



Epidemic Control Rooms

The HIV Epidemic Control Room is a technology-enabled approach that supports decision makers to analyze data in real time for continuous program improvement supported by change management practices.

THE OPPORTUNITY

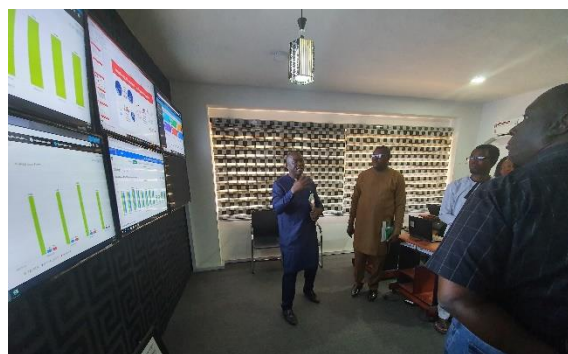
Despite large investments in the collection and management of HIV data, information is not used routinely to understand program performance and inefficiencies. Challenges in the routine use of data include the inability to synthesize them across multiple information systems, a lack of access to real-time data analyses and visualizations, and poor accountability mechanisms to track the implementation of prioritized actions. A structured mechanism for regular and rapid review of data can help programs quickly identify HIV cascade inefficiencies; understand reasons for under-performance; and course-correct service delivery to improve HIV outcomes.

THE DATA.FI SOLUTION

Data.FI works with USAID Missions and host country governments to establish **Epidemic Control Rooms (ECRs)**, also referred to as situation rooms. ECRs allow decision makers to access data across disparate sources in one place so the data can be analyzed in real time for HIV surveillance and response. The Data.FI approach to ECRs is grounded in three principles:

Technology-enabled: We build technology-enabled data analytics and visualization platforms that integrate or triangulate data from multiple sources, including electronic medical records (EMRs), laboratories, pharmacies, census data, and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) monitoring, evaluation, and reporting (MER) indicator data. Depending on information system maturity and resources, Data.FI can support countries to improve data management, analysis, and visualization by:

- Developing or strengthening data systems to optimize data collection and management
- Building data integration layers and central data warehouses to pool data from different sources
- Creating customizable, interactive dashboards to drill down indicators by time, geography, and implementing partner (IP) to inform program action



Standardized Methods: We build the capacity of subnational health management teams, ministry officials, and IPs to adopt a proven method and institutionalize data review for strategic planning and

program improvement. This approach includes processes for identifying critical information needs; asking the right questions to better interpret data; developing standard visualizations to facilitate problem identification; analyzing root causes of performance issues; and strengthening multidirectional feedback mechanisms among various levels of the health system.

Rapid Course Correction: We work with governments to convene regular data review meetings in ECRs, allowing groups of service providers, community service managers, IP staff, and decision makers from subnational and national health teams to closely monitor HIV data in real time. They convene in ECRs, in-person or virtually, to identify gaps and identify and triage solutions across sites and regions. Data.FI operationalizes performance tracking and accountability tools to follow up on action plans, monitor performance improvements, and improve transparency— enabling continuous feedback and learning as a catalyst for ongoing program adaptation.

WHAT IS THE IMPACT?

Data.FI and partners are improving clinical outcomes across the HIV treatment and care cascade. For example, the project is implementing an ECR data review approach in Akwa Ibom State, Nigeria (called “situation rooms” locally). These data review meetings are convened by the State Ministry of Health (SMOH) and the Akwa Ibom State Agency for the Control of AIDS, with attendance by U.S. Agency for International Development (USAID) IPs. Stakeholders look at the same data in real time. The collaborative environment for discussion during the data review process allows stakeholders to engage weekly with high-frequency reporting data to identify and act on performance gaps and data quality issues. In the face of the COVID-19 pandemic, Data.FI pivoted to hold the situation room meetings virtually to minimize the risk of exposure while continuing to look at the data in real time, analyze visualizations, and recommend actions for change.

The regular review of data in the situation rooms has contributed to improved HIV testing yield, prevention, continuity of treatment, and viral load testing in Akwa Ibom State.

Figure 1. HIV tests, positive results, and resting yield: Ukana Cottage Hospital, September 16–November 25, 2019



- *Prevention:* The average percentage of initiation of pre-exposure prophylaxis (PrEP) increased from 13 percent to 112 percent of the annual target.
- *Continuity of Treatment:* Our analyses revealed that 44 facilities had program losses, with a total of 11,564 persons assumed to have interruption in treatment. Post ECR intervention, 84 percent (9,703) of clients were tracked back to care.
- *Viral Load (VL) Testing:* Post ECR intervention, the average percentage of eligible patients with documented VL testing results increased from 44 percent to 70 percent.

PUTTING THE SOLUTION INTO ACTION

The scale and scope of Data.FI's ECR solution can be adapted for specific country needs, priorities, and digital maturity. ECRs can be implemented at subnational and national levels and require regular participation and the buy-in of stakeholders, such as country PEPFAR teams, IPs, and Ministry of Health staff. The frequency of review and real-time availability of data will depend on data capture and management systems in each country. Data.FI will work with teams to ensure compliance with appropriate processes to access data for routine review.

Data.FI can support implementation of the solution through:

- Optimizing access to data through development of standard operating procedures or improving information systems
- Design and development of data analysis and visualization products
- Capacity strengthening to adapt the ECR method and to train health teams in data analysis, visualization, interpretation, and use; and ongoing mentoring of teams to build leadership and facilitate change
- Equipment to outfit the ECR and infrastructure for internet connectivity and teleconferencing solutions

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