

Data.FI Annual Performance Report 2022

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Data.FI Annual Performance Report 2022

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Cover photo: Data.FI Data Use Advisor Dora García leads an Action Plan review with staff from the El Progreso Health Area Directorate during a Situation Room Capacity Transfer Workshop in Guatemala City, Guatemala.

In the photo (from right to left): Dr. Carlos Yapán (Morazán District Coordinator), Dr. Juan Carlos Morales (San Agustín Acasaguastlán District Coordinator), Dora García (Data.FI Data Use Advisor), Eduardo Samayoa (Data.FI Regional Technical Director, Central America), and Dr. Ana Eliza Carranza (El Jicaro District Coordinator). Photo by Data.FI/Guatemala.

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Table of Contents

Abbreviations	4
Executive Summary	6
Introduction	11
Catalyzing Innovation to Find Breakthrough Solutions	14
Accelerating Data Analysis and Use	18
Engaging Stakeholders with Communications Outreach	27
Optimizing and Scaling Health Information Systems and Digital Solutions	28
Applying Strategic Information and Learning	38
Strengthening Local Partners and Ecosystem Governance	42
Advancing Gender Equality and Social Inclusion	48
Project Learning	51
Looking Forward	54
Annex 1. Financial Summary (Redacted)	
Annex 2. Project Indicator Results	56
Annex 3. Data.FI Products	60
Annex 4. Environmental Compliance	71
Annex 5. FY23 Plans	72

Abbreviations

AEFI	adverse events following immunization
AGYW	adolescent girls and young women
ANC	antenatal care
ARPA	American Rescue Plan Act
APPR	Automated Partner Performance Reporting system
ART	antiretroviral treatment
BI	business intelligence
CDC	Center for Disease Control (Nigeria)
CHISA	Consolidated Health Informatics South Africa
CHMT	Council Health Management Team (Tanzania)
CLA	collaborating, learning, and adapting
CMIS	client management information system
CoP	community of practice
COP	Country Operational Plan
CPARP	Community Pharmacy ART Refill Program
cPIE	COVID-19 post-introduction evaluation
DAS	Dirección de Área de Salud (Health Area Directorate, Guatemala)
Data.FI	Data for Implementation Project
DCPEV	Direction coordination programme élargie de vaccination (Expanded Immunization Program, Côte d'Ivoire)
DHIS2	District Health Information Software, Version 2
DQA	data quality assessment
DREAMS	Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe
DSNIS	Directorate of the National Health Information System (Direction du Système National d'Information Sanitaire, Burundi)
ECHO	Efficiencies for Clinical HIV Outcomes
EMR	electronic medical records
EOC	emergency operations center
ETL	extract, transform, load
FMWA	Federal Ministry of Women Affairs and Social Development (Nigeria)
GBV	gender-based violence
GIS	geographic information system
HCJ	Health Connect Jamaica
HDTM	Health District Management Team
HI-CoP	Health Informatics System Community of Practice
HIS	health information system(s)
HMIS	health management information system
HOP	Headquarters Operational Plan
HRD	Human Resources Directorate (South Africa)
HRH	human resources for health
HTM	Health Management Team
IIT	interruption in treatment
iMES	Integrated Monitoring and Evaluation System
IP	implementing partner
LGA	Local Government Area (Nigeria)

LMIS	logistics management information system
LOE	level of effort
M&E	monitoring and evaluation
MEL	monitoring, evaluation, and learning
MER	monitoring, evaluation, and reporting
MIS	management information system
MISAU	Ministério da Saúde (MOH, Mozambique)
ML	machine learning
MOH	Ministry of Health
MOHW	Ministry of Health and Wellness (Jamaica)
M-RITE	MOMENTUM Routine Immunization Transformation and Equity project
NACA	Nigeria AIDS Control Agency
NDOH	National Department of Health (South Africa)
NOMIS	National OVC Management Information System
OHA	Office of HIV/AIDS
OVC	orphans and vulnerable children
PDSA	Plan Do Study Act
PEPFAR	United States President's Emergency Plan for AIDS Relief
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child transmission
PNC ITS-HIV/SIDA	National HIV/AIDS Program (Programa Nacional de Controlo de ITS HIV/SIDA, or PNC ITS-HIV/SIDA, Mozambique)
PNLS	Programme National de Lutte contre le SIDA (National AIDS Control Program, Burundi)
PNOEV	Programme nationale de prise en charges des Orphelins et autres Enfants rendues Vulnérables du fait du VIH/ SIDA (National OVC Program, Côte d'Ivoire)
PORALG	President's Office – Regional Administration and Local Government (Tanzania)
PSICA	PEPFAR Strategic Information Capacity Assessment
QI	quality improvement
RDQA	routine data quality assessment
READY	Refining Evidence and Assumptions to Drive Yearly
ROP	Regional Operational Plan
SAG	Strategic Advisory Group
SAIS	Sistema Integral de Atención en Salud (Guatemala)
SISMA	Sistema Nacional de Informação de Sestão de Saúde (Mozambique)
SMOH	State Ministry of Health
SOP	standard operating procedure
SPS	San Pedro Sula
TB	tuberculosis
TB DIAH	TB Data, Impact Assessment and Communications Hub
TWG	technical working group
UID	unique identification
UNAIDS	Joint United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development
USD	United States dollar
UVS	Unidad de vigilancia de la salud
WAR	West Africa Region
WHO	World Health Organization

Executive Summary

Data.FI is a global project that helps countries strengthen and sustain access to key, high-quality data to accelerate and maintain HIV and COVID-19 epidemic control. We provide end-to-end solutions in the data ecosystem that serve public health goals and protect clients' rights—from streamlining information needs to building sustainable and scalable data systems that support robust analysis and continuity of client care. We provide rapid insight for decision making and employ evidence-based approaches to ensure that data are used to inform meaningful change and save lives. We strengthen government capacity for health information system (HIS) governance and build local partner capabilities in line with the United States Agency for International Development's (USAID's) sustainability goals. We create solutions that can be scaled to achieve large-scale impact.

Data.FI is a five-year (2019–2024) global, field-supported mechanism with a \$180 million ceiling. Data.FI, funded by the United States President's Emergency Plan for AIDS Relief (PEPFAR) through USAID, and COVID-19 relief authorization through USAID's Global Health Bureau, is implemented by a consortium of digital health and analytics organizations. It is led by Palladium, in partnership with the JSI Research & Training Institute, the Johns Hopkins University Department of Epidemiology, Right to Care, Cooper/Smith, DT Global (formerly IMC Worldwide), Jembi Health Systems, and Macro-Eyes.

During this reporting period (October 1, 2021–September 30, 2022), Data.FI implemented work in 14 countries and two regions for a total of 23 countries and provided support to USAID at the central level. This report summarizes our work during the third year of implementation.



Catalyzing Innovation to Find Breakthrough Solutions

Data.FI is accelerating global health gains by catalyzing breakthrough solutions to persistent challenges. In partnership with USAID's Office of HIV/AIDS (OHA), we launched a \$100,000 challenge to identify **market segments of people living with HIV/AIDS (PLHIV) who are willing and able to pay for HIV services**. Fraym and Palindrome Data were awarded funding and created analyses that advance PEPFAR's work to expand access to HIV services through the private sector.

In **Mozambique**, Data.FI developed and **deployed a machine learning (ML) model that predicts which clients are at greatest risk of interruption in HIV treatment (IIT)**. This activity is one of the first successful deployments of an ML model in an electronic medical records (EMR) system in a low-resource healthcare setting.

Data.FI supported **Guatemala's** COVID-19 Vaccination Committee to develop **hyperlocal maps to inform vaccine allocation**. Further, at the request of the Vice Minister of Primary Health Care, Data.FI developed an **interactive online tool** that shows information on COVID-19 vaccination coverage at the local level.

Data.FI supported Health Connect Jamaica (HCJ) to track COVID-19 vaccines by adapting the open-source **Logistics Management Information System (OpenLMIS)** platform to the **Jamaican private sector context**. HCJ is now using the OpenLMIS system to manage vaccine requests, transportation, and inventory.



Accelerating Data Analysis and Use

This year, Data.FI implemented **situation rooms** in Guatemala, Honduras, Nigeria, and Tanzania. These situation rooms support national, subnational, and site-level planning and program performance management across a range of health programming areas including HIV, orphans and vulnerable children (OVC), COVID-19, and maternal health. These **data review structures are leading to changes in programming**: for example, in Honduras, stakeholders determined to open the first COVID-19 patient care service at the Cofradía Health Center. In Guatemala, stakeholders implemented an action plan to increase COVID-19 testing in municipalities with low testing rates, with success. In Tanzania, stakeholders successfully implemented change actions to improve early antenatal care booking. We have begun to **transition leadership** and convening responsibility of established situation rooms to the government in all countries. In addition, governments in all four countries are calling for the expansion of this approach to new geographic areas and to cover new topical areas across health.

Data.FI is also supporting governments and USAID with **high-impact analyses and analytical tools**. For USAID/Nigeria, Data.FI developed a Shiny application designed to automate target setting. The **Refining Evidence and Assumptions to Drive Yearly (READY) targets tool** puts into consideration historic datasets and assumptions for the different hierarchies to provide usable estimates for target setting.

For a global audience, Data.FI built a **tool to identify anomalies in PEPFAR monitoring, evaluation, and reporting (MER) datasets**. The tool accelerates, automates, and standardizes key aspects of data reviews and data quality assessments.

Data.FI also works with stakeholders to **conduct data quality assessments (DQAs)**. In Honduras, Data.FI completed four routine data quality assessments (**RDQAs**) to review **COVID-19 morbidity and mortality data**, and worked with stakeholders to implement recommendations, and improve the rigor of their data management practices through a mentorship program. In Nigeria, we conducted **DQAs on four HIV indicators across 39 facilities in seven USAID-supported states**. Data.FI staff members and health facility staff then developed action plans to improve existing systems.



Optimizing and Scaling Health Information Systems and Digital Solutions

Data.FI optimizes HIS to track HIV service clients across the 95-95-95 continuum, improve continuity of care, and generate data for epidemic and program performance monitoring, following best practices in the software development lifecycle. We also track COVID-19 vaccines and vaccinations through optimized logistics management information systems and vaccine registries to increase coverage and reduce wastage.

Data.FI is optimizing electronic case management systems in Eswatini, Nigeria, Burundi, Côte d'Ivoire, and Zimbabwe.

In March 2022 Data.FI began supporting the government of **Eswatini's Client Management Information System (CMIS)**—a cloud-based, patient-line, point of care EMR in use at 227 of 327 health care facilities in the country. In six months, with the government, Data.FI enhanced the ECMIS and supported the rollout of the offline version of CMIS, “CMIS Plus.” We also **rolled out biometric scanners to 102 health facilities** and trained over 200 healthcare workers and PEPFAR implementing partner (IP) staff on the CMIS.

In **Nigeria**, Data.FI leads the **Health Informatics Community of Practice (HI-CoP)**, which maintains and enhances the open-source **LAMISPlus EMR** and its associated mobile applications—LAMISLite and the Community Pharmacy ART Refill Program (CPARP) mobile app—and the National OVC Management Information System (NOMIS). This year, Data.FI **completed the development of the NOMIS 3.0** with the production version ready for deployment. NOMIS will support the data management services of over one million clients accessing OVC services across 29 states.

In **Burundi**, Data.FI worked collaboratively with the government and USAID IPs to scale SIDAInfo. This **enhanced web based EMR, with a biometric unique ID solution**, is now installed at 182 sites serving approximately 80 percent of people living with HIV currently on treatment. We also worked with the SIDAInfo Technical Working Group (TWG) to develop a **laboratory module** within the system. Clinicians now receive real-time information on viral load test results, and early infant diagnosis tests. Clients receive an automated text message from the system notifying them of their laboratory results.

In 2020-21, **Data.FI developed the OVC Management Information System (MIS) in Zimbabwe**, and through this year we supported a number of system enhancements. **The use of the OVC MIS in Zimbabwe has led to impressive performance gains on three key indicators (OVC_SERV, HIV_STAT, and TX_CURR).**

In **Côte d'Ivoire** this year, Data.FI worked with the government to complete the migration of OVC and DREAMS data to the new **integrated OVC/DREAMS database**, deploying the system to 74 social centers and local NGOs.

Data.FI is supporting COVID-19 information systems in Guatemala and Honduras and Côte d'Ivoire.

In Guatemala and Honduras, Data.FI **completed an assessment of systems and business processes to strengthen COVID-19 information systems** including logistics, surveillance, vaccination events, and testing. Data.FI established TWGs to complete

this assessment, and design recommendations. In Côte d'Ivoire, Data.FI supported the government to develop a COVID-19 vaccine reporting module and dashboard within the existing national District Health Information Software Version 2 (DHIS2) platform.

In partnership with government and USAID, Data.FI is developing analytics platforms and dashboards that allow for data review and decision making across health areas.

In **South Africa**, Data.FI worked with the government to enhance the **Consolidated Health Information South Africa (CHISA) platform**, incorporating extensive functionalities to support data analytics of client-level data. These enhanced features for the web platform include powerful business intelligence and data visualization functionality through Metabase, statistical analysis and visualization capability of longitudinal data through the integration of R-Shiny, and enhanced geographic information system (GIS) capability through the integration of open-source GIS applications.

In **Nigeria**, we **enhanced the Automated Partner Performance Reporting (APPR) platform** to ingest de-identified patient-level data, and to **provide analytics and visualizations for HIV care and treatment cascade** in USAID-supported facilities across the 17 states in Nigeria. The APPR provides custom visualization for the HIV continuums, OVC, prevention of mother-to-child transmission (PMTCT), laboratory, and viral load indicators and is the primary platform for situation room meetings.

In **Eswatini**, Data.FI is supporting the government to deliver the **CMIS Reporting and Analytics Platform, a DHIS2 mirror repository that displays data on dashboards that can be used at the facility, regional, and national levels** to understand progress on key indicators.

Data.FI also supported the governments of **El Salvador, Guatemala, Honduras, Mozambique, and Panama to develop a suite of dashboards on programmatic indicators across the HIV care continuum** based on government prioritized indicators.



Applying Strategic Information and Learning

This year, Data.FI **co-led USAID's COVID-19 Vaccine Technical Assistance Implementing Partner Forum**. Data.FI has supported forum planning and provided valuable insights on strategies countries are using to address challenges in the COVID-19 vaccination response and emerging issues to consider for COVID-19 vaccination programs. In the last three months, Data.FI started **coordinating a digital health-focused collaborative learning agenda** that brings together four projects with COVID-19 vaccine funding.

In coordination and collaboration with USAID, local governments, and international partners, Data.FI is conducting assessments in support of the COVID-19 vaccination agenda, including: an assessment of **adverse events following immunization (AEFI) reporting systems** in Nigeria, a set of **mini post-vaccine introduction evaluations** in Tanzania, and a vaccine hesitancy study in Côte d'Ivoire. We have also started planning for a set of **rapid vaccine hesitancy studies** in Ghana, South Africa, and Tanzania.



Strengthening Local Partners and Ecosystem Governance

Data.FI is supporting localization by strengthening government stewardship of HIS through governance support and training. In **El Salvador, Guatemala, and Panama**, Data.FI supported the **creation of national HIV HIS TWGs**. These TWGs evaluated regulations and business processes supporting information systems, developed a shared vision of an integrated HIV information architecture, and roadmaps and recommendations for implementation of improved systems. In **Honduras**, Data.FI **promoted alignment across partners and donors** as the Secretariat of a Strategic Advisory Group **on COVID-19 vaccination**. This group analyzes and discusses information systems, the vaccine cold chain, and procurement of vaccines and commodities. In **Eswatini**, Data.FI **assessed the Eswatini CMIS governance structures**, and completed a system **data security risk assessment**.

In Burundi we trained national government staff on data quality, data analysis, data use, and GIS to reinforce their capacity to supervise district-level program performance review meetings. In **Nigeria**, **Data.FI trained more than 200 national and state-level government staff working on the HIV and COVID-19 responses in data analytics, data visualization, data use and GIS**, and our situation room approach.

In **Honduras**, **Data.FI trained more than 50 government staff** in quality improvement, data visualization design and interpretation, and root-cause analysis, and an additional 20 staff were trained in COVID-19 surveillance data notification. We also established a mentoring program for the surveillance unit staff in charge of data management.

We are working to transition existing Data.FI-supported systems to the government and local partners. This year, Data.FI implemented plans to transition the **Knowledge Hub system to the government of South Africa**. Data.FI developed a comprehensive budget and documented staffing needs for maintaining the Knowledge Hub and began training government staff on Knowledge Hub maintenance. In **Zimbabwe** Data.FI mentored local administrators to take over management of the OVC MIS.

Data.FI is also supporting local partner capacity building. We repurposed our **PEPFAR Strategic Information Capacity Assessment (PSICA) tool** for PEPFAR implementing partners in the West Africa Region to self-assess their strategic information capacity and used the findings to develop targeted technical support for six partners (including two local partners). We also established a **West Africa Community of Practice on Data Quality**.

Introduction

Data for Implementation (Data.FI) is a global project that helps countries strengthen and sustain access to key, high-quality data to accelerate and maintain HIV and COVID-19 epidemic control. We work across all population groups and intervention areas to identify clients at risk and link them to testing, prevention, and treatment services. To do this, we leverage expertise in program implementation, measurement, digital health, data science, and data use to help the United States Agency for International Development (USAID) and partners ask better questions, look at unsolved problems in new ways, and pivot programming to reach epidemic control faster.

As the COVID-19 pandemic continues to evolve, and as vaccines are more widely available, there is increasing focus on vaccine coverage. Data.FI is assisting with the COVID-19 response by supporting countries to identify and address barriers to creating, optimizing, and utilizing data and data systems for successful vaccine delivery.

Through our experienced partnership, we provide **end-to-end solutions in the data ecosystem that serve public health goals and protect clients' rights**—from transforming routine data into visualizations that highlight a health system's performance, to building sustainable and scalable systems that support robust data analysis and continuity of client care. Data.FI works across all technology platforms and supports countries whose



The Data Management Team in Eswatini reviewing dashboard scripts. Photo by Data.FI/Eswatini.

health information systems (HIS) are at different levels of maturity, aligning our interventions to each country's unique data and information system landscape. We create tools, policies, and procedures for partners who collect and manage data, offering an overarching vision of how data should and can be used responsibly. **We create solutions that can be scaled.**

We provide **rapid insight for decision making**, using advanced analytics supported by fit-to-purpose technologies. We help USAID and partners diagnose performance and public health challenges to best focus resources. We combine traditional data sources with non-traditional data sources, such as satellite imagery and commercial data, to fill data gaps and inform HIV and COVID-19 interventions. We apply advanced modeling techniques to illuminate unseen patterns, enabling users to plan with timely and actionable information.

We develop and employ **evidence-based approaches to ensuring that data are used** to inform meaningful change and save lives. This begins with defining an analytical framework for decision making and includes aligning data needs and employing measurement tools and frameworks. We work with USAID and partners to improve data sources, hone analytical skills, and catalyze program pivots.

We **strengthen government capacity** for HIS governance and **build local partner capabilities** in line with USAID's local partner transition goals. Data.FI leverages our existing network of in-country relationships to build government trust, coordinate stakeholders, and expand the pool of local partners able to respond to HIV and COVID-19 and strengthen pandemic preparedness for **global health security**.

PROJECT SCALE

Data.FI is a five-year global project (2019–2024) funded by the United States President's Emergency Fund for AIDS Relief (PEPFAR) and USAID. Data.FI is a consortium of organizations with expertise in digital health and analytics. It is led by Palladium, in partnership with the JSI Research & Training Institute, the Johns Hopkins University Department

of Epidemiology, Right to Care, Cooper/Smith, DT Global, Jembi Health Systems, and Macro-Eyes. The project is a USAID field-supported mechanism, with a \$180 million ceiling.

During this reporting period (October 1, 2021–September 30, 2022), Data.FI implemented work in Burundi, Eswatini, the Central America Region (El Salvador, Guatemala, Honduras, Panama), Côte d'Ivoire, Jamaica, Malawi, Mozambique, Namibia, Nigeria, South Africa, Tanzania, Uganda, the West Africa Region (Benin, Burkina Faso, Ghana, Liberia, Mali, Senegal, Sierra Leone, Togo), and Zimbabwe.

The project made important progress enhancing digital HIS, strengthening data management and data availability through digitization of information systems for COVID-19 vaccination and surveillance, supporting data analytics that pinpoint inefficiencies in HIV care and treatment cascades, developing data standards and structures to ensure quality in electronic medical records (EMRs), and supporting local partners to use data for decision making. This report summarizes our work during this reporting period.

REPORT STRUCTURE

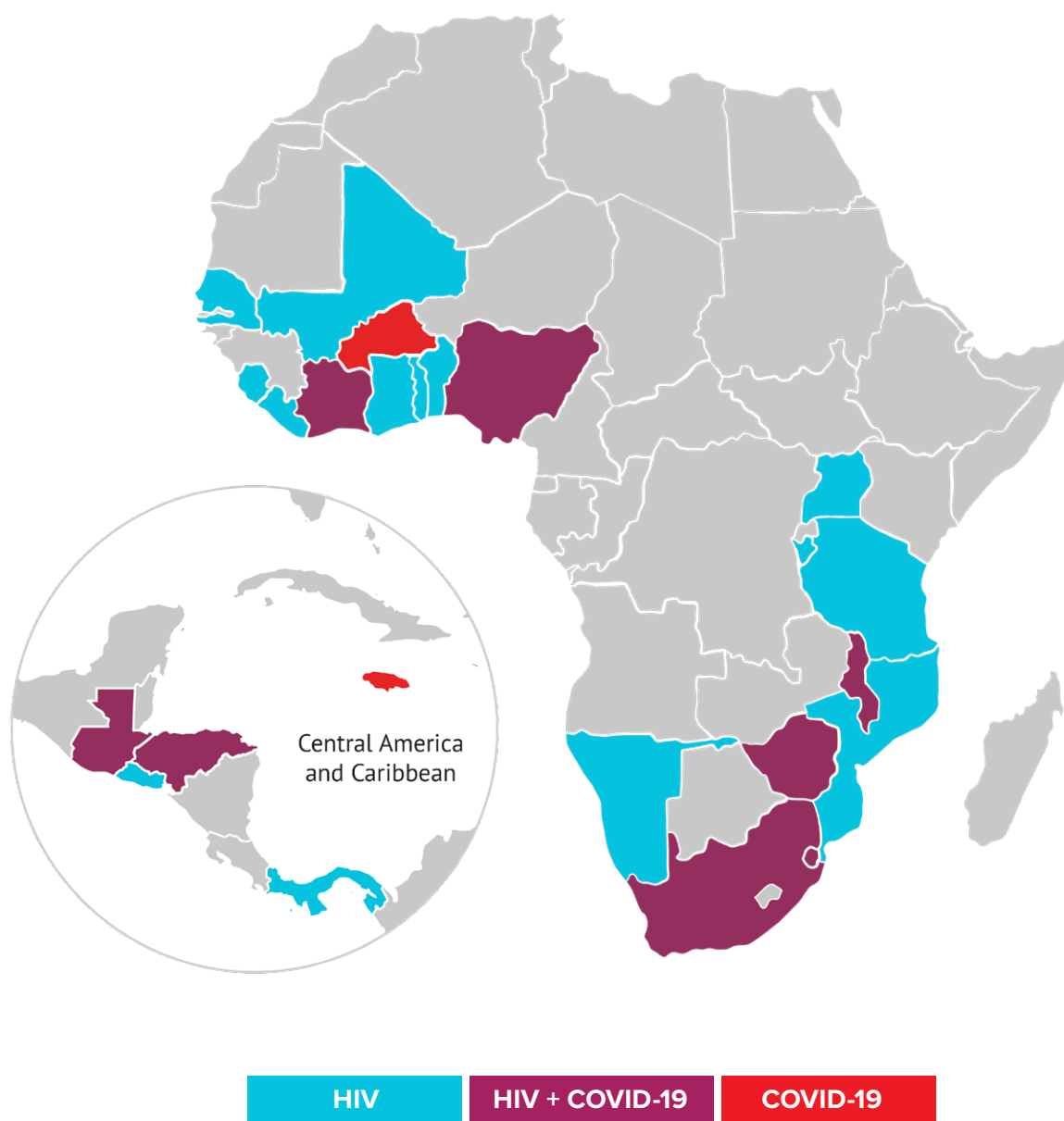
We present our achievements over the past year by highlighting our work across the following impact areas:

- **Catalyzing Innovation to Find Breakthrough Solutions**
- **Accelerating Data Analysis and Use**
- **Optimizing and Scaling Health Information Systems and Digital Solutions**
- **Applying Strategic Information and Learning**
- **Strengthening Local Partners and Ecosystem Governance**

We will also update on our efforts to support gender equality and our global communications footprint. A Financial Summary, Project Indicator Results, and a list of Data.FI Products are provided in the appendices.

Data.FI's Reach

Data.FI is scaling digital, analytical, and data use solutions. We worked in 24 countries in this reporting period to improve HIV, COVID-19, and broader health outcomes.

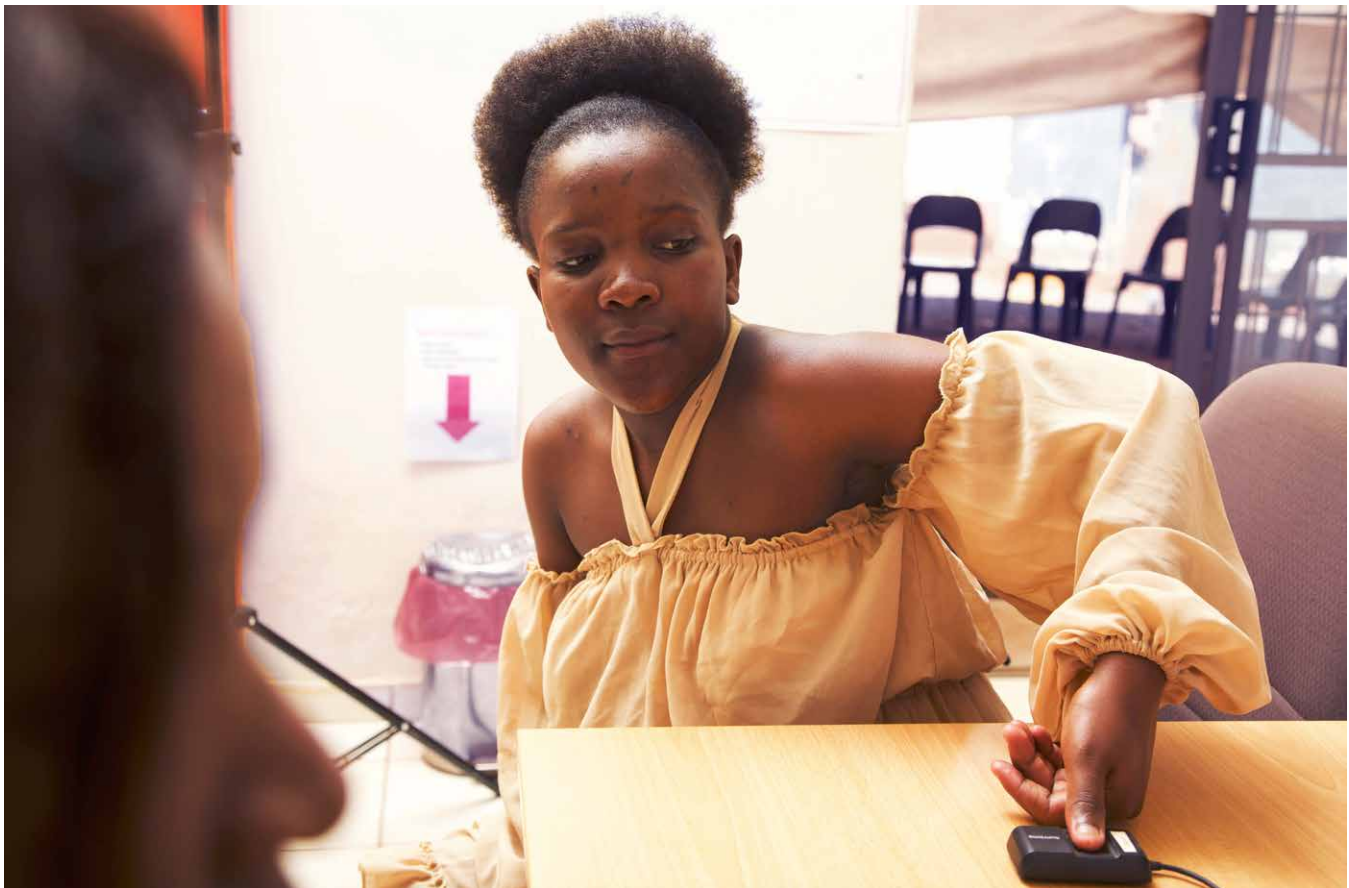


Catalyzing Innovation to Find Breakthrough Solutions



Despite significant advancements, the HIV community has made uneven progress in meeting the 95-95-95 targets and the COVID-19 pandemic has brought new challenges to the fore, requiring new ways of working toward meeting global health goals. Further, the U.S. government's ambitious global COVID-19 vaccination agenda demands innovations that facilitate efficiency, achieve precision, and allow access to real-time data.

To catalyze positive and equitable health outcomes in HIV and COVID-19, Data.FI leverages thought leadership and cutting-edge technologies across our extraordinary consortium of partners. Together, we are working to create and source novel solutions and forge new strategic partnerships to address the challenges that impede countries from meeting their health goals. Some highlights from this past year are provided here.



A client being registered at a clinic in Eswatini using newly deployed biometric scanners. In Eswatini Data.FI works to strengthen health information system governance, data privacy and security, and data use. Photo by Data.FI/Eswatini.

Data.FI brokers partnerships with private sector and local organizations to produce novel, high-impact analytical solutions.

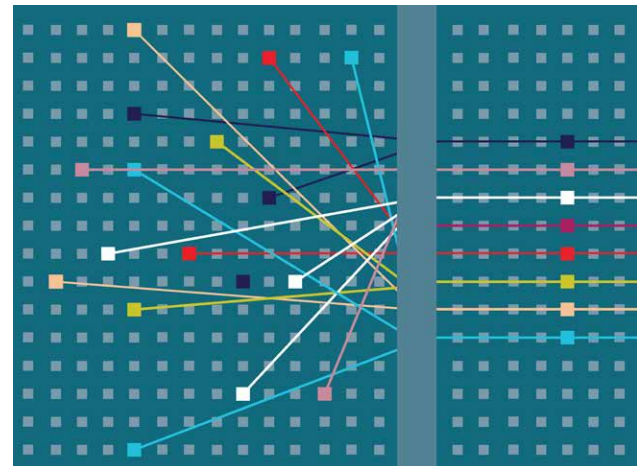
PEPFAR has embraced a whole-of-market approach to put HIV treatment services on a more sustainable financial footing. To that end, in September 2021 in partnership with USAID's Office of HIV/AIDS (OHA), Data.FI launched a \$100,000 challenge to identify novel methodologies for market segmentation.

The purpose of the **Innovative Data Methods for Market Segmentation of HIV Services Challenge** was to identify market segments of people living with HIV/AIDS (PLHIV) who are willing and able to pay for HIV services.

Data analytics experts from Data.FI and OHA selected U.S.-based Fraym and South Africa-based Palindrome Data as the challenge winners from 32 submissions. Each of the winners was awarded USD \$50,000 to conduct market segmentation analyses in Kenya and South Africa and create population profiles. Awardees utilized demographic, location, population size, and wealth data, and developed proxy indicators as measures of ability to pay to learn about the utility and sufficiency of available datasets for market segmentation. These analyses can be used to advance PEPFAR's understanding of how to expand market diversification, facilitate private sector engagement, and maximize impact for epidemic control.

To further the Jamaican government's COVID-19 response, **Data.FI supported Health Connect Jamaica (HCJ), a private sector partner, to track COVID-19 vaccines in Jamaica by adapting the**

open-source Logistics Management Information System (**OpenLMIS**) platform to the Jamaican private sector context. HCJ is now using the OpenLMIS system (with some technical support from Data.FI) to manage vaccine requests, transportation, and



DEDUPLICATION OF CLINICAL RECORDS

In El Salvador, Data.FI developed a statistical model that will allow deduplication of clinical records of PLHIV. The model will facilitate the integration of several information subsystems that may have duplicate data on PLHIV who seek services from different healthcare units. This solution improves the quality and accuracy of data being collected across systems and the completeness of the client record.

inventory management. The OpenLMIS platform is allowing HCJ to provide doses to providers while minimizing the burden that data entry typically imposes. The providers' exposure to the OpenLMIS platform may also catalyze further use of the system for other disease areas, such as HIV.

21

applications of
project-branded
tools & analytical
approaches



A healthcare provider at a health facility in Maputo, Mozambique explains antiretroviral treatment (ART) delivery options to a client. Photo by Ricardo Franco, Centers for Disease Control (CDC).

Data.FI integrated machine learning (ML) models in live systems and workflows so that predictive solutions are provided to decision makers in real time.

In Mozambique, Data.FI developed and deployed a ML model that predicts which clients are at greatest risk of interruption in HIV treatment (IIT). The software module was installed at four sites of the USAID service delivery partner Efficiencies for Clinical HIV Outcomes (ECHO) project. The module now generates client risk scores of IIT in real time for facility staff who use the risk scores weekly to prioritize clients who will receive community outreach services.

As part of this intervention, Data.FI interviewed frontline healthcare staff to ask about their experiences using this novel technology and predictive approach. We found that the intervention was acceptable to users, and that there was a high level

of interest and engagement from health facility and community-level healthcare staff on the ML process itself, as well as a reasonable sense of skepticism about the risk scores and how they were generated. Most respondents using the risk scores for community outreach to clients recommended using this type of approach for reducing IIT in other sites in Mozambique and in other countries, and some provided suggestions for improvement.

This activity is one of the first successful deployments of an ML model in an electronic medical records (EMR) system in a low-resource healthcare setting. The healthcare staff took pains to integrate the model in a particularly difficult technical environment—a decentralized health data network that uses outdated software. We will share lessons from this novel deployment more broadly with the global health community to build the evidence base in the nascent field of applied ML for public health.

Interactive maps for decision making

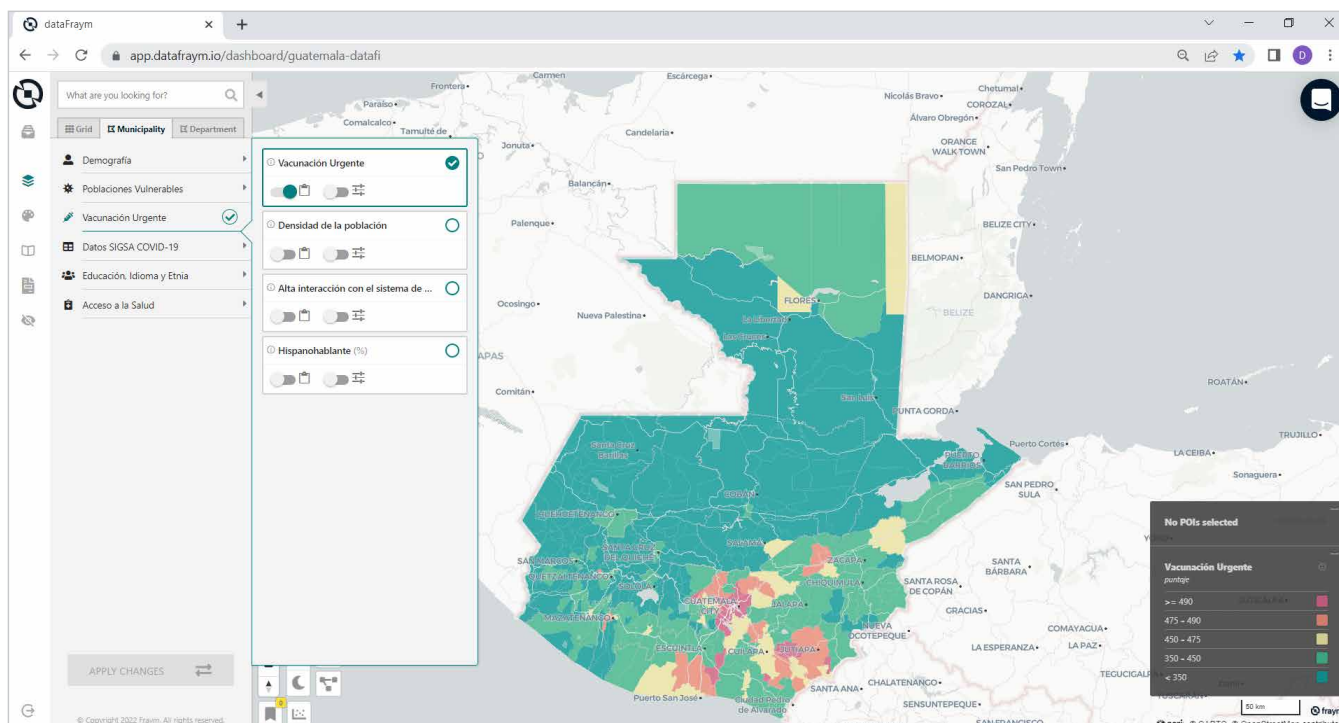
In early 2022, **Data.FI supported Guatemala's COVID-19 Vaccination Committee to develop hyperlocal maps to inform vaccine allocation** focusing on long-term **distribution of vaccines for vulnerable communities and distribution of vaccines that were about to expire**. In the last six months, at the request of the Vice Minister of Primary Health Care, Data.FI developed an interactive online tool that shows information on COVID-19 vaccination coverage at the municipality and department level. With this dynamic tool, the health area directorates have access to visualized vaccination coverage according to age, ethnic group, doses (first or second dose of the vaccine), compliance with the complete vaccination schedule, and type of vaccine.

Public officials from the directorates also access to this tool, which is making it possible



Vendors in a busy outdoor market in Guatemala. Photo by CDC's Central America Regional Office in Guatemala.

for them to **prioritize specific actions like sending vaccinators for home visits, directing community workers to specific geographical areas, and conducting information campaigns that target priority areas.**



In coordination with Guatemala's Ministry of Health Integral Health Care Directorate (Sistema Integral de Atención en Salud, SIAS) and the National Vaccination Committee, Data.FI developed dynamic hyperlocalized maps to support the ministry's efforts to allocate COVID-19 vaccines in Guatemala. This tool supports decision making for vaccination as part of National COVID-19 Data Use Strategy.

Accelerating Data Analysis and Use



USAID missions need frequent and high-quality data to monitor global health investments on a continuous basis for accountability and oversight, and to plan and manage the programs they support. Governments and health program managers require data to measure progress against targets, allocate limited resources to reach the populations most in need, rapidly course-correct if programs are underperforming, and determine whether

they are addressing the most urgent needs of people affected by or at risk of HIV and COVID-19.

We improve systems, analytic platforms, and data sources, employing change management processes that institutionalize data use to support USAID, implementing partners (IPs), and local governments to derive insights from data on HIV and COVID-19 prevention and control services. Data.FI synthesizes data across multiple sources



Data.FI staff Magreth Mlundwa from Tanzania and Kennedy Muthoka from Kenya examine a driver diagram in a workshop in Morogoro, Tanzania, and proposed indicators to track quality improvement initiatives in situation rooms meetings. Photo by Data.FI/Tanzania.

and develops user-centered decision-support tools and dashboard-enabled data visualizations to inform action. We support the institutionalization of processes and systems for continuous data review, and train staff so that they can proactively address challenges and make programmatic changes to achieve meaningful impact.

PERFORMANCE IMPROVEMENT THROUGH DATA REVIEW

Data.FI takes a systems approach to strengthening data use. We build inclusive systems that configure and integrate community, facility, laboratory, and pharmacy information systems. We create systems to support the digitization of data for use at point of service for program decision making, which enables healthcare workers to better reach underserved communities and improve COVID-19 and HIV outcomes. At a centralized level, Data.FI interlinks and synthesizes data through interoperability layers and shared data repositories, capturing data from the site level for real-time access and use at the national level.

Through performance monitoring platforms and “situation rooms,” Data.FI promotes robust and country-led analytical solutions and data review mechanisms, enabling greater access to reliable data for decision makers and implementers. Decision makers gather regularly in structured, routine data review meetings that promote continuous program improvement. The aim of situation rooms is a coordinated response: to harmonize program reporting across program areas, help decision makers collectively identify and respond to issues, channel resources where they are needed, and ensure clients, their families, and communities get the services they need.

Data.FI is currently implementing situation room meetings in Guatemala, Honduras, Nigeria, and Tanzania, and there are plans to expand to other countries in the coming year. In these situation rooms:

Held
641
data review
meetings



Data.FI Honduras Country Director Liziem Valladares reviews data generated in the Metropolitan Region of Central District situation room. Photo by Data.FI/Honduras.

- **Technology-based data analytics and visualization platforms** integrate or triangulate data from multiple sources.
- **Participants use a standardized methodology for actionable data review** processes, including root cause analysis, and monitoring of actions.
- **Regular data review of key indicators** allows stakeholders to closely monitor data in real time, compare performance across sites and regions, and implement rapid course correction.

CLOSER LOOK

USING DATA TO STRENGTHEN THE CENTRAL AMERICA COVID-19 RESPONSE

In 2021, Data.FI began working closely with ministries of health in Guatemala and Honduras to develop and **adapt our situation room approach to strengthen their COVID-19 response**. As of September 2022, the Data.FI/Honduras team had supported 29 situation room meetings.

Data Leads to Dedicated COVID-19 Care in Remote Area of Honduras

In a March 2022 situation room meeting in the San Pedro Sula Metropolitan Health Region, participants reviewed patient-level data by place of origin for clients that tested positive for COVID-19. Data displayed during the meeting from the town of Cofradia—which belongs to the only health network in the San Pedro Sula region without COVID-19 services—demonstrated that four of every 100 cases of COVID-19 required admission to the hospital due to the severity of symptoms. The Cofradía geographic

area is remote, which limits access for patients in need of fast care; access is further hindered by poverty and constant roadblocks by protesters.

Based on this data and geographic considerations, **regional authorities agreed to prioritize the opening of the first COVID-19 patient care service at the Cofradía Health Center**. A space within the health center was inaugurated in April 2022 that offers dedicated COVID-19 testing, clinical care, and treatment services. To date, the Cofradía Health Center has carried out 75 antigen tests and provided care for 96 patients suspected of having COVID-19.

Weekly analysis of performance against targets for priority indicators has improved transparency and enabled continuous feedback and learning for ongoing program adaptation, facilitating accountability for course corrections.



Staff from the Metropolitan Region of San Pedro Sula, Honduras, gather in a situation room meeting to review data and program performance indicators. Photo by Data.FI/Honduras.

What sets the Data.FI approach apart is a focus on the root causes of performance issues identified and joint accountability, where partners commit to specific action items and hold one another to task.

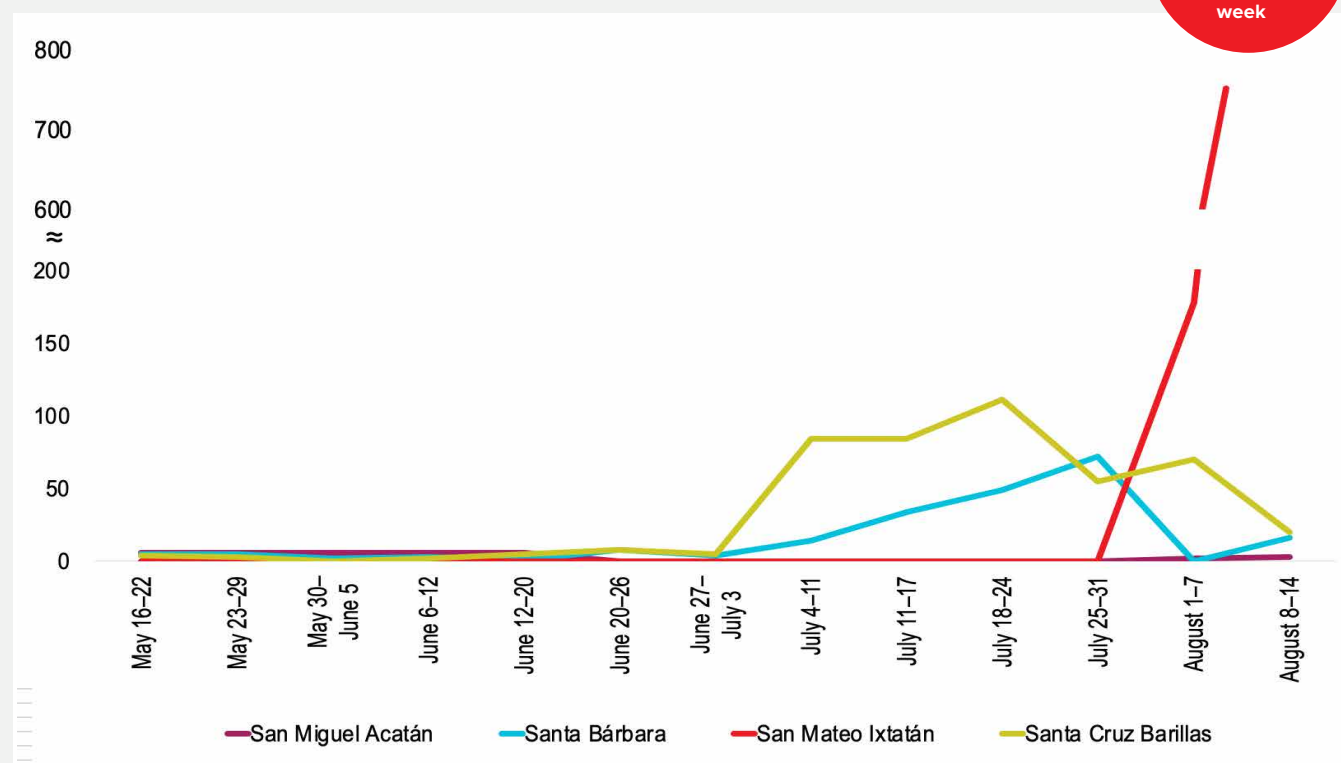
Data Consolidation and Analysis in Guatemala

Data.FI/Guatemala facilitated the creation of situation room structures for reviewing data on COVID-19 in five Health Area Directorates (Direcciones de Área de Salud, or DAS). In May 2022, during the first situation room meeting in Huehuetenango, Guatemala, laboratory testing data were reviewed in detail. The data revealed an increase in COVID-19 incidence in the directorate and higher than expected test positivity in almost half of the 34 municipalities. Upon further analysis,

the situation room staff identified that there were four municipalities with little to no COVID-19 testing data reported.

Based on this assessment, the situation room participants determined key action steps, including for DAS leadership to communicate COVID-19 testing goals with all municipalities. DAS leadership then also conducted visits to the four prioritized municipalities where almost no testing had been conducted or reported in the six weeks prior to the situation room meeting to further explain the importance of COVID-19 testing. As a result, three of the four municipalities expanded testing in the weeks following these visits (see Figure 1).

Figure 1. Weekly COVID-19 testing data in four prioritized municipalities in Guatemala





Data.FI Senior Technical Advisor Jenny Mwanza reviewing principles for preparing compelling analytics with the Nigeria Data Use and Analytics Team from Federal Capital Territory, Akwa Ibom, and Taraba States. Team members apply these analytical skills in their roles in situation room meetings. Photo by Data.FI Nigeria.

Coordinated HIV/AIDS Response in Nigeria

Since 2019, Data.FI has been supporting Nigerian state and federal ministries of health to operationalize routine encounters that bring together key stakeholders to interrogate their data through situation rooms. Partners report data weekly to a Data.FI-developed Automated Partner Performance Reporting (APPR) platform and stakeholders converge weekly to analyze the data in real time and target interventions for rapid change.

This year, through the support of USAID, Data.FI collaborated with the Federal Ministry of Women Affairs (FWMA) to set up the **National Orphans and Vulnerable Children (OVC) Situation Room** at the Federal Secretariat in Abuja. In the OVC situation room, stakeholders **track real-time data on OVC using the National OVC Management Information System (NOMIS) system**, discuss best practices to **address OVC program challenges**, and **provide a platform for OVC-related stakeholders and technical working groups (TWGs) to discuss and plan for better programming**.

“The situation room methodology implemented by Data.FI has helped the Akwa Ibom State Ministry of Health **to better manage the HIV response in the state**. Through this methodology several TWGs, such as the PMTCT, Quality Assurance/Quality Improvement (QA/QI), and pediatrics and adolescents TWGs have been inaugurated and worked closely with all stakeholders **to scale ART uptake across the general and vulnerable populations in Akwa Ibom**.

With the availability of real-time data, weekly analysis and deep dives are now done to identify gaps and strengthen the health care system.”

—Dr. Ime Usanga, State AIDS Program Coordinator, Akwa Ibom State Ministry of Health.

At the state level, **Data.FI continues to conduct weekly HIV situation room meetings in Akwa Ibom State** (41 in the past year) **and has recently expanded to Taraba State**. This year, Data.FI, the State Ministry of Health (SMOH) and State AIDS and STD Control Program (SASCP) are now independently coordinating the weekly situation room meetings, sending reminders to stakeholders, and driving the data analysis and presentation process—and navigating and using the APPR platform without Data.FI assistance. State-level stakeholders see this intervention as essential for their role as stewards of the HIV/AIDS response.

Data.FI also supported eight state ministries of health to operationalize COVID-19 Emergency Operation Centers (EOCs) during the height of the COVID-19 pandemic. As a result of the success of these platforms, the Federal Ministry of Health has proposed **standardizing and scaling the situation room methodology to integrate all disease areas as a ‘one-stop shop’ for data analysis and action planning**.

Quality Improvement in Tanzania

In 2021 in Tanzania, Data.FI expanded the use of this performance-oriented data review methodology with the launch of the **data use and QI initiative**. Under the leadership of the President's Office, Regional Administration and Local Governance (PORALG), Data.FI operationalized technology-enabled situation rooms for data review in nine councils and two regions, **leveraging Tanzania's Integrated Monitoring and Evaluation System (iMES) platform for data analytics and display**. National stakeholders recently established consensus on top-line HIV indicators to be monitored in all the council situation rooms. PORALG now requires that Council Health Management Teams (CHMTs) send them monthly reports to monitor the operationalization of situation rooms.

As a result of a routine data review meeting, participants in the Dodoma region situation room identified both **missing data and data of poor quality on viral suppression among prevention of mother-to-child transmission (PMTCT) clients in the region**. Under the supervision of PORALG and with support from Data.FI, the Dodoma CHMT initiated and supervised the use of a standard national PMTCT reporting form at the facility level to allow PMTCT viral suppression data to be aggregated and accessible within the District Health Information Software, Version 2 (DHIS2) on a monthly basis. In collaboration with the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), Data.FI provided refresher trainings on how to fill in data collection forms and enter data into the DHIS2.

Supported
169
situation room
meetings in
Tanzania



Women selling fabric at an open-air market in Arusha, Tanzania. Photo by Julie Laurent.

HIGH-IMPACT ANALYSES AND ANALYTICAL TOOLS

Decision makers lack the visibility needed to make high-impact, equitable, and efficient resource allocation decisions. Data.FI brings to bear advanced analytics to answer priority questions. We:

- Work with stakeholders to assess critical information needs tied to key decisions. For routine analytics this may include developing a logic model for performance improvement.
- Triangulate available health services, surveillance, laboratory, commodity, finance, human resources for health (HRH), infrastructure, and population data.
- Develop, test, and deploy data visualizations, including maps.
- Automate reports and predictive analytics.
- Strengthen capacity in data use, data visualization, analytics, and geographic information systems (GIS).

Data.FI is currently working with USAID Missions in South Africa and Côte d'Ivoire to **estimate the population size of adolescent girls and young women (AGYW) at risk**, developing approaches using auxiliary data that can be replicated annually. These analyses will help support Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe (DREAMS) program targeting and expansion, helping to improve the effectiveness of HIV prevention programs for AGYW.

Data.FI, working closely with the the South Africa National Department of Health (NDOH), has developed a powerful analytical platform called the Consolidated Health Informatics South Africa (CHISA) platform, incorporating extensive functionalities to improve the data analytics of the client-level data for South Africa's 20M PLHIV. These enhanced features for the web platform include integrating powerful business intelligence (BI) and data visualization functionality through Metabase, statistical analysis and visualization capability of longitudinal data through the integration of R-Shiny, and enhanced GIS capability through the integration of open-source GIS applications.



Young women at a gathering in Abidjan, Côte d'Ivoire, to celebrate International Women's Day. United Nations photo by Ky Chung.

Data.FI developed a COVID-19 vaccine allocation tool to assist Côte d'Ivoire's Ministry of Health and Public Hygiene

Côte d'Ivoire must rapidly vaccinate priority populations against COVID-19, while managing complex infrastructural, supply, and demand constraints. This requires detailed planning and targeted allocation of limited resources, with flexibility to adapt as conditions change and difficulties arise. To support the country to better allocate the COVID-19 vaccines country-wide, Data.FI created an interactive tool that ingests data from multiple sources, calculates supply and demand-side constraints, and uses an **optimization technique to generate an optimal vaccine allocation per site, and thereby enables equitable distribution and minimizes wastage.**

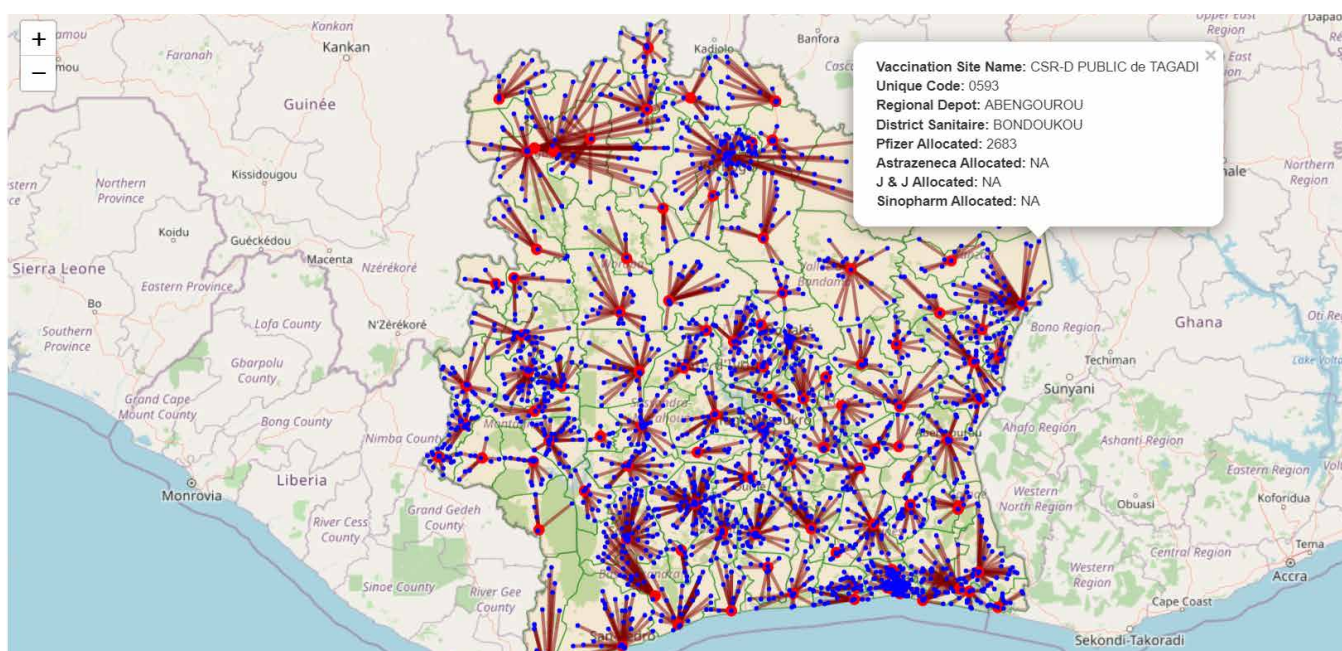
The tool uses a linear optimization model and includes data on different types of vaccines, supply chain constraints, and estimated demand to produce allocations for over 2,500 sites—in less than two minutes. With the VAT, users can decide how vaccines should be allocated based on current vaccine coverage rates and vaccine stock expiration dates.

Anomaly detection in ML refers to a collection of algorithms that learn patterns in the data and then automatically identify atypical data points. Using HQ Operational Plan 2021 (HOP21) funds, **Data.FI built an R-based tool using Recommender Systems and Time Series methods to identify anomalies in PEPFAR monitoring, evaluation, and reporting (MER) datasets that contain continuous and temporal data.** The tool accelerates, automates, and standardizes key aspects of data reviews and data quality assessments (DQAs), reducing the level of effort (LOE) needed for manual data review and accelerating DQAs. In HOP22, Data.FI deployed the Data Anomaly Finder as a web application so that users can run the tool through a point-and-click interface with no software installation or coding required. This activity helped broaden the usability and user base of the tool.

Data.FI developed a Shiny application tool designed to automate target setting for Nigeria.

Target setting during Country Operational Plan (COP) planning is a tedious process and requires many inputs and a significant LOE to manage multiple iterations to be able to generate targets at different organizational levels and disaggregation. The Shiny application utilizes arithmetic calculations implemented in R software and packaged in the Shiny application. The Refining Evidence and Assumptions to Drive Yearly (READY) targets tool puts into consideration historic datasets and assumptions for the different hierarchies to provide usable estimates for target setting. With the tool, the users can set parameters and generate targets for age/sex disaggregates of indicators at site, national, state, local government area (LGA), and partner level. The tool will make target setting for USAID and its partners faster and more efficient.

Provided
89
analytical
solutions



This map, accessible through the model page of the Vaccination Allocation Tool, shows the network of district distribution centers in Côte d'Ivoire and their links to vaccination sites. Users can click on any site (blue dot) to see the vaccine allocated to the site by the model.



Data.FI Data Quality and Capacity Development Advisors Freddy Hidalgo and Jaime Enamorado support staff in data analytics at the Metropolitan Region of San Pedro Sula. Photo by Data.FI/Honduras.

Data Quality Strengthening

Trusted high-quality data is paramount for governments and other stakeholders to navigate COVID-19 and HIV programming needs. One way to ensure the data we use are routinely reviewed for quality assurance and improvement is by conducting DQAs. Data.FI works with stakeholders **to conduct DQAs and address data quality gaps and establish gold standard data quality and management practices to support IPs to responsibly manage data.**

In Honduras, Data.FI completed four routine data quality assessments (RDQAs) across two of the largest health regions—Metropolitan Health Region of Central District and Metropolitan Health Region of San Pedro Sula (two assessments in each)—**to review COVID-19 morbidity and mortality data.**

Our assessment found that, in one region, few of the case reports were in the region's morbidity information system. In the other region we found that the data entry rules in the morbidity information system were masking significant problems with the quality of the data submitted via forms—regional data entry staff were forced to enter data to meet validation rules in

the system. Since data on the forms or in the system were not systematically reviewed, these data quality issues were unknown. To address this, Data.FI assisted regional staff to create a standard operating procedure (SOP) that requires periodic checking of data by a person external to the data entry process, to see if randomly selected case reports are in the system. In one of the regions, Data.FI assisted regional staff to devise **proper archiving procedures for paper-based data.** The project also helped epidemiology and planning staff to improve the rigor of their **data management practices through a four-month mentorship program, which included coaching on using Excel for data management and analysis and making presentations of data.**

In 2022, Data.FI/Nigeria successfully conducted DQAs on four HIV indicators across 39 facilities in seven USAID-supported states throughout the country. Data.FI staff members and health facility staff **reviewed monitoring and evaluation (M&E) systems, identified best practices, and developed joint action plans and recommendations with the IPs to improve existing systems for better reporting of PEPFAR MER 2.5 indicators** in subsequent funding cycles.

Engaging Stakeholders with Communications Outreach

Data.FI connects with global and local partners through multiple communication platforms. Audiences include groups working to accelerate and maintain HIV and COVID-19 epidemic control, such as development agencies, donors, in-county entities, USAID collaborating agencies and projects, universities and research institutes, and news media.

Listserve and e-newsletter announcements reached
33,250+

EMAIL CAMPAIGNS

Data.FI shared project results and lessons learned through multiple channels, including targeted email campaigns.



Applying Innovative Data Sources and Analytics to Achieve HIV Epidemic Control

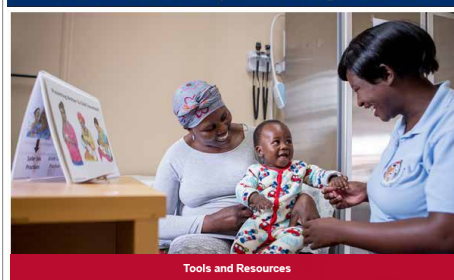
In September in collaboration with USAID and PEPFAR, Data.FI launched a \$100,000 Market Segmentation Innovation Challenge to leverage new data sources and approaches to better tailor HIV treatment services. Data.FI is thrilled to announce the winners. Each will be awarded USD \$50,000 to conduct market segmentation analyses in priority PEPFAR countries, including Kenya and South Africa.

Reached
76,788
individuals in 26
targeted email
campaigns

LISTSERVS AND E-NEWSLETTERS



OHA Note to Implementing Partners



Predictive Analytics Using Machine Learning to Identify ART Clients at Health System Level at Greatest Risk of Treatment Interruption in Mozambique and Nigeria
A new study published in the *Journal of Acquired Immune Deficiency Syndromes* shows how artificial intelligence can be used to predict which patients are at high risk for being lost to follow-up. This information can help health workers to direct support interventions accordingly, helping to keep patients on their treatment regimens. The Data.FI analysis (by Jeni Stockman and Johanna Sundberg of Data.FI partner Macro-Eyes, Jonathan Friedman, Data.FI, Palladium, and Emily Harris and Lauren Bailey of USAID) applied supervised machine learning techniques to de-identified patient-level health records, including electronic medical record data, together with publicly available health facility data, geospatial data, and satellite imagery. The data was used to forecast individual client risk of loss to follow-up among PEPFAR-supported, USAID-managed facilities in Mozambique and Nigeria.

SUCCESS STORIES AND BLOGS

ICTworks

Who Owns the Data in Global Public Health Programming?

By Guest Writer on April 20, 2022



A couple of years ago I attended the Global Digital Health Forum, where a speaker by the name of Jeff Street said something that has stuck with me ever since: "Whoever owns the data, owns the community." Since then, I have kept turning that provocative phrase over and over in my head – it seemed to have a spark of truth in it, but it was hard to determine exactly why.

Success stories on blog channels reached
43,712+
(cumulatively)

SOCIAL MEDIA ENGAGEMENT

Data.FI Project
1,647 followers
1mo • 1

Meaningful data use begins with identifying priority indicators along with the corresponding inputs and actions. In today's West Africa Community of Practice on Data Quality webinar, simultaneously interpreted in English and Fre ...see more

Data.FI
LinkedIn page
viewed
102,332
times



All figures describing dissemination reach are cumulative (October 1, 2021—September 30, 2022). These figures are conservative and do not include reach estimates for USAID e-newsletters that published summaries of Data.FI work.

Optimizing and Scaling Health Information Systems and Digital Solutions



Data.FI optimizes information systems to improve client care at the site level, inform resource allocation at the planning level, and promote accountability. This requires a reorientation of source systems to meet client care management objectives, and harmonization of reporting systems designed to capture the data needed and used to plan and improve programs and

track investments. Data.FI works closely with local stakeholders to build and maintain systems that interface well within the existing ecosystem. We do this by gathering requirements and collaborating closely with partners to improve business processes, and to support data sharing and interoperability across existing and emerging platforms.



A healthcare worker in Eswatini uses the client management information system (CMIS) to access client records at the service point. Photo by Data.FI/Eswatini.

COVID-19 has further brought to the fore the need for sustainable systems—systems aligned with the local context, governed by a coordinated stakeholder team in-country, and supported by a community of practice using open-source solutions. There is also a need to design systems more flexibly, with clear change management processes, to accommodate changing health service delivery strategies, and to allow for agility in measurement—now—and resilience to emerging pandemic threats—in the future. This is the challenge and opportunity we are working to build upon across sub-Saharan Africa, Central America, and the Caribbean.

DEVELOPING AND ENHANCING SYSTEMS

Data.FI is harmonizing and enhancing EMRs and community CMIS to improve efficiencies and data availability.

In Eswatini we are enhancing and scaling an integrated primary health care EMR.

Eswatini is a small country of just over one million people, but with one of the highest rates of HIV prevalence in the world. It is also one of only two countries that have reached the challenging 95-95-95 targets set by the United Nations Joint Programme on HIV AIDS (UNAIDS), based on modelled estimates. To defend and build on this impressive accomplishment, the leaders in the country's HIV response need accurate, granular, and real-time information so they can identify areas of unmet need and address any backsliding on their 95-95-95 achievements.

To address this, in March 2022 **Data.FI began supporting the Ministry of Health's Health Management Information System Unit (HMIS)** in their stewardship of the CMIS—a **cloud-based, patient-line, point-of-care EMR in use at 227 of 327 health care facilities in the country.** The EMR is a point-of-care system that supports comprehensive patient care and houses data on



A client at a health facility in Eswatini talks to staff at the dispensary.
Photo by Data.FI/Eswatini.

77 percent of all clients on ART and integrates the full package of HIV services including prevention (including PMTCT), testing (including early infant diagnosis), treatment, tuberculosis (TB)/HIV co-morbidities for the general population, and specific services for key populations. The EMR provides effective linkage of clients/client information across health facilities (including migratory clients); easy access to comprehensive patient history for clinicians; vertical and horizontal referral across levels of the health system; successful linkage to care and treatment; and real-time access to laboratory diagnostic test results.

In the first six months of activities, together with the HMIS Unit, Data.FI enhanced the Eswatini CMIS with key priority upgrades and supported the rollout of the offline version of CMIS, “CMIS Plus.” We also **rolled out biometric scanners to 102 health facilities** to facilitate client identification and trained 207 healthcare workers and PEPFAR IP staff on the CMIS. Furthermore, Data.FI is supporting the government to deliver “Version 1” of the **long-awaited CMIS Reporting and Analytics Platform, a DHIS2 cleared mirror repository that displays data on dashboards that can be used at the facility, regional, and national levels** to understand progress on key indicators from data generated from the CMIS.

In Nigeria, Data.FI is supporting strong HIS governance processes and collaborative principles with the Health Informatics Community of Practice (HI-CoP). This CoP was co-led by USAID/Nigeria and Data.FI over the past two years, and this year we added the OVC ICT Task team, coordinated by the Federal Ministry of Women Affairs and Social Development (FMWA), as a third co-lead for the development of NOMIS. The scope of the HI-CoP now includes the open-source LAMISPlus EMR and its associated mobile applications—LAMISLite and the Community Pharmacy ART Refill Program (CPARP) mobile app—and the NOMIS.

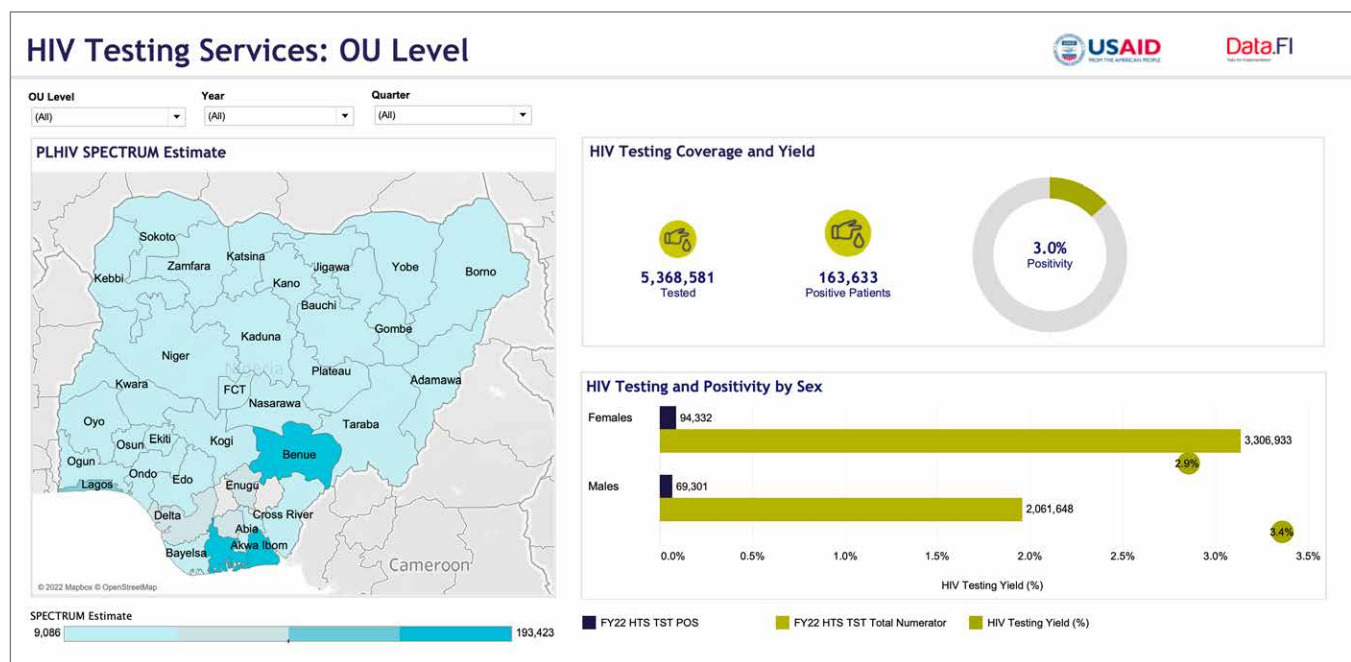
LAMISPlus is free and open-source, meaning that Palladium, through Data.FI, and the IPs contributing to its development through the HI-CoP, are **creating a home-grown, global public good** for its free, sustainable, and unconstrained use in service of the people of Nigeria.

Data.FI's work over the last year focused on building on the gains made to date on the APPR platform. This reporting and analytics platform in use by all USAID IPs was enhanced to ingest de-identified



More than 35 staff working on Data.FI/Nigeria support HIV health information systems strengthening and COVID-19 interventions in collaboration with different government agencies. Photo of a staff meeting in September by Data.FI/Nigeria.

patient-level data, and to **provide analytics and visualizations for HIV care and treatment cascade** in USAID-supported facilities across the 17 states in Nigeria. With the push from USAID for the use of the APPR for both reporting and data reviews, there has



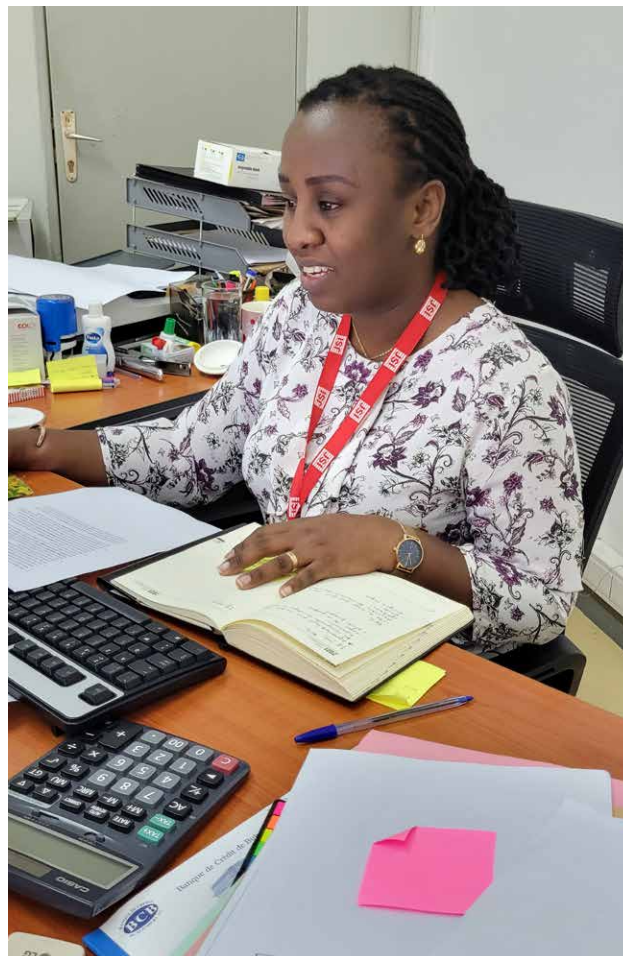
The dashboard provides a summary description of HIV testing services (HTS) and cases identified across the USAID and CDC-supported states in Nigeria. It provides a snapshot of HTS performance filtered by states, period, and IPs.

been a significant surge in the use and interactions of the APPR 2.0 platform. The APPR provides custom visualization for the HIV continuums, OVC, PMTCT, laboratory, and viral load indicators and is the primary platform for situation room meetings. It is also used during USAID's periodic Enhanced Site Management (ESM) processes with IPs.

Data.FI/Burundi is supporting PEPFAR and the Government of Burundi's goals of enhancing the primary HIV EMR in the country—SIDAInfo. In FY2021 Data.FI worked collaboratively with the National AIDS and STI Control Program (Programme National de Lutte contre le Sida et infections sexuellement transmissibles, or PNLS) and the Directorate of the National Health Information System (Direction du Système National d'Information Sanitaire, or DSNIS) and two USAID-funded IPs to develop and roll out a web-based version of the original Access-based system. **This enhanced web based EMR, together with a biometric unique ID (UID) solution, now enables individual clients to have a unified record across all HIV service provision sites, improving quality of data and services delivered.**

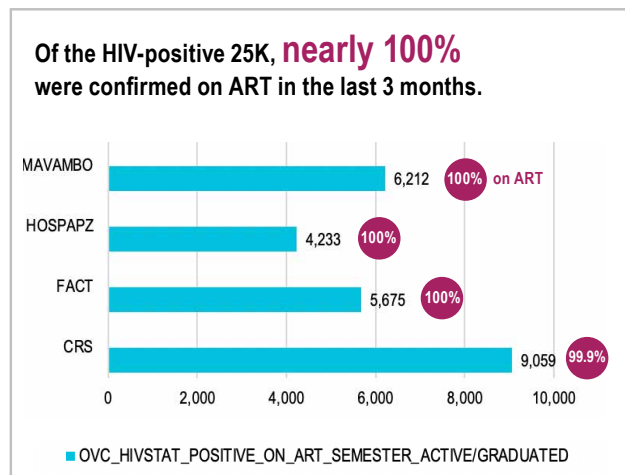
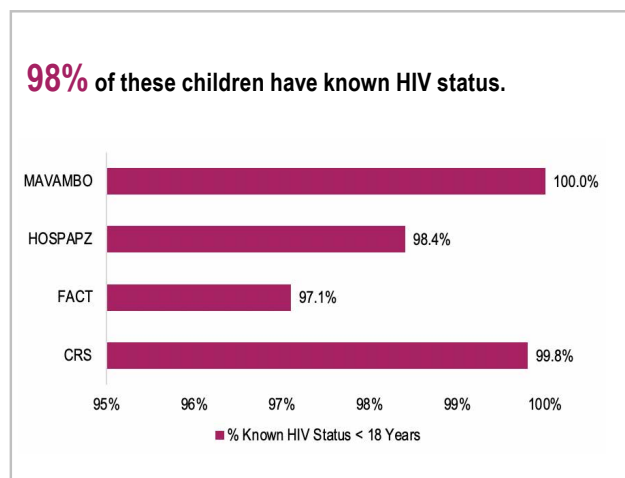
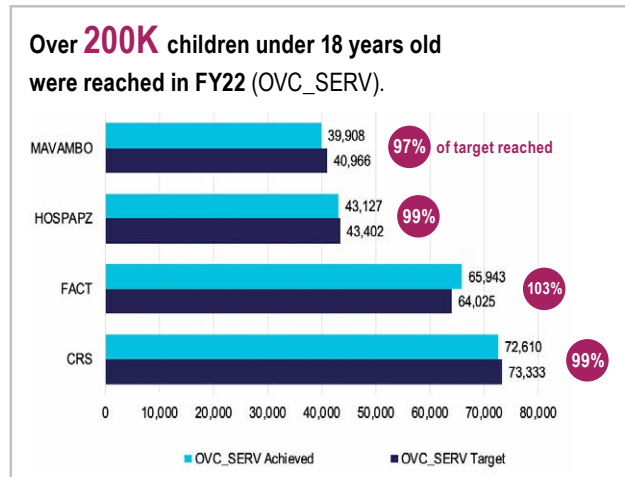
During this reporting period, Data.FI and the SIDAInfo/UID TWG continued to support and further scale the web-based SIDAInfo EMR and the accompanying UID system. SIDAInfo is now installed at all high-volume sites in the country (with 100 PLHIV or more), for a total of 182 sites serving approximately 80 percent of those currently on treatment in the country.

The TWG also worked to enhance IBIPIMO, the laboratory information system in the country, to develop a laboratory module within SIDAInfo. With this module, **clinicians now receive real-time information on viral load test results, early infant diagnosis polymerase chain reaction (PCR) tests, and other clinical diagnostic information essential for high-quality client care.** Clients also receive an automated text message from the system notifying them of their lab results. Clinicians and clients benefit from the reduced time for data entry and rapid turn-around between publishing results and sharing those with the health facility.



This year in Burundi, efforts were focused on enhancing the robustness of SIDAInfo, the HIV/AIDS electronic medical record system. The project also supported the Ministry of Health in the development, testing, and implementation of a unique identifier for people living with HIV. Photo by Data.FI/Burundi, JSI.

OVC MIS in Zimbabwe Contributes to Impressive Performance Gains on Key Indicators



Scaling digital solutions for OVC information systems

In 2020 and 2021 Data.FI developed the **OVC Management Information System (MIS) in Zimbabwe—a harmonized case management system now in use by all four PEPFAR OVC partners in the country.** In this performance period, IPs have fully transitioned from using their previous existing MIS and embraced the harmonized system developed by Data.FI. This represents great efficiencies and will better allow for continuity of services as the current IPs' funding comes to an end, and as new IPs scale up in the coming fiscal year. **OVC partners in Zimbabwe, the majority of whom are local IPs, have gained greater insight into their own performance challenges through display of data by community-based partners.** Once IPs have been able to identify bottlenecks in the case management process, they are then able to generate line lists of households requiring immediate action.

Data.FI has provided hands-on mentorship to two local administrators from Catholic Relief Services (CRS) and Family AIDS Caring Trust (FACT)/Zimbabwe in the management of the OVC MIS to learn how to respond with customer service, identify system bugs, describe requested enhancements, coordinate with stakeholders, make recommendations, and provide follow-up. These communication skills have enhanced overall coordination and commitment to the OVC MIS, with stakeholders expressing interest in further investing in a shared system.

The use of the OVC MIS in Zimbabwe has led to impressive performance gains on three key indicators (percent of OVC children served of those targeted; percent of OVC with documented HIV status; percent of children living with HIV on ART). It is likely we will reach 100 percent on these indicators by the end of 2022, demonstrating how **greater transparency into data and regular data review at monthly intervals leads to course corrections and increased accountability.**

In Côte d'Ivoire this year, Data.FI worked with the National OVC Program (Programme nationale de prise en charges des Orphelins et autres Enfants rendues Vulnérables du fait du VIH/Sida, or PNOEV) to complete the migration of the OVC and DREAMS data from the former siloed databases to the new integrated OVC/DREAMS database.

The integration of OVC and DREAMS data into one database in Côte d'Ivoire with two interfaces reduces the risk for duplication of data on beneficiaries across the two programs and strengthens information for national-level decision making.

We worked with local stakeholders and the PNOEV to deploy the new database at 74 social centers and local NGOs, training site-level staff on the rigorous progress for data entry including household registration, assessment, and the provision of assessment-related services. Following the deployment of the new OVC/ DREAMS database, users at the district level have asserted that it is more user-friendly and reduces errors in data entry, in comparison to the previous siloed systems.



Adolescents (ages 10–19) make up 23 percent of the population in Côte d'Ivoire, according to the World Health Organization/Africa's Child and Adolescent Health & Nutrition Programme (2018). Photo of a young woman in Côte d'Ivoire, courtesy of Flickr Creative Commons.



Data.FI developed and published procedures for transferring OVC data and managing duplicates of data in the integrated DREAMS and OVC databases; developed risk management procedures to prevent data breaches, and developed a tool to promote optimal transmission and use of COVID-19 data.



COVID-19 vaccination in Guatemala. Photo by the Health Policy Plus Project, Palladium.

In Nigeria, the Data.FI health informatics team also successfully **completed the development of the NOMIS 3.0** with the production version ready for deployment. NOMIS will support the data management services for an estimated 1,073,366 clients accessing OVC services across the community units in 29 states supported by USAID and Nigeria CDC IPs.

COVID-19 Information Systems

In Guatemala and Honduras, **Data.FI developed and presented technical recommendations to the Ministry of Health (MOH) to improve the national information system on COVID-19**, which will contribute to **better clinical case management, better organization of the laboratory service, and optimal management of vaccine logistics**. The implementation of some of these recommendations is planned for the next year of work.

In **Côte d'Ivoire** in 2021 and early 2022, data on COVID-19 vaccination uptake and on vaccination side effects was being collected on a daily basis by healthcare workers using Excel spreadsheets and paper-based forms. Given the scale of the COVID-19 vaccine program in the country, and the need for timely data for decision making, **Data.FI supported the Expanded Immunization Program** (Direction coordination programme élargie de vaccination, DCPEV) **to develop a COVID-19 vaccine reporting module and dashboard into the existing national DHIS2 platform**. This dashboard is improving the visualization of aggregated COVID-19 immunization data and timely transmission of data for use at the district and national levels. **It is also ensuring that digital solutions used in the country's pandemic response are aligned with the existing ecosystem**. Since June 2022, health staff are using DHIS2 to enter vaccine data and are able to see it visualized on the dashboard.

INTEGRATING INFORMATION SYSTEMS FOR ADVANCED ANALYTICS

Data.FI is integrating data sources and building analytics platforms that enable precision programming. To achieve better and more equitable health outcomes in the context of a global pandemic and diminishing donor resources requires programming informed by accurate, high-impact analytics.

Until recently, Mozambique's National HIV/AIDS Program (Programa Nacional de Controlo de ITS HIV/SIDA, or PNC ITS-HIV/SIDA) conducted routine program performance analysis using aggregate data reported through the national health management information system the Sistema Nacional de Informação de Sestão de Saúde, or SISMA—and through analyses conducted in Microsoft Excel. While SISMA (a DHIS2-based platform) adequately serves the MOH's data warehousing needs, it was not the ideal technology for data exploration and

visualization. Likewise, Microsoft Excel is limited in its capacity to process disparate, large, and complex datasets. Recognizing the limitations of their current analytic approach, in 2020 **PNC ITS-HIV/SIDA acquired BI software** to use as its future analytics platform and **requested that Data.FI provide targeted technical assistance to maximize the benefit of the planned transition.**

As part of this technical assistance, **Data.FI developed an extract, transform, load (ETL) tool to simplify the process of developing analytics** using data available outside SISMA. The **additional data sources included program targets, Spectrum data for population estimates, master health facility lists, and laboratory reporting system data.** These multiple data sources were combined into meaningful outputs to enhance existing analysis and develop new analytic models and dashboards to support HIV programming.

Scaled
information
systems to
131
program
sites

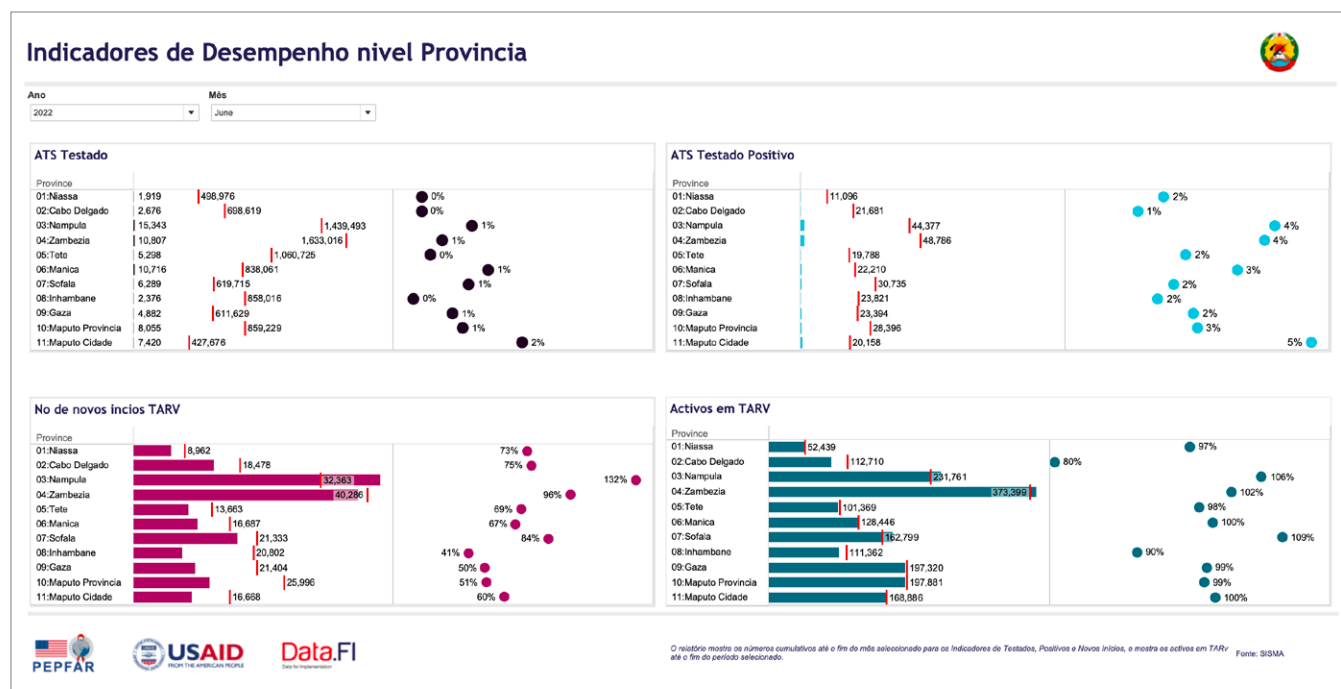


The Mozambique MOH (Ministério da Saúde, MISAU) participates in a TWG on HIV care and treatment and PMTCT. In Maputo in September, TWG participants refined the HIV ETL Tool and dashboards being developed by Data.FI. From left to right: Morais Cunah Jr., M&E specialist with PNC ITS-HIV/SIDA, Fredrick Onyango, Winfred Mwangi, and Dakalo Nemushungwa of Data.FI, Palladium, Paulina (MISAU PNC MCH Program lead), Orrin Tiberi (MISAU PNC Care and Treatment Program lead), and David Masese, Regional Informatics Implementation Manager, Data.FI, Palladium.



A nurse conducts TB screening of a patient in Sofala, Mozambique. Photo by USAID/OHA.

This was done closely with the MOH through a Data Systems Strengthening TWG with membership from PNC ITS-HIV/SIDA, the MOH, and USAID/ Mozambique to steer project implementation. The role of the TWG is to provide government-led oversight in the development of the BI platform, playing a critical role in ensuring that the gains of the project are sustainable. As a result, Data.FI and the TWG have co-created and finalized a suite of dashboards on programmatic indicators across the HIV care continuum, including dashboards for HIV testing services, HIV care and treatment, psychosocial support services, and positive prevention (a strategy in which people who know they are living with HIV learn and practice ways to promote their own health and prevent disease). Based on these developments, **Dr. Aleny Couto, head of the PNC ITS-HIV/SIDA at MISAU in Mozambique, has given her support to use the analytics products across the department to inform program monitoring and decision making moving forward.**



The Mozambique National HIV/AIDS Program conducts routine program performance analysis using aggregate data from different data sources, including the SISMA, program targets, and HIV population estimates (from Spectrum). Data.FI supports the program to enhance data visualization and scale up analytics dashboards, promoting data use and informed decision making.



Staff members of the Colectivo Amigos contra el SIDA, a free HIV and STI prevention clinic for men who have sex with men in Guatemala City. Photo by CDC's Central America Regional Office in Guatemala.

During this performance period **Data.FI completed the design of dashboards for the visualization of national indicators on HIV in El Salvador, Guatemala, Honduras, and Panama.** These indicators were prioritized by Data.FI-supported TWGs that routinely use the information. These TWGs contributed to the review of processes and tools to generate data. They also reviewed available subsystems and collaborated with IPs to review available aggregate data at the national level and to validate dashboard prototypes. The dashboards enable stakeholders to visualize and monitor indicators across the HIV continuum of care and progress towards achievement of 95-95-95 goals.

In support of these dashboards, **Data.FI in Honduras provided technical assistance for the migration of the DHIS2 platform from version 2.30 to version 2.37, which will allow the development of new HIV dashboards.**

In South Africa, Data.FI has worked with the NDOH

to build the CHISA platform. **CHISA is an analytical platform integrating powerful features for data analyses and visualizations.** It has been designed to provide a wide range of users with insights into client well-being across the TB/HIV cascade. The visual analytics presented in the CHISA platform include bespoke disaggregations that are optimized for program managers implementing targeted QI interventions.

The analytics platform pulls data from **a national data warehouse through which disparate source systems are linked.** It provides unique reporting capability compared to other platforms that are used to monitor the HIV response in South Africa, given its ability to ingest and link numerous data sources, to access a wide range of users countrywide, to utilize powerful BI and visualization capabilities, and to use the analytical power of patient-line data, allowing **longitudinal data analysis for outcomes measurement and predictive analytics.**

Applying Strategic Information and Learning



Data.FI supports USAID and partner governments to rapidly collect and use non-routine data for strategic needs in their health response. We also support USAID across the collaborating, learning, and adapting (CLA) cycle to answer key learning questions, adapt and create methods and approaches to

document activities, and catalogue learning with USAID and the broader digital and public health community. This is particularly critical as the COVID-19 pandemic necessitates rapid learning and bespoke data collection to adapt to the unprecedented pandemic.



At a COVID-19 vaccination site in Honduras, data can be collected through both paper and digital tools. Photo by the Health Policy Plus Project, Palladium.

COLLABORATION AND LEARNING

To enable the USAID COVID-19 Response Team to **understand the extent to which USAID's COVID-19 vaccine health system, data, and digital health investments have improved country capacity, coordination, strengthened digital health architecture**, and increased uptake of digital goods, Data.FI is coordinating a **digital health-focused collaborative learning agenda that brings together four partners with CN18 and CN184 COVID-19 vaccine funding**.

This work will enable USAID and its partners to capture and compare learnings across related COVID-19 digital health investments with an eye toward future investments in sustainable health systems that promote resilience in the face of future threats. In the next year, Data.FI will work to develop and implement focused learning activities and learning products in Honduras and in one other country, and support USAID to coordinate and disseminate its COVID-19 digital health collaborative learning agenda. We will also **spearhead the organization of a journal supplement that will synthesize these learnings from the COVID-19 vaccine response for the broader development community**.

This year, Data.FI also continued to serve a convening role for USAID's COVID-19 partners as **co-lead for USAID's COVID-19 Vaccine Technical Assistance Implementing Partner Forum**, with USAID and the USAID-funded MOMENTUM Routine Immunization Transformation and Equity (M-RITE) project. This forum is an interactive platform supporting the sharing of updates, experiences, and ideas across USAID and partners to increase the effectiveness of USAID's COVID-19 vaccine investments. Data.FI has supported forum planning and provided valuable insights on **strategies countries are using to address challenges in the COVID-19 vaccination response and emerging issues to consider for COVID-19 vaccination programs**, based on bimonthly participant polling.

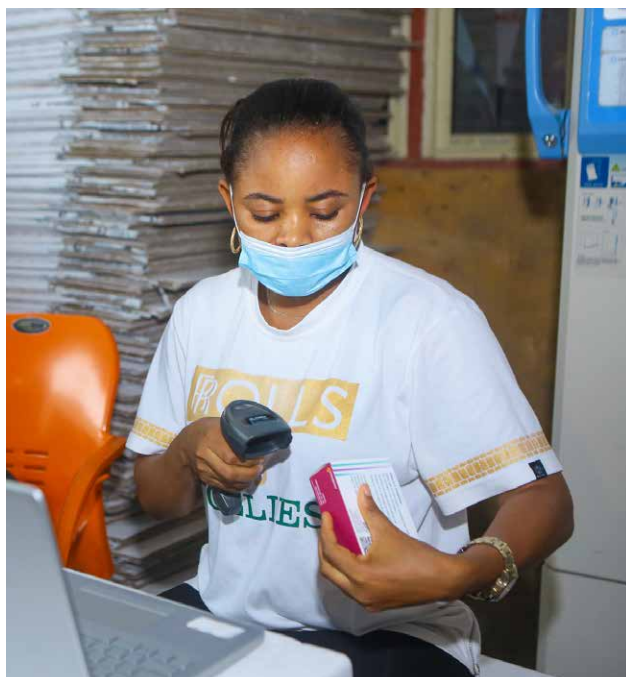


From left: Senior Data Analyst Dr. Ikechukwuka Abah, Data.FI, Right to Care; Strategic Information Specialist Seyi Abolarin, Senior Strategic Information Specialist Nelson Ayator, and Deputy County Director Evans Ondura (standing), all of Data.FI, Palladium, review data visualizations for HIV performance indicators during an in-house data use training conducted by Senior Technical Advisor Jenny Mwanza in Palladium offices in Nigeria.

STRENGTHENING VACCINE CONFIDENCE AND DEMAND

Working closely with USAID, partner governments, other donors, and IPs, Data.FI is strengthening the COVID-19 vaccine response by assessing adverse events following immunization (AEFI) reporting systems, improving understanding on the root causes of vaccine hesitancy, and providing technical support for mini post-vaccine introduction evaluations.

An AEFI is any adverse medical event which follows immunization, and which could plausibly be related to receipt of the vaccine. Effective spontaneous reporting of AEFIs is a first step in making sure that vaccine products are safe and are being safely administered, and in building public confidence in the safety of novel vaccines. **Data.FI conducted an assessment of the COVID-19 vaccine AEFI data collection and reporting systems in Nigeria.** The aim was to assess the extent to which Nigeria has been able to implement functional processes for timely reporting, review, and sharing of COVID-19 vaccine safety data nationally, regionally, and globally.



A health worker scans U.S. donated COVID-19 vaccines as they arrive in Nigeria before they are administered to the population. Photo by USAID/Nigeria.

High-level findings from the AEFI assessment concluded that the system benefits from a competent and experienced healthcare workforce with a decentralized structure and clear reporting lines across the country. Our assessment identified weaknesses in the implementation of processes for submitting and reviewing data electronically, infrequent supervision and feedback for health facility staff, and a lack of dedicated resources for AEFI staff salaries and AEFI-related commodities.

Overall, the AEFI system in Nigeria was able to quickly adapt to the new COVID-19 reporting, but will need ongoing investment and support to ensure proper functioning. **Findings from the assessment will be disseminated in Nigeria and shared with USAID to inform strategies for strengthening pharmacovigilance systems for COVID-19 and other vaccines, and to identify best practices and successful approaches to documenting, reporting, and using high-quality pharmacovigilance data for global use.**

RAPID VACCINE HESITANCY SURVEYS

One consistent challenge to the uptake of the COVID-19 vaccines is the ever-evolving public sentiment towards COVID-19 vaccination related to changes in vaccine mix and availability, convenience, perceived risk of COVID-19, emerging rumors, and shifts in trust in government and other leaders. To address these information gaps, Data.FI developed a **vaccine hesitancy survey in Côte d'Ivoire using project resource partner Premise's network of lay data contributors**. The Premise platform enables Data.FI to produce rapid results; in-country data contributors capture real-time data on current public sentiment towards COVID-19 vaccination using their mobile phones.

This year Data.FI **conducted a vaccine hesitancy survey across all districts in Côte d'Ivoire, with more than 4,000 respondents**. The survey revealed that most unvaccinated people are still open to receiving the vaccine, but that misinformation is rife, with 65 percent of the population having heard negative information about the COVID-19 vaccine. This finding helps health professionals tailor vaccination messaging, taking into account the perspectives of vaccine hesitant people to increase vaccine uptake and save more lives. Data.FI is **also providing clustering analysis to help identify the major attitudinal groups and show which messages and what nuances will most effectively reach them**.

Data.FI is **planning to extend work to address COVID-19 vaccine hesitancy through a series of surveys in Ghana, South Africa, and Tanzania**. In all countries, the goal will be to capture people's attitudes towards COVID-19 vaccination, including the perceived safety of vaccination, the ease of access, the most prevalent rumors/misinformation, and the major drivers/barriers to vaccination. The surveys will also capture quantitative information, such as the proportion of individuals who are fully vaccinated. Conducting two rounds of the survey per country will show how people's attitudes shift

over time. Data collection is expected to start in late 2022. **The results from the surveys will offer a better understanding of the motivating factors among vaccine-hesitant populations and provide county-specific snapshots to be used by government and other stakeholders to plan additional vaccine outreach and to craft targeted socio-behavioral campaigns.**

EMPOWERING GOVERNMENTS WITH ACTIONABLE COVID-19 VACCINE INFORMATION

In Tanzania in late 2021, COVID-19 vaccine rollout had lagged in comparison to other countries in the region, with a high dropout rate between first and second doses. Reasons for this included a shortage of insulated containers used for transporting vaccines to health facilities, and inadequate community health worker support for sensitization.

To strengthen the government's COVID-19 response, in February 2022 Data.FI supported a mini COVID-19 post-vaccine introduction (cPIE) workshop to examine the available COVID-19 vaccine data and develop recommendations for improving the government vaccine program. Results from the evaluation were synthesized in a report that offered recommendations for improvement of the vaccine program.

Data.FI is planning to follow up by supporting small-scale evaluation meetings in four regions identified as high priority by the MOH. **Tanzania dramatically increased vaccination coverage in July and August, from under 10 percent to nearly 40 percent nationally.** The team is focused on identifying successful strategies used in these campaigns. The evaluation meetings will follow a modified mini-cPIE process, focusing on the logistical and practical challenges to further improving vaccination coverage.



Fishing boats in the port at Cape Coast, Ghana. Photo by Elizabeth T. Robinson, Data.FI, Palladium.

Strengthening Local Partners and Ecosystem Governance



Data.FI aims to strengthen host country capacity to lead and sustain the national HIV and COVID-19 response through the development and use of robust and resilient HIV and COVID-19 information systems and digital solutions. We work with MOHs and their partners to develop and build open-source technology solutions to provide impartial, evidence-based advice on policies and protocols—such as systems interoperability and data security—and work side-by-side with

government counterparts to transfer leadership and governance skills in digital stewardship, and data review, interpretation, and action planning.

Data.FI works through local stakeholders to establish **country-led governance structures**. We also provide **capacity-building** support in data quality and data use to local partners and governments. Data.FI is set up to manage **transition awards** and act as the “**middleware**” between USAID and local partners, to support data capture, analysis, and reporting, particularly in cases when previously



Data.FI/Burundi supported capacity building of local and government partners in data quality and data use. Photo by Data.FI/Burundi, JSI.

integrated projects are split across multiple local partners. Data.FI's activities are government-led in many countries, including Burundi, Eswatini, South Africa, and Tanzania. In these countries, we strengthen government-owned HIS and are fully integrated with government-chaired health informatics committees and TWGs.

ENHANCING GOVERNMENT CAPACITY TO LEAD

Data.FI is providing targeted, applied, and context-specific technical training and capacity strengthening to government counterparts to enhance their capacity to lead their HIV and COVID-19 responses, while strengthening their digital health systems.

Strengthening Digital System Governance

In the Central American Region, Data.FI took steps this year to improve governance of the HIS in El Salvador, Guatemala, and Panama. Working closely with in-country stakeholders, Data.FI **promoted and achieved the creation of HIV TWGs at the national level** to design improvements in their HIV information system. The work completed in these TWGs included evaluation of relevant regulations and business processes supporting information systems, development of a shared **vision of an integrated HIV information architecture at the national level, and roadmaps and recommendations for implementation of improved systems**. This documentation is contributing to the achievement of harmonized and sustainable HIV information flows to support decision making at the national level.

In Honduras and Guatemala, Data.FI has completed an assessment of systems and business processes to strengthen HIS governance, focusing on COVID-19 information systems including logistics, surveillance, vaccination events, and testing. Data.FI established TWGs to complete this assessment, design recommendations, and present them to the MOHs. Strong governance is critical to ensuring



coordination and alignment across information systems and effective action to manage the COVID-19 pandemic; it also enables countries to prepare for future emergencies and threats.

In Honduras, Data.FI also **promotes alignment of implementation activities across partners and donors as the Secretariat of a Strategic Advisory Group (SAG) on COVID-19 vaccination**. This SAG meets monthly with the Minister of Health, the Vice Ministers of Health Networks and Projects, and other key MOH stakeholders. This group analyzes and discusses information systems, the vaccine cold chain, communications, and procurement of vaccines and commodities. Data.FI supports government coordination by making updates on activities in these areas through an Excel-based tool called the **Cooperation and Integration Planning tool** (Plan Integrado de la Cooperacion).



SUPPORTIVE SUPERVISION IN TANZANIA

In Tanzania, Data.FI is working to accelerate gains in top-level indicators at the facility and council levels through council situation room meetings, CHMT coaching, and mentorship, as well as continuous supportive supervision to health facilities.

Data.FI oriented Health Management Teams (HMTs) and 76 representatives from 40 health facilities on data use for QI initiatives. This includes facilitating data collection, entry, and transmission to the CHMT, data visualization, and data use in situation rooms. Since December 2021, Data.FI has conducted a total of 213 supportive supervision visits (121 from March to September 2022).

To ensure ongoing coaching and supportive supervision is structured and standardized, Data.FI also developed five coaching modules for CHMTs on introducing QI and the Plan Do Study Act (PDSA) cycle, measurement, data interpretation and documenting the PDSA cycle, root cause analysis, and supportive supervision for QI. These coaching modules provide guidance on tools that can be replicated for use to review progress on indicators. Through supportive supervision, health facilities have become increasingly engaged with data collection processes as they realize the utility of data in improving service delivery.

Photo by Data.FI/Tanzania.

In Eswatini, Data.FI supported the Ministry of Health's HMIS Unit by conducting a **high-level assessment of the CMIS system and data governance capability** to identify the current governance structures (committees, workgroups etc.), their associated roles and responsibilities, the relationships between these structures, the existence and use of a CMIS system governance framework that defines decision domains such as data security, user access control etc. and the governance policy management processes that flow between these structures. Additionally, **Data.FI conducted a CMIS security risk assessment to support the government in understanding and improving CMIS access policies and frameworks for data security and responsible data use.** Together with these assessments, Data.FI reviewed and strengthened the data security and data access SOPs for the CMIS.

1,700
individuals
completed a
Data.FI
training



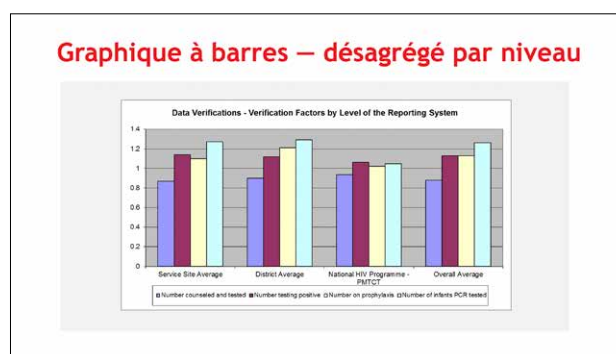
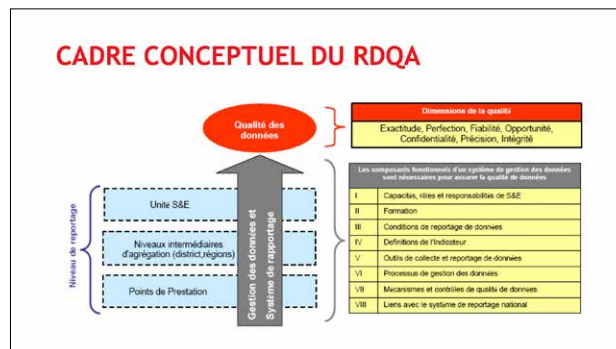
The Data.FI Eswatini team prepares for a training workshop on the Client Management Information System. Photo by Data.FI/Eswatini.

Upskilling in Data Quality, Data Analysis, and Data Use in the Digital Age

During this performance period, **Data.FI in Burundi developed training materials and held a training on data quality analysis, data use, and GIS to reinforce capacity of national staff to conduct supervision, data review, and program performance review meetings.** Data.FI also supported the PNLs to develop SOPs for district-level program performance review meetings to support capacity building of Health District Management Teams (HDMTs). Data.FI developed curricula and organized a training of trainers of all HDMT staff on data review and use.

In **Nigeria, Data.FI developed a tailored curriculum and trained 14 Nigeria AIDS Control Agency (NACA) staff on data analytics and data use and GIS.** NACA staff were also trained on situation room methodology. The staff were from the M&E, program, and data management units. This enhanced capacity will improve NACA's ability to effectively coordinate situation rooms and will allow NACA staff to cascade data analysis skills. Data.FI also trained ten staff across state MOH departments and agencies in Taraba State on our situation room approach and in data analytics. Overall, government stakeholders have appreciated this support and see it as a critical tool for **bolstering their governance and stewardship role of state-level stakeholders.**

For COVID-19 implementation, **Data.FI/Nigeria conducted data analytics, visualization infographics, and visual communication of COVID-19 messaging training** to 226 participants (140 males and 86 females) across the eight focus states (Adamawa, Akwa Ibom, Bauchi, Kano, Cross River, Edo, Oyo, and Niger). The state EOC staff were drawn from state surveillance teams, state primary health care department agencies, state monitoring, and evaluation departments, and data management teams in these EOCs. The training provided practical skillsets in data analysis and packaging information products for decision making.



Data.FI/Burundi developed a series of training modules in English and French on data quality and quality improvement. Quality improvement is an evidence-based activity designed to constantly improve performance, test changes in services, measure the effect of those changes, and use data to improve clinical performance and patients' health outcomes.

In **Honduras, Data.FI-supported situation rooms** in the two metropolitan regions of Central District (MDC) and San Pedro Sula (SPS) **have promoted greater leadership by regional decision makers and have strengthened the capacity of regional staff in data analysis.** Initial training included 37 health staff from the MDC and 16 staff from SPS (health surveillance unit, communication, epidemiology, planning, service networks). They are now using skills gained in QI methods, meeting facilitation, data visualization and interpretation, and root-cause analysis—among other skills needed to implement the situation room methodology. Follow-up training included 11 health staff from the MDC and eight staff from SPS who were trained in situation room facilitation skills.



The Data.FI South Africa team met with partners from the Human Resources Directorate (HRD) of South Africa's National Department of Health and technical support partner Neil Butcher and Associates (NBA) in October 2022. From left to right: Monge Tlaka (NBA), Thabile Msila (HRD), Zanele Bhebhe, Maya Saint Germain, Meryn Robinson, all of Data.FI, Palladium. Photo by Data.FI/South Africa.

In San Pedro Sula, 20 health staff were also trained in COVID-19 surveillance data notification and to correctly fill out the epidemiological and health surveillance system (Sistema de Vigilancia de la Salud) forms. Additionally, a mentoring program was implemented for the surveillance unit staff in charge of data management. Six female health workers (three from each region) participated in the program to improve their skills in epidemiologic concepts, data use, infographics, data purge, data filing, and use of office tools.

Transitioning Systems for Sustainability

The Knowledge Hub is an e-learning platform that offers online courses and webinars for public and private-sector health providers in South Africa. During this performance period,

the Data.FI team continued to implement plans to transition the **Knowledge Hub system to the NDOH**. Data.FI successfully completed an exercise to develop a comprehensive budget for maintaining the Knowledge Hub and related programmatic activities. This document will serve as a reference and tool for the NDOH to use for future funding requests.

Data.FI also worked to refine the available staffing and requisite roles the current staff can fulfill within the NDOH's Human Resources Division (HRD), to support a phased roles transition plan for maintaining Knowledge Hub services. To this end, we also held training sessions **to prepare the identified HRD administrative staff and NDOH ICT staff** on specific topics related to maintaining the Knowledge Hub's eLibrary, course set-up and administration, and webinar set-up and administration.

SUPPORTING LOCALIZATION

In 2020, Data.FI and USAID/OHA developed and validated the **PEPFAR Strategic Information Capacity Assessment (PSICA) tool**—an easy-to-administer tool available in English and French that assesses local IPs’ strategic information systems and their capacity to successfully report on PEPFAR indicators across four critical domains. During this reporting period we repurposed this tool to enable PEPFAR IPs to self-assess their strategic information capacity and used the findings to develop targeted technical support for six partners (including two local partners) in eight countries in the West Africa Region.

The findings from the self-assessment indicated that many of the required strategic information systems and processes were in place, but that partners wanted the opportunity to learn from each other, share experiences, and be exposed to new ways of working.

As a result, we developed a West Africa **regional Community of Practice (CoP) on Data Quality**, which consisted of four sessions on topics related to data quality and data use based on the needs



Woman in Liberia who cultivates corn, okra and plantain. Photo by Anouk Delafortrie/European Union Protection and Humanitarian Aid.

expressed by PEPFAR IPs in the survey (see Figure 2). Participants appreciated having the opportunity to exchange ideas and experiences on data quality and data use, and to learn about using new rapid data quality assessment tools, such as Data.FI’s Anomaly Finder tool.

Figure 2. Topics and learning objectives of Data.FI’s West Africa Region Data Quality CoP

PEPFAR Indicators: Nuances in MER indicator guidance

Objective: To help IPs better understand the HIV clinical cascade indicators

Responsible data use and data management

Objective: To understand the principles and ethics of data use and data management

Innovative methods for data quality improvement

Objective: To instill new and alternative approaches to the traditional data quality assessment

Creating effective data visualizations and promoting a culture of data use for better data quality, management, and use

Objectives:

- To learn user-friendly ways to visualize data
- To discuss what data use means for decision making, standard methodologies, lessons learned, and best practices

Advancing Gender Equality and Social Inclusion



Data.FI is working to accelerate and sustain access to high-quality gender data to expedite HIV and COVID-19 epidemic control and maintenance among all gender and age groups as well as among specific key populations (AGYW, transgender people, migrating peoples, etc.). Our work is grounded in evidence that gender data are critical to attaining program targets and to achieving equitable health outcomes and gender equality.

In April 2022, we updated our Gender Equality Strategy to incorporate the expansion of the project's COVID-19 portfolio, the December 2021 update of Data.FI's results framework and monitoring, evaluation, and learning (MEL) strategy, and United States Government policies and strategies on gender equality, women's empowerment, and diversity, equity, and inclusion. We also reviewed the gender strategy across all of our workplans and identified additional activities and approaches for promoting gender equality and inclusion in upcoming activities.



Gender data are critical to attaining program targets and to achieving equitable health outcomes. Photo of woman and child in Mali, courtesy of Flickr Creative Commons.

Gender data refers to information about the dynamics between HIV and COVID-19 and gender equality, gender equity, gender norms, gender-based violence, and sexual diversity and inclusion.

Following revision of the gender strategy, Data.FI held rich internal discussions, which included **taking the pulse of activity teams' understanding of the gender strategy** and assessing whether activities were gender sensitive. This resulted in some activities **incorporating more gender-sensitive approaches** for the upcoming fiscal year. The Data.FI team also held a **technical exchange session to review best practices in gender-sensitive data collection**, and how this could improve targeted HIV and COVID-19 programming.

During the reporting period, we advanced the use of gender data in our country activities in data collection, use, and analytics in multiple ways.

More female leadership in COVID-19 situation rooms leads to more gender-sensitive data analysis

In Honduras, Data.FI-supported COVID-19 situation rooms in the metropolitan health regions of Central District and San Pedro Sula are led by women. In the Central District, Dr. Sonia Amaya, Regional Chief, and Dr. Zulma Alvarez, Chief of the Regional Health Surveillance Unit (Unidad de vigilancia de la salud, UVS) lead these forums; while in San Pedro Sula, Dr. Alma Barahona, Chief of the Regional UVS, is responsible.

In her current position as spokesperson for the activities of the region, Dr. Amaya, working with Dr. Alvarez and Dr. Barahona, has **incorporated gender-sensitive data analysis in preparing**



Dr. Sonya Amaya, Regional Chief of Central District Metropolitan Health Region (RSMDC) staff from the RSMDC, discuss COVID-19 data in a situation room meeting. Photo by Data.FI Honduras.

visualizations for each situation room meeting.

For instance, through data analysis they have identified locations for COVID-19 services or vaccination sites available for women, prioritized women as a population group for vaccination, and have implemented more flexible vaccination schedules so that working women or caregivers have access. **Drs. Amaya, Alvarez, and Barahona have also taken on a mentoring role with the teams in their charge, identifying young leaders who can be an active part of decision-making processes.**

STANDARDIZING THE COLLECTION OF GENDER-IDENTITY DATA FOR HIV PROGRAMMING

As governments and multilateral donors revise their guidance on which gender-specific data to collect, evaluators, program designers, and researchers are asking which data are appropriate and useful to support efforts to tailor interventions to reach priority groups. Where should programs draw the line on data capture to avoid unintentionally stigmatizing the people they aim to help?

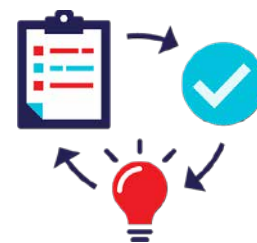
This white paper lays out data considerations when addressing the unique needs of at-risk groups. It is online on the Data.FI website at <https://datafi.thepalladiumgroup.com/news-and-resources/data-for-action/>



In Tanzania, Data.FI is integrating gender data into data use activities. In a May 2022 design workshop, the Data.FI/Tanzania team added prompts focused on differential experiences based on gender to enhance the root cause analysis process and identify factors that may contribute to indicator performance. Gender-related factors were documented in some root cause analyses of HIV indicators conducted at the facility level, including intimate partner violence. We engaged the Ministry of Gender and Social Work and CHMT gender points of contact to start monitoring gender-related factors for top-line indicators on antenatal care and PMTCT.

Accelerating use of data on gender-based violence (GBV) for PEPFAR monitoring and planning. GBV has implications for almost every aspect of an individual's health and well-being, yet data on GBV service needs and provision are lacking. Although PEPFAR has recognized the need to strengthen and monitor services (e.g., through the MER indicator, GEND_GBv), systematic GBV data collection and use are typically underprioritized. Within Nigeria's APPR system, Data.FI developed a dashboard to track GEND_GBv and GBV custom indicators and supported the analysis and generation of quarterly GBV reports for USAID's COP planning and the Mission's routine enhanced site management processes. The GBV dashboards track indicators such as the percentages of individuals screened for GBV and who disclosed experiences of GBV, and the percentage of those who disclosed experiences of GBV who were provided post-GBV care as well as referred for GBV services. These indicators are further disaggregated by age and sex.

Project Learning



INFORMATION SECURITY

Due to rapid digitization, information security is a growing concern globally, particularly in the health sector due to data sensitivity and unparalleled expansion of digital health services. Information security policy and regulation falls under the purview of sovereign states and most countries are still establishing standards, processes, and tools, and working to commit resources and to develop local capacity. Donors, corporations, and international NGOs, among others working in digital health, must navigate specific country protocols, while applying global best practices and our own evolving institutional policies. Data.FI is committed to contributing learning on how to advance digital health and data analytics while protecting data and individual privacy.

Some of our key learnings to date include:

- Public administration addresses security mostly in a reactive manner; processes and guidelines are seldom defined for sharing data to drive analytics or to use cloud services. This creates implementation delays.
- Localization requires addressing information security risks within the particular context and priorities of each government, while developing capacity and creating the governance structures to sustain investments.
- There are a number of IPs working in the digital health and analytics space, each with varying degrees of capacity and adherence to best practices for information security. Often systems need to be accessed by multiple IPs and government officials. This introduces risks for USAID, such as the use of insecure channels to transfer client records and the improper disposal of physical client records.

Data.FI Leading the Way

Early in the project, we developed a training on responsible data use, as well as a number of resources to support staff to protect data, including:

- Data Management Framework
- Data Management Maturity Model and Assessment Tool
- Legal Requirements for Responsible Data Management
- Benefits and Risks Assessment: How-to Guide and Framework
- Anonymization and De-identification of Data Guide
- Programmatic Data Breach Response

Based on our key learnings around information security, we also developed a template with USAID, and approved for use by OAA, for a data sharing or data access agreements.

This year we assessed information security in five priority countries (Burundi, Côte d'Ivoire, Eswatini, Nigeria, and South Africa) where Data.FI's activities involved the use of personally identifiable information. The purpose of these assessments was to inform project requirements for maintaining and improving data protection and data system security. To address common challenges and risks, we have augmented staff training, particularly in safe software development practices, named staff with responsibility for information security, and we are developing country-specific information security strategies. We are also working with governments to design and configure the digital solutions and hosting environments to meet security standards and advocating for better resourced health information system governance.

TRANSITION

In South Africa, we have made significant progress over the last year in supporting the Human Resources Directorate (HRD) to institutionalize the Knowledge Hub, the national eLearning system being utilized by the HRD to provide healthcare workers with continuing professional development opportunities that range from hosting online and blended courses, to webinars and to the eLibrary from which users can download resources like updated regulations and clinical guidelines.

While a service provider has been hosting the Knowledge Hub, and programmatically and technically supporting the system, webinars, course development and hosting, as well as user support roles since 2016, we have been working with the HRD to transition ownership of the system from the service provider to the government. To do so, we focused on first assessing the reality of what support the HRD can offer given their staffing and skills base, and then working with the HRD to identify where capacity building and mentoring can fill staffing gaps, versus what feasibly needs to be outsourced. We then worked with the service provider to develop a one-year comprehensive budget to cover all support for hosting, maintaining, and implementing the Knowledge Hub services with the ability to indicate internal staffing and outsourced support. This comprehensive budget was accompanied by a report to define what the roles and responsibilities of implementing the system are, with the intent that this tool be used by the HRD to advocate for the budget they need to internally support and steward all aspects of implementing the system. Our final key area of support in the progression of transition was to collaborate with the HRD to understand the funding options available and to provide documentation and reasoning to help them advocate for their own funding requests. This meant working with them to understand the schedules, different avenues, processes for application, required information, and who to engage with. This year we helped the HRD to successfully request and be granted funding for

short-term support, as well as funding allotted in the next fiscal year to support the Knowledge Hub.

From our experience, some integral takeaways in our progress towards institutionalization include:

- Clearly defining the roles, responsibilities, and time commitments needed for an ideal team to support the system; demonstrating the actual staffing needs and skills needed to support the system is critical.
- Using the documentation to honestly assess the capacity of the government entity was key to identifying the skills gaps that could not be met with training current staff. This enabled us to conclude the functions that could and could not be transferred from the external service provider to government staff.
- It was important to redefine the concept of institutionalization with the government to align to stewardship, supporting the government to build a long-term relationship with a service provider that can address the skills gaps that the government entity will not realistically be able to fill.
- Helping the government entity refine messaging to advocate for funding at higher levels was key to success.

SITUATION ROOMS

In the last six months, we have achieved two major milestones in the implementation of situation rooms: (1) the successful transfer of capacity to government officials, and (2) the adaptation of our methodology to accelerate the COVID-19 response and expand vaccination.

Transfer of situation rooms to government leadership

Data.FI demonstrates a strong commitment to designing a situation room intervention with government stakeholders. Typically, government will invite the participants, preside over the meeting,

and endorse action items. After six months of observing Data.FI situation room advisors role-model skills—including preparation of compelling analytics, meeting facilitation, and action planning for accountability—government stakeholders in Guatemala and Honduras were prepared to assume a greater leadership role. Data.FI delivered a participatory training to stakeholders with the expectation that individuals would volunteer to fulfill the lead technical role in future meetings that Data.FI staff had been holding. Government leaders successfully assumed these roles following several months of observation, skills-based training, and the assurance that Data.FI will continue to coach and provide feedback. A 12-month period—including start-up (two months), time for observation (six months), skills-based training in workshop format (one month), and time dedicated to coaching as they practice their skills (three months)—has proven adequate for ensuring a sustained transfer of responsibilities.

Adaptation of methodology for to support the COVID-19 response

We adapted the situation room methodology that had been successfully applied to accelerate HIV prevention and control in Nigeria to the COVID-19 context. In this process, we learned that situation rooms are the ideal intervention when performance expectations are clear and well understood by all stakeholders. For example, key indicators for HIV control include expanding deployment of index case testing, improving linkage of newly diagnosed PLHIV to treatment, and expanding viral load suppression coverage. Each of these indicators can be articulated with clear targets, which in turn allows for visualization of results at lower reporting levels to identify districts, wards, or facilities in need of additional support. COVID-19 response activities, on the other hand, have had fewer clear performance targets. Also, a lot of pandemic decision making—especially related to social control measures in response to incidence spikes—was made at higher levels (out of the sphere of influence of situation room participants).

With time, situation room participants prioritized change management in their control, ensuring the availability of testing supplies in response to increasing test positivity and tracking vaccine commodities in order to accelerate vaccination coverage. While responding to an infectious and previously unknown threat was challenging, through regular review of data, stakeholders identified bottlenecks that could be resolved to address high test positivity and to continue to make progress towards vaccination goals.

Looking Forward

Data.FI leadership gathered mid-year to discuss results. Not results as in the number of people trained, or systems deployed, but our impact. I asked our staff what they wanted our project to leave behind, what they felt we could accomplish together. Unequivocally, Data.FI staff voiced their commitment to improving the lives of those we serve to and ensuring that our work is transitioned to and then sustained by local government and local partners. So, beyond the indicators in our MEL plan, we commit to tracking our contribution to improved patient outcomes and localization,

and to learning along the way about the most efficient and effective ways to accelerate sustainable progress towards both.

Our project Theory of Change in support of improved patient outcomes is premised on our assertion that the **systematic review of relevant and prioritized data by the right stakeholders**, with their commitment to addressing both performance and data quality challenges, will bring about change. These data review structures are more effective as data quality and availability improves, such as through digitization. **Through our work to digitize and integrate information**



A woman in Liberia who survived infection with the Ebola virus. Photo by Martine Perret/United Nations.

systems we are enabling better management decisions, and ultimately better patient outcomes.

We believe that Data.FI's epidemic control room or "situation room" intervention is an essential tool in closing the gap in any health indicator—a gamechanger. And we've seen evidence of this—localities with an epidemic control room are surpassing their indicators, as indicated in this report. Over the next year, we look forward to tracking and communicating this program management solution more systematically and learning about the common elements of our approach that support sustainable change, and the institutionalization of these structures within government. Our goal is to provide guidance to governments in responsibly scaling the situation room approach both geographically and topically—to address the broader primary health care and global health security agendas.

To improve the availability and quality of information for decision making—not just for HIV and COVID-19, but for primary health care and global health security more broadly—we look forward to expanding our work in data integration; building out existing data analytics platforms such as CHISA, and the Eswatini CMIS platform, and capitalizing on newer HIS digitization efforts to power analytics and dashboards in Central America. Over this next year, our goal is to automate more predictive analytics in these tools and expand their use within subnational data review structures (where data availability permits). We aim to help stakeholders to make better decisions about where to allocate scarce resources to support client care and prepare for and mitigate the impact of emerging threats. We commit to building these tools, and the source systems that they pull data from, flexibly and openly, to enable changes over time and local stewardship over the long term.

Our project strategies to accelerate localization are to **strengthen information system governance structures, and to institutionalize data review processes within existing structures**. In nearly

all the countries where we work, we have partnered with our government colleagues to strengthen HIS governance structures. In some countries this means enhancing what exists to enable transition of responsibility for specific systems or lay the groundwork for a unified HIS, and in others this means establishing TWGs and data standards, and planning for the digitization of health information.

Wherever a country is on the pathway to health information system maturity, our goals are to support government leadership, catalyze commitments from local stakeholders to manage and improve the HIS, and to simplify (and automate) information capture, data flow, and analytics to improve sustainability. With respect to the institutionalization of data review processes, we have begun to transition situation rooms to local leaders in Central America, and we will be using this opportunity to learn about the elements of a successful transition, as well as the challenges, as we begin the transition process in other regions.

Over the next year we will be laser-focused on striving for this high-level impact, sustainably, and on documenting our milestones and learning to enable replication of our solutions and expansion of results.



A handwritten signature in black ink that reads "Jenifer Chapman".

— Jenifer Chapman,
Data.FI Project Director

Annex 2. Project Indicator Results

Indicator	Target – LOP	Achieved – LOP Apr 2019 – Sep 2022	Achieved APR 2022 Oct 2021 – Sep 2022	Burundi	Côte d'Ivoire	Eswatini	Nigeria	South Africa	Tanzania	Zimbabwe	Mozambique	Moz IIT (Phase II)	COVID Vaccine IP Forum	Guatemala	Honduras	West Africa Region Data Quality	Central America Region	Jamaica	COVID-19 Post Introduction Evaluation	Market Segmentation	
Outcome 1: Accelerated data use																					
1.1 SI_USE Number of data use cases that document use of data for performance improvement	80	72	28	1			6		6					6	5		4				
1.1 SI_USE GENDER DISAGGREGATION** Number of data use cases that use gender data	N/A	15	11				1		6								4				
Outcome 2: Advanced Analytics																					
2.1 DATA_ANALYSIS Number of analytical solutions	337	265	89	5	2	7	40	5	4	9		1	6	1	4	1			1	3	
2.1 DATA_ANALYSIS GENDER DISAGGREGATION** Number of analytical solutions led by Data.FI that include gender data	N/A	55	36	1	1		22	3	4	3										2	
Outcome 3. Optimized and scaled health information sub-systems																					
3.1 HIS_INTEROP* Number of instances of health information systems supported by the project that demonstrate interoperability or compliance with interoperability standards	51	26	7	3		1	3														
3.2 HIS_PM* Number of information systems, applications, or modules supported by the project with updated key project management documentation for software development	204	92	33	2	3	2	12	8			1		1		2		2				
3.3 HIS_SCALE* Number and percentage of program sites with new or upgraded project-supported information systems operational as intended within the reporting period	85%	86%	84%	95%		12%															
	2371	749	131	76		8															
3.4 HIS_ALIGN** Number of systems or modules developed or improved by Data.FI that include an assessment of the HIS ecosystem in requirements documentation	38	25	9			1	6	1			1										
Outcome 4. Strengthened HIV data sources																					
4.1 DATA_CHECKS Number of digital data quality checks for key PEPFAR indicators developed and introduced	116	96	35	3		5	27														
4.1 DATA_CHECKS GENDER DISAGGREGATION** Number of digital data quality checks for key PEPFAR indicators developed that include checks for gender data	N/A	57	30			3	27														

Project Indicator Results *continued*

Indicator	Target – LOP	Achieved – LOP Apr 2019 – Sep 2022	Achieved APR 2022 Oct 2021 – Sep 2022	Burundi	Côte d'Ivoire	Eswatini	Nigeria	South Africa	Tanzania	Zimbabwe	Mozambique	Moz IIT (Phase II)	COVID Vaccine IP Forum	Guatemala	Honduras	West Africa Region Data Quality	Central America Region	Jamaica	COVID-19 Post Introduction Evaluation	Market Segmentation
4.2 SI_QUAL Number of partners/subnational units supported with Data.FI data quality interventions that demonstrate improved data quality*	155	57	11	3			8													
Outcome 5. Strengthened Local Partners																				
5.1 CAP_DATA Percentage of supported local organizations that have been assessed using the U.S. Agency for International Development (USAID)/Office of HIV/AIDS (OHA) Data Non-U.S. Organization Pre-Award Survey (NUPAS) tool (or a similar one)	N/A	N/A	N/A																	
	N/A	6	0																	
5.2 CAP_MER Percentage of supported local organizations meeting 80 percent of assigned PEPFAR MER target contributions in the reporting period	N/A	N/A	N/A																	
5.3 CAP_NUPAS Percentage of supported local organizations that have undergone a Non-U.S. Organization Pre-Award Survey (NUPAS) or NUPAS-like assessment	N/A	N/A	N/A																	
Outcome 6. Innovative Partners and Methods Promoted																				
6.1 INNOV_ANALYSIS Number of analytical solutions that apply artificial intelligence/machine learning techniques	38	15	6		1			2												3
6.1 INNOV_ANALYSIS GENDER DISAGGREGATION** Number of analytical solutions that apply artificial intelligence/machine learning techniques that include gender data	N/A	7	4					2												2
6.2 INNOV_PARTNER* Number of private sector and other non-traditional partners engaged by the project	6	3	2			1												1		
6.2 INNOV_PARTNER GENDER DISAGGREGATION** Number of private sector and other non-traditional partners engaged by the project that are women-led businesses	N/A	0	0																	
6.3 INNOV_PM** Number of analytical solutions that apply artificial intelligence/machine learning techniques with updated key technical documentation	28	4	2					1				1								

* Indicator revised for APR 2021 reporting period

** New indicator for APR 2022 reporting period

Process Indicator Results

	Percentage of annual expiring obligation expended in each financial year (USD amount expended/ expiring obligation)	Number of activities with a signed data-sharing agreement	Number of digital health coordination structures supported by Data.FI	Number of data systems assessed by project	Number of data review meetings where performance data are reviewed supported by Data.FI activities
Target – LOP	99%	40	20	13	1286
Achieved – LOP Apr 2019 – Sep 2022	96%	12	38	9	1626
Achieved APR 2022 Oct 2021 – Sep 2022	100%	2	25	3	641
Burundi			3		4
Côte d'Ivoire					
Eswatini				1	7
Nigeria			1		160
South Africa			1		
Tanzania					353
Zimbabwe			1		36
Mozambique					
Mozambique IIT					
COVID Vaccine IP Forum		1			
Guatemala			14		42
Honduras					39
West Africa Region Data Quality					
Central America Region			5	2	
Jamaica					
COVID-19 Post Introduction Evaluation					
Market Segmentation		1			

N/A - indicator reported annually

Process Indicator Results continued

	Number of indicator reference sheets developed or improved upon	Number of curricula developed by Data.FI	Number of individuals completing a training conducted by Data.FI (by sex of participant)	Number of individuals completing a training conducted by Data.FI (Female disaggregate)	Number of individuals completing a training conducted by Data.FI (Male disaggregate)	Number of applications of Data.FI project-branded tools, analytical approaches
Target – LOP	133	56	6348	N/A	N/A	90
Achieved – LOP Apr 2019 – Sep 2022	141	37	3336	N/A	N/A	21
Achieved APR 2022 Oct 2021 – Sep 2022	24	15	1700	641	1059	3
Burundi		5	390	127	263	1
Côte d'Ivoire			80	24	56	
Eswatini		1	207	54	153	
Nigeria	15	1	80	24	56	
South Africa						
Tanzania	9	5	762	317	445	
Zimbabwe						
Mozambique		1	15	8	7	
Mozambique IIT						
COVID Vaccine IP Forum						
Guatemala		1	76	42	34	
Honduras			43	30	13	1
West Africa Region Data Quality		1	26	7	19	1
Central America Region						
Jamaica			3	1	2	
COVID-19 Post Introduction Evaluation			18	7	11	
Market Segmentation						

N/A - indicator reported annually

Annex 3. Data.FI Products

GLOBAL ACTIVITIES

Final Product	Publication Date by Quarter
HIV	
Willingness to Pay for HIV Services	
Innovative Methods for Market Segmentation of HIV Treatment Services Presentation of Results (PPT-22-135)	Q2
COVID-19	
Vaccine Safety Monitoring	
COVID-19 Vaccine Safety Monitoring in Nigeria and El Salvador: Study Protocol (TR-22-46)	Q2
Post-vaccine introduction evaluations	
Tanzania COVID-19 Vaccination Intra-Action Review Report: Final Report: Pillar 10, COVID-19 Vaccination (TR-22-55)	Q3
COVID-19 IP Forum	
USAID COVID-19 Vaccine Technical Assistance Implementing Partner Forum October Pulse Survey Results PowerPoint Presentation	Q1
USAID COVID-19 Vaccine Technical Assistance Implementing Partner Forum Database	Q2
USAID COVID-19 Vaccine Technical Assistance Implementing Partner Forum Mid-Year Review of Pulse Survey Findings and Forum Participation (June 2021 – January 2022)	Q2
USAID COVID-19 Vaccine Technical Assistance Implementing Partner Forum January Pulse Survey Results PowerPoint Presentation	Q2
USAID COVID-19 Vaccine Technical Assistance Implementing Partner Forum March Pulse Survey Results PowerPoint Presentation	Q2
USAID COVID-19 Vaccine IP Technical Assistance Forum: May Pulse Check	Q3
USAID COVID-19 Vaccine IP Technical Assistance Forum: September Pulse Check	Q4
USAID COVID-19 Vaccine IP Technical Assistance Forum: June 2021 – September 2022	Q4

Data.FI Products continued

COUNTRY ACTIVITIES

Final Product	Publication Date by Quarter
Burundi (HIV)	
Renforcement des capacités d'analyse des données du PNSL/IST au Burundi (DUC-22-34 FR) Strengthening the data analysis capacities of the PNSL/IST in Burundi	Q4
République du Burundi Ministère de la Santé Publique et de la Lutte contre le SIDA Bulletin trimestriel du Système National d'Information Sanitaire: Janvier à Mars 2022 Republic of Burundi's Ministry of Public Health and the Fight against AIDS Quarterly Bulletin of the National Health Information System: January to March 2022	Q4
République du Burundi Ministère de la Santé Publique et de la Lutte contre le SIDA Bulletin trimestriel du Système National d'Information Sanitaire: Octobre à Décembre 2021 Republic of Burundi's Ministry of Public Health and the Fight against AIDS Quarterly Bulletin of the National Health Information System: October to December 2021	Q4
Burundi HIV Systems Data Exchange: Requirements for HIV systems interoperability (TR-22-78)	Q3
HIV System Architecture in Burundi (TR-22-02) Architecture du système d'information sur le VIH au Burundi (TR-22-02 FR)	Q4
Burundi HIV Electronic Medical Records Transition Plan: Transitioning implementation and ownership of SIDAInfo from PEPFAR to the Ministry of Health (TR-22-03) Plan de transition des dossiers médicaux électroniques VIH au Burundi : Transition de la mise en œuvre et de l'appropriation de SIDAInfo du PEPFAR au Ministère de la Santé (TR-22-03 FR)	Q4
Guide opérationnel standard de revue des performances du programme VIH, IST et hépatites au Burundi (TL-22-34 FR) Standard Operational Guide for Reviewing HIV/STI and Hepatitis Program Performance in Burundi	Q4
Formation sur la qualité et l'amélioration de la qualité des données: Module 1 : Introduction (TL-22-40a FR) Data quality and quality improvement training: Module 1: Introduction (TL-22-40a)	Q4
Formation sur la qualité et l'amélioration de la qualité des données: module 2 : la qualité des données sanitaires (TL-22-40b FR) Data quality and quality improvement training: Module 2: Health Data Quality (TL-22-40b)	Q4
Formation sur la qualité et l'amélioration de la qualité des données: Module 3 : Dimensions de la qualité des données (TL-22-40c FR) Data quality and quality improvement training: Module 3: Data quality dimensions (TL-22-40c)	Q4
Formation sur la qualité et l'amélioration de la qualité des données: Module 4 : Outils d'évaluation et d'amélioration de la qualité des données (RDQA et DQA) (TL-22-40d FR) Data quality and quality improvement training: Module 4: Data quality assessment and improvement tools (Routine DQA and DQA) (TL-22-40d)	Q4

Data.FI Products continued

Final Product	Publication Date by Quarter
Formation sur la qualité et l'amélioration de la qualité des données: Module 5 : Comprendre et utiliser les résultats de RDQA (TL-22-40e FR)	Q4
Data quality and quality improvement training: Module 5: Understanding and using RDQA results (TL-22-40e)	
Implementation of a Web-Based Electronic Medical Record and Unique Biometric Identifier in Burundi: Deployment Report, Phase 2 (TR-22-70)	Q4
Central America Region (HIV)	
Data.FI Panamá Desarrollo del tablero de VIH: Ministerio de Salud Panamá – Data.FI Octubre 2021–Septiembre 2022	Q4
Data.FI Panama Development of the HIV Dashboard: Ministry of Health Panama – Data.FI October 2021–September 2022	
Propuesta de arquitectura para los sistemas de información que respaldan al Programa Nacional de ITS/VIH/SIDA: Ministerio de Salud, Gobierno de Panamá (TR-22-115 SP)	Q4
Proposed architecture for the information systems that support the National STD/HIV/AIDS Program: Ministry of Health, Government of Panama	
Propuesta de proceso de deduplicación de datos para la Unidad del Programa ITS/VIH de El Salvador (TR-22-117 SP)	Q4
Data deduplication process proposal for the STI/HIV Program Unit of El Salvador	
Data.FI El Salvador Tablero de VIH: Prototipos basados en los indicadores priorizados	Q4
Data.FI El Salvador HIV Dashboard: Prototypes based on prioritized indicators	
Propuesta técnica de deduplicación de datos para el Programa Nacional VIH El Salvador: Guía para administradores de bases de datos y personal DTIC (TR-22-133 SP)	Q4
Technical proposal for data deduplication for El Salvador's National HIV Program: Guide for database administrators and DTIC staff	
Propuesta de proceso de deduplicación de datos para la Unidad del Programa ITS/VIH de El Salvador: Guía para personal del programa y entrada de datos (TR-22-136)	Q4
Data deduplication process proposal for El Salvador's STI/HIV Program Unit: Guide for program and data entry staff	
Propuesta de set de datos para deduplicación para uso de la Unidad del Programa ITS/VIH (TR-22-138 SP)	Q4
Proposal for a deduplicated data set for El Salvador's STI/HIV Program Unit	
Data.FI Honduras: Actualización de DHIS2	Q4
Data.FI Honduras: DHIS2 update	
Data.FI Honduras Tablero de VIH: Prototipos del tablero de VIH basados en los indicadores priorizados	Q4
Data.FI Honduras HIV dashboard: HIV dashboard prototypes based on prioritized indicators	
Términos de referencia: Grupo de trabajo para el fortalecimiento de la gestión de la información de VIH	Q4
Terms of reference: Working group to strengthen HIV information management	

Data.FI Products continued

Final Product	Publication Date by Quarter
<p>Hoja de ruta ilustrativa para el fortalecimiento del sistema de información acerca del VIH. Documento de especificación del sistema de información sobre el VIH</p> <p>Illustrative roadmap for strengthening the HIV information system. HIV Information System Specification Document</p>	Q4
<p>Análisis de procesos y sistemas para el fortalecimiento de sistemas de información de VIH: Ministerio de Salud, Guatemala (TR-22-111 SP)</p> <p>Analysis of processes and systems for the strengthening of HIV information systems: Ministry of Health, Guatemala</p>	Q4
<p>Desarrollo de productos analíticos para promover el uso de datos: Explicación del proceso (PPT-22-38 SP)</p> <p>Development of analytical products to promote the use of data: Explanation of the process</p>	Q4
Côte d'Ivoire	
HIV	
<p>Plan de gestion des risques de corruption des données du PNOEV (TL-22-07 FR)</p> <p>National OVC Program (PNOEV) Data Breach Risk Management Plan</p>	Q3
<p>Procédures de transfert des OEV et de gestion des doublons dans les bases de données DREAMS et OEV (TL-22-06)</p> <p>Procedures for transferring OVC and managing duplicates in the DREAMS and OVC databases</p>	Q4
<p>Connexion et déconnexion à la BD-OEV : Formation BD-OEV, May 2022 (TL-22-04 FR a)</p> <p>Connection and disconnection to the OVC database: May 2022 OVC Database Training</p>	Q3
<p>Saisir l'identification d'un ménage : Formation BD-OEV, May 2022 (TL-22-04 FR b)</p> <p>Enter the household ID: May 2022 OVC Database Training</p>	Q3
<p>Recherche d'un membre ou d'un ménage : Formation BD-OEV, May 2022 (TL-22-04 FR c)</p> <p>Search for a member or a household: May 2022 OVC Database Training</p>	Q3
<p>Saisir l'évaluation du ménage : Formation BD-OEV, May 2022 (TL-22-04 FR d)</p> <p>Enter household assessment: May 2022 OVC Database Training</p>	Q3
<p>Saisir l'évaluation du bénéficiaire : Formation BD-OEV, May 2022 (TL-22-04 FR e)</p> <p>Enter the beneficiary's evaluation: May 2022 OVC Database Training</p>	Q3
<p>Saisir les activités de soutien, le suivi nutritionnel, le suivi scolaire : Formation BD-OEV, May 2022 (TL-22-04 FR f)</p> <p>Enter support activities, nutritional monitoring, school monitoring: May 2022 OVC Database Training</p>	Q3
<p>Saisir les références et contre-références : Formation BD-OEV, May 2022 (TL-22-04 FR g)</p> <p>Enter references and counter-references: May 2022 OVC Database Training</p>	Q3

Data.FI Products continued

Final Product	Publication Date by Quarter
Saisir la graduation : Formation BD-OEV, May 2022 (TL-22-04 FR h) Enter graduation: May 2022 OVC Database Training	Q3
Saisir le devenir du ménage : Formation BD-OEV, May 2022 (TL-22-04 FR i) Enter the future of the household: May 2022 OVC Database Training	Q3
Gestion des doublons : Formation BD-OEV, May 2022 (TL-22-04 FR j) Management of duplicates: May 2022 OVC Database Training	Q3
Analyse des données : utilisation du tableau de bord : Formation BD-OEV, May 2022 (TL-22-04 FR k) Data analysis: use of dashboards: May 2022 OVC Database Training	Q3
Analyse des données : génération du rapport OEV : Formation BD-OEV, May 2022 (TL-22-04 FR l) Data analysis: OVC report generation: May 2022 OVC Database Training	Q3
Analyse des données : génération et utilisation des listings : Formation BD-OEV, May 2022 (TL-22-04 FR m) Data analysis: generation and use of listings: May 2022 OVC Database Training	Q3
Formation sur le module de migration des données OEV et DREAMS: Rapport de l'atelier de mars 2022 (TR-22-11 FR) OVC and DREAMS Data Migration Module Training: March 2022 Workshop Report	Q4
Manuel d'utilisateur du module de migration des données DREAMS (TL-22-42 FR) DREAMS Data Migration Module User Manual	Q4
Formation paramétrage des rapports dans les bases de données OEV/DREAMS (PPT-22-67 FR) Training on setting up reports in the OEV/DREAMS databases	Q4
Formation au paramétrage des rapports dans les bases de données OEV/DREAMS: Paramétrage des indicateurs et listing (PPT-22-68 FR) Training on the configuration of reports in the OVC/DREAMS databases: Configuration of indicators and listing	Q4
Rapport des tests de validation des fonctionnalités du module de migration des données DREAMS (TL-22-26 FR) Rapport des tests de validation de fonctionnalités du model de migration des donnees	Q4
Déploiement de la base de données OEV/DREAMS en Côte d'Ivoire: Rapport final (TR-22-13 FR) Deployment of OVC/DREAMS databases in Côte d'Ivoire: Final report	Q4
Manuel d'utilisateur de la base de données OEV (TL-21-11 FR) OVC Database User Manual	Q4

Data.FI Products continued

Final Product	Publication Date by Quarter
COVID-19	
Vaccination contre la COVID-19 en Côte d'Ivoire : analyse des systèmes et outils existants d'allocation des vaccins et de visualisation des données (TR-22-53 FR) Vaccination against COVID-19 in Côte d'Ivoire: analysis of existing systems and tools for vaccine allocation and data visualization	Q1
Manuel de l'utilisateur relatif à la vaccination contre la COVID-19 dans DHIS2 (TL-22-35 FR) DHIS2 COVID-19 Vaccination User Manual	Q3
Résultats de l'enquête sur la réticence à la vaccination en Côte d'Ivoire: Résultats préliminaires (PPT-22-43 FR) Côte d'Ivoire Vaccine Hesitancy Survey: Preliminary Results (PPT-22-43)	Q4
Configuration du module PEVCOVID dans DHIS2 en Côte d'Ivoire (TL-22-10 FR) Configuration of the PEVCOVID module in DHIS2 in Côte d'Ivoire	Q4
Manuel du formateur relatif à la vaccination contre la COVID-19 dans DHIS2 (TL-22-36 FR) Trainer's manual for COVID-19 vaccination in DHIS2	Q4
La gestion des données de vaccination contre la COVID-19 dans le DHIS2: Guide de procédures (TL-22-37) Managing COVID-19 Vaccination Data in DHIS 2: Procedure Guide	Q4
Eswatini (HIV)	
Data Access and Security Standard Operating Procedure for Client Management Information System Data (TL-22-47)	Q4
Eswatini Client Management Information System Dashboard: User Guide (TL-22-44)	Q4
CMIS Dashboard Training of Trainers (PPT-22-75)	Q4
Eswatini Client Management Information System (CMIS) and CMIS Reporting & Analytics Platform Monitoring Plan (TR-22-113)	Q4
Security Risk Assessment of the Client Management Information System in Eswatini (TR-22-120)	Q4
Updated CMIS technical documentation	Q4
CMIS work breakdown structure	Q4
Functional development instance	Q4
Functional testing instance	Q4
CMIS technical documentation repository	Q4

Data.FI Products continued

Final Product	Publication Date by Quarter
Guatemala	
COVID-19	
Improved IS functionality approved by the Steering Committee and implemented by SIGSA: (1) Propuesta Técnica Censo Hospitalario, (2) Propuesta Técnica Go.DATA, (3) Propuesta Técnica SICOVID, (4) Propuesta Técnica EPIWEB	Q4
Improved IS functionality approved by the Steering Committee and implemented by SIGSA: (1) Hospital Census Technical Proposal, (2) Go.DATA Technical Proposal, (3) SICOVID Technical Proposal, (4) EPIWEB Technical Proposal)	
Comunicación de los objetivos de las pruebas municipales del COVID-19 para la vigilancia esencial en Huehuetenango, Guatemala (DUC-22-43 SP)	Q4
Communication of the objectives of the municipal tests of COVID-19 for essential surveillance in Huehuetenango, Guatemala (DUC-22-43)	
Fortalecimiento de datos oportunos y de calidad para COVID-19 logística y acceso (DUC-22-32 SP)	Q4
Strengthening timely and quality data for COVID-19 logistics and access (DUC-22-32)	
Función del rastreador de contactos para el COVID-19 ampliados para aumentar la prestación de servicios de salud en El Progreso (DUC-22-45 SP)	Q4
Contact tracer functions for COVID-19 expanded to increase the provision of health services in El Progreso (DUC-22-45)	
Una nueva estrategia para la administración de la vacuna contra el COVID-19: Reestructuración organizacional por territorio en El Progreso, Guatemala (DUC-22-44 SP)	Q4
A new strategy for the administration of the vaccine against COVID-19: organizational restructuring by territory in El Progreso, Guatemala (DUC-22-44)	
Priorización municipal para aumentar la administración de la vacuna contra el COVID-19 en Quetzaltenango (DUC-22-07 SP)	Q4
Municipal prioritization to increase the administration of COVID-19 vaccines in Quetzaltenango (DUC-22-07)	
Guatemala salas situacionales para promover el acceso descentralizado a los datos y su uso en Quetzaltenango (DUC-22-08 SP)	Q4
Guatemala situation rooms to promote decentralized access to data and its use in Quetzaltenango (DUC-22-08)	
Estrategia de uso de datos para acelerar la respuesta y vacunación contra el COVID-19 en Guatemala (TR-22-44 SP)	Q4
Strategy for the use of data to accelerate the response and vaccination against COVID-19 in Guatemala (TR-22-44)	

Data.FI Products continued

Final Product	Publication Date by Quarter
Honduras	
COVID-19	
<p>Estrategia de uso de datos para acelerar la respuesta y vacunación contra el COVID-19 en Honduras (TR-22-36 SP)</p> <p>Strategy for the use of data to accelerate the response and vaccination against COVID-19 in Honduras</p>	Q4
<p>Presentación de resultados del diagnóstico de la calidad de datos COVID-19: Región Sanitaria Metropolitana de San Pedro Sula (PPT-22-105 SP)</p> <p>Presentation of the results of the COVID-19 data quality assessment: Metropolitan Health Region of San Pedro Sula</p>	Q3
<p>Presentación de Resultados del Diagnóstico de la Calidad de Datos COVID-19: Región Sanitaria Metropolitana del Distrito Central (PPT-22-77 SP)</p> <p>Presentation of the results of the COVID-19 data quality assessment: Metropolitan Region of the Central District</p>	Q3
<p>Manual de usuario para el ingreso de Insumos de Laboratorio en SIMM-COVID (TL-22-29 SP)</p> <p>User Manual for the Entry of Laboratory Supplies in SIMM-COVID</p>	Q4
<p>Integración del tamizaje y la atención al COVID-19 en los establecimientos de salud de la región sanitaria metropolitana de San Pedro Sula en Honduras (DUC-22-36 SP)</p> <p>Integration of screening and care for COVID-19 in health facilities in the Metropolitan Health Region of San Pedro Sula in Honduras</p>	Q4
<p>Acercando la atención del COVID-19 a la población de la Región Sanitaria Metropolitana del Distrito Central (DUC-22-37 SP)</p> <p>Bringing COVID-19 care closer to the population of the Metropolitan Health Region of the Central District</p>	Q4
<p>Fortaleciendo capacidades del personal de salud para una respuesta integrada al COVID-19 en la Región Metropolitana del Distrito Central (DUC-22-38 SP)</p> <p>Strengthening the capacities of health personnel for an integrated response to COVID-19 in the Metropolitan Region of the Central District</p>	Q4
<p>Registrando las pruebas de antígeno para el COVID-19 en la Región Metropolitana del Distrito Central (DUC-22-46 SP)</p> <p>Registering the antigen tests for COVID-19 in the Metropolitan Region of the Central District</p>	Q4
<p>Herramienta de seguimiento de la existencia y distribución de pruebas de antígeno en los centros COVID-19 de la región metropolitana de San Pedro Sula (DUC-22-51 SP)</p> <p>Tool for monitoring the existence and distribution of antigen tests in COVID-19 centers of the Metropolitan Region of San Pedro Sula</p>	Q4

Data.FI Products continued

Final Product	Publication Date by Quarter
Resumen trimestral del Grupo Asesor Estratégico en vacunación contra el COVID-19 en Honduras (DUC-22-48 SP) Quarterly summary of the Strategic Advisory Group on COVID-19 vaccination in Honduras	Q4
Plan de Integración de la Cooperación: Vacunación contra el COVID-19 en Honduras (TR-22-108 SP) Cooperation Integration Plan: COVID-19 Vaccination in Honduras	Q4
Mozambique	
HIV	
Machine Learned Risk of Interruption in Treatment Among Antiretroviral Treatment Clients in Mozambique: Report on the Development and Deployment of a Module to OpenMRS (includes deployment plan for sites) (TR-22-57)	Q2
Machine Learned Risk of Interruption in Treatment Among Antiretroviral Treatment Clients in Mozambique: OpenMRS Module Performance (TR-22-131)	Q4
Data.FI Training on Use of Interruption in Treatment Module Risk Scores	Q2
Mozambique Interruption in Treatment Model Deployment Study: Preliminary Findings (PPT-22-133)	Q4
Assessment of the Application of an Interruption in Antiretroviral Treatment Machine Learning Model in Sofala Province, Mozambique (TR-22-119)	Q4
Machine Learning to Predict Interruption in Treatment: Data.FI application in Mozambique	Q4
Data Portal	Q2
Enhanced Extract, Transform, Load (ETL) Tool	Q4
PNC ITS-HIV/SIDA Extract, Transform, Load (ETL) Data Model (TL-22-48)	Q4
Data.FI Mozambique Analytics (PPT-22-103)	Q4
National HIV/AIDS Program (PNC ITS-HIV/SIDA) Extract, Transform, and Load Tool: User Guide (TL-22-13)	Q4
Mozambique PNC ITS- HIV/SIDA ETL Tool Moz-ET: Sensitization Workshop, 8 e 9 Setembro (PPT-22-100 PT)	Q4
Nigeria	
COVID-19	
COVID-19 Baseline Emergency Operation Center Assessment Report (TR-22-45)	Q1
HIV	
Data Quality Assessment in Nigeria, Fiscal Year 2021, Quarter 4: USAID Nigeria Implementing Partners (TR-22-28)	Q2
Identifying High-Risk Groups to Improve HIV Case Finding in Nigeria (IP-22-02)	Q2
READY Application	Q4

Data.FI Products continued

Final Product	Publication Date by Quarter
LAFIYA Management Information System: Pilot Testing Report	Q4
National OVC Management Information System Deployment Testing Report (TR-22-30)	Q3
Data.FI Nigeria Technical Assistance on Health Informatics: Report (TR-22-52)	Q4
Increasing Orphans and Vulnerable Children Enrollment in USAID-Supported States (DUC-22-50)	Q4
Distal and proximal factors associated with uncollected samples among HIV patients eligible for viral load testing in Nigeria	Q4
Improving HIV Testing for Children in Akwa Ibom State, Nigeria (DUC-22-18)	Q4
Improving the Uptake of Antiretroviral Therapy Among Children in Akwa Ibom State, Nigeria (DUC-22-31)	Q4
Patient Tracking: A Strategy to Improve Quality of Care among HIV Clients Who Interrupted Treatment in USAID-Supported States in Nigeria (DUC-22-12)	Q2
Accelerating HIV Case Identification among Pediatric and Adolescent Clients in USAID-Supported States in Nigeria (DUC-22-03)	Q2
Improving the Coverage of HIV Recency Testing among ART-Naïve Key Population Groups Living with HIV in Nigeria (DUC-22-16)	Q3
A Review of the Services Provided to Key Populations Living with HIV across USAID-Supported Projects in Nigeria (IP-22-03)	Q3
APPR version 3.0 web-based dashboards	Q4
Site Improvement through Monitoring Systems Assessment: Feedback Report for Heartland Alliance Nigeria's Accelerating Control of the HIV Epidemic 6 Project in Lagos States (TR-22-126)	Q4
Site Improvement through Monitoring Systems Assessment: Feedback Report for Heartland Alliance Nigeria's Key Populations Community HIV Services Action and Response 1 Project in Lagos State (TR-22-127)	Q4
Site Improvement through Monitoring Systems Assessment: Feedback Report for Heartland Alliance Nigeria's Accelerating Control of the HIV Epidemic 6 Project in Edo State (TR-22-129)	Q4
Site Improvement through Monitoring Systems Assessment: Feedback Report for Georgetown Global Health Nigeria's Accelerating Control of the HIV Epidemic Project in Kano State (TR-22-128)	Q4
USAID Nigeria Data Portal User Manual for the HIV and Tuberculosis Comprehensive Access and Review Dashboard (HATCARD) (TL-21-24)	Q4
National OVC Management Information System (NOMIS) User Guide: Version 3.0 (TL-22-30)	Q4
National OVC Management Information System (NOMIS) Training of Trainers Handbook (TL-22-31)	Q4
National OVC Management Information System (NOMIS) Installation Guide: Version 3.0 (TL-22-32)	Q4
National OVC Management Information System (NOMIS) User Set-Up Guide: Version 3.0 (TL-22-33)	Q4

Data.FI Products continued

Final Product	Publication Date by Quarter
South Africa (HIV)	
South Africa CHISA Platform User's Guide (TL-22-38)	Q4
South Africa How to Use CHISA to Make Public Health Decisions (TL-22-39)	Q4
CHISA User Training Guide (TL-22-17)	Q4
South Africa Knowledge Hub eLearning System: One-Year Comprehensive Budget (TR-22-33)	Q2
Data Demand and Use Framework: CHISA Platform (TR-22-87)	Q4
Assessment Report: The current two-way communication mechanism between CHISA owners and end-users (TR-22-88)	Q4
Standard Operating Procedures: Management of CHISA Updates and Changes (TR-22-89)	Q4
PEPFAR Monitoring, Evaluation, and Reporting on the Consolidated Health Information South Africa Platform (TR-22-90)	Q4
Forecasting HIV HTS and TX CURR Indicators: A Model Card for the CHISA platform (TR-22-92)	Q4
Tanzania (HIV & Health)	
Strengthening the Linkage of Women with Positive Urine Pregnancy Tests from the Lab to Antenatal Care in Kinondoni Municipal Council (DUC-22-29)	Q4
Increasing Demand for Early Antenatal Care Bookings through Community Health Worker Education Sessions in Temeke Municipal Council (DUC-22-30)	Q4
West Africa Region (HIV)	
Rapid Assessment of Data Quality and Data Use of PEPFAR Implementing Partners in the West Africa Region (TR-22-56)	Q2
West Africa Region Data Quality Community of Practice Training Package (PPT-22-64)	Q4
Zimbabwe (HIV)	
Configuration of the Orphans and Vulnerable Children Management Information System in Zimbabwe: Summary of Year 1 Implementation Activities (TR-22-111)	Q4
Zimbabwe OVC Management Information System User Account Management (TL-22-28)	Q4

Annex 4. Environmental Compliance

Data.FI received a categorical exclusion per 22 CFR 216.2(c)(2) as documented in the IEE. This categorical exclusion references the following program description:

Translating Data for Implementation (Data.FI): Finding innovative ways to apply data rapidly for implementation; Finding innovative ways to utilize secondary and relational data analysis for implementation; Finding ways to align data with national systems; Data presentation; Data validation; Data use for showing where USAID should continue, change, and publish successes; Data use for trends and prediction of maintenance needs; Use and presentation of data and data analyses innovation in current systems, not currently utilized; Data translation and presentation for Ministry of Health and IPs; Data use for rapid scale-up; Support of DQAs; and Use of SIMS data for immediate corrective action and applied innovation.

Pursuant to section A.15 of the Cooperative Agreement, when developing the Annual Work Plan and MEL plan, as well as during implementation, Palladium reviewed all ongoing and planned core and country-level activities under this Cooperative Agreement and confirmed them to be within the scope of the approved Regulation 216 environmental documentation.

Annex 5. FY23 Plans

Catalyzing Innovation to Find Breakthrough Solutions

Data.FI is working to create and source novel solutions and forge new strategic partnerships to address the challenges that impede countries from meeting their health goals. Planned activities in the next reporting period include:

- Data.FI/Nigeria will optimize the Refining Evidence and Assumptions to Drive Yearly (READY) application to automate the COP22 / FY23 targets setting. This will enable users to set parameters and generate targets for age/sex disaggregation of indicators at site, Local Government Area (LGA), state, IP, and national levels. Also in Nigeria, we will develop an HIV testing risk scoring model.
- Data.FI will assess the Eswatini client management information system (eCMIS) for benchmarking with global digital maturity model indicators.
- In Burkina Faso and Honduras, Data.FI will develop customized vaccine allocation tools.
- Data.FI, through partner Premise Data, will launch vaccine hesitancy surveys in four countries (Tanzania, Ghana, South Africa, and the Democratic Republic of the Congo).

Accelerating Data Analysis and Use

Data.FI will continue to improve systems, analytic platforms, and data sources, employing change management processes that institutionalize data use to support USAID, IPs, and local governments to derive insights from data on a range of HIV and COVID-19 services. Planned activities in the next reporting period include:

- Data.FI/Nigeria will continue optimizing the USAID HIV and TB Comprehensive Access Review Dashboard (HAT CARD), which serves as a one-stop-shop analytics platform integrating data from disparate sources while utilizing multiple business intelligence tools to provide comprehensive insights for different program areas (HIV, PMTCT, OVC, GBV, TB, COVID-19) to aid decision making by USAID, IPs, and relevant stakeholders.
- Data.FI/Nigeria will enhance the Automated Partner Performance Reporting (APPR) platform by integrating a line-lister application to support patient-level analytics and visualization for key performance indicators across the HIV clinical cascade.
- Data.FI is expanding the use of its performance-oriented data review methodology in situation rooms in multiple countries. In Panama and El Salvador, Data.FI is implementing situation rooms and will onboard staff, re-invigorate national working groups, orient stakeholders to participatory quality improvement tools for use at the national level, and begin enhanced data review for HIV. In Burkina Faso, we will establish situation rooms (called National Data Review Groups) to accelerate COVID-19 vaccine data use.
- In Eswatini, Data.FI will launch the eCMIS reporting platform.

Optimizing and Scaling Health Information Systems and Digital Solutions

Data.FI optimizes information systems to improve client care at the site level, inform resource allocation at the planning level, and generate data for epidemic and program performance monitoring. Planned activities in the next reporting period include:

- In Nigeria, Data.FI will deploy and scale out the National OVC Management Information System (NOMIS) in community units across all the states. We will also support the migration and deployment of LAMISPlus across

HIV care and treatment facilities in USAID-supported states while integrating with national platforms, i.e., the National Data Repository (NDR) and the Logistics Information Management System (LIMS).

- Data.FI is supporting the development of a new vaccination register in Honduras.
- Data.FI/Eswatini will scale up a biometric solution for the eCMIS. We will also scale up the eCMIS to cover the remaining ART sites.
- Data.FI/Tanzania will facilitate a national “lessons learned” forum to share the impact of situation rooms and discuss scale-up opportunities with the Government of Tanzania, USG, and IPs.
- Data.FI will develop a national HIS roadmap for the Government of Botswana for data integration and use.

Applying Strategic Information and Learning

Data.FI supports USAID and partner governments to rapidly collect and use non-routine data for targeted strategic needs in their health response. Planned activities in the next reporting period include:

- We are supporting USAID across the collaborating, learning, and adapting cycle to answer key learning questions on USAID’s investments in digital health during the COVID-19 response.
- In Guatemala, Data.FI is assessing and measuring the impact of COVID-19 on HIV and other health programs.
- In Eswatini, Data.FI will assess the impact of the six-month dispensing model for ART, applying trends analysis to data captured in the eCMIS to inform revisions of the national HIV guidelines.

Strengthening Local Partners and Ecosystem Governance

Data.FI will continue to work closely with local stakeholders to build and maintain systems that interface well within the existing ecosystem. We do this by gathering requirements and collaborating closely with partners to improve business processes, and to support data sharing and interoperability across existing and emerging platforms. Data.FI is supporting localization by strengthening government stewardship of HIS through governance support and training. Planned activities in the next reporting period include:

- Data.FI will work with the Federal Ministry of Health in Nigeria to strengthen the HIS TWG to oversee the scale-up of LAMISPlus across USAID-supported states. We will also continue engaging the Federal Ministry of Women Affairs to strengthen the OVC ICT Task Team for the oversight and sustainability of NOMIS.
- In Eswatini, Data.FI is coordinating the establishment of an Eswatini Health Data Collaborative to bring HIS stakeholders together for more efficient investments and ensure better coordinated response to all HIS needs in line with the HIS national strategy.
- In Tanzania, Data.FI is empowering the Technical Advisory Group (TAG) in effectively selecting priority health indicators for visualization in their respective priority areas.
- In Zimbabwe, Data.FI will train local system administrators, IPs, and users in the management of the Zimbabwe OVC MIS, with the goal of transitioning the system to local IPs.
- Data.FI/South Africa is working with the National Department of Health (NDOH) to transition the Knowledge Hub to the NDOH/HRD unit along with the governance and transition package for long-term sustained access and use.

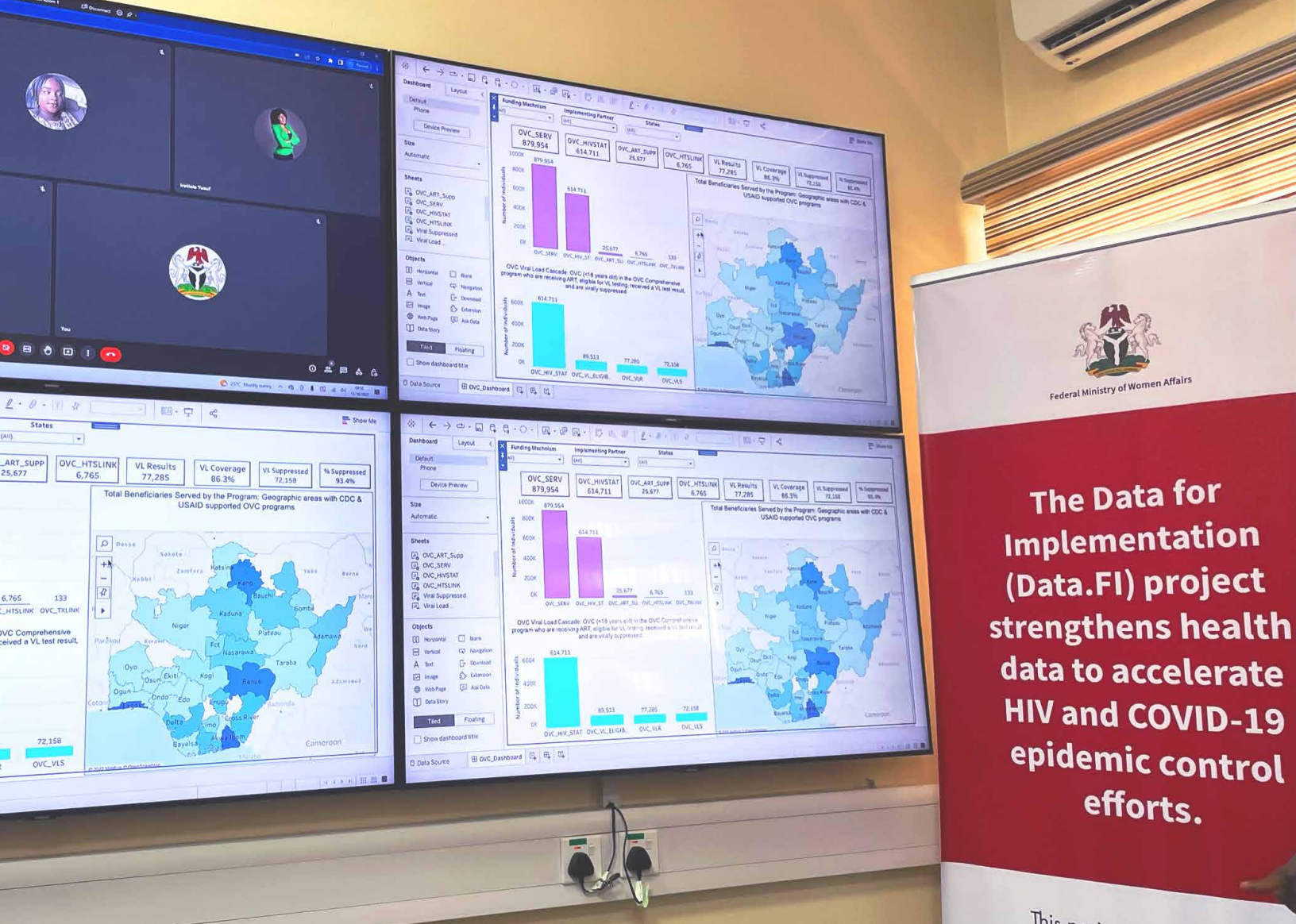


Photo of technology-enabled dashboards used to review data for performance on key indicators in situation rooms in Nigeria. Photo by Data.FI/Nigeria.

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FOR MORE INFORMATION

<https://datafi.thepalladiumgroup.com/>

Brian Bingham, Data.FI AOR
data.fi@usaid.gov

Jenifer Chapman, Project Director
datafiproject@thepalladiumgroup.com