Analytics & Visualization:
Turning Data into Actionable Information

FHI 360

***ANALYTICS &
VISUALIZATION***

*Processing routine data
flows to produce easily
interpretable metrics
for monitoring program
performance and planning.*

**ROUTINE EFFICIENCY
MONITORING SYSTEM (REMS)**

This relational database and data visualization interface was **designed and built in partnership** with the Zambia Ministry of Health to leverage the existing DHIS2 and IFMIS data systems.

As the availability and quality of data systems improve across developing countries, the ability to process and make sense of the data that is flowing through these systems takes on increasing importance. What was once an information vacuum has the potential to become an information avalanche. The FHI 360 Digital Solutions team is poised to assist our programs, in-country partners, funders and stakeholders interpret data to monitor performance and assist in planning for continued success.
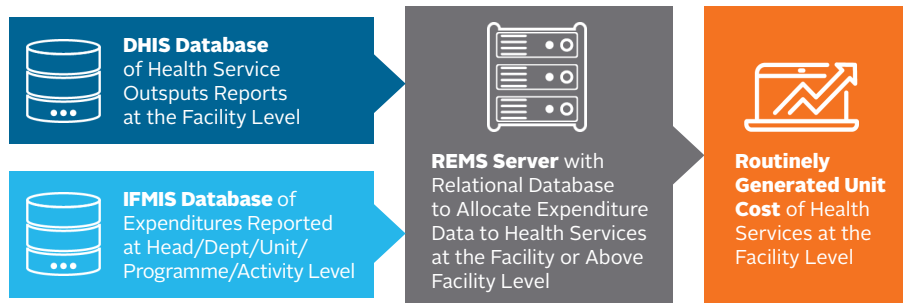
LEVERAGING EXISTING DATA FLOWS

Rather than always building stand-alone siloed data systems, FHI 360 Digital Solutions looks for opportunities to build upon existing data systems and enhance their ability to produce easily interpretable performance metrics to assist in program monitoring.

An example of this is our Routine Efficiency Monitoring System (REMS) in Zambia.[1] This relational database and data visualization interface was designed and built in partnership with the Zambia Ministry of Health to leverage the existing DHIS2 data system which tracks health service delivery at the point of care, and the IFMIS financial management system which reports on expenditures against the chart of accounts used in the budgeting and planning process. These data reside in separate silos and there was no means to combine the information on a routine basis. This meant that the program managers had no way to monitor the efficiency of service provision and the planning department had a limited ability to plan for the deployment of scarce resources (especially labor) across the country.

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THE SCIENCE OF IMPROVING LIVES

1 To learn more about REMS go to: **http://REMS.fhi360.org**

By positioning REMS to receive data from the existing systems, we enhanced the value of those prior investments and provided a platform for future integration of other eHealth systems such as logistics (LMIS) and the human resource (HRMIS) currently under development. This flexibility allows REMS to be transferable across different countries and different data systems and is a good example of FHI 360's Ecosystem Approach to ICT4D. The backend user-interface allows the user to build charts displaying unit or total cost for specific services across multiple facilities or time periods and provides detail on size of catchment population and volume of services provided for the same facilities/time periods. These efficiency performance metrics facilitate the identification of outliers and help the district management team target their support to facilities.

DHIS Database of Health Service Outsputs Reports at the Facility Level

IFMIS Database of Expenditures Reported at Head/Dept/Unit/Programme/Activity Level

REMS Server with Relational Database to Allocate Expenditure Data to Health Services at the Facility or Above Facility Level

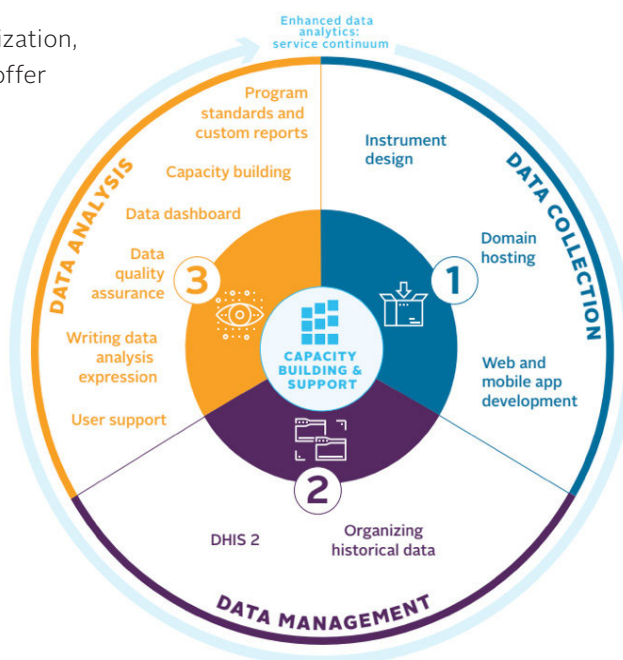**Routinely Generated Unit Cost** of Health Services at the Facility Level

ENHANCED DATA ANALYTICS FOR PROGRAMS

For new or stand-alone programs, FHI 360's Digital Solutions team can leverage a deep and broad technical capacity to help you build a full-service program monitoring platform service that covers everything you need to make data informed decisions and report out to your funders and stakeholders.

The service continuum ranges from data collection, data management and data analytics and thereby covers the typical program lifecycle. By leveraging staff across the organization, we are able to bring the requisite skills to the task at the time they are needed and tailor our support to best meet your program needs.

In terms of analytics and visualization, FHI 360 Digital Solutions can offer assistance with:

- Structuring the data for analysis
- Data quality assurance/audits
- Advanced visualization and dashboard building in DHIS 2 or Power BI
- Training of M&E staff in report writing and data interpretation

Enhanced data analytics: service continuum

DATA ANALYSIS
Program standards and custom reports
Capacity building
Data dashboard
Data quality assurance
Writing data analysis expression
User support

DATA COLLECTION
Instrument design
Domain hosting
Web and mobile app development

DATA MANAGEMENT
DHIS 2
Organizing historical data

CAPACITY BUILDING & SUPPORT

3   **1**   **2**

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