

Light Review of the Data Mentorship Programme

A Light Review of the Data Mentorship Programme: Assessing Replicability, Scalability, and Sustainability for Enhanced Data Capacity in the Elimination of Vertical Transmission of HIV, Syphilis, and Hepatitis B

# **Final Report**

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# Acknowledgment

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## Dedication

We dedicate this work to all the mentees of the Data Mentorship Programme who embody the promise of progress and transformation in their respective countries.

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#### Disclaimer:

M31 Research prepared this report for UNAIDS Regional Office for Eastern and Southern Africa as part of a light review of the Data Mentorship Programme. The information, interpretations, and conclusions expressed in this report are those of M31 Research and do not necessarily reflect the views of UNAIDS or its partners.

# **Acronyms and Abbreviations**

| Al      | Artificial Intelligence   |
|---------|---|
| AIDS    | Acquired Immunodeficiency Syndrome                              |
| CDC     | Centers for Disease Control and Prevention                      |
| СоР     | Community of Practice   |
| DHIS2   | District Health Information System 2                            |
| DMP     | Data Mentorship Programme                                       |
| EAC     | East African Community  |
| ECOWAS  | Economic Community of West African States                       |
| EMTCT   | Elimination of Mother-To-Child Transmission                     |
| ESARO   | East and Southern Africa Regional Office                        |
| GBV     | Gender Based Violence   |
| GIS     | Geographic Information System (GIS)                             |
| GVAC    | Global Validation Advisory Committee                            |
| HBV     | Hepatitis B virus   |
| HIV     | Human Immunodeficiency Virus                                    |
| HMIS    | Health Management Information System                            |
| IDIs    | In-Depth Interviews   |
| IQVIA   | IQVIA (Health Information and Technology Services)              |
| IT      | Information Technology  |
| IRB     | Institutional Review Board                                      |
| KIIs    | Key Informant Interviews  |
| M&E     | Monitoring and Evaluation                                       |
| MOE     | Ministries of Education   |
| МОН     | Ministry of Health  |
| MTCT    | Mother-To-Child Transmission                                    |
| PMTCT   | Prevention of Mother-To-Child Transmission                      |
| PTE     | Path to Elimination   |
| RVC     | Regional Validation Committee                                   |
| SADC    | Southern African Development Community                          |
| Sida    | Swedish Government International Development Cooperation Agency |
| ToC     | Theory of Change  |
| UN      | United Nations  |
| UNAIDS  | Joint United Nations Programme on HIV/AIDS                      |
| UNICEF  | United Nations Children's Fund                                  |
| UNZA    | University of Zambia  |
| USD     | United States Dollar  |
| WCARO   | West and Central Africa Regional Office                         |
| WHO     | World Health Organization                                       |
| WHO PTE | World Health Organisation Path to Elimination                   |

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## **Executive Summary**

#### Introduction

Over the past decades, significant progress has been made in reducing HIV-related deaths due to expanded access to antiretroviral therapy, yet significant gaps remain in preventing new infections and ensuring equitable access to treatment particularly in Sub-Saharan Africa, where 25.6 million of the 39.9 million people living with HIV reside . Eastern and Southern Africa (ESA) alone account for over half of global HIV prevalence. Women, particularly of reproductive age, bear a disproportionate burden, making the prevention of mother-to-child transmission (PMTCT) a critical priority. Despite the World Health Organization (WHO) recommendations for ART prophylaxis for all HIVpositive pregnant women, global coverage remains at 89%, leaving many at risk. The PMTCT cascade demonstrates a series of essential steps to improve maternal and infant health and has become central to programme planning and evaluation, with quality data generation and use playing a vital role in informing decisions and achieving global HIV targets.

It is against this background that United Nations Children's Fund East and Southern Africa Regional Officer (UNICEF ESARO) contracted IQVIA (in consortium with University of Zambia) to develop a Data Mentorship Programme (DMP) as a capacity-strengthening initiative to equip programme and strategic information managers within government systems with the practical skills to analyse, interpret, and apply health data to inform policy and programmatic decisions. The DMP was initially piloted in ESA in 2021 and has since expanded to include West and Central Africa (WCA) countries. It leverages a blended learning model that combines virtual and face-to-face mentorship. To date, it has trained 57 mentees from 14 countries through a flexible, modular blended learning model.

The primary aim of the light external review, conducted between March and April 2025, was to assess the DMP's effectiveness, efficiency, scalability, replicability, and sustainability. The review also sought to generate strategic insights and recommendations to inform strategic decisions on the programme's future direction and potential expansion.

## Methodology

The review applied rigorous qualitative evidence-based methodologies to assess the programme's performance and strategic value. Primary data was collected from 30 purposively selected stakeholders, including mentees, mentors, research associates, supervisors, and partner institution represented by IQVIA, the University of Zambia (UNZA), and the University of North Carolina. Other key informant stakeholders interviewed included United Nations (UN) agencies such as the UNAIDs and UNICEF. Key informant interviews were conducted virtually via platforms such as Zoom, Microsoft Teams, and Google Meet.

Secondary data was sourced from a wide range of programme related documents, including project reports, budget and financial proposals, training modules, operational plans, and additional materials such as regional strategic frameworks. Data analysis adopted a systematic, theme-based approach to ensure the findings are robust and credible. Additionally, a comprehensive light review framework outlining the review approach, key questions, and corresponding methods was used to guide the light review process and presentation of findings.

The results from the light review will be useful to stakeholders involved in the implementation of the programme, as they will guide the development and implementation of the anticipated Phase 4 by providing recommendations on the most appropriate, costeffective strategies and approaches needed for the scalability, replicability, and sustainability of the programme. It is further anticipated that the results presented in this report will be critical to Regional Economic Communities (RECs), National Ministry of Health (MoH) focus countries and the donor community as they plan to make valuable investments in the PMTCT of HIV, syphilis, and hepatitis B virus (HBV).

## **Key Findings**

#### **Effectiveness**

The DMP significantly enhanced the technical capacity of programme and strategic information managers within government Ministries of Health (MOH). Mentees are now leading national processes such as indicator development, EMTCT data reviews, and WHO PTE validation exercises. With improved skills and confidence, mentees are applying health data to guide policy and programme decisions. The programme's emphasis on generating high-quality, disaggregated data has contributed to better planning and resource within allocation, particularly national **PMTCT** programmes. This is evidenced by the development and integration of mentee led operational plans into MOH workplans and, in some cases, fully or partially incorporated into annual national health strategies.

Key lessons learned point to the need for sustained investment in digital infrastructure, which is essential for reducing costs, particularly travel expenses, while expanding the programme's geographic reach without incurring proportional increases in expenditure. Recommendations emphasize the need to maintain a low mentor-to-mentee ratio to promote deeper engagement, enable timely feedback, and enhance technical support to mentee's for sustained and strengthened effectiveness of the programme.

#### Efficiency

The DMP achieved notable cost-saving and resource optimization across its three phases, even though certain programme components were less cost-efficient. While Phase 1 required significant investment to establish systems and develop training modules, Phases 2 and 3 strategically transitioned to virtual and blended learning models. This shift reduced the cost per mentee from USD 24,751 in Phase 1 to approximately USD 3,735 and USD 4,010 in Phases 2 and 3 respectively. The programme further optimized resources through standardized module designs, digital platforms with reusable content, and reduced travel costs. The programme's use of the Health Care Professionals space (HCP) platform offered specialized training features but also presented higher operational costs, prompting a call to explore more affordable, scalable alternatives.

Key lessons and recommendations stress the need for sustainable financing, urging integration of DMP costs into national budgets and leveraging cost sharing mechanisms with government line Ministries and other stakeholders. Additionally, conducting cost modelling of similar digital learning platforms is recommended to support strategic resource allocation.

#### Sustainability

The sustainability of the DMP hinges on its ability to embed benefits beyond donor funding. While the programme made progress in building capacity at national levels, particularly in integrating mentorship content into academic institutions and utilization of government staff to retain knowledge, broader regional integration remains limited. The programme's long-term viability is challenged by the risk of donor dependency, with limited institutional adoption into national systems and frameworks. Nevertheless, the capacity building of mentees in practical health data use and the development of operational plans with demonstrated leadership contributions have laid a strong foundation for systemic resilience and continuity.

Findings demonstrate that key enablers of sustainability include a collaborative governance structure, investment in local capacity through national mentors, and strategic alignment with public health priorities. Recommendations to enhance sustainability include establishing alumni networks and communities of practice (CoP), embedding the programme within country-led frameworks, and supporting mentee operational plan implementation. Additionally, integrating advanced data tools and creating platforms for ongoing linking and learning are crucial steps to reinforce institutional ownership, promote peer learning, and strengthen national health systems' capacity for data-driven decision-making.

#### Scalability

The DMP demonstrates strong scalability potential across thematic, institutional, and geographic successful dimensions. The programme's implementation across multiple countries and phases provides evidence that it can be effectively expanded. Thematically, it is adaptable to other public health areas beyond EMTCT, such as maternal health and broader SRHR services. Institutional scalability is evident through its integration into academic institutions and potential alignment with national training systems and accreditation bodies.

Scalability further depends heavily on securing adequate financial, technical, and human resources. While the programme benefits from existing digital infrastructure and e-learning materials, further investments are needed in multilingual content, internet access, and incountry mentorship capacity. Lessons from previous phases emphasize the value of targeting government health workers and maximizing digital platforms for broader reach. To scale effectively, it is recommended to develop a strategic roadmap for scaling-up the programme, strengthen partnerships with regional bodies and diversify funding mechanisms through costsharing, integration into national budgets, and private sector engagement.

#### Replicability

The DMP exhibits strong replicability, driven by its modular structure, adaptive design, and integration into national systems. The phased implementation approach enabled iterative improvements, such as the addition of Research Associates and the introduction of operational plans that bridged theory with practical application. The programme's responsiveness evidenced by translation into French for Francophone countries and adjustments for low internet bandwidth users demonstrates its adaptability to diverse country and linguistic contexts. Integration with national ministries and academic institutions also allowed the DMP to align seamlessly with country systems, enhancing ownership and local relevance.

Replicability enablers included alignment with regional and global health frameworks such as the WHO GHSS. However, challenges such as limited mentorship human resource and donor dependency constrain expansion. Lessons from implementation highlight the importance of operational plans, translation, and institutional buy-in. Recommendations to enhance replication include fully embedding the programme in national training systems, leveraging Al-enabled digital delivery, diversifying funding sources, and developing a regionalized scale-up strategy led by RECs and other regional bodies.

#### Conclusion

The light review results demonstrate the DMP's relevance and effectiveness in strengthening health data systems across ESA and WCA Region. Its phased, adaptive design has equipped frontline health personnel with practical skills in data analysis, visualization, and application, particularly in HIV and vertical transmission programming, leading to improved national data. With proven scalability across thematic, institutional, and geographic dimensions, the DMP stands out as a strategic model for regional health systems strengthening. Support from governments, UN agencies, regional bodies and donors will be critical to replicate, scale-up and sustain its impact.

# 1 Introduction

The prevention of vertical transmission of HIV, syphilis, and hepatitis B virus (HBV) remains a critical public health priority globally. Despite considerable progress in reducing transmission rates, many countries, particularly in sub-Saharan Africa, continue to face challenges in achieving elimination targets. The prevention of vertical transmission, which refers to the passing of infections from mother to child during pregnancy, childbirth, or breastfeeding, remains a critical priority for health systems in the region.

Robust, reliable, and timely data are essential for tracking progress, identifying service gaps, and informing strategies to eliminate vertical transmission. Data-driven decision-making ensures that resources are effectively allocated, interventions are appropriately targeted, and outcomes are systematically monitored and evaluated. However, many national health management information systems (HMIS) face persistent challenges related to data quality, completeness, and utilisation. These challenges hinder efforts to accurately measure progress and implement evidence-based interventions.

#### 1.1 Path to Elimination

The Path to Elimination (PTE) of vertical transmission of HIV, syphilis, and hepatitis B recognizes that countries with high disease burdens may not immediately meet full elimination targets but can still make significant progress. To acknowledge this, the World Health Organization (WHO) developed a tiered recognition system within the PTE framework. This system includes three progressive tiers - bronze, silver, and gold -each with its own set of process and impact targets. These tiers reflect increasing levels of service coverage (e.g., antenatal care, testing, treatment, and vaccination) and decreasing rates of new infections in children. Countries are expected to move from one tier to the next as they scale up interventions and improve outcomes, with the goal of achieving full elimination<sup>1</sup>.

To be validated at any tier, countries must meet specific criteria that include both quantitative indicators (such as infection rates and service coverage) and qualitative requirements (such as human rights protections, gender equality, and community engagement). The validation process is rigorous and includes assessments of data

quality, laboratory systems, programme implementation, and rights-based service delivery. Countries must submit detailed documentation and undergo an external review by the Regional Validation Committee (RVC) and Global Validation Advisory Committee (GVAC). This structured approach ensures that progress is not only measured by numbers but also by the quality and equity of care provided <sup>2,3</sup>.

A successful PTE strategy depends on a robust health information system that can collect, manage, and analyse high-quality data from all levels of the health system. This includes data from national, subnational, and facility levels, ensuring seamless information flow and enabling the system to capture granular, disaggregated data such as by age, sex, geographic location, and service delivery point to identify disparities, monitor equity, and tailor interventions to specific underserved or vulnerable populations and regions. PTE data needs to be timely, accurate, and complete to support real-time monitoring and adaptive programme management. Health information systems should integrate data across maternal, child health, and

<sup>&</sup>lt;sup>1</sup> Path to elimination

<sup>&</sup>lt;sup>2</sup> WHO's Global Guidance on criteria and processes for validation: Elimination of mother to child transmission of HIV, syphilis and hepatitis B virus Guidance (9789240039360-eng.pdf)

<sup>&</sup>lt;sup>3</sup> Validation process & tools

infectious disease programmes to provide a comprehensive view of service delivery and outcomes. This integration allows for better tracking of mother-infant pairs, follow-up of exposed infants, and evaluation of programme effectiveness. Ultimately, the ability to use this granular data to make informed, evidence-based decisions is what drives progress toward elimination and ensures that no one is left behind.

## 1.2 2gether 4 SRHR

The 2gether 4 SRHR <sup>4, 5</sup> is a joint UN regional initiative with applied learning in twelve countries supported by the Swedish government through the Swedish Government International Development Cooperation Agency (Sida). The programme combines the strengths of UNAIDS, UNFPA, UNICEF and WHO with an aim to improve the SRHR of all people in ESA working in partnership with continental and regional economic communities, governments, regional civil society organisations and networks of communities in ESA.

The programme aims to advance sexual and reproductive health and rights (SRHR) through four core outcomes. It seeks to establish a supportive legal and policy environment that enables people to fully exercise their SRHR and access integrated SRHR, HIV, and Gender

Based Violence (GBV) services. It also focuses on expanding the availability of client-centred, high-quality, and sustainable services that address to a broad spectrum of SRHR diverse needs. Additionally, the programme empowers individuals to make informed decisions, adopt protective behaviours, and seek timely care. Finally, it emphasizes learning and accountability by documenting and sharing lessons and best practices emerging from programme implementation<sup>6</sup>. The programme targets underserved and marginalized groups, such as adolescent girls and young women, pregnant and breastfeeding women, people living with HIV, and other key populations.

## 1.3 Data Mentorship Programme

The Data Mentorship Programme (DMP) is a capacity-strengthening initiative designed to equip programme and strategic information managers within government systems with the practical skills needed to analyse, interpret, and apply health data to inform policy and programmatic decisions. Launched in response to persistent gaps in data use for decision-making within PMTCT and broader health systems, the DMP was initially piloted in ESA in 2021 and has since expanded to include West and Central Africa countries. It leverages a blended learning model that combines virtual and face-to-face mentorship.<sup>7</sup>

<sup>&</sup>lt;sup>4</sup> <u>About the 2gether 4 SRHR Knowledge Hub | 2gether 4 SRHR Knowledge Hub</u>

<sup>&</sup>lt;sup>5</sup> <u>2gether-4-SRHR-Phase-1-Close-Out\_FINAL\_WEB.pdf</u>

<sup>&</sup>lt;sup>6</sup> UNICEF: Building the Data Analysis and Use Capacity of Government Stakeholders in East, Southern, West and Central Africa: Towards the Triple Elimination of HIV, Syphilis and Hepatitis B

<sup>&</sup>lt;sup>7</sup> Promising practices on health data.pdf.pdf

# 2 Programme Description

Recognising countries' needs for more intensive and sustained capacity building to meet PTE validation requirements, UNICEF - under the joint regional 2gether 4 SRHR programme launched a data analysis and use capacity building mentorship programme in 2021. The mentorship programme aimed to improve national health management information systems (HMIS), by building the capacity of local strategic information and programme managers in the effective use of data for the prevention and elimination of vertical transmission of HIV, syphilis, and hepatitis B<sup>8</sup>.

In pursuing this vision, UNICEF ESARO contracted IQVIA in consortium with the University of Zambia (UNZA) to develop a mentorship programme on data use, demand, and analysis. This collaboration has seen the piloting and sustained implementation of the DMP, which has, to date, completed 3 phases, with a total of 57 mentees enrolled from 14 countries over 3 years.

Phase 1, launched in December 2021, involved 5 mentees from Malawi, Namibia, and Rwanda, and focused on designing, testing, and implementing training materials for data utilization and analysis in prevention of vertical transmission. Phase 2, from July 2022 to March 2023, expanded to 27 mentees from 8 countries, building on feedback and lessons from Phase 1. Phase 3, from July 2023 to February 2024, enrolled 25 mentees from 6 countries, including 2 from WCA. This phase was supported by mentors and research associates from UNZA, IQVIA, and UNICEF ESARO and WCARO, with a focus on developing operational plans for data strengthening for elimination of vertical transmission.

## 2.1 Programme Objectives

The programme objectives are to enhance data quality, strengthen HMIS, promote data utilisation, and foster collaboration as described below.

#### **Enhance Data Quality**

The programme seeks to build the analytical skills of government staff, enabling them to identify and address key information gaps. This is achieved through comprehensive training on data collection, validation, analysis and interpretation. The focus is on generating high-quality, disaggregated data that can inform policy decisions, programme planning, and resource allocation.

# **Strengthen Health Management Information Systems**

Developing and institutionalising robust HMIS is central to the programme. These systems are designed to integrate various data sources, ensuring consistency, reliability, and accessibility of data at all levels of the health system. This component includes training and strengthening the use of DHIS2 and other health information platforms.

#### **Promote Data Utilisation**

The programme empowers national programme managers to use data effectively. This involves capacity building on data analysis, visualisation, interpretation, and presentation. Participants learn how to produce actionable insights that can drive policy changes, improve service delivery, and support monitoring and evaluation activities.

<sup>&</sup>lt;sup>8</sup> UNICEF: Building the Data Analysis and Use Capacity of Government Stakeholders in East, Southern, West and Central Africa: Towards the Triple Elimination of HIV, Syphilis and Hepatitis B

#### **Foster Collaboration**

The programme fosters cross-country learning through south-south and triangular cooperation. Workshops and

online forums facilitate knowledge exchange, enabling participants to share challenges, successes, and best practices in data management and PMTCT programming.

2.2 Theory of Change

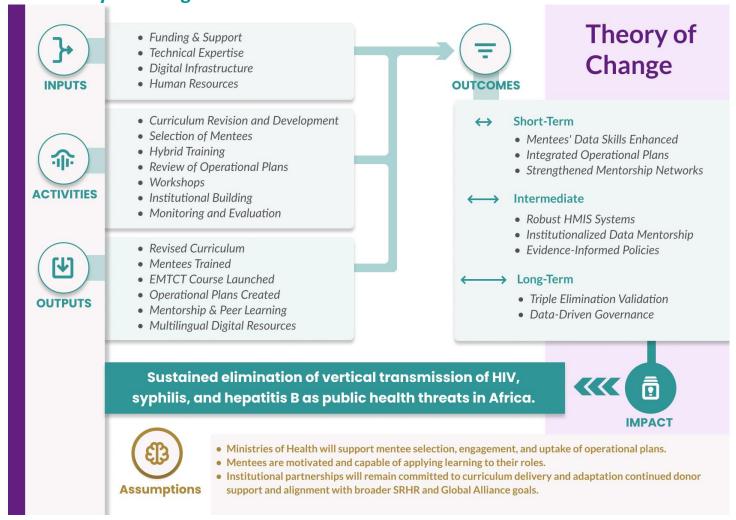


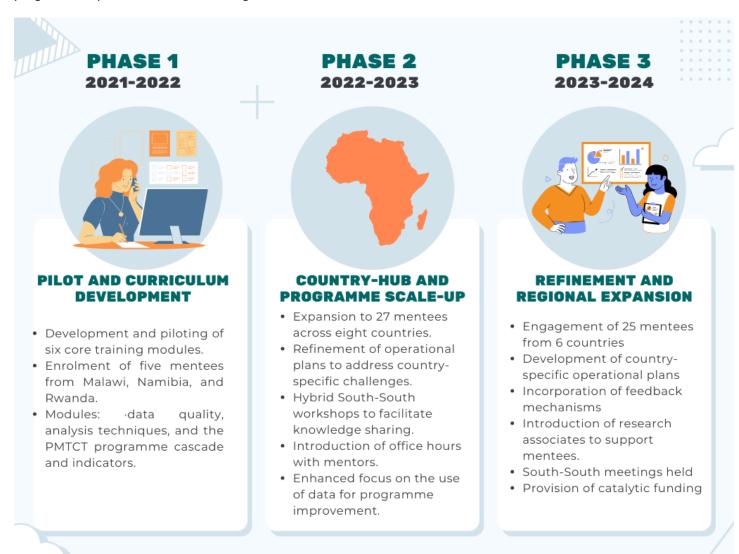
Figure 1 Theory of change

The reconstructed Theory of Change underpinning the Data Mentorship Programme articulates how strengthening the capacity of programme and strategic information managers in data analysis, interpretation, and use will lead to improved decision-making within national health systems. By equipping mentees with practical skills through a blended learning model, the programme aims to enhance the quality and utilisation of health data, particularly in the context of preventing vertical transmission of HIV, syphilis, and hepatitis B.

This, in turn, is expected to result in more responsive and data-driven policies, improved programme performance, and measurable progress towards elimination targets. The model assumes that sustained mentorship, institutional support, and integration into national systems are critical enablers for long-term impact and scalability.

## 2.3 Programme Phases

The DMP has been implemented in distinct phases to ensure systematic growth and impact. An overview of the programme's phases is shown in the figure below:



Phase 1 focused on designing and assessing six foundational training modules. Five mentees from Malawi, Namibia, and Rwanda were enrolled, with core content covering data quality, analysis methods, and PMTCT programme indicators.

In phase 2, the programme expanded to 27 mentees across eight countries. Country-specific operational plans were introduced, supported by hybrid South-South workshops and regular mentor office hours. The focus shifted towards using data for programme improvement.

In phase 3, twenty-five mentees from six countries, including two from West and Central Africa (WCA), participated. This phase introduced research associates, catalytic funding, and feedback mechanisms to strengthen implementation. South-South meetings supported the development of tailored operational plans.

## 2.4 Programme Approach

The programme employs a blended learning model, combining virtual and in-person sessions, to provide a flexible and interactive adult learning experience. The approach involves curriculum delivery, operational plan development, South-South workshops, continuous mentorship, and capacity building as described below.

#### **Curriculum Delivery**

The programmes curriculum is delivered through 6 modules delivered via the Health Care Professionals (HCP) online platform<sup>9</sup> (developed by IQVIA) and live sessions. The modules cover essential topics, including data demand and use, quality assurance, and core PMTCT indicators. Interactive elements like quizzes, case studies, and practical exercises are included to enhance learning.

#### **Mentees**

The participants nominated and enrolled into the programme, referred to as mentees, are government officials or representatives from partner organisations, all working in their respective capacities towards elimination of vertical transmission in their home country. The enrolment process of mentees was purely based on MOH nominees who had a sound understanding of the PMTCT programme and monitoring in the context of their respective countries.

#### **Operational Plan Development**

Operational plan development supports the mentees in the creation of plans tailored to their national context. These plans include data analysis frameworks, performance metrics, and strategies for continuous improvement. These operational plans can be used as standalone workplans that partners and donors can support and fund, however they are intended to be incorporated in the national programme's annual workplan and path to elimination roadmap, guiding the country on their path to elimination validation.

#### **South-South Workshops**

The south-south workshops are peer learning events to share experiences and promising practices. These workshops include operational plan presentations, group discussions, and hands-on activities and learning sessions that foster collaborative problem-solving.

#### **Continuous Mentorship**

Weekly office hours for ongoing support from mentors provided a platform for addressing challenges, clarifying concepts, and applying new skills in real-world scenarios. Office hours were offered both individually and in country groups, ensuring personal development while also ensuring cohesion and collaboration in operational plan development (individual operational plans can be combined and are complementary to other mentees from the same country).

#### **Capacity Building**

Partnerships with universities and organisations are foundational to ensuring the programme is embedded in academic curricula. This ensures long-term sustainability and supports the development of a skilled workforce for the health sector.

## 2.5 Programme Features

The data mentorship programme offers a unique combination of modalities and platforms to maximise learning, namely.

- Virtual live sessions with mentors complementing online modules.
- Online learning platform to access resources and complete the online modules and quizzes.
- Office hours through one-on-one and country specific group sessions with mentors and research associates.
- Development of operational plans for implementation in their work after course completion.
- South-South workshops to highlight operational plans and offer additional practical and learning sessions.
- Pre- and post-programme questionnaires.
- Certificate of completion for the 14-week programme.
- 12-18 month post programme follow-up and mentorship tied to operational plan implementation.

<sup>&</sup>lt;sup>9</sup> <u>https://hcpspace.solutions.iqvia.com</u>

# 2.6 Data Mentorship Model Processes and Resources

The DMP uses a standards-based approach to strengthening data related to the elimination of vertical transmission of HIV, syphilis, and hepatitis B (EMTCT) within national HMIS and supports the development of country data analysis reports and data improvement plans for countries on the PTE. The DMP operates by integrating structured activities with dedicated technological platforms to deliver a comprehensive learning and capacity-strengthening experience.

#### **Health Care Professionals Space**

The HCP space is an e-learning platform developed and managed by IQVIA to support continuous learning and professional development. Within the DMP, the HCP space serves as a dedicated microsite with secure and user-specific access for mentees. It functions as a central

e-repository housing a wide range of learning materials including modules videos, slide decks, quizzes, recorded sessions, and assignments. The platform also enables interactive engagement through content sharing, polls, and cross-country knowledge exchange, ensuring access to training resources and collaborative learning throughout the programme<sup>10</sup>.

#### **Modular Learning**

The 14-week DMP comprises six modules that were uniquely developed for this programme and were refined after Phase 1 based on lessons learnt and to enhance content quality. The six modules developed are illustrated in Figure 1. Each module is pre-recorded with a voice over and availed to mentees through the HCP space platform along with reading materials and a chat room to interact with peers and mentors.<sup>11</sup>

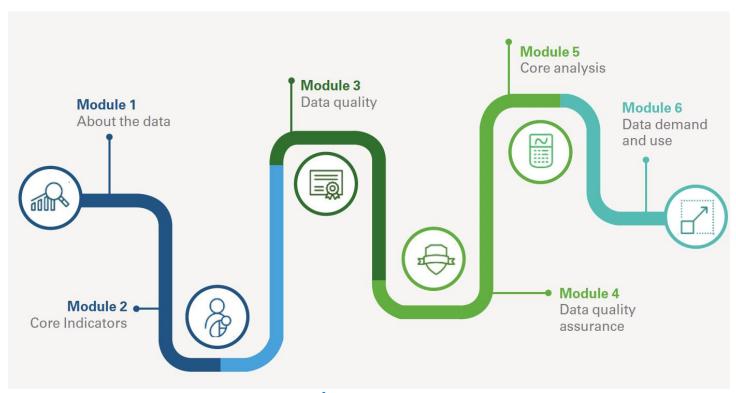


Figure 2 The six modules included in the curriculum <sup>2</sup>

<sup>10</sup> https://hcpspace.solutions.iqvia.com

 $<sup>11 \</sup>qquad \text{https://www.unicef.org/esa/reports/strengthening-capacity-translating-evidence-action} \\$ 

# **3** External Light Review

With three cohorts of mentees trained across 14 countries, the programme has demonstrated promising results. However, before scaling up further, a focused, light review was commissioned by UNAIDS' Regional Support Team for ESA to assess the programme's effectiveness, efficiency, replicability, scalability, and sustainability.

The purpose of this light review was to evaluate the DMP's effectiveness as a model for capacity building and mentorship in the context of eliminating vertical transmission of HIV, syphilis, and hepatitis B. The review assessed whether the programme was replicable, scalable, and sustainable, and examined its ability to achieve intended outcomes while identifying any unintended results. It also aimed to provide recommendations for strengthening the programme. The assessment was conducted through a desk review of programme documentation and key informant interviews with stakeholders, including mentees, mentors, and UNICEF country office staff, to inform strategic decisions on the programme's future direction and potential expansion.

## 3.1 Light Review Objectives

The light review focused on the following specific objectives:

- 1 Assess whether the DMP is a replicable model and approach to capacity building and mentorship
- 2 Petermining the replicability of the programme by looking into the effectiveness and efficiency
- Review the scalability and sustainability of the programme
- 4 Recommend areas for strengthening the Data Mentorship Programme

Moreover, the light review was guided by the following key research questions:

- 1. *Effectiveness* To what extent has the DMP achieved its intended objectives in building capacity for data analysis and use among government data managers?
- 2. Scalability Can the programme's current structure be scaled up to accommodate more countries or institutions? What adjustments are needed to ensure scalability?
- **3. Sustainability** How sustainable is the programme in the long term? What are the key enablers and barriers to its continued success without external support?
- **4.** *Replicability* How easily can the programme be replicated in other regions or sectors? What modifications would be necessary to adapt it to different contexts?

# 4 Methodology

## 4.1 Approach to the Light Review

To ensure that the light review was robust a rigorous, evidence-based review using qualitative methodologies incorporating various data collection approaches were used. The data collection process included a desk review of documents and stakeholder interviews conducted between March and April 2025.

#### **Primary Data Collection**

Primary data was collected from various stakeholders directly involved in or affected by the DMP. These included stakeholders such as UN agencies (UNAIDS and UNICEF), programme mentees, mentors, research associates, supervisors, and implementing partners (IQVIA, UNZA and University of North Carolina). Using a purposive sampling approach, 30 participants were selected: 19 mentees, 2 mentors, 3 research assistants, 2 supervisors, and 4 key informants. Key informant interviews were conducted via platforms such as Zoom, Microsoft Teams, and Google Meet.

#### **Secondary Data Collection**

Secondary data was sourced from a wide range of programme-related documents, including project reports, budget and financial proposals, training modules, operational plans, and additional materials such as regional strategic frameworks.

#### **Light Review Framework**

The review focused on key aspects including effectiveness, efficiency, replicability, scalability, sustainability, and lessons learned, along with recommendations for future programming. A detailed framework, outlining the review approach, key questions, and corresponding methods, can be found in Figure 2 and Annex 2.

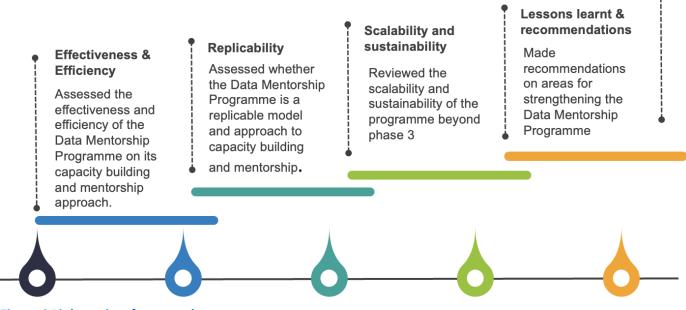


Figure 3 Light review framework

#### **Analysis and Reporting**

After data collection, qualitative data was transcribed following a standardised protocol to preserve detailed records of interviews and discussions. Data cleaning procedures were implemented to identify and correct errors, omissions, and inconsistencies, ensuring the integrity of the dataset. This process was done through careful review of the transcripts and counter checking errors related to the notes in all the transcripts.

The analysis adopted a systematic, theme-based approach to ensure the findings are robust and credible. The process involved the following steps:

- Familiarisation: The research team read and re-read transcripts to gain a thorough understanding of the content, identifying recurring themes, patterns, and any anomalies.
- Coding Framework: An inductive coding framework
  was designed using both the initial research
  questions and emerging themes identified during the
  familiarisation phase. To allow for adaptability, new
  codes were added to incorporate unanticipated
  insights as the analysis progressed. The coding and
  categorisation process was facilitated using Dedoose
  software, ensuring consistency and efficiency
  throughout the analysis.

 Thematic analysis: was employed to consolidate related codes into broader thematic categories. This process involved identifying recurring patterns, refining themes for clarity and coherence, and selecting illustrative direct quotes to enrich the findings and reflect participant perspectives within the final report.

#### **Ethical Consideration**

The DMP light review adhered to ethical standards by ensuring that informed consent was obtained from all participants. Prior to the interviews, all participants were provided with adequate information about the light review, its purpose, scope, risks, and benefits of participation as well as freedom to withdraw. This ensured that participants were able to make informed choices about whether they would be willing to take part in the review or not. Participants were also informed of how the data they provided would be used. Research assistants who participated in data collection and transcription were trained on how to conduct data collection in an ethical manner.

# **5** Light Review Findings

## **5.1** Effectiveness and Efficiency of the Programme

This section provides a review of the DMP's effectiveness and efficiency. It examines several key factors, including the extent to which the programme strengthened mentees' data analysis capacity. Particular attention is given to the cost-saving mechanisms adopted throughout the programme's implementation, and the adequacy and utilisation of resources. Additionally, the section analyses the relative effectiveness of the various delivery modalities ranging from in-person to virtual mentoring sessions and their impact on learning outcomes.

# Improvements in Mentees' Data Analysis Capacity

The DMP was designed to enhance data quality by strengthening the analytical capacities of government MOH staff. Through comprehensive training in data collection, validation, and interpretation. The findings of the review established that even though most mentees selected for the programme already had a fair understanding of data analysis process, the programme enhanced mentees practical skills and capacity in health data analysis. Mentees were trained in using and extracting data from tools such as DHIS2 and ScanForm and were introduced to advanced data visualization tools like Power BI and Geographic Information System (GIS) in some country contexts. These platforms enabled them to analyse PMTCT cascade indicators, identify data gaps, and interpret trends for decision making.

"The introduction to Power BI was a game changer. I created a dashboard that shows our monthly syphilis testing trends and it is now being used in our district review meetings." Mentee\_Eswatini

These practical applications of the data analysis skills demonstrate how the mentorship not only built theoretical understanding but also enhanced the ability to translate data into actionable insights within national health systems. Additionally, most mentees reported and expressed confidence in applying data analysis methods in their professional settings, often citing specific tools and analytical techniques they had acquired. This is further supported by the results of the

operational plans and views of mentors, research associates as well as supervisors.

It is also important to highlight that the data analysis skills and knowledge acquired by the mentees are not merely theoretical but are actively applied in their day-to-day professional responsibilities. Notably, some mentees have even leveraged these skills to pursue further academic studies. As a result of their enhanced competencies, MOH has begun to strategically position mentees at the forefront of key processes and data intensive initiatives in their respective countries.

"Because of their enhanced competencies, host organizations have continued to strategically place them [mentees] at the forefront of key processes and data intensive initiatives." Mentor\_Zambia

# **Use of Data by Mentees in National Programmes**

The application of newly acquired skills in national programmes represents a critical outcome of the DMP. Mentees were not only trained in data management but were also empowered to apply these competencies within programmatic areas such as PMTCT cascade analysis and policy engagement. This signified a shift from passive data collection to initiative-taking use of data for evidence-based decision-making. The integration of these competencies contributed to improved programme performance monitoring and reinforced the strategic importance of data in public health leadership.

Mentees also developed operational plans, several of which were integrated into MOH workplans and, in some cases, fully or partially incorporated into annual national health strategies. Additionally, some mentees were assigned to different critical roles at national level, including leading efforts to revise national data collection tools to better capture syphilis data, and contributing to the refinement of national indicators to enhance accuracy and relevance. Others assumed leadership responsibilities within their institutions, guiding data quality assurance and analysis processes. For example, a mentee working with the MOH in Rwanda reported leading the revision of their national syphilis indicators, reflecting the practical and policy-level impact of the mentorship.

"We revised some indicators because they are not well understood, or these indicators are replicated, or they are asking information that cannot collected in the current tools." Mentee\_Rwanda

Another compelling example of mentees' critical involvement in national programmes was observed in South Africa, where a Phase 2 mentee from the National Department of Health was appointed to lead the country's PTE process. She was tasked with coordinating national efforts and successfully led the South African team in completing the country's self-assessment. Key informants also highlighted how mentees contributed to the WHO's PTE validation processes by leveraging national programme data and formulating gap-closing strategies.

# **Cost Efficiency and Resource Optimisation Across Phases**

Based on the analysed budgets, Phase 1 of the programme had the highest resource allocation with a

 Table 1: Financial Costs per Phase Summary (in USD)

total of US\$172,632. This was primarily because the programme was in its initial phase, which required the establishment of systems and processes. A significant amount of the budget was directed towards the development of training modules and face-to-face engagements, which included travel and accommodation expenses.

In contrast, phases 2 and 3 adopted a more virtual/remote delivery model, which led to decreased human resource and travel costs. Additionally, in phases 2 and 3, other costs such as communication allowances for mentees and customization of the HCP platform were included to address some of the concerns and recommendations raised during phase 1. In phase 3, although virtual sessions continued, there was an observed increase in operational support and dissemination costs.

# **Cost Per-mentee and Financial Optimisation Over Programme Phases**

In Phase 1 (with 5 mentees), the cost per-mentee was exceptionally high at US\$24,751, due to investments in inception processes. In contrast, Phase 2 (27 mentees) and Phase 3 (25 mentees) achieved significant cost reductions, with cost-per-mentee amount dropping to US\$ 3,735 and US\$4,010, respectively. The reduction in the cost per-mentee and training cost decreased significantly over the years attributed to the adoption of virtual training models and streamlined operational support. Notably, Phase 3 maintained high investment in mentee support and dissemination activities due to several factors including the addition of interpretation costs as a new expenditure line. The financial trajectory suggests intentional cost control and optimization, with virtual elements enabling scale up without proportional cost increases (refer to the cost-saving mechanisms implemented across the three phases below).

| Phase            | No. of<br>Mente<br>es | Cost per<br>Mentee<br>(USD) | Inception &<br>Preparation<br>(USD) | Training<br>Delivery<br>(USD) | Operational<br>Plan Support<br>(USD) | South-South<br>Workshop/<br>(USD) | Final Reporting<br>/ Dissemination<br>(USD) | Other<br>(USD)   | Total<br>(USD)    |
|------------------|-----------------------|-----------------------------|-------------------------------------|-------------------------------|--------------------------------------|-----------------------------------|---|------------------|-------------------|
| One              | 5                     | 24,751                      | 50,576*                             | 38,351                        | 35,151                               | 4,920                             | 43,634                                      | -                | 172,632           |
| Two              | 27                    | 3,735                       | 20,034                              | 31,251                        | 24,876                               | 16,851                            | -   | 7,835            | 100,847           |
| Three            | 25                    | 4,010                       | 9,651                               | 15,285                        | 25,977*                              | 19,877                            | 17,727                                      | 11,740           | 100,257           |
| Total<br>(USD/%) | 62                    | 41,603                      | 80,261<br>(21.5%)                   | 84,887<br>(22.7%)             | 86,004<br>(23%)                      | 36,728<br>(9.8%)                  | 61361<br>(16.4%)                            | 24,495<br>(6.6%) | 373,736<br>(100%) |

<sup>\*</sup>Cost pe-mentee: Module development cost was \$ 48,875. This amount was not included in the calculation of the cost pe-mentee in phase 1 \*Operational plan Support: This amount does not include catalytic support.

# **Comparative Cost-efficiency Analysis of Digital Learning Platforms**

In evaluating digital learning platforms for health training initiatives, the HCP platform emerged as a strong option due to its specialised features; nonetheless, it has high operational costs compared to open-source alternatives. For example, Moodle a widely adopted open-source platform can be operated at an estimated cost of less than USD 5,000 annually when self-hosted. However, despite its affordability, Moodle demands considerable internal Information Technology (IT) capacity for setup, customisation, and ongoing technical support. In contrast, although the HCP platform is more expensive, it offers tailored functionalities specifically designed for public health programming, including integration with PMTCT training modules, sector-specific dashboards, and customisable guizzes. These capabilities are often difficult or costly to replicate within platforms like Moodle without substantial technical adjustments.

Free platforms such as Google Classroom and Microsoft Teams for Education offer zero-cost access to eligible institutions, making them an attractive option in resource-constrained environments. However, they lack essential features such as offline accessibility, integration of specialised health content, and adaptable data visualisation tools, all of which are critical for regional health systems and mentorship models like the DMP.

Given the evolving funding landscape and the growing need for sustainability, particularly in a donor-constrained environment, the programme should explore hybrid or low-cost platform options. These alternatives could be institutionalized within governments or RECs to ensure long-term accessibility and affordability without compromising training quality or impact.

#### Cost effectiveness of the DMP

While the initial cost and time required to develop training materials for a programme of this nature may be substantial, stakeholders emphasized that these investments become cost-effective over time as they support the programme's scalability, replicability, and long-term sustainability. On average, it takes about three years to set up a programme of this nature to be fully functional and maximize results. When compared with similar programmes of this nature, the DMP is still on track. Initial phases of the DMP had a wide array of activities, including curriculum and course design, development of training materials, and periodic curriculum updates. Currently, the DMP has already made investments in most of these processes including the translation of materials.

Considering the increase in the pool of openly-licensed digital platforms to host such a curriculum that can allow for adaption, it is critical for the programme to further explore a more cost-effective way for delivering the model in order to not have a trade off with its replicability, scalability and sustainability ambitions.

Furthermore, it should be noted that if the model shifted from its current platform to another, the remix and adaptation of the programme modules will require experienced technocrats. On average, remixing a module of this nature costs between \$1,000 and \$3,000. If this option is pursued, it will entail financial implications, as such, a careful cost-benefit analysis is critical before exploring this option. Annex 3 provides an analysis of different online platforms widely used to deliver similar content to the DMP.

#### **Key Cost-Saving Mechanisms**

#### **Digital Tools and Platform Optimisation**

Despite the higher operational cost of the HCP space, the DMP strategically introduced several cost-saving mechanisms through its digital integration. By leveraging reusable digital platforms like microsites and the HCP space, the programme ensured that training materials remained accessible beyond formal sessions, significantly reducing the need for repeated content development. In Phase 3, enhancements such as interactive quizzes, downloadable learning resources, and low internet bandwidth video options were introduced ultimately enhancing user engagement while maintaining affordability.

#### **Blended Learning and Standardised Design**

Transitioning from face-to-face to a blended learning model significantly reduced costs associated with travel, accommodation, and other related materials. Virtual tools such as Zoom, Jamboards, and Mentimeters enabled interactive, real-time learning without logistical overheads. Standardised modules provided a consistent curriculum that required only minor adaptations for different regions. This approach allowed the programme to expand efficiently across regions. The blended and modular structure continues to support scale-up without proportionate cost increases.

# E-Learning Platform as a Flexible, Scalable, and Cost-Effective Delivery Model

The DMP targeted beneficiaries who were already employed and in full-time government positions. Given this context, the e-learning model was intentionally selected as the most suitable approach for engaging mentees without significantly disrupting their day-to-day responsibilities. The programme was designed with flexible, self-paced modules complemented by scheduled live sessions typically held outside peak working hours. This allowed participants to engage with content and mentorship support at their convenience, thereby reducing interference with their official duties.

Moreover, as mentees were drawn from multiple countries across two regions, the online platform offered a cost-effective and practical solution for content delivery. While the model had its strengths and limitations, a review of programme reports and feedback from mentees, mentors, research associates, and supervisors indicated that the benefits particularly in terms of accessibility, cost-efficiency, and minimal disruption to work schedules significantly outweighed the challenges.

"The fact that all the resources that the mentees would need to understand, to practice, to interact, were made available online meant that even if a mentee missed a live session, they could still follow up at their own time." Research Associate Zambia

#### **Effectiveness and Efficiency Lessons Learnt**

#### **Digital Learning Increases Effectiveness**

The use of digital platforms enabled content reusability, reduced travel costs, and expanded the programme's geographic reach without proportional increases in expenditure. This is a compelling model for scalability in resource constrained settings.

#### **Flexibility And Modularity Ensures Adaptability**

The modular design of the DMP allowed for adjustments to country-specific contexts, including epidemiological priorities and language. This flexibility is essential for scaling and should be retained and strengthened in future phases, especially as the programme is to be replicated across different regions.

#### **E-Learning Platforms Require Continued Investment**

While effective, the running and maintenance of digital platforms such as the HCP space involve significant costs. Strategic decisions should be made regarding platform selection, considering long-term sustainability and the potential use of lower-cost alternatives that still meet the programme's technical requirements.

# **Effectiveness and Efficiency Recommendations**

#### **Institutionalize Cost-Effective Platforms**

While the HCP platform offers valuable sector-specific tools, exploring more affordable, scalable platforms should be considered to ensure sustainability in donor constrained environments.

#### **Cost Modelling**

Conducting further cost modelling of comparable digital learning interventions could provide valuable insights into the relative cost-effectiveness of such investments. This would support evidence-based decision making for resource allocation for future DMP phases.

#### **Scale Local Capacity**

Continue to build and rely on local mentors, research associates, and supervisors to reinforce programme relevance and reduce operational costs. The model can further utilize the mentee alumni in their respective countries and regions to serve as mentors, facilitate localized training sessions, and support national scale-up efforts.

#### **Adopt Sustainable Financing Strategies**

Integrate DMP financing into domestic budgets and explore alternative funding sources such as cost-sharing with participating institutions, national governments, and private sector donors.

#### Increase the Number of Staff on the Programme

For such a programme to be fully effective, WHO recommends maintaining low mentor to mentee ratios of (1:4 to 1:6) in mentorship-based capacity building programmes<sup>12</sup>, particularly those involving complex and competency-based learning in health systems, as such, we recommend adopting a 1:5 ratio unlike the current 1:9 for the DMP. This would be an ideal balance to facilitate deeper engagement, timely feedback, and tailored support, especially in technical areas such as data analysis, visualization, and dashboard development. Achieving this ratio is feasible if the programme is fully embedded within national universities and MOH, and if alumni are also considered and formally engaged in the programme.

 $<sup>^{\</sup>rm 12}$  World Health Organization (2016). "WHO Guidelines on Health Policy and System Support to Optimize Community Health Worker Programmes."

## 5.2 Sustainability of the Programme

Sustainability explores the extent to which the benefits of the DMP are likely to continue after donor funding has been withdrawn or significantly reduced. It focuses on measuring whether the benefits of an intervention are likely to continue after partner funding has been withdrawn. The light review looked at the programme's efforts towards promoting ownership of the DMP at regional and national levels.

# **Integration into National and Regional Systems**

Given the reduction in international support for HIV prevention and the overall decrease in donor funding, it is imperative that the programme actively prioritises the comprehensive integration of the DMP into both regional and national frameworks to safeguard its long-term sustainability. Despite the programme's achievements, progress toward sustainability remains limited, indicating that substantial work is still required to embed the DMP within sustainable regional and national systems.

"One of the biggest risks is that this remains donor driven. If there is no internal mechanism for resourcing it, the programme will struggle once funding stops." Mentor\_Zambia

### **Institutionalisation and Regional Ownership**

Although notable gains have been observed at the national level, including efforts to institutionalise the programme through its incorporation as an elective course within academic institutions, a recurring recommendation to integrate the DMP into regional bodies still requires earnest consideration. Embedding the programme at this level is expected to facilitate adoption by member states, promote alignment with national systems, and support the mobilisation of domestic resources for implementation. With strategic oversight provided by RECs, this approach will be seen as a pathway to strengthen ownership, enhance harmonisation, and ensure long-term sustainability. Nonetheless, in its current state, limited progress has been made in securing the formal adoption and integration of the programme within regional structures.

## **Capacity Building for Long-Term Impact**

The DMP's capacity-building component is central to its long-term sustainability, as it contributes significantly to strengthening national and sub-national human resource systems in health data management. By equipping

mentees with practical, in-demand skills in data analysis, visualisation, and interpretation directly linked to national public health priorities such as PMTCT, the programme developed a cadre of skilled professionals capable of driving data use within their respective institutions and ministries beyond the mentorship period. When paired with institutional partnerships, including universities and MOH, the capacity-building efforts under the DMP not only enhanced individual competencies but also embedded critical data skills into national systems. This positioned the programme as an investment in systemic resilience rather than a time-bound intervention, laying a foundation that remains vital for sustaining progress in vertical transmission elimination, even in the absence of external funding.

# Government Engagement and Institutional Retention

Another sustainability feature observed was the nomination of mentees by government line ministries. By engaging staff already embedded within national health systems or affiliated institutions, the programme ensured that newly acquired skills and knowledge were retained within key public structures, thereby reducing the risk of attrition due to external turnover. Evidence from operational plans indicated that mentees had taken the lead on various initiatives, some of which further contributed to the capacity-building of other health workers demonstrating a multiplier effect. This approach promoted internal capacity and institutional memory, reducing reliance on external technical assistance and enhancing the programme's overall resilience and sustainability.

# **Enablers and Barriers to Long-term Sustainability**

Going forward, the programme will need to maintain and strengthen the sustainability measures already established. However, this review also identified additional critical enablers that are essential to ensuring the long-term sustainability of the programme.

#### **Collaborative Governance for Continued Relevance**

The programme's sustainability is further supported by a collaborative governance structure. A steering committee, comprising representatives from UNICEF, IQVIA, and UNZA, was established to oversee implementation and ensure continued responsiveness to country and global needs. The committee provided oversight on mentee progress and challenges and ensured that training content remained current and aligned with WHO guidance.

"We had several iterations, primarily to align with the actual needs of the mentees and to effectively orient them to the training materials." Mentor\_Zambia

#### **Institutional Integration**

By embedding the initiative within existing institutional, academic, and government frameworks, the programme transitions from a short-term, donor-funded project to a permanent, locally owned solution.

#### **Building Local Capacity for Programme Ownership**

Another critical enabler for sustainability is the deliberate investment in local capacity. Strengthening incountry expertise enables the programme to evolve into a self-sustaining model that can be led and adapted by local institutions. Training national mentors and reducing reliance on external technical assistance promotes long-term ownership, adaptability, and leadership at national levels.

#### **Sustainability Recommendations**

# Establishing an Alumni Network and Community of Practice for Sustained Engagement

Establishing a Community of Practice (CoP) through a formal alumni network would provide a lasting platform for mentees to continue sharing knowledge, experiences, and technical support long after completing the mentorship programme. This network will foster collaboration, encourage continuous learning, and enhance the application of skills in real-world settings. A structured alumni association would also serve as a valuable resource for scaling the programme, mentoring future cohorts, and sustaining capacity development at national and regional levels.

## **Create Linking and Learning Platforms Especially Physical Ones**

The programme should intentionally establish both virtual and in-person platforms for linking and learning to foster a collaborative environment among mentees, alumni, and other key stakeholders. These platforms would provide dedicated spaces for sharing experiences, exploring new opportunities, and building meaningful professional relationships. Such engagements are especially valuable for mentees seeking technical or strategic support to implement their operational plans. Sustained interaction through these forums could also strengthen partnerships, stimulate cross-country collaboration, and amplify the programme's long-term impact.

# Institutionalize National Ownership and Embed the Programme Within Country-Led Capacity Building Frameworks

Future programming should prioritize transferring coordination and oversight responsibilities from implementing partners (e.g. UNICEF, IQVIA, UNZA) to national universities and MOH. This will help build long-term ownership, reduce donor dependency, and promote sustainability. Champions within the national systems should be identified and nurtured to drive the programme forward.

#### **Enhancing Support for Mentee Operational Plans**

A key improvement in the programme was the integration of operational plans development as a core component of the mentorship process. However, many of these plans did not progress beyond the design phase due to lack of funding. To address this, it is essential to establish a structured mechanism for supporting the implementation of these plans. This could include identifying internal or external funding sources specifically designated for operational plan execution. Where dedicated funding is not feasible, strong alignment of these plans with departmental or national annual plans is recommended, ensuring they are absorbed into existing budget frameworks and implemented through already planned government resources.

## Integrate Advanced Data Tools into Future Module Iterations

To keep pace with evolving data needs, future programme phases should include training in more

advanced emerging analytical tools such as Python, R etc. This will strengthen mentees' analytical capacity and help them better inform national programme design and geographic targeting.

### 5.3 Scalability of the Programme

The light review aimed to determine if and how much the DMP could be scaled up. The findings suggest that the programme can be scaled up in three key dimensions that include thematic, institutional, and geographic expansion. Considering that the DMP has successfully been implemented in different countries and across three separate phases, the results of the model are undoubtedly critical and impactful in the health sector, particularly in vertical transmission programmes. Thus, in the context of scaling up, testing of the DMP model has been done and key lessons have so far been harvested. With the programme having been tested and implemented in two regions already, investing in wide scale implementation with a general target of integrating it into RECs and national structures becomes critical.

#### **Thematic Scalability**

Thematically, the DMP can be adapted to other health areas, such as maternal health, other sexual and reproductive health services, and health systems strengthening. This versatility enhances the programme's value proposition and justifies investment in its broader implementation. Stakeholders suggested aligning the mentorship content with national strategic priorities to increase uptake.

#### **Institutional Scalability**

The findings demonstrated strong potential for scaling the DMP through its institutionalisation within academic institutions. Institutional scale-up entails integrating the model into the strategic plans of universities, technical training institutions, and national health accreditation bodies. This approach supports the transition of the DMP from a donor-funded programme-based model to a sustainable, national owned initiative. Strategic investments have already been made in curriculum development and alignment with both national and regional standards. However, additional investment is needed in critical areas such as accreditation systems, faculty capacity building, and enhancement of digital infrastructure to support effective integration and scalable expansion into more institutions.

## Resources Required to Scale the Programme

#### **Financial Resources**

Expanding the DMP requires financial investment, particularly for scaling localized and multilingual content. While Phase 3 introduced efficiencies and lowered overall costs compared to previous phases, critical gaps in funding remained, especially for in-person workshops and mentee-led activities.

Additionally, while the DMP remains a scalable approach, several stakeholders emphasized that limited financial resources remain the primary barrier to scaling the programme. To address this, there is a strong call for innovative approaches to resource mobilization at the regional and country level. Such strategies would enhance the scalability of programme eventually. Also, as earlier highlighted, if this model is integrated into regional bodies, these can advocate and lobby with national member states for the programme to be integrated into national systems that will be able to budget for this in their national budgets.

#### **Technical Resources**

Technical infrastructure has played a key role in ensuring the smooth running of the DMP. It further plays a significant role in the scaling up of the programme by ensuring accessibility for its mentees across regions. Currently, the programme already has well-designed materials and e-learning components (e.g., HCP space, live sessions, operational plan templates), which are scalable with minor adaptation for content and language. Despite virtual delivery being a critical enabler, internet access remains a barrier in many countries due to the lack of strong digital technology and other factors mentioned above.

"As highlighted, the HCP space is a good example...and we've mentioned this before. I believe the strength of this programme lies in how it has consistently improved over time by actively incorporating feedback from the mentees on what they would like to see enhanced in subsequent phases. The same approach was applied to

the HCP space, particularly regarding the addition of various features such as quizzes for each module." IQVIA South Africa

#### **Human Resources**

Embedding the DMP in national institutions allows for existing personnel to be trained once, creating an inhouse pool of mentors and facilitators. Line ministries must integrate mentorship responsibilities into staff roles and supervision frameworks. Additional support is needed for operational plan monitoring. This shift from external to internal delivery will help institutionalize the programme and reduce long-term dependence on external experts.

"I think the modification would be building capacity within countries to actually implement the programme as opposed to having [maybe] a regional or global team facilitating everything." Supervisor\_Zimbabwe

#### **Institutional Readiness for Expansion**

The light review identified several enabling factors that demonstrate the programme's institutional readiness for expansion. First, government endorsement structures have been utilised, as evidenced by mentees being officially nominated by their respective national MOHs. This nomination process grants the programme a formal mandate and reinforces institutional trust. Moreover, the fact that mentees are existing civil servants within

MOH departments solidifies institutional support and embeds the programme within government systems.

Line ministries, including the Ministries of Education (MOE), are strategically positioned to scale the DMP through integration into national training curricula and pre-service educational pathways. Additionally, the country-level operational plans developed by mentees offer a practical mechanism through which the DMP can be linked to government workplans or priorities. This ensures that programme outputs are relevant to national priorities and can be readily adopted.

The integration of DMP into formal academic systems represents another pathway toward long-term scalability and sustainability. Embedding the programme into university structures not only institutionalizes content delivery but also ensures that operational responsibility is placed within local academic faculties. This enhances continuity and builds capacity at the country level. These developments underscore a durable foundation for institutional scalability and highlight the importance of government ownership, academic partnership, and alignment with existing national structures.

"The course concepts and the core components of the data mentoring programme are being integrated into an elective course that is going to be taught by the University faculty, with the research assistants that are already trained on these materials." Research Associate\_Zambia

## **Scalability Lessons Learnt**

Targeting
Government
Practitioners for
Applied Learning and
Institutional Impact

1. Targeting government officials or staff already engaged in practical work presents a valuable opportunity that should be upheld. Given the programme's strong emphasis on applied learning, involving such personnel not only enhances their technical capacity but also ensures the practical application of acquired skills. This approach further promotes institutional collaboration and knowledge transfer within the institution where these mentees operate.

Leveraging Regional Collaboration for Scalable Impact **2.** Scaling this model depends on recognizing and acting on opportunities that move along with its fundamental objective of enabling stakeholders through inclusive practical and relevant training. The South-to-South workshop has been noted as one of the major opportunities that can be used to scale up the DMP. The platform has been seen to be effective in fostering collaboration among mentees across different regions and implementation phases.

Harnessing Digital
Platforms and Alumni
Networks

**3.** The use of the hybrid delivery model and the online compatible space has also been seen as opportunities for scaling up the programme. These two platforms have ensured smooth running of the programme which has yielded greater results in terms of access to learning materials and interacting with mentees and mentors to this level. Over time, digital platforms remain a quick way of scaling up despite the need to navigate cost effective platforms for the delivery of the model.

#### **Scalability Recommendations**

## **Expanding Through Strategic Partnerships for Regional Relevance and Reach**

Scalability through other partners is an important aspect to consider when scaling up the programme. Other than academia, partners such as RECs and other stakeholders would ensure that there is much needed support to guarantee entry into new regions. For instance, the partnership with UNICEF in Francophone countries has ensured that modules are tailored to what regional health challenges they are facing.

#### **Develop A Strategic Roadmap for Scaling-Up**

It is essential to develop and implement a comprehensive scaling-up strategy that outlines the

specific approach to be used, the pace at which expansion should occur and the degree of flexibility in implementing the scaling up. The strategy should also have a clear cost and resource mobilization plan for scaling up the model.

#### **Strengthen Financing Models for Scaling-Up The DMP**

The current dependence on donor funding limits the programme's ability to grow and sustain itself. To address this, there is a need to adopt a diversified financing approach that includes cost-sharing mechanisms, and integration into national and regional budgets.

## 5.4 Replicability of the Data Mentorship Model

The DMP demonstrates a high degree of replicability, with strong structural, contextual, and operational features that enable its adaptation across diverse regions. Respondents widely acknowledged the strengths of the model, especially its modular curriculum and blended learning design.

# Adaptability of the Mentorship Model to other Contexts

A core feature of the programme's adaptability lies in its phased implementation and built-in feedback loops. Each phase drew on lessons from prior implementation, enabling real-time refinement of content and delivery methods. For instance, in Phase 2, mentors were overwhelmed by the large number of mentees and the intensive support required, leading to delays in feedback, limited follow-up, and reduced mentee engagement. To address these challenges, the programme introduced research Associates to reinforce mentorship delivery,

enhance responsiveness, and provide accessible support to mentees. This strategic adjustment not only improved learning outcomes but also aligned with earlier recommendations to scale up human resources to ensure more effective and sustainable mentorship support.

"...the phased approach allowed for adaptation, so the programme really evolved with each phase. It involved identifying areas that needed improvement or optimization, and subsequent phases addressed those components that had been identified [in earlier phases]." UNICEF

In addition, operational plans were introduced to translate mentees' learning into context-specific, actionable strategies that respond to country-level health data challenges. This shift ensured that mentorship extended beyond theory and encouraged practical application aligned with national priorities. The operational plans became a formal part of the training curriculum and were consistently highlighted as critical component in dealing with real-time country challenges.

Given the programme's expansion into WCA, it was essential to ensure linguistic accessibility. To this end, training content has been translated into French, enabling equitable participation among Francophone mentees. The programme's strategic design also supported seamless integration into institutional and government frameworks.

The DMP has demonstrated high adaptability through its collaborative and responsive design. Its integration within national MOH has since occurred with minimal disruption, as it aligns with local systems and leverages existing institutional infrastructure and workforce. Moreover, the programme's responsiveness to real-time feedback, such as the introduction of low-resolution video options for mentees in low internet bandwidth regions, reinforced its inclusive and flexible design, ensuring broader participation and sustained relevance across diverse contexts.

#### **Replicability Enablers**

#### **Alignment With Regional and National Frameworks**

By aligning outputs with both national and global frameworks<sup>13,14,15,16,17</sup> such as national health strategies, the WHO Global Health Sector Strategies (2022–2030), and the WHO PTE framework, the DMP established a durable foundation for replicability. The programme's design, objectives, and outcomes resonate with widely accepted health priorities and delivery standards, making it easier to adapt and implement in new settings. Customization to local standards and responsiveness to

country-specific challenges further ensured the programme's relevance.

#### Flexibility of Curriculum

The DMP curriculum is composed of self-contained modules that can be adapted or restructured to address regional needs or thematic focus areas such as PMTCT, HIV, syphilis, and hepatitis B. This modular design supports replication without the need for complete redevelopment, simplifying the scale-up process. Key informants emphasized the flexibility of the curriculum and its relevance to different implementation contexts.

"The programme has that kind of flexibility. We used it in PMTCT, and I'm sure it can be adapted for other thematic areas without changing too much." Mentor Zambia

Comprehensive documentation of curriculum development and revisions further enhances the transferability of content to academic and training institutions. In previous phases, modules contained examples from only two countries. However, the current phases have incorporated examples from additional countries, demonstrating increased contextual relevance and broader applicability.

#### **Digital Platform Integration**

The integration of digital platforms has been central to the consistent delivery of the DMP across multiple countries and cohorts. Online tools, particularly the IQVIA-hosted HCP platform, enabled standardized and asynchronous learning, allowing participants to access course content, complete assignments, and engage with mentors regardless of their geographic location. This digital infrastructure proved valuable especially in overcoming logistical challenges and promoting flexible, self-paced learning. Live sessions complemented the self-study modules and created opportunities for peer engagement, reinforcing key concepts through real-time interaction and feedback.

<sup>&</sup>lt;sup>13</sup> National Strategic Plan on HIV and AIDS

 $<sup>^{\</sup>rm 14}$  National strategy and action plan for the elimination of new paediatric HIV infections and keeping their mothers alive

<sup>&</sup>lt;sup>15</sup> National Guidelines for Prevention and Management of HIV and STIs

<sup>&</sup>lt;sup>16</sup> Implementation of Lifelong ART for PMTCT

<sup>&</sup>lt;sup>17</sup> Guideline on the implementation of the new PMTCT protocol

#### **Artificial Intelligence Integration**

In the face of diminishing donor resources, incorporating Artificial Intelligence (AI) into the DMP offers an opportunity to optimize delivery and reach. While not yet implemented, participants in the review acknowledged the potential for AI to strengthen the programme's future impact. Key informants emphasized that AI-powered tools could enhance the programme's efficiency through real-time translation, automated support, and data insights.

"We haven't used AI yet, but I think there's real potential in things like auto-feedback and translation to make the platform more responsive, especially in low-resource settings." Mentor\_Zambia

Al-driven adaptive learning platforms, chatbots, and predictive analytics can provide 24/7 personalized support, identify mentees at risk of disengagement, and support evaluation of operational plans and data visualization. These innovations will position the DMP as a forward-looking and cost-efficient model, highly attractive to regional bodies and donors seeking impactful digital health investments.

#### **Barriers to Replicability**

#### **Limited or Inadequate Human Resource**

Although it is recommended that the DMP should explore cost-effective digital platforms to reduce dependence on human resources, the programme has historically relied heavily on a small group of just three core mentors. These mentors have been tasked with capacity building, operational plan development support, training, and continuous feedback to mentees. Despite the addition of research associates, reliance on a

limited number of experienced personnel has the potential to hinder scale-up, particularly in regions with large mentee cohorts.

"At the moment, a key constraint is the limited number of faculty members. If you have only three mentors supporting 30 mentees, it becomes difficult to scale the programme further. To expand effectively, additional mentors must be trained, and alternative strategies explored to address the limitations imposed by such a small core team." Mentor Zambia

This over-reliance has led to staff fatigue and burnout, impacting the quality of the mentorship provided. While mentees valued the rapport with their mentors, the time allocated per mentee was inadequate, especially as mentor-to-mentee ratios grew. For instance, phase 1 had a 1:1.7 ratio, allowing individualized support, whereas phase 2 scaled up to a 1:9 ratio with the same mentor pool.

#### **Funding Constraints**

DMP replication was constrained by reliance on donor funding. While MOH demonstrated strong interest and engagement, their ability to independently finance core components of the programme remained limited. As a result, critical activities such as in-person workshops, operational follow-up visits, and the implementation of mentee-designed projects were either delayed, inadequately executed, or not funded at all. This financial dependency poses a risk to the programme's sustainability and highlights the need for diversified funding streams and increased domestic investment to support long-term institutionalisation and country ownership of mentorship initiatives.

#### **Replicability Lessons Learnt**

Phased
Implementation
Strengthens
Programme
Adaptability

Modular Curriculum Supports Flexible Adaptation

Operational Plans Bridge Theory and Practice

Alignment With Regional and Global Health Frameworks Builds Legitimacy

- 1. The use of a phased roll-out approach allowed the programme to evolve based on real-time feedback and implementation realities. This adaptive structure allowed for the refinement of strategies and integration of recommendations from earlier phases. Future phases should continue leveraging this iterative design to ensure contextual relevance of the DMP.
- **2.** The DMP's self-contained, modular training structure made it easier to adapt to context specific examples and regional priorities. The curriculum model was essential in maintaining consistency while allowing contextual customization. It therefore should remain a cornerstone of the programme in all future adaptations.
- **3.** Embedding operational plans in the mentorship process translated learning into actionable, country-specific strategies. These plans enhanced mentee accountability, encouraged national alignment, and should remain a core learning tool for localizing the gains and impact of the DMP.
- **4.** The programme's alignment with frameworks like national health strategies, WHO GHSS, and WHO PTE facilitated institutional acceptance. Maintaining this alignment is critical for future replications to gain political buy-in and maintain programmatic relevance.

#### **Replicability Recommendations**

#### **Formalize Institutional Integration at National Level**

Ministries of Health and Education should embed the DMP into pre-service and in-service health training systems and align it with national data systems and health strategies. Doing so ensures local ownership and sustained resource allocation.

#### **Adopt a Smart Digital Delivery Strategy**

Transition to scalable, cost-efficient digital platforms prioritizing open-source and Al-enabled systems to deliver consistent, cost effective and accessible content. Features such as automated feedback and translation will expand the programme's reach while improving learning outcomes at a reasonable cost.

#### **Ensure Financial Sustainability Through Diversified Funding**

There is need to explore co-financing models, including government budget allocations, cost-sharing with institutions, and private sector engagement. This reduces dependence on external donors and secures long-term viability on replication efforts.

#### **Develop and Implement a Regionalized Scale-Up Framework**

Establish a structured replication plan that will be led by RECs such as SADC, EAC, ECOWAS. Additionally, there is need to formally advocate for regional coordination and adoption of the DMP by RECs and other regional bodies.

# 6 Conclusion

The light review of the DMP affirms its relevance, effectiveness, and strategic value in strengthening health data systems across ESA and WCA. The programme has demonstrated strong adaptability and contextual relevance, primarily owing to its feedback-driven approach. Notably, the DMP has contributed to strengthening human resource capacity by equipping frontline health personnel with practical skills in data analysis, visualisation, and application, particularly in the areas of HIV and vertical transmission. As a result, the programme has produced a regionally distributed cohort of data-competent health professionals who are actively shaping national health priorities in their respective countries. Mentees have further taken on national leadership positions, integrated training outputs into government health systems, and supported reforms on national data systems.

Considering these findings, the DMP emerges not only as a practical training mechanism but as a strategic programme for advancing practical data-driven solutions. Its scalability along thematic, geographic, and institutional dimensions positions it as a catalytic model for regional health systems strengthening. As countries intensify efforts to eliminate vertical transmission and improve data quality for decision-making, the DMP offers a tested, adaptable, and impactful solution.

Continued high-level commitment from governments, UN agencies and the donor community will be vital to sustain momentum and institutionalise this model as a pillar of health system resilience in Africa.

# 7 Annexes

## Annex 1: Online Platforms Used to Deliver Similar Content to the DMP

| Platform   | Cost Structure   | Ease of Setup  | Maintenance  | Technology Required                                 | Website             |
|--|--|--|--|---|---------------------|
|  |  | ·  | Requirements                                       | ,   |                     |
| Teachable  | Subscription (from ~\$29-<br>\$309/month) + % fees   | Easy – no coding needed  | Low – platform manages backend                     | Basic tech skills; web browser only                 | <u>Teachable</u>    |
| Thinkific Free tier available; paid                                |  | Easy – drag-and-drop   | Low – auto-updates                                 | Basic tech; no coding                               | <u>Thinkific</u>    |
| Kajabi   | from ~\$36-\$149/month<br>From ~\$149/month  | builder  Moderate – more features                                      | by platform  Low to moderate –  self-service CMS   | needed Intermediate digital literacy recommended    | <u>kajabi</u>       |
| Moodle   | Free (open-source);<br>hosting costs extra   | Difficult – self-hosted  | High – manual updates and security                 | Server setup, PHP,<br>MySQL, admin<br>expertise     | <u>moodle</u>       |
| ·  |  | Low – managed by<br>Coursera   | LMS integration<br>knowledge; IT support<br>useful | <u>Coursera</u>                                     |                     |
| Udemy  | demy Free to host; revenue Easy – guided course Very low – all Minimal; platfor share with Udemy setup managed by Udemy provides |  | ' '  | <u>Udemy</u>  |                     |
| Podia  | From ~\$39/month   | Easy – user-friendly UI  | Low – platform<br>managed                          | None beyond browser-based setup                     | <u>Podia</u>        |
| Google Free<br>Classroom   |  | Very easy  | Low – managed by<br>Google                         | Google account; basic browser knowledge             | Google<br>classroom |
| TalentLMS Free (up to 5 users); paid from ~\$69/month              |  | Easy   | Low – cloud-based                                  | No special skills; intuitive UI                     | <u>TalentLMS</u>    |
| Canvas LMS Free (open-source); pai cloud version available         |  | Moderate to difficult (open-source version)                            | High (open-source);<br>Low (paid version)          | Technical setup for open-source; low for hosted     | Canvas LMS          |
| IQVIA HSpace   | ~\$10 000  | -  | IQVIA  | -   |                     |
| LinkedIn from ~\$29.99 per mon or \$239.88 per year                |  | easy (beginner-friendly)<br>and accessible to a wide<br>range of users | maintenance is<br>minimal                          | Basic tech skills; web browser only                 |                     |
| edX Free & paid (course prices vary); institutions pay for hosting |  | Moderate – institutional setup complex                                 | Low – edX handles platform maintenance             | Web browser; admin<br>needs moderate tech<br>skills | <u>edX</u>          |
| Skillshare   | Subscription-based (from ~\$29/month)  | Easy – intuitive interface   | Low – platform hosts content                       | Web browser; basic tech skills                      | <u>Skillshare</u>   |
| learndash One-time license fee (from ~\$199/year)                  |  | Moderate – WordPress-<br>based   | Medium – needs<br>regular updates                  | WordPress hosting;<br>intermediate tech<br>skills   | <u>Learndash</u>    |
| <b>Docebo</b> Quote-based enterprise pricing                       |  | Moderate to complex – depending on scale                               | Medium – admin<br>oversight needed                 | Web-based; admin<br>needs moderate tech<br>skills   | <u>Docebo</u>       |
| 360Learning  | Subscription-based (custom pricing)  | Easy to Moderate – designed for teams                                  | Low to Medium – cloud-based                        | Web browser; basic to moderate tech skills          | 360<br>Learning     |

| Platform   | Cost Structure                           | Ease of Setup                           | Maintenance<br>Requirements                | Technology Required                    | Website          |
|------------|--|---|--|--|------------------|
| Ruzuku     | Subscription (from ~\$99/month)          | Easy – designed for non-<br>tech users  | Low – hosted platform                      | Web browser; basic tech skills         | <u>Ruzuku</u>    |
| LearnUpon  | Subscription-based (quote-based)         | Moderate – B2B-<br>focused setup        | Low to Medium –<br>admin panel<br>required | Web-based; moderate tech skills        | <u>Learnupon</u> |
| Educadium  | Subscription-based<br>(from ~\$49/month) | Moderate – LMS features require setup   | Medium – some platform management          | Web-based; moderate admin skills       |                  |
| Absorb LMS | Quote-based enterprise pricing           | Moderate – professional support offered | Medium – admin involvement needed          | Web-based; moderate to advanced skills | Absorb Ims       |

## **Annex 2: Light Review Framework**

| Criteria                   | Overall Objective   | Specific objective  | Assessment questions and criteria   | Methods and tools to be used  |
|----------------------------|---|---|---|---|
| Effectiveness & Efficiency | Review the effectiveness and efficiency of the Data Mentorship Programme on its capacity building and mentorship approach | To review the extent to which the Data Mentorship Programme achieved its intended objectives in building capacity for data analysis and use among government data managers.  To assess the efficiency of the programme's implementation including the optimal use of resources (financial, technical, and human) and adherence to timelines in delivering of the Data Mentorship programme. | Main review question: To what extent has the Data Mentorship Programme achieved its intended objectives in building capacity for data analysis and use among government data managers?  a) To what extent did the programme enhance mentees' skills and knowledge in data analysis, interpretation and utilisation for decision-making in their respective roles? b) Were financial resources utilized effectively and efficiently to achieve the programme objectives, and were there any cost-saving measures put in place during the implementation period? c) What is the cost of implementing the programme (blended approach - face to face & online). Which approach is more cost effective? (With respect to the results - this could also be compared to other similar programmes). d) To what extent did the programme achieve its intended results with the provided/available resources? e) How effective was the e-learning section to the mentees? Are there any differences in how the mentees felt about the e-learning platform across regions? f) What are the key lessons learned regarding resource allocation and management, and how can efficiency be improved in future programme phases? | We will conduct a programme performance review:  a. Secondary data review of programme documents on expenditure, implementation process, training materials, project reports and operational plans  b. IDI and KIIs with programme staff, mentors, mentees, alumni and RAs.                   |
| Replicability              | Determining the replicability of the programme.   | Assess whether the Data Mentorship Programme is a replicable model and approach to capacity building and mentorship.  | Main review question: How easily can the programme be replicated in other countries/regions? What modifications would be necessary to adapt it to different contexts?  a) Is the programme design and processes of the programme clearly documented to facilitate replication?  b) How adaptable is the programme's mentorship model to different country contexts, government structures, and health information systems?  c) Does the programme have a standardized framework (e.g., guidelines, tools, or templates) that can be adapted in different contexts?  d) What modifications would be needed to implement the programme in a new context without compromising its effectiveness?   | We will carry out a programme performance review:  a. Desk review of programme documents, analysis of the project results, training modules, training or workshop reports, review of mentees operational plans etc.  b. IDI and KIIs with programme staff, mentors, mentees, Ras and alumni's |

| Criteria                       | Overall Objective   | Specific objective  | Assessment questions and criteria  | Methods and tools to be used  |
|--------------------------------|---|---|--|---|
|                                |   |   | e) What resources (financial, human, technical) needed to replicate the programme successfully? This will require financial modelling (see scalability objective).   |   |
| Scalability and sustainability | Review the scalability and sustainability of the programme.                 | Determine the resource demands (financial, technical, and human) for scaling and sustaining the programme effectively.          | Main review questions: Can the programme's current structure be scaled up to accommodate more countries or institutions? What adjustments are needed to ensure scalability? How sustainable is the programme in the long term? What are the key enablers and barriers to its continued success without external support?  a) What financial, technical, and human resources are required to scale the programme to additional countries or regions while maintaining quality?  b) In its current set-up, what institutional mechanisms need to be put in place to scale up and sustain the programme (elearning and face to face)  c) Was there any cost reducing measures/strategies introduced during the previous phases? Based on alternatives?  d) To what extent has the capacity of secondary stakeholder targets been built?  e) Was and is the programme desirable in the countries and regions it's being implemented in?  f) What key factors or conditions enable or hinder the programme's scalability during phase 1 through to phase 3? | We will conduct a systematic financial assessment and programme performance review:  a. Review of programme documents i.e., financial reports, costing, budgets, Value for Money (VfM) analysis, assess programme systems determining systems being used and their appropriateness, financial and operational capacity for the supported stakeholder to manage their components.  b. KIIs and IDIs with IQVIA, University of North Carolina, UNAIDS, UNICEF, UNZA programme staff, mentors and mentees. |
| Lessons and Recommendations    | Recommend areas for<br>strengthening of the<br>Data Mentorship<br>Programme | Extract the lessons that can be learned from the programme, provide recommendation for improvements and for further engagements | <ul> <li>a) What are the key or significant lessons learnt and recommendations that can be drawn from programme implementation?</li> <li>b) What were the main challenges faced in data mentorship programme implementation, and how can they be addressed to improve effectiveness and efficiency?</li> <li>c) What additional capacity-building components (e.g., technical, leadership skills, advanced data analytics) should be incorporated to strengthen the programme?</li> <li>d) What best practices and lessons learned from previous phases can inform future improvements and expansion of the Data Mentorship Programme?</li> </ul>  | We will synthesize lessons learned and recommendations: a. Collate and analyse questions and parts of the assessment to make future recommendations, lessons and future sustainability and feasibility for phase 4 b. Review programme related documents i.e., progress reports, end of phase project reports, activity reports, financial, cost, and pricing documents. c. IDIs with IQVIA, UNAIDS, UNICEF and UNZA staff.   |

#### **Annex 3: Data Collection Tools**

## Process Mapping Facilitators Guide

#### Introduction

This guide provides step-by-step instructions for facilitators conducting process mapping interviews with stakeholders involved in the Data Mentorship Programme design. The goal is to systematically document the processes, inputs, personnel, and materials required for programme design.

#### **Step 1: Pre-Interview Preparation**

- 1. Review all relevant programme documents and past process outlines.
- 2. Identify key stakeholders involved in the programme's design and implementation.
- 3. Schedule interviews with participants, ensuring representation from all key areas.
- 4. Prepare process mapping tools including digital mapping software and templates.
- 5. Share pre-reading materials with participants to align expectations.

#### **Step 2: Setting the Interview Context**

- 1. Introduce yourself and explain the objective of the session.
- 2. Clarify the purpose of process mapping: understanding workflows, identifying gaps, and improving efficiencies.
- 3. Emphasise confidentiality and the importance of honest and detailed input.
- 4. Provide an overview of the process mapping methodology.

#### **Step 3: Conducting the Interview**

#### Start with General Questions:

- 1. Can you describe your role in the Data Mentorship Programme?
- 2. What were the initial steps taken to develop the programme?
- 3. Who were the key personnel involved at different stages?

#### Mapping the Steps:

- 1. What was the first step in the programme design?
  - Who was involved?
  - What resources or materials were required?
  - What decisions were made at this stage?
  - What costs were associated with this step?
- 2. What was the next step?
  - Repeat the above inquiries for each subsequent step.

#### Identifying Challenges & Improvements:

- 1. Where did you encounter bottlenecks or inefficiencies?
- 2. What worked particularly well, and why?
- 3. How could the process be improved in future iterations?

#### Step 4: Real-Time Documentation

- 1. Capture responses in a structured format including flowcharts, digital mapping tools, and written summaries.
- 2. Ensure each process step is recorded sequentially with responsible personnel and resources used.
- 3. Note any variations or alternative pathways mentioned by stakeholders.

#### Step 5: Validation and Finalisation

- 1. Summarise key findings at the end of the interview.
- 2. Share a preliminary process map with the participant for verification.

- 3. Conduct follow-up discussions if additional details or clarifications are needed.
- 4. Compile findings into a comprehensive process map and report.

Step 6: Post-Interview Review

- 1. Consolidate all inputs from various interviews into a single, refined process document.
- 2. Identify common patterns, gaps, and areas for enhancement.
- 3. Prepare a final presentation of findings for stakeholder review

## In-depth Interview (IDI) Guide for Mentees

#### Introduction

This interview guide is designed to gather insights from mentees who have participated in the Data Mentorship Programme. It explores their experiences, lessons learned, aspects of the programme that were effective, areas for improvement, and the overall impact of the mentorship on their professional development. The responses will contribute to refining and enhancing the programme for future participants.

#### **Background Information**

| Date                                       |  |
|--|--|
| Interviewer                                |  |
| Location                                   |  |
| Time interview started                     |  |
| Time interview stopped                     |  |
| Duration of Participation in the programme |  |
| Participant position                       |  |
| Gender                                     |  |
| ID   |  |
| Language                                   |  |
| Informed consent was obtained              |  |

#### **Section 1: Introduction**

- 1. How did you first learn about the Data Mentorship Programme?
- 2. What were your expectations before starting the programme?
- 3. How did you perceive your data analysis skills before joining the programme?

#### **Section 2: Programme Strengths**

- 1. What aspects of the mentorship programme particularly worked well?
- 2. Which programme components were most valuable to you, and why?
- 3. Can you provide an example of how a specific aspect of the programme positively impacted your professional work?

#### **Section 3: Areas for Improvement**

- 1. Were there any aspects of the mentorship programme that did not meet your expectations?
- 2. What challenges did you face during the programme, and how were they addressed?
- 3. What additional support or resources do you believe would have enhanced your learning experience?
- 4. What modifications or additions would make the programme more effective?

#### Section 4: Impact of the Mentorship Programme

- 1. How has this programme influenced your approach to data analysis, interpretation, and utilisation?
- 2. How has your knowledge, technical skills, or confidence in data analysis evolved as a result of the mentorship?
- 3. Have you observed any notable changes in your professional growth since completing the programme?
- 4. Has the mentorship influenced your contributions to your organisation or team? If so, in what ways?

#### **Section 5: Additional Insights**

1. Do you have any other feedback or suggestions regarding your experience in the Data Mentorship Programme? Conclusion

Thank you for your time and valuable insights. Your feedback will play a crucial role in shaping the future of the Data Mentorship Programme, ensuring its continued impact and relevance for upcoming mentees.

## In-depth Interview (IDI) Guide for Mentors

#### Introduction

This interview guide is designed to gather insights from mentors who have participated in the Data Mentorship Programme. It explores their experiences, lessons learned, aspects of the programme that were effective, areas for improvement, and the overall impact of the mentorship on professional development. Additionally, it includes perspectives on the scalability and replicability of the mentorship model. The responses will contribute to refining and enhancing the programme for future implementation.

#### **Background Information**

| Date                                       |  |
|--|--|
| Interviewer                                |  |
| Location                                   |  |
| Time interview started                     |  |
| Time interview stopped                     |  |
| Duration of Participation in the programme |  |
| Participant position                       |  |
| Gender                                     |  |
| ID   |  |
| Language                                   |  |
| Informed consent was obtained              |  |

#### **Section 1: Introduction**

- 1. How did you first learn about the Data Mentorship Programme?
- 2. What were your expectations before starting the programme?
- 3. How would you describe your relationship and interactions with your assigned mentees?

#### **Section 2: Programme Strengths**

- 1. What aspects of the mentorship programme were particularly effective?
- 2. Which programme components did you find most valuable, and why?
- 3. Can you provide an example of how a specific aspect of the programme positively impacted your mentees?

#### **Section 3: Areas for Improvement**

- 1. What challenges did you face as a mentor, and how did you address them?
- 2. Were there any gaps in the mentorship model that need refinement?
- 3. What additional support or resources do you believe would have enhanced your effectiveness as a mentor?

#### **Section 4: Impact of the Mentorship Programme**

- 1. To what extent did the programme improve mentees' skills and knowledge in data management?
- 2. How have mentees applied the skills and knowledge gained from the programme in their current roles or projects?
- 3. Have you observed any notable changes in the professional growth of your mentees since completing the programme?

#### Section 5: Sustainability

- 1. How equipped do you feel to continue supporting mentees beyond the programme's official phases?
- 2. What measures could be used to motivate mentees and their institutions to assume greater responsibility for programme outcomes?
- 3. How can the mentorship process be structured to ensure long-term capacity building?
- 4. What sustainability mechanisms are in place to ensure program continuity?

#### Section 6: Replicability and Scalability

- 1. Can the programme's current structure be expanded to accommodate more countries, institutions, or regions?
- 2. What modifications would be necessary to adapt the programme to different regional contexts?

- 3. Are there any insights from the inclusion of francophone countries?
- 4. What are the key enablers and barriers to scaling up the programme while maintaining its effectiveness?

#### **Section 7: Additional Insights**

1. Do you have any other feedback or suggestions regarding your experience in the Data Mentorship Programme?

#### Conclusion

Thank you for your time and valuable insights. Your feedback will play a crucial role in shaping the future of the Data Mentorship Programme, ensuring its continued impact and relevance for future mentors and mentees.

## In-depth Interview (IDI) Guide for IQVIA

#### Introduction

This interview guide is designed to gather insights from IQVIA representatives involved in the Data Mentorship Programme. It explores their specific roles, contributions, challenges, and perspectives on the programme's strengths, areas for improvement, impact, scalability, replicability, and sustainability. The responses will contribute to refining and enhancing the programme for future implementation.

#### **Background Information**

| Date                                       |  |
|--|--|
| Interviewer                                |  |
| Location                                   |  |
| Time interview started                     |  |
| Time interview stopped                     |  |
| Duration of Participation in the programme |  |
| Participant position                       |  |
| Gender                                     |  |
| ID   |  |
| Language                                   |  |
| Informed consent was obtained              |  |

#### **Section 1: Introduction**

1. What was IQVIA's role on the Data Mentorship Programme?

#### **Section 2: Programme Strengths**

- 1. What aspects of the Data Mentorship Programme were particularly effective from IQVIA's perspective?
- 2. Which elements of the training delivery, such as the use of HCP Space and blended learning approaches, were most valuable?

#### **Section 3: Areas for Improvement**

- 1. Were there any challenges in the development and delivery of training content (e.g., module updates, lecture videos, HCP Space access)?
- 2. How could the training materials and online learning platform be improved to enhance the user experience for mentees?
- 3. What additional support, tools, or resources would have strengthened IQVIA's contribution to the programme?
- 4. Were there any gaps in the mentorship model from an IQVIA perspective that need refinement?

#### **Section 4: Replicability**

- 1. Can the programme's approach to online and blended learning be effectively replicated in other regions or contexts?
- 2. What key factors should be considered when adapting the mentorship model for different health systems or organisational structures?

#### **Section 5: Scalability**

- 1. What are the key enablers and barriers to scaling up the programme while maintaining its effectiveness?
- 2. What modifications would be necessary to expand this programme to additional countries, institutions, or health sectors?

3. How can IQVIA be supported in broadening the reach of the programme?

#### **Section 6: Sustainability**

- 1. Can the programme function independently and fully imbedded in the national systems?
- 2. How can the mentorship process be institutionalised within national health systems to ensure ongoing capacity building?
- 3. What measures should be put in place to ensure the long-term sustainability of the programme?

#### Section 7: Recommendations

- 1. Based on IQVIA's experience, what key recommendations would you provide for strengthening the programme?
- 2. What innovative approaches or technologies could be leveraged to enhance future iterations of the programme?

#### Conclusion

Thank you for your time and valuable insights. Your feedback will play a crucial role in shaping the future of the Data Mentorship Programme, ensuring its continued impact, scalability, and sustainability.

## In-depth Interview (IDI) Guide for University of Zambia

#### Introduction

This interview guide is designed to gather insights from representatives of the University of Zambia (UNZA) involved in the Data Mentorship Programme. It explores their specific roles, contributions, challenges, and perspectives on the programme's strengths, areas for improvement, impact, scalability, replicability, and sustainability. The responses will contribute to refining and enhancing the programme for future implementation.

#### **Background Information**

| Date                                       |  |
|--|--|
| Interviewer                                |  |
| Location                                   |  |
| Time interview started                     |  |
| Time interview stopped                     |  |
| Duration of Participation in the programme |  |
| Participant position                       |  |
| Gender                                     |  |
| ID   |  |
| Language                                   |  |
| Informed consent was obtained              |  |

#### **Section 1: Introduction**

1. What was UNZA's role on the Data Mentorship Programme?

#### **Section 2: Programme Strengths**

- 1. What aspects of the Data Mentorship Programme were particularly effective from UNZA's perspective?
- 2. What role did UNZA play in the integration of mentorship activities within national health information systems?

#### **Section 3: Areas for Improvement**

- 1. What challenges did UNZA face in supporting curriculum development, module delivery, and mentorship?
- 2. Were there any gaps in the mentorship model from UNZA's perspective that need refinement?
- 3. What additional tools or resources would have strengthened UNZA's ability to fulfil its role in the programme?

#### Section 4: Replicability

- 1. Can the training and mentorship model be effectively replicated other or regions?
- 2. What key factors should be considered when adapting the mentorship model for different contexts? Section 5: Scalability
  - 1. What are the key enablers and barriers to scaling up the programme while maintaining its effectiveness?

2. What modifications would be necessary to expand this programme to additional regions?

#### **Section 6: Sustainability**

- 1. Can the programme function independently and fully imbedded in the national systems?
- 2. How can the mentorship process be institutionalised within national health systems to ensure ongoing capacity building?
- 3. What measures should be put in place to ensure the long-term sustainability of the programme?

#### Section 7: Recommendations

- 1. Based on UNZA's experience, what key recommendations would you provide for strengthening the programme?
- 2. What innovative approaches or technologies could be leveraged to enhance future iterations of the programme?

#### Conclusion

Thank you for your time and valuable insights. Your feedback will play a crucial role in shaping the future of the Data Mentorship Programme, ensuring its continued impact, scalability, and sustainability.

## **Key Informant Interview (KII) Guide for National and Regional Stakeholders**

#### Introduction

This interview guide is designed to gather insights from key regional stakeholders, including representatives from UN agencies and government ministries, involved in the Data Mentorship Programme. The questionnaire focuses on their roles, contributions, challenges, and perspectives regarding programme strengths, areas for improvement, impact, replicability, scalability, and sustainability. The responses will inform recommendations for future implementation.

#### **Background Information**

| Date                                       |  |
|--|--|
| Interviewer                                |  |
| Location                                   |  |
| Time interview started                     |  |
| Time interview stopped                     |  |
| Duration of Participation in the programme |  |
| Participant position                       |  |
| Gender                                     |  |
| ID   |  |
| Language                                   |  |
| Informed consent was obtained              |  |

#### **Section 1: Introduction**

1. What role did your organisation play in supporting the Data Mentorship Programme?

#### Section 2: Programme Strengths

- 1. What role did your organisation play in supporting the Data Mentorship Programme?
- 2. How did the programme align with national and regional data capacity-building priorities?
- 3. Which aspects of the programme were particularly effective from your perspective?
- 4. How has the mentorship approach improved the ability of government and regional institutions to analyse and utilise data?

#### **Section 3: Areas for Improvement**

- 1. What challenges did your organisation encounter while supporting or engaging with the programme?
- 2. Were there any gaps in coordination, technical assistance, or mentorship that need improvement?
- 3. How can the programme be enhanced to better align with country-specific health and data management needs? Section 4: Impact of the Mentorship Programme
  - 1. To what extent has the programme improved data-driven decision-making within national health systems?
  - 2. Have you observed any measurable improvements in the quality and use of health data for policy formulation and planning?

3. How has the programme contributed to strengthening national health management information systems (HMIS)?

#### **Section 5: Replicability**

- 1. Can the mentorship model be effectively replicated in other countries or regions?
- 2. What key factors should be considered when adapting the programme for different health systems or administrative structures?
- 3. How can regional institutions and UN agencies facilitate the expansion of the mentorship programme?

#### **Section 6: Scalability**

- 1. What are the main enablers and barriers to scaling up the programme across multiple regions?
- 2. How can the mentorship framework be expanded while maintaining its effectiveness?
- 3. What role can regional stakeholders play in ensuring the programme reaches a broader audience?

#### Section 7: Sustainability

- 1. What measures should be put in place to ensure the long-term sustainability of the programme?
- 2. How can the mentorship process be institutionalised within national health systems to ensure continued impact?
- 3. What mechanisms can be established to transition programme ownership to national governments and regional bodies?

#### **Section 8: Recommendations**

- 1. Based on your experience, what key recommendations would you provide for strengthening the programme?
- 2. What innovative approaches or partnerships could enhance future iterations of the programme?
- 3. How can UN agencies, governments, and other partners work together to sustain and expand mentorship efforts in the region?

#### Conclusion

Thank you for your time and valuable insights. Your feedback will contribute to refining the Data Mentorship Programme, ensuring its continued relevance, impact, and sustainability.

## **Process Mapping Facilitator Guide – Programme Implementation**

#### Introduction

This guide provides step-by-step instructions for facilitators conducting process mapping interviews with stakeholders involved in the implementation of the Data Mentorship Programme. The objective is to document workflows, identify challenges, and optimise implementation processes for scalability, efficiency and effectiveness.

#### **Step 1: Pre-Interview Preparation**

- 1. Review all relevant programme implementation documents and guidelines.
- 2. Identify key stakeholders involved in various implementation phases (mentors, mentees, programme managers, technical staff, and funding partners).
- 3. Schedule interviews with representatives from each stakeholder group.
- 4. Prepare process mapping tools including digital flowcharts and templates
- 5. Share pre-reading materials with participants to ensure alignment on session objectives.

#### **Step 2: Setting the Interview Context**

- 1. Introduce yourself and explain the purpose of the process mapping session.
- 2. Clarify that the goal is to document all steps involved in implementing the programme, from planning to evaluation.
- 3. Emphasise confidentiality and encourage open, detailed responses.
- 4. Provide a brief overview of process mapping methodology.

#### **Step 3: Conducting the Interview**

Start with General Questions:

- 1. What is your role in the implementation of the Data Mentorship Programme?
- 2. What are the main stages and activities in implementation related to your role?
- 3. Who are the key personnel involved at each stage?

#### Mapping the Steps of Implementation:

#### **Programme Planning and Setup**

- What were the first steps taken to prepare for implementation?
- Who was involved in planning, and what were their roles?
- What resources and materials were needed?
- What were the main challenges during this stage?
- What costs were associated with the planning process?

#### **Recruitment and Onboarding of Mentees and Mentors**

- How were mentees and mentors identified and included in the programme?
- What were the eligibility criteria for inclusion of mentees?
- What onboarding processes and training were provided?
- Who managed this process, and what tools were used?

#### **Training and Capacity Building**

- What training modules were used in the programme?
- How was the training structured (virtual, in-person, blended)?
- Who facilitated the training sessions, and what materials were required?
- What was the next step after each training session?

#### **Mentorship and Support Mechanisms**

- How are mentor-mentee relationships established and monitored?
- What support structures are in place for ongoing mentorship?
- How is communication and feedback managed?
- What challenges have been encountered, and how were they addressed?

#### **Step 4: Real-Time Documentation**

- 1. Capture responses in a structured format (flowcharts, digital mapping tools, or written summaries).
- 2. Ensure each implementation step is recorded sequentially with responsible personnel and resources used.
- 3. Note any variations or alternative pathways mentioned by stakeholders.

#### Step 5: Validation and Finalisation

- 1. Summarise key findings at the end of the interview.
- 2. Share a preliminary process map with the participant for verification.
- 3. Conduct follow-up discussions if additional details or clarifications are needed.
- 4. Compile findings into a comprehensive process map and report.