, and US CDC seconded individuals to CMED to work on HIS (notably, most seconded individuals were moved to the Digital Health Division following the split in 2020).
 - From 2015-2018, there was a multi-management information system. All disease-specific programmes are being integrated into DHIS2. These efforts have been supported by multiple partners including GIZ, WHO, UNICEF, CDC, USAID, BMGF, and University of Oslo.
 - In November 2017, CMED held two workshop to finalise the National Indicator Handbook and to review the draft of the M&E and HIS Strategy, identify areas for technical and financial support from partners, discuss next steps to finalise the strategy, and review updates on M&E priorities. Malawi HDC also participated in a global HDC conference that year, to present on progress.
- From 2018 to 2022, there was a gap in engagement with the HDC.
 - During this period, the government received support from the WHO and other partners to develop
 a digital health strategy in 2020. This digital health strategy also helped establish a clear
 responsibility divide between CMED and the Digital Health Division which took over certain aspects
 of M&E and HIS related to digitisation.
 - CMED participated in 2021 in one international HDC conference, presenting progress in implementation of the M&E and HIS strategy as well as development of the digital health strategy.
 There was some ad-hoc participation by government stakeholders in SRG and TWG meetings.
- In June 2022, a joint mission was organised by SDG GAP and HDC including the CRVS working and supported by WHO, UNICEF, and UNFPA. The mission brought together just under 80 stakeholders from across the Ministry of Health, National Statistical Office, National Planning Commission, National Registration Bureau, Department of Surveys, UNDP, Malawi Red Cross, Malawi Wellcome Trust, amongst others in addition to WHO, UNFPA, and UNICEF. Through this mission, a white paper was developed by the partners in collaboration with WHO.

⁶⁵ HDC, Malawi Country Case Study

⁶⁶ HDC, 2020, Malawi Country Position



Appendix D **NEPAL CASE STUDY**

This appendix presents the summary findings from the Nepal case study. It has been developed from (i) stakeholder consultations (Section D.6. includes a list of consultees) and a review of documentation and data (Section D.5 includes a bibliography).

D.1. BACKGROUND INFORMATION AND CONTEXT

D.1.1.Key country characteristics, with regards to data systems

Nepal adopted a federalised governance structure with the promulgation of a new Constitution in 2015, restructuring the state into a federal government, seven provincial governments and 753 local governments. The Government of Nepal (GON) has implemented Sustainable Development Goals (SDGs) and Universal Health Coverage (UHC) programs through its national development plans and health sector strategies. The National Planning Commission (NPC) and the Ministry of Health and Population (MOHP) have developed a results framework of health-related SDG indicators including SDG-3 and nutrition related indicators of SDG-2. The government has prioritised health data availability at all levels to support more equitable health service delivery, with a particular focus on those left behind.⁶⁷ Nepal's Health Information Systems (HIS) have been guided by several policy and strategic documents⁶⁸. However, gaps remain in implementation, which would require smart investments by governments, development partners (DPs), health policy makers, community-based organisations, and the private sector. Nepal uses routine⁶⁹, periodic⁷⁰ and ad hoc⁷¹ population based data sources, as well as country estimates⁷² to monitor and measure health behaviours, service coverage and utilisation, and outcomes.

Nepal has adopted Sector Wide Approach (SWAp) in the health sector for nearly two decades, coordinating, harmonising and aligning development partners' investment (financial and technical assistance) and policy engagement around country-led, periodic national health sector strategies and plans underpinned by overarching M&E frameworks. Partners who support the GON health sector programme through SWAp are naturally aligned to the national HIS and M&E frameworks. There are strong government-led coordination mechanisms for health data at the federal level.⁷³

Nepal's health data systems still have a long way to go to be sufficient, effective and efficient enough to support the achievement of UHC and SDG3 goals and targets. However, there have been considerable progress since 2016. Notable are the progress in the coverage, robustness and digitisation of Health Management Information System (HMIS) and Logistics Management Information System (LMIS), introduction and scale up of increasingly digitalised

⁶⁷ WHO, 2022, Case Study: https://www.who.int/news-room/feature-stories/detail/strengthening-health-data-measure-sdg-progress-nepal

⁶⁸ Such as Nepal's Fifteenth Periodic Plan (2019/2020– 2023/2024), National Health Policy 2019, Nepal Health Sector Strategy (NHSS) 2015-2022, Nepal Health Sector Strategic Plan (NHS-SP) 2022-2030, Civil Registration and Vital Statistics (CRVS) Strategy 2019, Digital Nepal Framework 2019, National e-Health Strategy 2017 and e-Health Implementation Roadmap 2019, and Integrated Health Information Management System (IHIMS) Roadmap 2022-2030.

⁶⁹ These include Health Management Information System (HMIS), Logistics Management Information System (LMIS), Financial Management Information System (FMIS), Health Infrastructure Information System (HIIS), Planning and Management of Assets in Health Care System (PLAMAHS), Human Resource Information System (HuRIS), Training Information Management System (TIMS), Ayurveda Reporting System (ARS), Drug Information Network (DIN), and Early Warning Reporting System (EWARS). CRVS system also provides important health data. [Source: DOHS Annual Report 2020/21]

⁷⁰ Population-based data sources include census, periodic health surveys (such as Nepal Demographic and Health Survey (NDHS), Multi Indicator Cluster Survey (MICS), Nepal Health Facility Survey (NHFS), and Annual Household Survey).

⁷¹ Ad hoc surveys and studies such as STEPS Survey for Non Communicable Diseases, and Micronutrient Status Survey.

⁷² Country level estimates include Burden of Disease Study based on Global estimates and National Health Accounts.

⁷³ For example: Health Sector M&E Technical Working Group (TWG), IHIMS TWG, and TWG for Civil Registration and Vital Statistics (CRVS) coordination, led by the MOHP; Health Development Partners' M&E TWG; etc.



Insurance Management Information System (IMIS), the expansion of CRVS coverage and digitisation, completion of periodic national surveys without much delay despite challenging circumstances (such as COVID-19 and political instability), and the recent Census (2021) which for the first time also included an adjunct module to measure maternal mortality⁷⁴. The WHO SCORE framework assessment in 2020 showed that 75% of the 54 indicators to measure and monitor health-related SDGs had data available (one or more data point over the previous five years). An update on the 2019 MEASURE Evaluation assessment by the authors of the 2021 HDC/UNICEF case study⁷⁵ with 2020/2021 data also confirmed that data were found for 28 out of 30 MEASURE Evaluation indicators. The 2021 HDC/UNICEF case study "Assessing partners alignment in support of the HIS in Nepal"⁷⁶ showed that partners alignment have been moderate to strong across different dimensions.

There are still several challenges in the health data systems: such as limited use of data; issues with quality, timeliness and comprehensiveness of data (e.g. CRVS mortality data lacking on causes of death; lack of quality of routine CRVS and public health data; lack of coverage and quality of hospital data, etc.); fragmentation and siloed approaches increasing with digitisation with limited data standards and interoperability amongst a growing number of data systems; infrastructure and human resource capacity constraints not matching the rapidly evolving field of data systems; fragmented hospital information systems not linked to a national system; inequities in health services and outcomes not adequately captured by the data systems; and challenges posed by the restructuring of the state with poor capacity at the provincial and local levels.

Further details on Nepal's health data systems are available in section A.8. ADDITIONAL INFORMATION (Background Information and Context).

D.1.2. HDC country support and engagement

Nepal expressed early interest in receiving intensified support from SDG3 Global Action Plan (GAP) agencies in 2019, to strengthen health information systems among others.⁷⁷ With SDG3 GAP as the roadmap and support from SDG3 GAP agencies, the government developed a SDG3 National Action Plan (NAP) for 2020-2022 placing primary health care and health data accelerator solutions high on the agenda.⁷⁸ In September 2020, the MOHP submitted the country position for Heath Data Collaborative (HDC) affiliation, facilitated by WHO South East Asia Regional Office (SEARO) and WHO Nepal Country Office (CO), asking for joined-up support from multilateral and bilateral agencies and other partners in HDC to help tackle Nepal's health information challenges. Subsequently, WHO CO played a key role in convening members of the GAP Data and Digital Health (D&D) accelerator working group and HDC, all of which worked together through rounds of virtual meetings (during the COVID-19 pandemic) with MOHP to agree on three priority areas⁷⁹ with an expectation of partner support under the HDC initiative. The priorities included catalytic interventions to strengthen health information systems in Nepal over the short term⁸⁰. Over the longer term, the HDC partners in country were expected to support Nepal to invest in and implement further digital solutions and mobile technology to expand coverage of health information systems, vital statistics,

⁷⁴ MOHP and NSO, 2021, Nepal Maternal Mortality Study

⁷⁵ HDC/UNICEF, 2021, Partners Alignment Case Study

⁷⁶ HDC/UNICEF, 2021, Partners Alignment Case Study

⁷⁷ WHO, 2021, Case Study

⁷⁸ WHO, 2022, Case Study

⁷⁹ Nepal MOHP, 2021, Data and Digital Priorities: Addressing Equity

⁸⁰ Priorities: (1) Strengthening routine HIS (RHIS) for UHC and other health-related SDG reporting, with focused interventions for hospital information system improvement in 22 hospitals, including standardisation, medical certification of cause of death (MCCOD) and outpatient service recording; (2) Establishment of learning centres on RHIS in all seven provinces in collaboration with academia, including targeted capacity building in the public and private sectors; and(3) Strengthening HIS and monitoring and evaluation (M&E) coordination mechanisms at provincial level to enable better evidence-based planning and more equitable service delivery.



electronic medical record / electronic health record (EMR/EHR) and telemedicine in order to increase health equity and accelerate progress towards UHC.81

An HDC Launch is yet to formally happen in Nepal, and there is no formal HDC country structure. Nonetheless, Nepal demonstrated political commitments to HDC initially. Nepal's Health Minister opened the leadership event in December 2020 (Health Data Driving the SDGs and Defeating COVID-19: Accelerating Progress Through Partnership). Nepal nominated the chief of M&E Section of MOHP as the country's HDC focal person who is also a member of HDC's Strategic Representative Group (SRG) from the Countries constituency, participating in SRG meetings and other HDC forums. Though Nepal is among the most recent countries to join HDC, it is among the first countries to host a focused country mission by HDC partners. In January 2023, an international delegation of SDG GAP D&D accelerator and HDC carried out a joint country mission on 'Aligning partner support for data to strengthen the health sector through SDG GAP D&D accelerator and the HDC' engaging national institutions, academia, civil society and research organisations, and in-country HDC partners. The purpose of the mission was to discuss areas of enhanced collaboration on CRVS and Geographical Information System (GIS). Key recommendations in the Strategic Brief (draft) that was prepared to summarise the outcome of the mission are presented in section A.8. ADDITIONAL INFORMATION (HDC Country Support and Engagement, Table A).

Under the global HDC initiative, UNICEF carried out a case study 'Assessing Partners Alignment in Support of the HIS in Nepal' in 2021. Similarly, WHO published a feature story (case study), 'Advancing Health Data for SDG Measurement in Nepal' on its website (https://www.who.int/news-room/feature-stories/detail/strengthening-health-data-measure-sdg-progress-nepal) in 2022, focusing on HDC activities aimed at strengthening data on births, deaths, cause of death and access to and utilisation of health services.

Key national institutions engaged with HDC, through the mission or in global events, are MOHP, the National Statistics Office (NSO; previously, the Central Bureau of Statistics) and the Department of National ID and Civil Registration (DoNIDCR) under the Ministry of Home Affairs. HDC partners engaged in country are WHO, United States Agency for International Development (USAID), the World Bank (WB), United Kingdom's Foreign, Commonwealth and Development Office (FCDO), United Nations Children Fund (UNICEF), United Nations Population Fund (UNFPA) and Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ). A brief outline of the work and collaboration of in-country HDC partners (government and non-government) is presented in section A.8. ADDITIONAL INFORMATION (HDC Partners, their work and collaboration on health data systems in Nepal).

D.2. KEY FINDINGS

D.2.1.Pillar 1: Relevance and coherence

Relevance of the "re-orientation" of the HDC 2018-19

Nepal's engagement in HDC at the global level is nascent, and despite being on the SRG representing the Countries constituency, its participation has been less than optimal. Nepal joined the HDC platform in late 2020, after the HDC governance was reorientated and modified. Hence, the stakeholders in Nepal were not able to provide any insights on what difference the reform has made to the countries engaged in HDC. The reform has, however, provided an opportunity for Nepal to participate in the HDC governance mechanism, as a member of the Countries constituency in SRG. This enables the government to influence and contribute to HDC's technical direction and strategic oversight. However, stakeholders have confirmed that Nepal's presence and participation in the SRG and other global forums have been less than anticipated. This is in part due to COVID-19 with travel difficulties, and limited effectiveness of virtual meetings. However, frequent changes of the focal person also played a role with a new person being oriented in a timely fashion on HDC.

HDC is less visible at the country level, likely because it is not formally launched and there is no government led coordination structure that acts as a country-level HDC yet. WHO CO has been playing a convening role



for the HDC stakeholders instead. There was little awareness about HDC amongst majority of the stakeholders consulted, both government and DPs.

"Little engagement (of HDC) in Nepal, and (hence) little visibility!" - a government stakeholder.

"(HDC is) not visible. I think very few people have heard about HDC, even amongst government stakeholders." – a non-government stakeholder.

"(HDC) directly not seen in Nepal... Our government counterparts know little about how to benefit from them." – a non-government stakeholder.

WHO CO's facilitation however provided an opportunity for the government and HDC partners in country to collaboratively analyse the gaps in health data systems and come up with the three, narrowed-down priorities, reflected in MOHP's 'Data and Digital Priorities: Addressing Equity' in 2021. This was also shared with partners' headquarters in a call convened by the global HDC to align resources.

There is lack of coherence and results-focus in the HDC interventions in Nepal, and those have not translated to alignment of resources amongst HDC partners. Stakeholders shared that HDC partners were unable to commit specific resources to the jointly developed and costed priorities in 2021. The process raised expectations of government stakeholders, however the jointly developed priorities did not lead to partners aligning their resources in support of priorities. A non-government stakeholder pointed that this was because partners had already committed their support in line with their own organisational priorities and there was no new funding from headquarters or other sources that could have been earmarked to the priorities. Nevertheless, some of the identified activities have progressed slowly through different sources of funding (e.g. policy discussion to develop standards and introduce EMR/EHR in public hospitals, roll out of training for ICD-11, and establishment of M&E TWG at provincial levels).

HDC activities at the country level are perceived to be sporadic, not aligned to the country's institutional processes, and, at times, deviating away from the agreed priorities. There is a disappointment amongst stakeholders that the HDC-supported priorities have been shelved without ensuring implementation. It was referred to by some stakeholders as a lost opportunity for making a potentially visible impact through HDC in Nepal. The sporadic and event-based type of support was pointed to as a reason.

"One-off support are not enough or helpful for institutionalisation... HDC didn't play a role in ensuring that the three priorities (identified in 2021) were institutionalised... (for example) advocacy to include them in government's annual workplan and budget." – a government stakeholder.

The HDC country mission in early 2023 has produced a white paper/ strategic brief (still in draft) on strengthening CRVS and integrating GIS technology to improve health data for SDG3 in a bid to address gaps identified by several assessments including WHO SCORE Framework and MEASURE Evaluation assessments. Stakeholders expect that this provides an opportunity for the HDC to make an impact, if this is subsequently followed up with activities and advocacy to align resources, both domestic and external.

Some stakeholders raised questions on the selection of the theme and priority for the mission (CRVS and GIS). Though CRVS is a clear priority with its direct relevance to SDG3, the reason for inclusion of GIS was less known. Stakeholders do see the value of GIS, however its relative importance for HDC and for the country when there were several basics in the RHIS yet to be strengthened was not clear to them. Disconnect between the priorities agreed in 2021 and the priority of the mission was also raised as an issue by some. This points to the need for coherence and results-orientation in HDC activities planned for and implemented at country level.

"GIS has good potential but not a priority when there are other gaps in data digitalisation." – a nongovernment stakeholder

HDC partners in country have supported several health data strengthening activities in response to COVID-19, some of which were done jointly, however those are not considered to be HDC related. While COVID-19 has impacted the country, primarily by disrupting continuity of regular health services, integration of surveillance systems with systems tracking service delivery supported a cohesive and efficient pandemic response. The



pandemic also highlighted the need to advance towards digital systems for uninterrupted health data flow during emergencies. Several of the in-country HDC partners joined hands to collaboratively support the government in strengthening surveillance and routine systems during the COVID-19 pandemic. For example: webinars, online meetings, and discussions on COVID-19 data with Asia eHealth Information Network (AeHIN)⁸³; WHO initiated eHealth Assessments (e.g. through University of Oslo); UNICEF supported child and family tracker survey; development of digital systems and tools to monitor COVID-19 and vaccination against it; etc. However, it was not evident from the stakeholders that these were directly related to the HDC initiative.

Value add of support from the HDC

Nepal already had strong government-led coordination mechanism on the technical level for HIS (e.g., the TWGs) as well as strong coordination of DPs (e.g., through SWAp). It is hard to distinguish any value added by HDC to improve coordination and alignment for health data strengthening. All of the in-country HDC partners (bilateral and multi-lateral agencies) support Nepal's health sector within the SWAp framework. Partners coordinate and collaborate through technical working groups including on M&E, HIS, CRVS, etc. However, the involvement of civil society organisations and private sector in the forums are limited. The SWAp approach encourages alignment amongst partners engaged in it – for example, there are Joint Consultative Meetings and Joint Annual Reviews four times a year between the MOHP and development partners under SWAp.

The 2021 Case Study by WHO noted that HDC has helped build on the SWAp experience. It surmised that the affiliation with HDC, which reinvigorated its focus on country impact and alignment, has only helped Nepal consolidate its experience with SWAp focusing on strengthening country's data systems to ultimately help achieve UHC and health-related SDGs. However, stakeholders raised doubts about whether there is any visible change or impact which can be considered as a value add beyond what was already happening through the SWAp.

"HDC (sometimes) gets the credit for work that has been done for years. Lot has happened in CRVS as one example... but it might be seen that HDC brought partners together, created momentum. But it's not the case." – a non-government stakeholder.

D.2.2.Pillar 3: Efficiency

Efficiency of the HDC governance and operational structure

Nepal's engagement with HDC global governance structures has been less effective. Nepal is on the SRG. Due to frequent changes of the focal person (transfer of the M&E section chief) since Nepal joined HDC, the institutional memory and participation in the SRG has been affected. Some government as well as non-government stakeholders were not aware of the country's engagement in HDC global governance mechanisms. Some non-government stakeholders thought that Government's representation and leadership in the SRG can help make HDC more effective for countries. However, that doesn't seem to have happened thus far.

"Government is on the HDC SRG, they can play an important role (in enhancing country level HDC activities)." – a non-government stakeholder

Nepal's involvement in global HDC activities has been minimal. Apart from sporadic engagement in global events (Leadership events, SRG meetings, missions to countries), there are no other interface where government officials, particularly in a context where changes are frequent, have the opportunity to increase awareness of or engage with the global HDC platform. Stakeholders did not know whether Nepal interacted with HDC global working groups. Except for receiving updates on HDC work globally, and generally understanding that the HDC is a

⁸² WHO, 2021, Case Study

⁸³ Asia eHealth Information Network is a collaboration of digital health advocates created by the World Health Organization in 2011 to help Asian countries with digital health development. AeHIN has a pool of health and IT professionals from South and Southeast Asia committed to promoting better use of ICTs to achieve better health. (https://www.asiaehealthinformationnetwork.org)



potential source of support for countries, stakeholders did not share any specific examples where they feel they benefitted from participation in the global events and forums.

There are issues in HDC related communication from global HDC or partners headquarters – with the government and partners in country – and among the partners in country. Government stakeholders cautioned against high expectations of engagement of government representatives and focal persons without constant communication and follow up.

"There is usually an expectation that Government representatives (focal persons) can dedicate a lot of time to global or regional initiatives, but it usually doesn't happen. (Government staff) usually have several tasks and functions. HDC secretariat/ partners need to follow up continuously (to engage)." – a government stakeholder.

There have also been an instance where government's participation in a global forum couldn't happen due to late communication and organisation.

"(Nepal) missed to participate in the (2022 Leadership) event last year September... the communication was late, we could not get a visa." – a government stakeholder

Similarly, there seems to be limited communication from the headquarters of development partners, with most incountry stakeholders knowing little about HDC. Some non-government stakeholder expressed that information from HDC Secretariat is not trickling down well to the country teams. Both government and non-government stakeholders emphasised that the HDC is seen to be an activity of one agency, rather than a collective initiative.

"(HDC is) only seen as a WHO activity. All partners should take this as a joint responsibility..." – a non-government stakeholder.

"Ownership at country level is low, even UN partners'." - a non-government stakeholder.

HDC activities and processes in Nepal are perceived to be slow and incomplete. In addition to the need for consistency and continuity of HDC activities in the country, a few stakeholders also raised the need to speed up its response. For example, the Mission focused on CRVS and GIS shared the final draft for partners' review nearly four months after the event. Apparently, there have been several new inputs into the draft that are coming in, likely to delay it's finalisation and dissemination.

"(They have) a very slow process. The January mission's (on CRVS and GIS) output is not finalised yet. Almost six months for a brief!" – a non-government stakeholder.

The 2021 HDC/UNICEF case study on partners' alignment was never disseminated to the country stakeholders. A few stakeholders, who had contributed to that study as respondents (perhaps), seemed unaware of the final findings and recommendations, though the report is available on the HDC website. It points to a need to engage stakeholders throughout the process of outputs or goods created through HDC support or facilitation.

Merger with SDG Gap data and digital accelerator supported the functioning of the HDC

The effect of the merger of SDG GAP D&D accelerator and HDC has not been obvious. In-country partners of both SDG GAP D&D accelerator and HDC are largely the same entities. Only a few stakeholders knew clearly that the 2023 mission was a joint initiative between the two. Some government stakeholders even thought that it was an event organised by one or two UN agencies who worked with them.

D.2.3. Pillar 3: Effectiveness, sustainability and impact

Extent to which the HDC has achieved its objectives

HDC partners' alignment in Nepal has been judged to be moderate to strong. Under the HDC platform, the partners have helped carry out gap assessments and relevant studies. MOHP with HDC partners analysed critical gaps to agree on the key priorities for country level HDC initiatives in 2021 (MOHP's Data and Digital Priorities: Addressing Equity), as already discussed above. Similarly, as part of global HDC activities, UNICEF has developed



and published a case study on HDC partners' alignment in Nepal in 2021⁸⁴ and WHO has done feature stories on HDC in Nepal in its website in 2022⁸⁵. The 2021 HDC/UNICEF case study looked at HDC partners' alignment across three domains: (i) Policy and regulatory alignment⁸⁶; (ii) Systems alignment⁸⁷; and (iii) Operational alignment⁸⁸. The study judged policy and regulatory alignment as Strong, while Systems alignment and Operation alignment were judged as Moderate. Key factors enabling or constraining partners alignment, as identified by the study are listed in Table 1. The study suggested that stakeholder priorities for strengthening HIS and health data systems in Nepal should include strengthening data quality and data use for evidence-based decision-making; strengthening RHIS, including integrating vertical and parallel systems and ensuring interoperability; and ensuring that the infrastructure and supporting environment for HIS are fit-for-purpose.

Table D.1: Factors affecting partners alignment in support of the HIS in Nepal

Enabling factors

Existence of sectoral frameworks that channel technical and financial assistance in support of national priorities (e.g. SWAp, the Joint Financing Arrangement for health), as well as other aid management tools that promote alignment and harmonisation.

- Strong government-led coordination mechanisms at federal level.
- Trust, clear common goals and ease of communication in a government-led coordination group.

Constraining factors

- A decentralised government with uneven coordination or alignment at provincial and local level.
- Lack of civil society representation in the federal level technical working groups and other coordination mechanisms.
- Lack of framework to engage with non-governmental organisations (NGOs)/civil society organisations (CSOs).
- Partners' planning, M&E mechanisms are still separate.
- Reporting of indicators is not fully harmonised.
- Lack of oversight/visibility over private health providers and the arrangements made for engagement/ cooperation with the private sector.

It is, however, clear that partners' alignment and support to health data systems in Nepal cannot be attributed to HDC, rather they were driven by SWAp and guided by partners' own priorities and comparative strengths. The 2022 WHO case study highlighted that the HDC partnership in Nepal has strengthened collaboration between the government and HDC member organisations, and is producing valuable technical solutions, preventing duplication, and promoting advocacy messages in meaningful ways. However, it also noted that, due to competing priorities and the specific focus of each agency, it is arduous to always align partners' activities. It called for guidance from the global level in order to expedite the local level partnership and resource pooling for implementation.⁸⁹

⁸⁴ HDC/UNICEF, 2021, Partners Alignment Case Study

⁸⁵ WHO, 2022, Case Study

⁸⁶ Policy and regulatory alignment includes whether partners are aligned with a national plan or strategy on HIS, whether there are government-led coordination mechanisms, whether partners are represented and/or participate in these coordination mechanisms, and whether monitoring and evaluation (M&E) activities are aligned to a national level M&E framework, including indicators and reporting.

⁸⁷ 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. 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.

⁸⁸ Operational alignment includes how partners communicate with each other, and also with health authorities at all levels. This also includes how information is shared and used between partners, and how partners coordinate their activities in time and space.

⁸⁹ WHO, 2022, Case Study



The in-country stakeholders also stressed that, though there has been progress in collaboration and improvement in data systems, development partners are doing so following their own organisation's and programmatic mandates. There is hardly any push from the headquarters to do so under the HDC initiative.

"(There are) very few activities that are seen as HDC driven." – a non-government stakeholder.

"Would AWPB (annual workplan and budget developed by MOHP)/ partners collaboration etc. look different without HDC? Probably not!" – a non-government stakeholder.

A brief overview of HDC partners' support, as well as increased coordination and collaboration between Nepal's national institutions, to strengthen routine data sources, vital statistics, and population-based surveys in Nepal, is given in section A.8. ADDITIONAL INFORMATION (HDC Partners, their work and collaboration on health data systems in Nepal).

All the progress and achievements in the health data space including increased coordination and collaboration between government agencies and DPs, as well as between government agencies usually supported / facilitated by partners, have been seen over the last several years. However, as discussed in previous sections, it was hard to attribute much of these outcomes to HDC initiatives.

Apart from one-off outputs, such as the partners' alignment report and the mission, it is hard to make any inference about HDC's impact at the country level.

"HDC (work in Nepal) is still far from making any concrete impact." – a non-government stakeholder Additionally, all stakeholders were unaware of any global public good and outputs of HDC working groups that Nepal has benefitted from under the HDC initiative.

Extent to which the HDC platform and its activities are financially and programmatically sustainable

The HDC initiative itself has not helped mobilise or align domestic or external resources to country's data systems, thereby limiting any potential of its activities being financially sustainable. Country stakeholders are not aware of any financing provided by HDC to Nepal. HDC activities, such as convening to prepare the Priorities, have happened without obvious financial resources being allocated, while globally commissioned activities, such as the partners alignment case study and the mission, were (apparently) funded by HDC Secretariat. Most stakeholders were not aware that HDC did not provide funds to the countries. Some stakeholders shared their experience of other similar initiatives providing funding, usually small and catalytic, such as those provided by SDG GAP D&D accelerator which supplemented ICD-11/MCCOD training activities supported by WHO CO in the last couple of years. When told that HDC was not a funding platform, stakeholders generally seemed to accept and suggest that it could still have important role in convening and advocating to raise resources for its core agenda.

"Convening is more important than financing for the (HDC) initiative in the country." – a government stakeholder

"Even if HDC can't provide funding, it should play a role in raising investments for health data systems." – a non-government stakeholder

"Ideally HDC can be a convener given the variety and complexity of data systems we have – to bring the government, partners and stakeholders together comprehensively." – a non-government stakeholder

There were also views that small, catalytical funding can help expedite HDC initiative in countries, particularly if it was used as an incentive.

"Small financing from HDC can incentivise countries to perform better – this can be done through its partners like Gavi does (for immunisation)". – a non-government stakeholder

In any case, it is however important that HDC facilitates and advocates that any of the initiatives or outputs it supports is included in country's annual work plan and budget, and also partner agency's headquarters are



sensitised to guide their country teams to align resources. This can help ensure domestic as well as external resources for financial as well as programmatic sustainability.

HDC activities in Nepal are also seen to have limited programmatic sustainability. As already discussed, HDC partners have not picked up activities outlined by the 2021 joint prioritisation exercise.

Extent to which the HDC has contributed to (i) the improved availability and quality of health data, aligned with national priorities and (ii) improved use of data for evidence-based decisions, budget making, monitoring and implementation of health-related SDGs

The HDC's contribution to longer term impact was not evident. Stakeholders were unable to cite examples where HDC initiative and activities have contributed to longer term impact. Based on the stakeholder's feedback, it can be surmised that the key reasons for this are: (i) none or limited value value-add to existing structures; (ii) no obvious contribution to mobilisation or alignment of resources; (iii) isolated events and outputs (such as case studies and missions) not followed through or linked to concrete actions; (iv) no clear link of global engagement to policy/ funding changes in Nepal (including due to some inefficiencies described above); and (v) limited guidance/support from global HDC and partners headquarters to country teams; etc.

D.3. CONCLUSIONS

The HDC has engaged regularly with Nepal since the country became affiliated in 2020, facilitated by the WHO CO, however engagement has been rather sporadic and lacked concrete follow-up. Nepal has been affiliated with the HDC since September 2020, through a country request facilitated by WHO CO. Despite being in the midst of COVID-19, Nepal's involvement in HDC-facilitated activities was considerable in the first year or so, including chairing of a leadership event by Nepal's health minister. However, the engagement was largely virtual. Nepal participates in the HDC SRG, representing the Countries constituency. Convened by WHO CO as an HDC activity, Nepal was prompt in collaboratively developing the three priorities on Data and Digitalisation in 2021, however there was not much success in getting partners' alignment and securing resources to implement those priorities effectively. A case study on partners' alignment in Nepal was also undertaken through the HDC initiative in 2021, and a feature story on HDC in Nepal by WHO in 2022. HDC activities in Nepal were fairly silent after that, except for participation in some of the global forums (such as the SRG meetings, and leadership events). After a hiatus, HDC made its presence felt in the country through a joint SDG3 GAP D&D accelerator and HDC mission in January 2023 focused on strengthening CRVS and GIS to contribute to meeting SDG3 goals and targets. Six months after that, the output of the mission is yet to be finalised and shared, let alone any actions taken on the recommendations.

The findings from documents review and in-country consultations suggest that HDC initiative by itself has not been able to make visible contributions to strengthen Nepal's health data systems. The relatively strong coordination, collaboration and alignment seen between and amongst government and development partners were attributed by all stakeholders to a long standing practice of a SWAp in Nepal's health sector as well as through partners' facilitation and support for more inter-sectoral working, for example on CRVS. Focused support on health data systems by HDC partners have also been largely in line with their own organisational priorities and comparative advantage, rather than being influenced by HDC initiative. The evidence thus far does not point to any measurable impact that the HDC has had. It was clear from the consultations that the HDC initiative is not prominent amongst the stakeholders in Nepal. COVID-19 and the difficulties of working does seem to have played a part in the activities not being visible and effective. The HDC's undertakings so far have been seen either to mostly involve a few stakeholders only (e.g. in global level participation), or to focus on sporadic and unconnected events and activities (e.g. studies and priorities were shelved without dissemination and further action to institutionalise and ensure resources, while a subsequent mission focused on different priorities not fully linked to identified/agreed priorities in the country). There is no evidence of Nepal benefitting, under the HDC initiative, from global public goods or products of HDC working groups, as such. Most of the stakeholders, however, thought that the HDC could potentially play an effective role as a convener of global and in-country partners and stakeholders for the country,



and help advocate for mobilisation and alignment of additional domestic and external resources, helping Nepal strengthen its health data systems to achieve SDGs.

D.4. RECOMMENDATIONS

Building on general as well as specific suggestions from the stakeholders consulted, informed by the documents review, and augmented with the evaluators' local insights, the study has come up with the following recommendations— all aimed at enhancing HDC's presence and role and promoting impact at the country level.

- The HDC should strategically utilise existing in-country coordination avenues in order to contribute to local efforts. For example, the HDC could integrate into existing platforms of the DPs (as a sub-group within the Health DP Group or UN Statistical Working Group) and facilitate information exchange and collaboration amongst government-led forums (such as TWGs on M&E, IHMIS, maternal & perinatal death surveillance and response, etc.). The HDC could also facilitate the formation of a government-led HDC group, as a sub-group of the national M&E or HIS TWG for example, and support its functioning through incountry HDC partners.
- The HDC should clarify the intended impact in Nepal, and plan activities and support coherently
 around it. For example, the HDC could develop a multi-year plan for activities in Nepal with in-country HDC
 partners to support one or more focused areas. Additionally, as opposed to organising isolated events the
 HDC should ensure that missions and actions are followed by concrete actions in order to generate
 sustainable and visible change.
- The HDC should facilitate international technical support to develop national expertise, for example in the rapidly evolving area of digital health. This could be done through regional or multi-lateral funding, as bilateral support at country level (which is usually focused on local capacity building anyway) may not be adequate.
- The HDC should strengthen the impact of technical expertise and global public goods developed
 through global WGs in Nepal. Given Nepal's lack of engagement with HDC working groups or benefit
 from global public goods, stakeholders did not provide specific suggestions with regards to those.
 However, HDC will need to consider, and explore with country stakeholders, how the working groups and
 global public goods can be leveraged to best support Nepal to achieve the HDC objectives.
- Communication lines with HDC partner agencies (from global, to regional, to country) should be enhanced, in order to adequately pass on and reflect HDC mandates within country level planning and coherent implementation of support to health data systems. At the HQ level, the HDC Secretariat should ensure they are appropriately engaging and advocating with partners and that impact is felt at the country level. Additionally, the HDC should encourage and support national institutions (government agencies) to engage more effectively in global and country level HDC activities, including through follow-ups by the HDC Secretariat/ in-country partners. Additionally, the HDC should ensure that outputs are disclosed and disseminated in a timely manner to the in-country audiences, with linkages to country's institutional processes and/or HDC activities through which the recommendations could be implemented. Timely communication is also needed to facilitate participation of country participants in global/regional events.
- Stakeholders suggested that the HDC should consider mobilising small amounts of funding in order to incentivise countries to engage. The HDC could also seek to link outputs with potential domestic or external financing or support, or a roadmap showing how these outputs/ recommendations are linked to future HDC activities.



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D.6. LIST OF STAKEHOLDERS INTERVIEWED

Table D.2: List of country level stakeholder consultees for Nepal

Organisation	Name	Position
MOHP – Policy Planning and Monitoring Division	Dr. Guna Nidhi Sharma	Senior Health Administrator, Focal Point for HDC
MOHP – Monitoring and Evaluation Section	Mr. Ravi Mishra	Senior Public Health Officer
Department of Health Services – Management Division ⁹⁰	Dr. Sarbesh Sharma	Director
National Statistics Office -	Mr. Dhundi Raj Lamichhane	Director
Census Section	Mr. Keshab Gautam	Statistical Officer
Department of National ID and Civil Registration =- Civil Registration Section	Mr. Shreeram Khanal	Local CRVS Officer
WHO Country Office (CO)	Dr. Md Khurshid Alam Hyder	Public Health Administrator / Team Lead for HSS
	Mr. Paban Ghimire	National Professional Officer – HIS / Focal Point for HDC
UNICEF	Dr. Budhi Setiawan	Chief, Health Section
	Ms. Abhilasha Gurung	Health Systems Specialist
	Mr. Sanjay Rijal	M&E Officer, Nutrition
UNFPA	Mr. Nick McTurk	Census Coordinator
	Mr. Ajay Acharya	National Officer – Sexual and Reproductive Health
GIZ	Ms. Alexandra Plueschke	Programme Manager - Health
	Mr. Nirmal Dhakal	HIS Adviser

 $^{^{90}}$ Management Divisions houses the Integrated Health Information Management Section – responsible for development and implementation of Health Information Systems



D.7. ADDITIONAL INFORMATION

D.7.1.Background information and context

Key country characteristics, with regards to data systems

Nepal adopted a federalised governance structure with the promulgation of a new Constitution in 2015, subsequently restructuring the state into a federal government, seven provincial governments and 753 local governments. The health system structure and governance also followed suit with the Constitution stipulating people's health as a concurrent function amongst all three levels of government. Figure A provides a schematic representation of the health service delivery structures under different levels of government. Local governments have exclusive responsibility and authority to deliver cost-free basic health care services, which they provide through a network of primary level hospitals and basic healthcare facilities. Provincial governments are responsible for the delivery of secondary and tertiary level health services. The federal government, apart from its overall responsibility of setting and ensuring the implementation of national-level goals, standards and policies, implements tertiary and specialised services through central level hospitals and medical academies. Of the 9,283 hospitals and health care facilities in the country, 6,764 are in the public sector (73%) and 2,519 are in the private sector (27%)⁹¹. (see Figure B for a breakdown of facilities by types)

Nepal has implemented Sustainable Development Goals (SDGs) and Universal Health Coverage (UHC) programs through its national development plans and health sector strategies. The National Planning Commission (NPC) and the Ministry of Health and Population (MOHP) have developed a results framework of health-related SDG indicators including SDG-3 and nutrition related indicators of SDG-2. Baselines and targets have been set with milestones for each of the indicators. However, an exercise in 2021 showed remarkable data gaps to monitor Health SDGs in many areas and relying on estimates from multiple sources, particularly in the area of mortality rates and prevalence of diseases. Between 2017 and 2019, Nepal's UHC service coverage index increased from 48% to 53%⁹³; less than 50% of the required rate to attain SDGs. The government has prioritised health data availability at all levels to support more equitable health service delivery, with a particular focus on those left behind. 94

⁹¹ Integrated Health Information Management Section/Department of Health Services, 2022, Presentation: Data Availability and Use in the Nepalese Health Sector

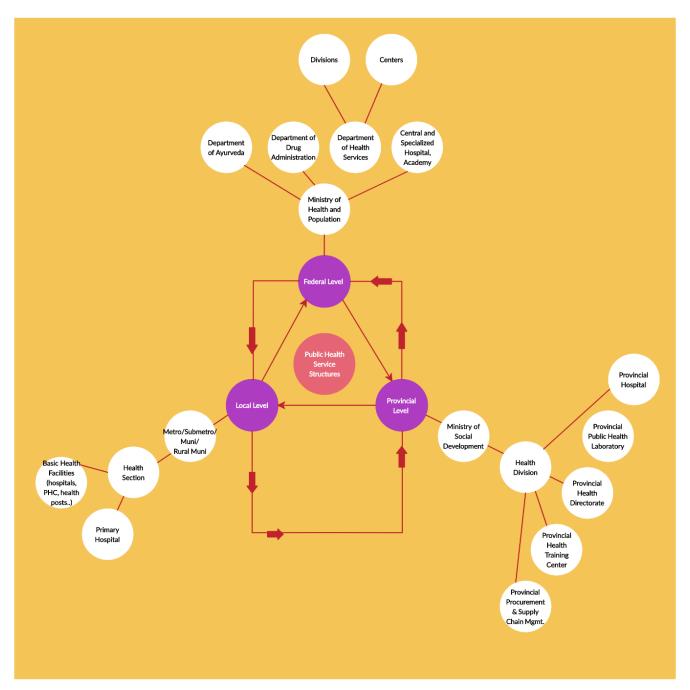
⁹² Nepal MOHP, 2021, Data and Digital Priorities: Addressing Equity

⁹³ WHO, 2022, Tracking Universal Health Coverage: 2021 Global Monitoring Report

⁹⁴ WHO, 2022, Case Study: https://www.who.int/news-room/feature-stories/detail/strengthening-health-data-measure-sdg-progress-nepal



Figure D.1: Organogram of Public Health Service Structures Under Federalism



Source: Public Policy Pathshala and The Asia Foundation, 2020, Local Health Governance: Situational and Political Economy Analysis Report

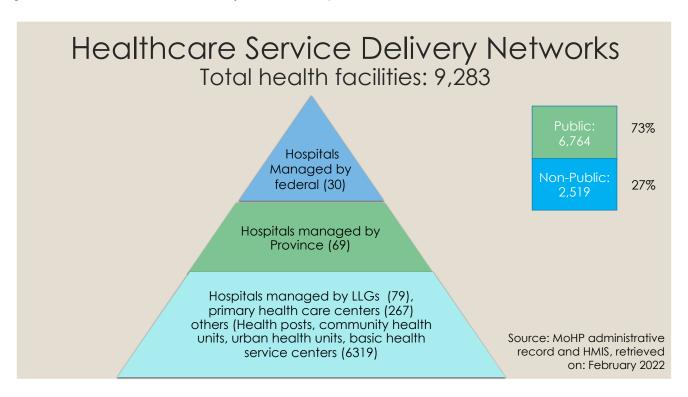
Nepal's Health Information Systems (HIS) have been guided by several policy and strategic documents, such as Nepal's Fifteenth Periodic Plan (2019/2020–2023/2024), National Health Policy 2019, Nepal Health Sector Strategy (NHSS) 2015-2022, Nepal Health Sector Strategic Plan (NHS-SP) 2022-203095, Civil Registration and Vital Statistics (CRVS) Strategy 2019, Digital Nepal Framework 2019, National e-Health Strategy 2017 and e-Health Implementation Roadmap 2019, and Integrated Health Information Management System (IHIMS) Roadmap 2022-2030. Implementation of these policy frameworks requires smart investments by governments, development

⁹⁵ NHS-SP 2022-2030 received Cabinet approval in early June 2023.



partners, health policy makers, community-based organisations, and the private sector. A brief overview of HIS related strategic priorities and focus of these key documents are given in Box D.1.

Figure D.2: Healthcare Services Delivery Network in Nepal



Source: Integrated Health Information Management Section/Department of Health Services, 2022, Presentation: Data Availability and Use in the Nepalese Health Sector

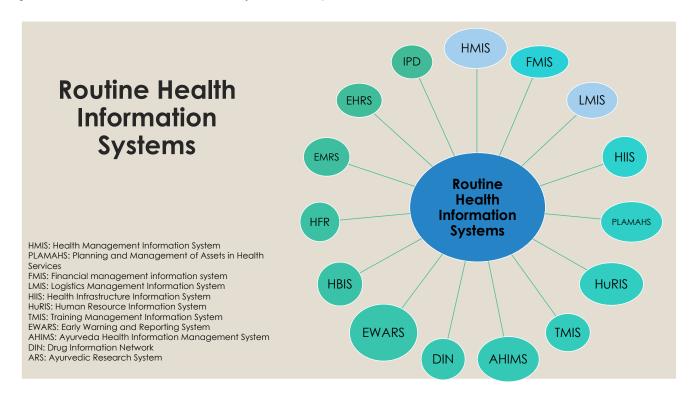
BOX D.1: Key Policy Documents Guiding HIS in Nepal

- Nepal's Fifteenth Periodic Plan (2019/2020– 2023/2024) aims "to increase the use of data in monitoring, assessment, review, policy formulation, and decision process by making health information systems more systematic, integrated, and technology-friendly" as one of its health sector strategies.
- National Health Policy 2019 prioritises the development of an integrated HIS using digital technology and
 focusing on quality data, and use of data and evidence in health policy formulation, planning and systems
 development.
- NHSS 2015–2022 sets out 'Improved availability and use of evidence in decision-making' as one of its outcomes, and the integration of routine health information systems (RHIS), so that they are functional and interoperable, as a key proposed intervention.
- NHS-SP 2022-2030 prioritises evidence and equity based planning in the health sector as one of its suboutcomes. It emphasises on collection, analysis and use of data at all levels leveraging digital technologies, and promotion of quality research in health.
- Digital Nepal Framework 2019, National e-Health Strategy 2017 followed by e-Health Implementation Roadmap 2019 and IHIMS Roadmap 2022-2030 govern, guide, and improve health information, monitoring systems and digital health programmes. e-Health Strategy 2017 calls for 'cost-effective, standardised, efficient, interoperable and user-friendly e-health solutions and applications'. IHIMS Roadmap outlines ways of improving health information, monitoring systems and digital health programs. It guides the integration of different RHIS and elaborates on a proposed e-Health architecture framework to operationalise an integrated and interoperable digital HIS.
- The mission of CRVS Strategy 2019 is to assist in formulation of fact and statistics based policy, public service
 delivery and promotion of good governance by the means of technology friendly personal event registration
 and statistical analysis system.



Nepal uses routine, periodic and ad hoc population based data sources, as well as country estimates to monitor and measure health behaviours, service coverage and utilisation, and outcomes. Routine sources in the health sector include Health Management Information System (HMIS), Logistics Management Information System (LMIS), Financial Management Information System (FMIS), Health Infrastructure Information System (HIIS), Planning and Management of Assets in Health Care System (PLAMAHS), Human Resource Information System (HuRIS), Training Information Management System (TIMS), Ayurveda Reporting System (ARS) and Drug Information Network (DIN)⁹⁶. Early Warning Reporting System (EWARS), a hospital-based sentinel surveillance system, was designed to complement the country's HMIS by providing timely reporting for early detection of selected vector-borne, water and food borne diseases with outbreak potential (see Figure C for routine health data systems of Nepal). CRVS system also provides important health data. Box B provides a brief overview of HMIS and CRVS in Nepal.

Figure D.3: Routine Health Information Systems of Nepal



Source: Integrated Health Information Management Section/Department of Health Services, 2022, Presentation: Data Availability and Use in the Nepalese Health Sector

Population-based data sources include census, periodic health surveys (such as Nepal Demographic and Health Survey (NDHS, the latest was in 2022), Multi Indicator Cluster Survey (MICS, the latest was in 2019), Nepal Health Facility Survey (NHFS, the latest was in 2021), and Annual Household Survey) and ad hoc surveys and studies (such as STEPS Survey for Non Communicable Diseases (the latest was in 2019), and Micronutrient Status Survey (the latest was in 2016). Similarly, country level estimates used in health include Burden of Disease Study (the latest was in 2019) based on Global estimates and National Health Accounts (the latest was in 2022 using 2017-2018 data).

BOX D.2: HMIS and CRVS in Nepal

HMIS: Facility-based HMIS is a major routine data source which was established in 1993 and has evolved significantly over time. It was introduced to have one integrated information system for health programmes when

⁹⁶ DOHS Annual Report 2020/21



vertical, parallel public health programmes were gradually integrated in early 1990s. HMIS captures data from both public and non-public health facilities. In addition to data from health facilities and outreach clinics, HMIS captures data down from the community level primarily through a network of 50,000-strong Female Community Health Volunteers (FCHVs). Nepal started digitisation of HMIS in 2014 and introduced District Health Information Software 2 (DHIS2) as a platform for HMIS data management in Nepal in 2016. In fiscal year 2019/2020, all 753 local government health offices and 2,164 health facilities submitted HMIS monthly reports electronically on DHIS2 [Source: DoHS, 2021, Annual Report 2019/2020]. HMIS on the DHIS2 platform has been updated to accommodate the latest federal structure, and the tools have been expanded to address data requirement for UHC, SDGs, and national health plans, and also to integrate surveillance, and social support programmes. HMIS/DHIS2 has about 2600 variables, 70 data sets (including COVID-19 vaccine) and 440 indicators. DHIS2 access is provided to over 7,322 users with 83% having data entry function, and 17%, data viewer only. HMIS is the main source of annual health reviews held at all levels, though it is less clear if all local governments conduct it regularly. Department of Health Services has been producing Annual Report primarily using HMIS data since 1993.

CRVS: Nepal introduced CRVS in 1976. It historically covered registration of births, deaths, marriages, divorces, and internal migrations, with the recent addition of stillbirths and neonatal deaths. The civil registration structure in Nepal is decentralised, with the Director General of the Department of National ID and Civil Registration (DoNIDCR), Ministry of Home Affairs, acting as the central registrar responsible for managing and coordinating civil registration services across the country. Civil registration services are delivered at 6,743 ward offices across 753 local governments, and ward secretaries serve as local registrars. Nepal's progress since 2016 has been significant on both the normative and implementation fronts. Despite challenges, the decentralised civil registration system has taken shape and leveraged good infrastructure, skilled human resources, and financial devolution at Palikas and Ward offices. The Vital Event Registration System Management Information System (VERS-MIS), the electronic version of the CRVS system, has been expanded remarkably to 6,519 ward offices (97%). Nepal is one of the few countries in the region which prioritises marriage, divorce, and internal migration registration.⁹⁷

There are strong government-led coordination mechanisms at the federal level, e.g. Health Sector M&E Technical Working Group (TWG), IHIMS TWG, and TWG for CRVS coordination, led by the MOHP; Health Development Partners' (DP's) M&E TWG; etc. TWGs and/or Taskforces are also formed by the MOHP for specific purposes such as the preparation of the National Joint Annual Review (NJAR), or to oversee national-level surveys such as NHFS and NDHS. The MOHP and development partners come together to discuss and review national health strategies and priorities on a regular basis, such as during the NJAR. Feedback and participation in the policy development process is solicited through bilateral consultations with development partners as well as group discussions at these forums. The 2021 HDC/UNICEF case study "Assessing partners alignment in support of the HIS in Nepal" noted that the partners reflected on the usefulness of the TWGs formed by Health Sector DPs as a forum for discussing and reviewing national priorities and as a key mechanism for supporting better alignment.

A WHO SCORE framework assessment was conducted for Nepal in 2020, using data from 2013–2018. Overall, Nepal rated as lower-medium to medium-high capacity across the five SCORE assessment domains: Survey population and health risks; Count births, deaths and causes of death; Optimise health service data; Review progress and performance; and Enable data use for policy and action. The weakest point on the SCORE framework pertained to COUNT – that is, CRVS – and also use of the International Statistical Classification of Diseases and Related Health Problems (ICD) 10th Revision (ICD-10) for reporting deaths. Gaps were also identified in the domain 'ENABLE data use for policy and action'. The SCORE assessment showed that, of the 54 indicators to measure and monitor health-related SDGs, 75% had data available (one or more data point over the last five years).

⁹⁷ HDC, UNFPA, UNICEF and WHO, 2023, Strategic Brief on CRVS and GIS (Draft)

⁹⁸ HDC/UNICEF, 2021, Partners Alignment Case Study



A MEASURE Evaluation assessment on the status of HIS was completed in 2019. That assessment was updated by the authors of the 2021 HDC/UNICEF case study⁹⁹ with 2020/2021 data confirming that, overall, data were found for 28 out of 30 MEASURE Evaluation indicators.

Based on gaps identified using the SCORE framework and the MEASURE Evaluation framework to assess Nepal's HIS, the main gaps or areas of weak capacity in the HIS appear to pertain to CRVS, classification of deaths, data use, and human resource capacity. Vital statistics coverage and timeliness of registration of events need to be improved and causes of death more systematically recorded. The quality of data on vital events in Nepal needs to be improved, especially in terms of medical certification of causes of death (MCCOD). The quality of MCCOD data is low in part due to insufficient training of health professionals, poor data collection practices, and lack of awareness among the public.

The census data are being used to determine health programme coverage and population characteristics; however, discrepancies occur over time due to large internal and foreign migration. While almost 25% of SDG indicators related to mortality can be provided through robust CRVS, absence of cause of death data is a major issue in the system. Furthermore, coverage and timeliness of birth registration are suboptimal, and infants unregistered at birth are often from marginalised communities, which adds to inequities of service access, and use of inaccurate denominator estimations. Inadequate coordination of information management systems leads to siloed approaches and poor interoperability.¹⁰⁰

Challenges relating to the digitalisation of health sector reporting primarily relate to weak capacity of health workers in reporting, and also electricity and connectivity challenges, particularly in rural regions of the country. There is also fragmentation in digital initiatives in the health sector. A study in 2019 identified fifteen, largely standalone, e-Health projects in the areas of monitoring and surveillance, electronic health records/electronic medical records (EHR/EMR), health information system, and telemedicine. Immediately following the federal transition, there were issues in reporting by local levels often bypassing provinces. A July 2019 Cabinet-of-Ministers' decision made it mandatory for local governments to report through the provinces to the federal level. It helped resolve the issue and reporting by health facilities and all government levels has improved. The gaps in data use and capacity to manage health data is more pronounced at the provincial and local levels.

There are specific challenges related to hospital data. Hospital service records in the country reflect a large share of available mortality and morbidity data but quality and coverage need improvement and data from hospitals in different jurisdictions are not well linked. Significant investments are also needed in electronic patient records across the system.¹⁰³ Hospital service records need to be improved for completion, compliance, quality, and digitisation.¹⁰⁴

Recent surveys have also shown discrepancies in service utilisation by sex, age, education level, geography and wealth quintiles and a better understanding is needed of the overall impact of health services on morbidity and mortality by equity dimensions. Availability of disaggregated data, data analysis capacity for equity monitoring and improved visualisation and access to information are core areas requiring further work to ensure that no one is left behind.¹⁰⁵

⁹⁹ HDC/UNICEF, 2021, Partners Alignment Case Study

¹⁰⁰ WHO 2022, Case Study

¹⁰¹ Ashish KC et al, 2019, A Review of eHealth Initiatives: Implications for Improving Health Service Delivery in Nepal – Journal of Nepal Health Research Council

¹⁰² Public Policy Pathshala and The Asia Foundation, 2020,. *Local Health Governance: Situational and Political Economy Analysis Report*, Kathmandu

¹⁰³ WHO, 2021, Case Study: https://www.who.int/news-room/feature-stories/detail/nepal2021

¹⁰⁴ WHO 2022, Case Study

¹⁰⁵ WHO, 2021, Case Study



D.7.2.HDC country support and engagement

Nepal's health policy and strategic plans focus on, among others, improving the quality of primary health care, strengthening health information systems and improving equity of access. To accelerate progress on these, Nepal expressed early interest in receiving intensified support from SDG3 Global Action Plan (GAP) agencies in 2019. With SDG3 GAP as the roadmap and support from SDG3 GAP agencies, the government developed a SDG3 National Action Plan (NAP) for 2020-2022 placing primary health care and health data accelerator solutions high on the agenda. In September 2020, MOHP submitted the country position for Heath Data Collaborative (HDC) affiliation, facilitated by WHO South East Asia Regional Office (SEARO) and WHO Nepal Country Office (CO), asking for joined-up support from multilateral and bilateral agencies and other partners in HDC to help tackle Nepal's health information challenges. Subsequently, working across its headquarters, regional and country offices, WHO played a key role in convening members of the GAP Data and Digital Health (D&D) accelerator working group (Gavi, UNDP, UNFPA, UNICEF, WFP and WHO) and HDC, all of which worked together through rounds of virtual meetings (during the COVID-19 pandemic) with MOHP to agree on three priority areas 108. These included catalytic interventions to strengthen health information systems in Nepal over the shorter term where the partners were expected to support:

- Strengthening RHIS for UHC and other health-related SDG reporting, with focused interventions for hospital information system improvement in 22 hospitals, including standardisation, MCCOD and outpatient service recording;
- Establishment of learning centres on RHIS in all seven provinces in collaboration with academia, including targeted capacity building in the public and private sectors; and
- Strengthening HIS and monitoring and evaluation (M&E) coordination mechanisms at provincial level to enable better evidence-based planning and more equitable service delivery.

Over the longer term, the HDC partner agencies aimed to support Nepal to invest in and implement further digital solutions and mobile technology to expand coverage of health information systems, vital statistics, EMR and telemedicine in order to increase health equity and accelerate progress towards UHC.¹⁰⁹

Though Country HDC Launch is yet to formally happen, Nepal has demonstrated political commitments to HDC. Nepal's Health Minister opened the leadership event in December 2020 (Health Data Driving the SDGs and Defeating COVID-19: Accelerating Progress Through Partnership). Nepal nominated the chief of M&E Section of MOHP as the country's HDC focal person who is also a member of HDC's Strategic Representative Group (SRG) from the Countries constituency, participating in SRG meetings and other HDC forums. Though Nepal is among the recent countries to join HDC, it is among the initial ones to have a focused country mission by HDC partners. In January 2023, an international delegation of SDG GAP D&D accelerator and HDC carried out a joint country mission on 'Aligning partner support for data to strengthen the health sector through SDG GAP D&D accelerator and the HDC' engaging national institutions, academia, civil society and research organisations, and in-country HDC partners. The purpose of the mission was to discuss areas of enhanced collaboration on CRVS and Geographical Information System (GIS). Key recommendations in the Strategic Brief (draft) prepared to summarise the outcome of the mission are listed in table D.3.

¹⁰⁶ WHO, 2021, Case Study

¹⁰⁷ WHO, 2022, Case Study

¹⁰⁸ Nepal MOHP, 2021, Data and Digital Priorities: Addressing Equity

¹⁰⁹ WHO, 2021, Case Study



Table D.3: Key recommendations from a joint HDC mission to Nepal in 2023

Key Opportunities for Better Alignment and Support in CRVS	Recommendations for Better Alignment and Support in GIS
 Improve implementation of birth registration laws, directives, and guidelines. Establish partnership with the health sector to enhance birth and death registration, and harmonise data standards. 	 Enhance utilisation of DHIS2 GIS module for integration of health and population data Enhance data harmonisation and standardisation. Advocate for the Survey Department (the
3. Improve the coverage and quality of data related to MCCOD for institutional deaths4. Improve vital statistics reporting	nodal institution for GIS) to constitute a formal coordination mechanism 4. Support GIS capacity and infrastructure of significant agencies

Key national institutions engaged with HDC, e.g. in the mission or global events, are MOHP, the National Statistics Office (NSO; previously, the Central Bureau of Statistics) and the Department of National ID and Civil Registration (DoNIDCR) under the Ministry of Home Affairs. HDC partners engaged in country are WHO, United States Agency for International Development (USAID), the World Bank (WB), United Kingdom's Foreign, Commonwealth and Development Office (FCDO), United Nations Children Fund (UNICEF), United Nations Population Fund (UNFPA) and Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ).

D.7.3.HDC Partners, their work and collaboration on health data systems in Nepal

Signatory agencies of both SDG3 GAP D&D accelerator and HDC, such as Gavi, the Global Fund, UNAIDS, UNFPA, UNICEF, WHO and the World Bank, as well as other members of the HDC, like GIZ, have collaborated with the government to strengthen routine data sources, vital statistics, and population-based surveys in Nepal. They are also supporting local and provincial governments to improve and use RHIS and vital statistics in health care planning, management, and monitoring, thereby ensuring more equitable health service delivery. In addition to the financial assistance by partners such as the World Bank, GAVI and FCDO, partners such as WHO, UNICEF, UNFPA and GIZ, provide technical assistance on areas in which they have specific expertise. Some examples of key support provided by HDC partners are provided in Box D.3.

BOX D.3: Examples of key support provided by HDC partners in Nepal on HIS

- WHO provides technical advice and guidance on policies, data quality and capacity-building, including on RHIS, census, CRVS and other areas of health data.
- GIZ provides technical assistance on DHIS2 and Insurance Information Management System (IMIS), support
 with troubleshooting, and to promote and develop a platform for interoperability. It also supports the
 development and implementation of hospital information system. It's work on standard based interoperability
 has enabled private vendors of hospital information system to integrate claims management module of IMIS in
 their proprietary software. In addition, it supports the piloting of integration of Birth Registration Management
 System (developed by DONIDCR) in all birthing centres of Kailali district.
- FCDO, in line with its commitment to improving efficiency and accountability, provides technical assistance to
 enable effective use of its financial aid, to enhance the government's HIS capacity, and to promote data use for
 decision-making.
- The World Bank supports the Department of National ID and Civil Registration in infrastructure and capacity building for data management at all levels. It also plans to support a results-based programme to establish and expand EMR/EHR in public sector hospitals.
- UNFPA, with its mandate and strengths on population data, provides technical assistance in the form of
 capacity development and support to the analysis and dissemination of census data, including also for its subcomponent, Maternal Mortality Study, and linkages of common variables with demographic and health surveys
 through Small Area Estimation. It also supports further analyses of demographic and health surveys, and
 strengthening of routine systems (HMIS and LMIS) including at the sub-national levels, strengthening data
 quality and use.



- USAID supports the LMIS data management and training. The software is made available at all local levels, districts and provinces.
- UNICEF provides technical assistance and ICT support to strengthen HMIS and LMIS at national and subnational levels.
- UNICEF and GIZ provide technical guidance to strengthen birth registration and digital health.
- WHO and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) support the
 development of Business Process Improvement for birth and death registration and vital statistics. This
 includes development of a guideline covering all the aspects of MCCOD from collection to use and sharing of
 data on mortalities. Federal and provincial public health entities have been brought together for better data on
 mortalities and cause of death.
- UNICEF, WHO and the World Bank support capacity strengthening in all federal and provincial public hospitals
 for recording and reporting of services using ICD11 to enable hospitals to manage standardised,
 disaggregated data and allow interoperability among the systems.
- UNFPA, working with WHO through the SDG3 GAP D&D Accelerator Working Group, has selected Nepal as a
 priority country for geospatial analysis to map and expand SRH coverage and expand CRVS completeness
 and coverage.

There has also been increased coordination and collaboration between national institutions over the last few years with some visible outcomes. MOHP has coordinated with the DONIDCR and relevant stakeholders to strengthen birth and death data using digital platforms as well as the use of ICD and MCCOD for setting the standard. MoHP has formed a Technical Working Group to support CRVS' coordination mechanism where non-health sector entities (NSO and DONIDCR) are also members. The TWG provides joint guidance on, for example, piloting of birth registration management system which brings together the local registrars and health institutions to promote timely birth registration.

NSO and MOHP signed a Memorandum of Understanding (MoU) agreeing to share 2021 census data on deceased women of age 15 to 49 years, and incorporating a complete verbal autopsy on cases reported in the census as pregnancy related. NSO and MOHP have jointly published Nepal Maternal Mortality Study 2021 as an outcome of this collaboration, a first of its kind. Previously maternal mortality counts were based on surveys, this is the first time it was done together with a census. Similarly, NSO and DONIDCR have also signed an MoU to shsare and compile annual vital statistics reports by using data captured in the civil registration system. This has resulted in the following:

- DONIDCR has transferred the last four years' deidentified, CRVS data to NSO for cleaning, quality assessment, analysis and synthesis, and statistical report development
- CRVS covered the whole country more than 30 years ago, but data was never aggregated or published or used for policy/decision-making
- NSO will use the data for, for example, population projection for years when there is no census.

D.7.4.Recommendations- Technical areas of focus

Stakeholders suggested a long list of technical areas that could benefit from additional facilitation as well as technical support, above and beyond what the government and current partners are financing/ supporting. Below is a summarised list that includes technical areas that were either suggested by more than one stakeholder and/or are relevant and feasible in the current context of health data systems in Nepal. The list of suggested technical areas for HDC intervention is extensive, and a prioritisation exercise may be useful to streamline to one or two critical areas that the HDC and partners can focus on in the immediate years.

 Development of an overarching architecture of digital health with institutional homes for data policy and systems: to enable a vision of paperless routine data systems, and minimise fragmentation



- Expansion of digital infrastructure and capacity to cater to a rapidly growing network of health facilities and hospitals
- Data integration: Development and implementation of standards, and interface between data systems
- Interoperability of different digital systems
- Use of data at all governance and service levels: to inform policies, plans, reviews and day-to-day decision-making, as well as for evidence-based advocacy for resources; and by researchers (e.g. large data sets in the routine systems)
- Hospital data systems: EMR/EHR is a priority, it could start with piloting in central hospitals
- Initiatives promoting interlinkages between data systems and collaboration between government agencies: such Birth and death registration in CRVS and HMIS, regular population projections using Census and CRVS data, etc.
- CRVS and Census: Intensive technical support to the non-health government agencies who are less supported by health development partners, for example on using CRVS, census and survey data to help with localisation of SDG indicators
- Promoting innovation in data systems improvement and data use: such as using results based financing to incentivise innovation and good practice
- Linking Nepal's data to the regional and global repositories through data sharing platforms
- Promoting open source public goods: for example, EMR software for hospitals
- Promotion of data sharing between government agencies and with stakeholders: examples from other countries or regions



Appendix E PAKISTAN CASE STUDY

This appendix presents the summary findings from the Pakistan case study. It has been developed based on (i) stakeholder consultations (Section E.6. includes a list of consultees) and a review of documentation and data (Section E.5 includes a bibliography).

Limitations of case study report: Pakistan is considered HDC "pre-engaged" country and as such has not officially joined the HDC. As result, it was difficult to secure interviews from some of the stakeholder constituencies and some of the stakeholders interviewed had no strong understanding of the HDC.

E.1. Background information and context

E.1.1. Key country characteristics with regards to data systems

The health information system (HIS) in Pakistan is largely paper based and fragmented, with multiple vertical information systems related to specific diseases and projects. Fragmentation decreased to some extent with the shift to the DHIS2 platform in 2018¹¹⁰, however, vertical programmes, such as the Lady Health Worker programme and immunisation do not share data. Health facilities do not have a system of unique patient identification, making it difficult to follow up on service needs, for example, when an immunisation dose has been a missed.

Most policy and planning decisions are made on the basis of population-based surveys (including the Census, Social and Living Standards Survey, Demographic and Health Survey, and MICS). The WHO SCORE Assessment rates Pakistan as having a well-developed capacity in population surveillance and optimisation of health service data, and moderate capacity to review progress and performance and enable data use for policy and action. Regular high-quality reporting on health sector progress and performance of the health sector strategy, with a focus on equity, is not occurring. Civil Registration and Vital Statistics (CRVS) is performing particularly poorly. Pakistan has a lower capacity than 80% of Eastern Mediterranean countries in CRVS with only 42% of births and 35% of deaths registered. The poor and those living in rural areas have even lower registration rates. Classification of the cause of death on the basis of ICD is not taking place.¹¹¹

HMIS and CRVS strengthening (including data integration, digitisation and interoperability) has been challenging in the context of devolution of health and social sector responsibilities to the Provinces, because of weak capacity at this level. Several stakeholders who were interviewed mentioned there was a poor culture of data use in the country.

Strengthening the Health Information System (HIS), including Civil Registration and Vital Statistics (CRVS) is one of the eight core pillars in the National Health Vision 2016-2025. Overall responsibility of the HIS rests with the Health Planning, Systems Strengthening and Information Analysis Unit within the Ministry of National Health Services, Regulation and Coordination (Ministry of Health). With the help of WHO EMRO and the Country Office, a detailed assessment of the Health Information System (including CRVS) was undertaken in 2017, and a costed Health Information System Action Plan was developed, together with Provincial Road Maps. The Action Plan has eight strategic objectives. Activities include: transitioning to DHIS2, design of an integrated dashboard with all core health indicators from vertical programmes, and development of a digital health strategy. A National Digital Health Framework 2022-2030 has been developed since.

CRVS reform is currently being driven by the Ministry of Planning, Development, and Special Initiatives (Ministry of Planning). A Technical Support Unit (TSU) was established within the Ministry of Planning in 2017 to drive and oversee CRVS roll out. The National Framework for CRVS Reform 2022-2030 and six year Roadmap to promote CRVS were developed by the TSU with support from UNICEF. Other technical partners supporting the TSU include

¹¹⁰ Government of Pakistan, National Health Information System Action Plan and Provincial Road Maps (2020-2024)

¹¹¹ WHO, 2020, Pakistan SCORE Assessment



Bloomberg Philanthropies Data For Health, Vital Strategies, UNESCAP, UNFPA, and WHO. CRVS reforms are progressing very slowly. A pilot was set up in select provinces, and legislation for CRVS reform passed. However, coordination between different stakeholders and the National Database and Registration Authority (NADRA), and integration between local government and the health department is not working. A major bottleneck is that data is not being fed into NADRA.

More recently, CRVS progress has stalled due to changes in which institution has the responsibility for driving CRVS reforms. In January 2023, responsibility for CRVS shifted within the Ministry of Planning, from Chief Health to Chief Population Welfare. One stakeholder felt this was the wrong decision, "I feel the shift of responsibility for CRVS from Chief Health to Chief Population Welfare is the wrong decision ... health and CRVS are very closely connected". More recently, a decision has been made to re-locate CRVS responsibility from the Ministry of Planning to the Ministry of Interior. Interior is considered a more appropriate home as they manage local government, and is responsible for civil registration. One stakeholder commented, "while the Ministry of Interior is the right home for CRVS, it will take some time to build new relationships and agree a joint plan of action".

These governance related changes to CRVS are resulting in delays in CRVS reforms, as well as delaying the provision of financial and technical assistance from donors and partners.

E.1.2. HDC country support and engagement

To date, the only formal engagement Pakistan has had with the HDC, has been participation in a joint WHO EMRO/GoP CRVS Country Mission in 2022. The Mission was in direct response to a request from the Ministry of Planning to strengthen the health sector's contribution to a National CRVS system. A representative from the HDC Secretariat participated in the Mission.

The objectives of the Mission were to:

- Report on the status of CRVS, and partners support to CRVS.
- Develop a national action plan to strengthen CRVS systems, with defined roles and responsibilities national, regional and global CRVS partners.
- Introduce the government of Pakistan to the HDC
- . The following next steps were agreed to take forward HDC country engagement:
 - Have a follow up call with WHO Country Office to discuss modalities of establishing the HDC mechanism in Pakistan.
 - Invite the Ministry of Planning to present CRVS priorities to partners at HDC CRVS Working Group.
 - Continue planning for a follow up mission co-convened by HDC and SDG GAP Data and Digital

None of the next steps to further HDC engagement were taken forward. A follow up Mission for CRVS strengthening was planned for early 2023. Like the earlier Mission in 2022 it was to be led by EMRO/GoP, with participation from the HDC Secretariat. The Concept Note that was developed for the follow up Mission by WHO EMRO and UNICEF, outlined several CRVS strengthening objectives. However, it did not include any specific HDC objectives, apart from mentioning the HDC in the background section, "Alongside the Health Data Collaborative (HDC), SDG3 GAP partners are actively trying to convene and align partners' technical and financial resources with country identified data and digital priorities, as a means to strengthen the health sector and support joint efforts towards improved health information systems". The Concept Note also mentions "Civil registration and vital statistics (CRVS) programs are among core components of national health information system strengthening efforts supported by HDC and SDG3 GAP partners".

The 2023 CRVS Mission was postponed, and no alternative date has been set. The potential reasons why the follow up steps to progress HDC engagement identified during the 2022 CRVS Mission were not taken forward are explored in Section E.2 of the case study.



E.2. KEY FINDINGS

E.2.1. Pillar 1: Relevance and coherence

In country knowledge of HDC and value add

Most stakeholders have not heard of the HDC, however when informed of its mandate they considered the concept would be useful for Pakistan, especially for partner coordination and global lesson learning for CRVS. Given HDC is not active in Pakistan, it is not surprising that half of the stakeholders that were interviewed had not heard of the HDC. However, more surprising was a stakeholder who participated in last year's CRVS Multistakeholder Mission informing "I have worked deeply on health data systems for 14 years, but have not heard of HDC". The same stakeholder mentioned they had recently received an invitation from WHO related to the GAP Accelerator.

A government stakeholder who was familiar with HDC commented "it would provide an excellent platform at country and international level to pool learning and collaborate with other countries". Most of the stakeholders not familiar with HDC, agreed the country would benefit from joining as there is an urgent need for stronger coordination among partners for health data strengthening, especially for CRVS. They felt this would support better alignment of financial and technical resources, as well as promote greater accountability for the actions. Below are several quotes from stakeholders making the case for the need for greater coordination and alignment of CRVS inputs and the benefits of joining the HDC.

"There is duplication of effort in CRVS support"

"We have many donors and technical partners for CRVS strengthening, but there is a lack of comprehensive framework of cooperation and demarcation of responsibilities"

"What different agencies are doing with CRVS is not clear, everyone needs to share their plans, and approach this as a joint task"

"There is an urgent need for coordinated TA at Provincial level"

One stakeholder mentioned that HDC could also better support and strengthen inter-ministerial coordination, i.e. among Health, Planning and Interior Ministries. Given the responsibility for CRVS development (and other health data systems) lies with Provinces, it was expressed that HDC could help coordinate and leverage capacity building efforts at Provincial and lower levels. This was felt to be the single most important barrier to CRVS scale up.

Stakeholders mentioned another potential benefit of HDC membership could be learning of CRVS best practices from other countries and of other health data innovations:

"HDC can help learn good lessons from other countries' that are similar in socio economic terms to Pakistan, for example, in Peru 97% of births are registered ... how did they do it with similar level of development as Pakistan?"

"The HDC relationship should be formalised so that Pakistan can collaborate with other regions of WHO, especially with India and the wider SARRC region. We can establish greater regional collaboration by setting up sister districts with Pakistan, Nepal, India, and Sri Lanka to implement such reforms."

E.2.2. Pillar 2: Efficiency

The HDC's approach of using the CRVS Mission to introduce the country to the HDC was considered to be efficient as they shared core principles. There was strong alignment between the HDC mandate and the objectives of the 2022 CRVS Mission, as both were concerned with supporting stronger partner alignment for health data strengthening. The mission ensured both government and key CRVS partners learnt about HDC and the benefits of joining. The subsequent lack of progress in joining the HDC appears to be due to the changes taking place on who should lead CRVS strengthening, and not due to the government not perceiving a value add in joining the HDC initiative. The HDC representative's post Mission Report (titled Health Data Collaborative Trip Report) confirms there is interest in joining, "the HDC concept was well received by participants, with interest from both the



Ministry of Planning and Ministry of Health to join the HDC". The interest to join was corroborated by a government stakeholder.

E.2.3. Pillar 2: Effectiveness, Impact and Sustainability

The delay in joining the HDC is related to recent changes in CRVS governance (which was the main point of entry to engage the GoP for the HDC Secretariat), rather than a lack of country interest in the HDC. It is unclear why none of the follow up steps that were agreed during the 2022 CRVS Mission to progress HDC affiliation (including a follow up call to discuss setting up the HDC mechanism in country, and a follow on HDC led Mission) were not undertaken. The HDC Secretariat planned to rely on a follow up CRVS Mission to progress HDC membership discussions. The follow up CRVS Mission was scheduled in March 2023, and was to have had HDC representation. However, this Mission was cancelled, thus stalling HDC discussions. The reason for the cancellation is most likely related to the recent decision to shift responsibility for CRVS from Ministry of Planning to Ministry of Interior. Though the CRVS mission provided a good entry point for the HDC Secretariat to open up discussions on the benefits of joining HDC, in reality due to the CRVS governance changes, it has slowed down Pakistan's membership to HDC/SDG Gap. The HDC Secretariat should consider opening up other channels of communication with GoP to progress country affiliation, now that it has become clear the CRVS channel is delayed.

The CRVS Mission generated interest in joining HDC, and helped identify the health data priorities that HDC could support. However, there is lack of clarity on what country mechanism would need to be put in place for Pakistan to benefit from the HDC. In the partners forum session that was held during the CRVS Mission, government and the partners agreed on 3 health data strengthening priorities - CRVS, HIS, and Data for PHC (HDC Trip Report). These priorities align well with wider assessments that have been undertaken, such as WHO SCORE. While some of the benefits of HDC support have been articulated by various stakeholders, including partner coordination and alignment, access to technical expertise through the working groups, regional sharing and lesson learning, and country contextualisation of global tools and guidelines, it is not clear how present HDC mechanisms can best support these. Further, stakeholders stressed on the need for TA coordination and provision at the Provincial level. It is unrealistic to expect the HDC to take on this function without adequate in country staff and funding. It will be important for the Secretariat to manage country expectations of HDC membership, as well as put in place the required resources to deliver the agreed HDC mandate.

The WHO regional office is already driving partner alignment and coordination for CRVS strengthening in the absence of HDC membership. While HDC could support partner alignment for the other identified health data priorities, it will need to deliver on a wider mandate for the country to perceive a value add. A core objective of the 2022 WHO EMRO/GoP CRVS Mission was to provide an update on what the different partners (WHO, Vital Strategies, UNICEF, UNFPA, UNESCAP) were doing to support CRVS in the country, and agree a joint and coordinated action plan for CRVS strengthening going forward. A Joint Action Plan for CRVS strengthening was developed after the 2022 CRVS Mission, although it was not endorsed or operationalised, likely to have been due to the CRVS governance changes.

Partner coordination and alignment is a core mandate of HDC but this is currently already being facilitated by WHO EMRO for CRVS. Therefore, HDC would need to deliver on a wider mandate for country stakeholders to perceive a value add of HDC membership, such as facilitating access to global expertise. HDC can still add value with respect partner alignment and coordination for HIS and Data for PHC, the other 2 identified data priorities.

Although Pakistan is not officially affiliated to HDC, some government officials have participated in global HDC events. The Chief Health of the Ministry of Planning has participated in a few HDC webinars and events (most likely connected to the CRVS Working Group). This appears to have been at the invitation from the HDC Secretariat, following the 2022 CRVS Mission. Chief Health said he found the webinars very helpful, and would look forward to participating in HDC global events in the future following the country joining HDC.

The absence of HDC membership does not appear to be hindering the development of an enabling environment for CRVS or HIS, or to country contextualisation of global public goods. Therefore, HDC membership would need to deliver other concrete benefits, such as access to innovations and capacity



development. The GoP, with the help of technical partners, has recently put in place several Frameworks and Road Maps to guide the development and strengthening of the health data system. This includes:

- National Health Information System Action Plan and Provincial Road Maps (2020-2024), developed with the help of WHO, UNICEF and Global Fund
- National Digital Health Framework (2022-2030), developed with the help of UNDP, WHO, and USAI
- National Framework on CRVS Reform 2022-2030, developed with the help of UNICEF.

Even though Pakistan is not affiliated to HDC, this does not seem to be hindering their access to and country contextualisation of global public goods, including WHO tools and guidelines related to health data systems. For example, the National Digital Health Framework refers to and draws on WHO's Global Strategy on Digital Health 2020 to 2025. For development of the National Health Information System Action Plan, a comprehensive Health Information System Assessment was conducted using a methodology developed by WHO EMRO, including desk reviews, field visits, and stakeholder consultations. During the HIS assessment, discussions were guided by the WHO monitoring and evaluation assessment and planning tool which provides an overview of the weaknesses and strengths of the country monitoring and evaluation systems and enables identification of priority actions based on the findings. This implies that HDC will need to deliver on other aspects of the HDC mandate, such as access to global expertise or facilitating increased TA resources for the country to benefit from HDC affiliation.

E.3. CONCLUSIONS

The CRVS Missions provided a good platform for familiarising the government and partners on the HDC initiative, however, the reliance on CRVS processes has delayed Pakistan joining HDC. While the Secretariat was successful in engaging GoP on HDC through the CRVS mission, communication has stalled due to uncertainty on where the CRVS TSU should be located. Once the CRVS challenges became apparent, the Secretariat should have adopted an alternative strategy to engage the country on HDC, especially in relation to the other two identified data priorities (HIS and Data for PHC). As the Ministry of Health is responsible for these data priorities, the HDC Secretariat should have reached out directly to them to progress HDC discussions and membership

Even though stakeholders feel there is a need for stronger alignment of partner support to CRVS, to a large extent this is already taking place through support from WHO EMRO and the CRVS TSU. It will be important for HDC to deliver additional benefits for CRVS. Even in the absence of HDC, the CRVS Mission would have contributed to stronger partner alignment for CRVS had the Joint CRVS Work Plan (which was developed following the 2022 Mission) had it been approved and implemented. This can be attributed to the work of WHO EMRO and the CRVS Technical Support Unit, currently located within the Ministry of Planning. Most stakeholders agreed that the main CRVS strengthening need is for TA provision at the Provincial level. It will be challenging for HDC to support Provincial level coordination and strengthening, unless HDC is able to put in place the needed staff, funding and processes for this to be successful. The HDC will need to deliver other tangible benefits to CRVS, such as global learning, and access to global expertise.

There is a need for strengthening the HIS coordination in Pakistan especially for PHC and CRVS, however, it is unlikely that the existing HC model can robustly provide support for in-country coordination to deliver tangible benefits. One stakeholder said "HDC membership will help galvanise much needed support for integration and use of the routine HIS, especially for primary health care ... this is an area that is not getting as much attention as CRVS, but is critical to make progress towards the health SDGs". In particular, there is need to improve capacity to use data for strengthening PHC delivery. It is unlikely the existing HDC model with limited presence and funding in-country would be able to deliver tangible partner alignment and coordination, access to global public goods, and capacity development for HIS and data for PHC. Partner coordination and alignment is even more challenging in Pakistan given responsibilities have been devolved to Provinces. Therefore, it would be important that HDC provides a clear steer on what it is able and not able to deliver.



E.4. RECOMMENDATIONS

- The HDC Secretariat should engage GoP on HDC through channels other than the CRVS, as CRVS progress has stalled due to governance changes. The HDC Secretariat should communicate directly with the Ministry of Health, on joining HDC and agreeing the areas of support. This would be more appropriate as the Ministry of Health has responsibility for HIS and Data for PHC, the other identified health data priorities that could benefit from HDC affiliation.
- While the HDC has relevance for Pakistan, it should clearly communicate what it is able to provide
 and what it is not able to deliver. While there is a strong demand for in-depth support for in-country
 coordination, the HDC should communicate clearly that it is better placed to provide access to best
 practice, global public goods and a network of countries with similar experiences. This would help to
 ensure that there is no misalignment on expectations on what the HDC can and cannot deliver.



E.5. BIBLIOGRAPHY

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E.6. LIST OF STAKEHOLDERS INTERVIEWED

Table E.1: List of country level stakeholder consultees for Pakistan

Organisation	Name	Position
Ministry of Planning, Development, and Special Initiatives	Dr Asif Muhammad	Chief, Health
Pakistan Bureau of Statistics	Dr Naeem uz Zafar	Chief Statistician
UNFPA	Dr Muqaddar Shah	Lead data section
	Dr Jamil	SRH/FP lead
	Mr Ahan Mohammed	Technical Specialist, Family Planning indicators
University of New South Wales	Dr Jasim Anwar	CRVS Consultant to Planning Commission, ESCAP
Azad Jammu and Kashmir Provincial Government (Local Government and Rural Development)	Mr Raja Zulqarnain	Deputy Director
WHO	Dr Hassan Ali Dalvi Shirazi,	Coordinator / Cluster Lead, Health System
	Dr Syed Baqer Hasnain Jafri,	Technical Officer, Health System
	Ms Afifa Baloch	Technical Officer, Patient Safety and Hospital Sector





Appendix F TANZANIA CASE STUDY

This appendix presents the summary findings from the Tanzania case study. It has been developed from (i) stakeholder consultations (Section F.6. includes a list of consultees) and a review of documentation and data (Section F.5 includes a bibliography).

Limitations of case study report: As the Government of Tanzania has disengaged from the HDC, it was difficult to secure interviews from some of the stakeholder constituencies. Due to disengagement, many of the stakeholders interviewed had no strong understanding of the HDC.

F.1. BACKGROUND INFORMATION AND CONTEXT

F.1.1. Key country characteristics, with regards to data systems

At the time the HDC was launched in Tanzania in 2017, the health data system (especially the HMIS and facility surveys) was fragmented and there was considerable duplication of effort from the different technical partners, including parallel training efforts. There were multiple data collection tools and over 400 indicators used across the health sector, creating repetition of data collection at facility level. As a result, heath workers were overburdened. Moreover, there were over 160 software used across the country, with little or no data sharing. Most of the software were standalone, operating in one facility (hospital, Health Centre or Dispensary) or were programme based (e.g. for the HIV/AIDS and immunisation programmes). Other components of the health data system were also weak, such as CRVS, and multiple facility-based surveys were undertaken to service the needs of specific health programmes.

These challenges are corroborated by WHO's SCORE assessment for Tanzania, based on data from 2013-2018. Although Tanzania was highly rated In terms of its capacity to review health sector progress and performance and optimise health service data, as noted above these systems are highly fragmented. Tanzania was rated as having moderate capacity to enable data for policy and action, and in surveying the population. Tanzania was rated as having lower capacity than 38% of African countries in CRVS, with 26% of births and 30% of deaths registered. 115

Led by the Ministry of Health Community Development, Gender, Elderly and Children (MoH) there has been significant improvement in the operation of the routine HMIS over the past 5-6 years. Through the shift to DHIS2, data collection tools and indicators for the different programmes (for example, family planning, children under 5 years, HIV etc.) have been standardised. As one stakeholder noted, "*No donor or technical partner is now able to introduce their own data collection tool*". This has resulted in unification of data collection. The system is paper based and manual up to the district level. At district level, the focal point for a specific programme aggregates the information and feeds it into the digital DHIS2 system. Over 97% of health facilities are reporting data, with 94% doing so on a timely basis.¹¹⁶ It is now possible to access health data for each facility, and a dashboard of indicators is maintained at district level.

Under the stewardship of MoH, the enabling environment for development of HIS has improved over the last 5 years. New guidelines, frameworks, and strategies include:

• Information System Guidelines 2018: The purpose of the document was to bring all health stakeholders together to implement one health information system across the health sector. The document provide

¹¹² Government of Tanzania, HDC, 2020, Health Data Collaborative Implementation Report

¹¹³ Government of Tanzania, HDC, January 2018, Note for the Record, HDC Deep Dive

¹¹⁴ Government of Tanzania, HDC, 2020, Health Data Collaborative Implementation Report

¹¹⁵ WHO, 2020, Tanzania SCORE Assessment

¹¹⁶ Government of Tanzania 2023, Presentation at the HDC Leadership Event on Better Data for Better Health, Geneva, May 2023



guidance on data ownership, data sharing, data security, data dissemination and publication. The guidelines also outline the role and responsibility of stakeholders at different levels of the Health Sector.

- **Monitoring and Evaluation Strategic Framework:** The document aligns the government data initiatives, funding partners and implementing partners to support one M&E Plan.
- Digital Health Strategy (2019-2024): The Strategy sought to strengthen digital health governance, promote the use of telehealth, improve workforce capacity to use technology, enhance seamless and secure information exchange, among other strategic priorities.
- Tanzania Digital Health Investment Road Map (2017- 2023): The Road Map was developed with support
 from PATH and the Bill and Melinda Gates Foundation (BMGF). It identified 17 investment areas to roll out
 digital health, including "to computerise primary health care data, with the investment focus on equipping
 health centres, dispensaries and community health workers with the hardware and software tools and the
 skills to use them in order to generate and use high-quality data to improve care"

Progress on strategy development as well as data collection and analysis under DHIS2 notwithstanding, HIS challenges remain. These relate to the quality of data collected, as well as poor use of the data for decision making. Both the MoH and the Ministry of Local Government (President's Office for Regional Administration and Local Government or PORALG) should be consumers of health data. Local government leads on annual health planning, and conducts biannual reviews on progress. The MoH however, should ideally draw on and use health data analysis to conduct supportive supervision. As succinctly summarised by on stakeholder, "there is no routine use of data... during the six monthly reviews district staff will pull out data from DHIS2 and present the analysis, however, there is no routine use of the data and analysis for example for supportive supervision purposes. There is a need for tools that present data visually".

F.1.2. HDC country support and engagement

Tanzania is an HDC Pathfinder country, joining the initiative in 2017. A collaboration of the MoH and the PORALG, health stakeholders and global partners, HDC kicked off in country with a 2.5 day launch meeting, with 145 participants. The main objectives of the Tanzania HDC were outlined at the launch as:

- Rally all stakeholders towards supporting a common monitoring and evaluation (M&E) framework an prioritised plan
- To strengthen in country M&E coordination mechanism as basis for a strong country led information and accountability platform
- To leverage technical and political support from partners and stakeholders at all levels to support the national M&E priorities
- To actively engage key players from other sectors to support strengthening of the national platform for measurement and accountability.

Breakout groups were used to agree a Draft Joint Communique, which outlined and agreed on seven health data strengthening priorities.¹¹⁷

An **HDC Logframe** was developed, outlining specific outputs for each priority area. For example, for the first priority "Addressing fragmentation of M&E and data systems: strengthen governance and coordination mechanism to

¹¹⁷ Identified data priorities: i) Addressing fragmentation of M&E and data systems, ii) Strengthen governance and coordination mechanism to ensure all stakeholders adhere to the One M&E Framework, iii) Alignment of indicators and data collection processes, iv) Alignment of health facility assessments and survey, v) Joint and aligned investment in digital health information systems, vi) Strengthening capacity for analysis and use of data, vii) Strengthen access to data



ensure all stakeholders adhere to one M&E Framework", the corresponding Logframe output is "A strong M&E governance and coordination mechanism is in place."

The **HDC Communique** was signed in February 2018, and included a detailed "implementation matrix and monitoring framework of the M&E priorities for collaborative action" and agreed actions and timeline (2018-2020) for each of the seven priority areas. It was explained that HDC was not a funding entity, and aimed to have a nimble country governance structure. This included an **HDC Coordination Group**, a time-limited group of technical experts from government and development partners, academia, civil society, private sector and faith based organisations to work collectively on specific programmatic and technical deliverables of the **HDC Implementation Matrix 2018 – 2020**. A Terms of Reference was developed for the HDC Coordination Group.¹¹⁸ It was to be chaired by MoH and to meet monthly.

Part of HDC governance were regular "**Deep Dives**", led by the MoH to provide a space for communication and discussion with in-country and global partners towards more efficient support of country M&E/HIS needs. The Deep Dive report for January 2018 includes an update on progress toward the seven country health data priorities, together with actions needed to progress the priority, as well as and an update from partners on the support they are providing.

An **Implementation Report** was developed in December 2020. The report summarises progress, against country priorities and conclusions, and way forward,

This elaborate HDC governance structures and processes notwithstanding, the perception of Government of Tanzania (GoT) is that HDC did not deliver tangible benefits. The GoT has therefore disengaged from HDC processes. Although the MoH did present on the status of their health systems at the "HDC Leadership event on Better Data for Better Health" held in Geneva in May 2023, the presentation did not make any reference to any incountry HDC activities. The reasons for disengagement and GoT expectations of HDC are discussed in the Findings section of the case study report.

F.2. KEY FINDINGS

F.2.1. Pillar 1: Relevance and coherence

The HDC was timely and relevant when it was set up in Tanzania, however, progress achieved on the HMIS over the last 5-6 years cannot be attributed to HDC. When the HDC was set up in 2017, it was welcomed by both the MoH, and donors and technical partners supporting the sector, as it was felt the initiative would help coordinate and better align inputs being provided by donors and technical partners. Stakeholders expected that the HDC would help harmonise data collection tools and software being used by partners under the various health programmes. Despite significant improvement in HMIS harmonisation and simplification since the launch of the HDC in Tanzania however, stakeholders attribute this to the shift towards the DHIS2 platform rather than the HDC. Stakeholders within the GoT do not believe the HDC led to stronger donor coordination, or that it supported access to global goods and expertise. This is discussed further in Section F.2.3 on Effectiveness.

Stakeholders feel the HDC's mandate is still relevant, however, it is clear it cannot deliver without major changes in the way it is resourced and managed. There is still a need to coordinate donor and technical partner support, especially at sub national levels, and help to strengthen capacity in order to improve data quality, ensure use of data for decision-making, and accelerating digitisation of data. However, the current model of HDC in Tanzania has been unable to deliver tangible benefits, leading to frustration from the government. In order to fulfil

¹¹⁸ Terms of Reference for the HDC Coordination Group: i) Get updated on ongoing Health Data projects including mapping of small scale implementation research and consider new ideas and upcoming proposal, ii) Conduct a detailed planning and review of HDC implementation matrix, and assign responsibilities to relevant agencies, iii) Follow up on recommendation of Monitoring and Evaluation Technical Working Group (M&E TWG), iv) Prepare a report to M&E TWG



its objectives, the HDC would need to make major changes to the way in which it engages in Tanzania as well as structures, funding and processes established in country.

F.2.2. Pillar 2: Efficiency

Efficiency of the HDC governance and operational structure

The HDC initiative by setting up a parallel governance structure, rather than helping to either set up or strengthen an existing government institution. Soon after the launch and signing of the HDC Communique, WHO established the time-limited HDC Coordination Group, rather than reviving and strengthening the M&E Technical Working Group within the MoH. Instead, partner coordination for M&E takes place within individual programmes, with no dedicated overarching coordination platform (either through the HDC Coordination Group or the MoH M&E TWG). This diminishes the government's ability to coordinate partners across disease programmes. Instead, a more sustainable approach would have been to revive and strengthen the MoH M&E TWG/ M&E coordinating platform from the start. As one stakeholder emphasised, "a M&E Technical Working Group (TWG) is required to coordinate partner inputs at lower level, to strategise and set standards at central level, and trouble shoot for lower tiers of government". The MoH M&E TWG should have taken a lead in driving improvements in data quality and use.

The high staff turnover at the HDC Secretariat led to frustration within the MoH and a feeling they were continuously having to brief the Secretariat, as opposed to the MoH benefiting from the HDC's thought leadership. The WHO Country Office mentioned they were continuously hosting new HDC Secretariat staff, as part of their orientation to the programme. This led to MoH having to repeatedly brief the Secretariat about the health data context in the country, while not benefiting from their technical advice or insights. "There was a lot of staff turnover in Secretariat, which did no help operations at country level "Government looks to the Secretariat for guidance, instead they found they were having to continually brief the Secretariat."

F.2.3. Pillar 3: Effectiveness, sustainability and impact

Extent to which the HDC has achieved its objectives

The HDC governance structures established at the start (such as Logframe, Deep Dive, and Implementation Matrix) have stopped operating. In theory, the Logframe and Implementation Matrix gave focus to the HDC objectives and country data priorities, and accountability for their delivery. In reality, it was not used, as HDC was not able to deliver on the Outputs defined in the Logframe. Likewise, the regular Deep Dives to understand what various partners were doing with respect support to HMIS strengthening was again useful in theory, but it doesn't appear to have resulted in stronger coordination or leveraging of additional resources for HMIS.

The HDC activities and produced documents raised expectations around funding and follow-up which led to frustration when they were not met. Despite having identified the seven country data development priorities in a consultative manner, there is no evidence HDC facilitated and coordinated technical and financial resources from partners to deliver against these priorities. Together with MoH, HDC produced a comprehensive document "Data and Digital Priorities: Coordinated Monitoring and Evaluation for Health Systems Strengthening" (undated), a costed plan of action for the seven M&E priorities which identified key deliverables for each priority area. However, this was not used to guide investments in data strengthening. The 2021/22 HDC Achievements Report notes "HDC in Tanzania identified data and digital priorities, completed costed plan, but this did not translate into alignment of resource among partners." In contrast, the "Costed Investment Road Map to Support the Digitisation of Health Data" developed by PLAN with support from the Bill and Melinda Gates Foundation did lead to greater alignment financial alignment for the digitisation of health data. A stakeholder interviewed said "7 out of 17 of the priority areas were funded by BMGF through PATH, while other donors, including Global Fund, World Bank, and CDC supported other components ... including the Health Information Mediator to ensure interoperability of data."

Another global stakeholder remarked that frustration built up in Tanzania, because of the lack of systems in place for the HDC to respond to country requests when they came in.

Tanzania has had some interaction with global HDC Working Groups, however, the value add has been limited. The MoH has interacted with all the Working Groups, including the CRVS and Digital Health &



Interoperability Working Groups. According to the WHO Country Office, "the Working Groups have provided access to global public goods and learnings from global best practices." However, this was not corroborated by the government stakeholder who was interviewed. Another stakeholder said, "the country has been slow in taking up and adapting global goods, customising and use them.... the decision to use a global data tool needs to be made from within government, rather than an organisation outside, such as PATH identifying a global good and trying to sell it to government". A stakeholder also reported that recently the Tanzanian government lost confidence in the Working Groups when a draft CRVS strategy that had been given to the WGs for feedback was shared on the internet.

Apart from sending MoH officials to attend HDC meetings in Geneva, the initiative has been inactive in Tanzania for several years. The majority of stakeholders interviewed had not heard of the HDC, and those who had said it was currently inactive. HDC Progress Reports covering the period 2019 to 2021 did not include an update on Tanzania, and the 2021-22 Progress Report concluded that the initiative had not supported stronger financial and technical alignment among partners. The GoT made a presentation at the recent "HDC Leadership Event on Better Data for Better Health" in Geneva in May 2023. Their presentation gave an update on progress made on HMIS/DHIS2, digitisation of health data, and the CRVS. The presentation makes no reference to the support provided under HDC.

HDC Impact

Since the launch of HDC, a more enabling policy environment has been developed for data strengthening, and significant strides have been made with HMIS data harmonisation and standardisation, however, this cannot be attributed to HDC. Several key strategies and policy documents related to health data have been developed since the launch of the HDC in Tanzania. This includes the Information System Guidelines 2018, the Monitoring and Evaluation Strategic Framework 2015-2020, and the Digital Health Strategy 2019-2024. Under DHIS2, donors and technical partners are now required to use standardised tools and indicators. This has led to 95% of health districts reporting data in a timely manner. One stakeholder said "previously, there were several data quality (DQ) assessment tools being used, now all partners use the same DQ assessment tool". There is no evidence that HDC activities have contributed to the stronger health data system however, either through building political will, products of technical working groups, or stronger alignment and leveraging of partner financial or technical resources. A stakeholder interviewed (who has worked on HMIS strengthening since the start of HDC) said "since signing the HDC communique, the HDC has been totally silent ... we have received no support from them apart from attending global HDC meetings". Overall, there was very low awareness among the stakeholders consulted on the HDC and its objectives.

Extent to which the HDC platform and its activities are financially and programmatically sustainable

The HDC's model in Tanzania was programmatically unsustainable because it 1) established a structure for coordination parallel to the MoH M&E TWG which is no longer operational; 2) planning documents such as the logframe and implementation matrix have not been used or followed-up on, and 3) the HDC has not been able to fund or align resources effectively around priorities.

- There was an opportunity for the core HDC mandate of coordinating and aligning partner resources for health data to be taken forward by MoH's M&E Technical Working Group, however, this platform is no longer active. Instead, the HDC established a Coordinating Group, tasked with coordination of partner inputs. There is now no platform for overall M&E guidance and coordination within the MoH, rather the M&E function is located within individual health programmes (i.e. HIV, family planning etc).
- Documents established to govern the functioning of the Tanzania HDC including the Logframe and Implementation Matrix are no longer in use, as the HDC was not able to deliver against them.
- Following development of the costed "Data and Digital Priorities: Coordinated Monitoring and Evaluation for Health Systems Strengthening", the HDC was unable to align resources and funds around the priorities.
 The plan has since been dropped as a tool for aligning investments.



F.3. CONCLUSIONS

The MoH disengaged from the HDC initiative within the first few years, and currently only participates in global HDC meetings. Re-engagement would require HDC to offer tangible results, adequate funding, and robust in country processes. The HDC Progress Reports record no activities or achievements for Tanzania from the 2019 Progress Report onwards. From the perspective of the MoH, the HDC has been silent since the signing of the HDC Communique, and has not contributed to the development of the health data system. This can be attributed to a combination of lack of resources, generation of unrealistic expectations, and partner alignment and engagement with global Working Groups perceived as not a valuable enough offer. If the HDC is to be revived in Tanzania, it will need to offer tangible benefits to the country in the form of access to innovations, more hands-on assistance from the Working Groups to modify global tools and guidelines to the country context, and funding for provision of in country technical assistance. This will require HDC to set up a more robust in country presence.

HDC raised expectations of increased resources for the health data system through its costed investment plan, with little or no follow up. Some of the HDC governance processes that were set up at the start, such as the "Deep Dives" where helpful in coordinating partner inputs to health data strengthening. However, the development of a costed investment plan for data and digital data development raised GoT expectations that significant additional resources would be forthcoming from partners. Some additional resources were in fact raised through the PLAN/BMGF digital investment plan, however, these were not perceived to have been due to HDC efforts. MoH grew increasingly frustrated with HDC, when they did not see any benefits from their interaction with the initiative at country level, and slowly disengaged from the programme.

MoH did not perceive a value add from their interaction with HDC global structures, including the Working Groups. The MoH interacted with most of the HDC Working Groups. The experience they had with the CRVS Working Group, when their draft CRVS Strategy was uploaded to the internet, appears to have led to them curtailing their interaction with the other Working Groups.

The HDC was implemented in a 'projectised' manner, rather than encouraging the establishment and strengthening of a government M&E platform. There were some aspects of the project approach, such as the HDC Logframe and Implementation Matrix (that outlined the agreed government's data priorities, what different partners were doing in support of those priorities, and needed actions) that were helpful. However, the HDC Coordination Group served as a parallel M&E coordination platform. It would have been more impactful and sustainable to have helped operationalise and strengthen MoH's own M&E coordination platform.

F.4. RECOMMENDATIONS

HDC in Tanzania should only be revived under a reformed HDC. For example, support needs to be more country specific, and less top down and communicate clearly on the value-add that it can offer to avoid a mismatch in expectations. There is need to tailor HDC support to the country context. More hands-on assistance should also be provided from the Working Groups to modify global tools and guidelines to the country context. Importantly, the HDC should be very clear what it can offer with regard to funding or facilitation of funding.



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F.6. LIST OF STAKEHOLDERS INTERVIEWED

Table F.1: List of country level stakeholder consultees for Tanzania

Organisation	Name	Position
WHO Tanzania Country Office	Irene Mwoga	Ex focal point for HDC, WHO Tanzania
	Elibhati Paul Akyoo	Focal point, HDC WHO Tanzania
Ministry of Health	Mr Claud Kumalija	HMIS Manager
PATH	Dr Seif Rashid	Digital Health Care lead (Ex Health Minister)
Options Consultancy Services	Mr Jeremiah M	Director of FCDO's WISH (Women's Integrated Sexual Health) Programme
University of Dar Es Salaam	Jimmy Mbelwa	DHIS2 consultant



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