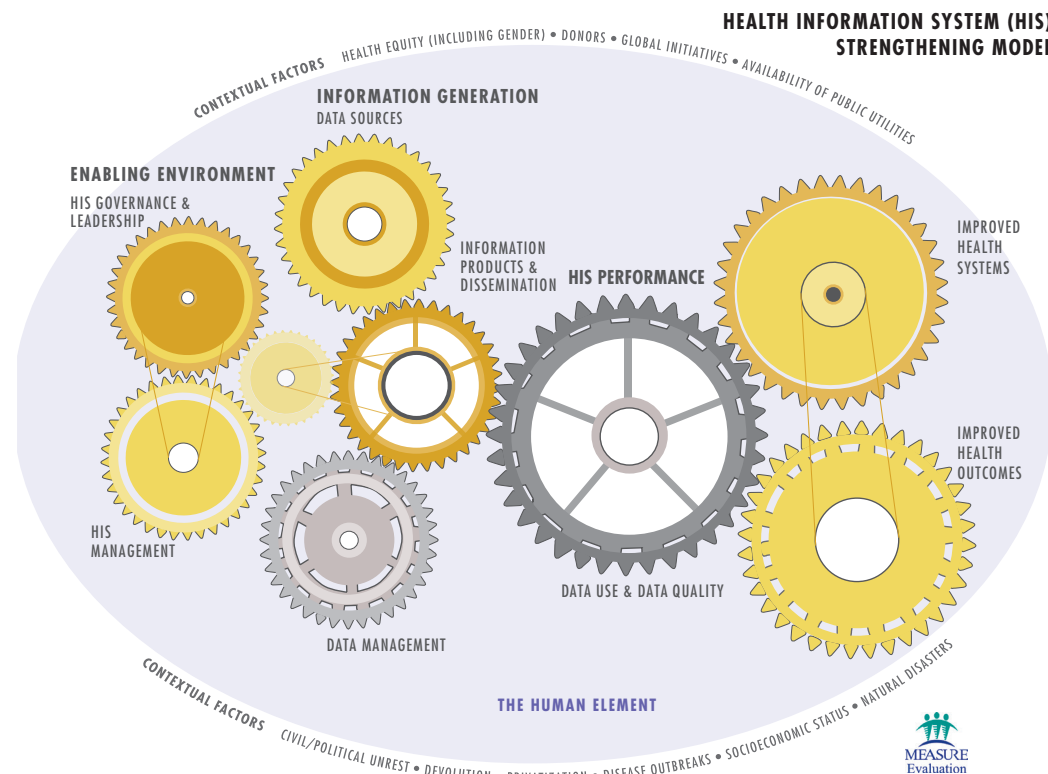# Strengthening Health Information Systems in Guinea

MEASURE Evaluation, funded by the United States Agency for International Development, worked with the Guinea Ministry of Health and Public Hygiene (MOH) from 2015–2018 to update its previously siloed and donor-driven health information collection to a more streamlined system using the electronic DHIS 2 platform. Our work strengthened elements of the health information system (HIS) identified in MEASURE Evaluation's Health Information System Strengthening Model (HISSM), shown here.

For example, to build an enabling environment for a strong health information system (HIS)—one of the HISSM's areas—MEASURE Evaluation supported stakeholder coordination to establish a national HIS technical working group (TWG) and develop strategic guidance. MEASURE Evaluation also helped develop capacity through training and infrastructure, facilitating setup of a local server to collect and manage data to support the transition to DHIS 2. To strengthen the system's capacity to generate information (another of the model's areas), MEASURE Evaluation helped pilot and roll out DHIS 2 in several regions across Guinea and supported the MOH's dissemination of routinely collected data in quarterly bulletins.

The graphic on the next page depicts MEASURE Evaluation activities in the model's "enabling environment" and "information generation" areas to integrate Guinea's health systems and improve access to
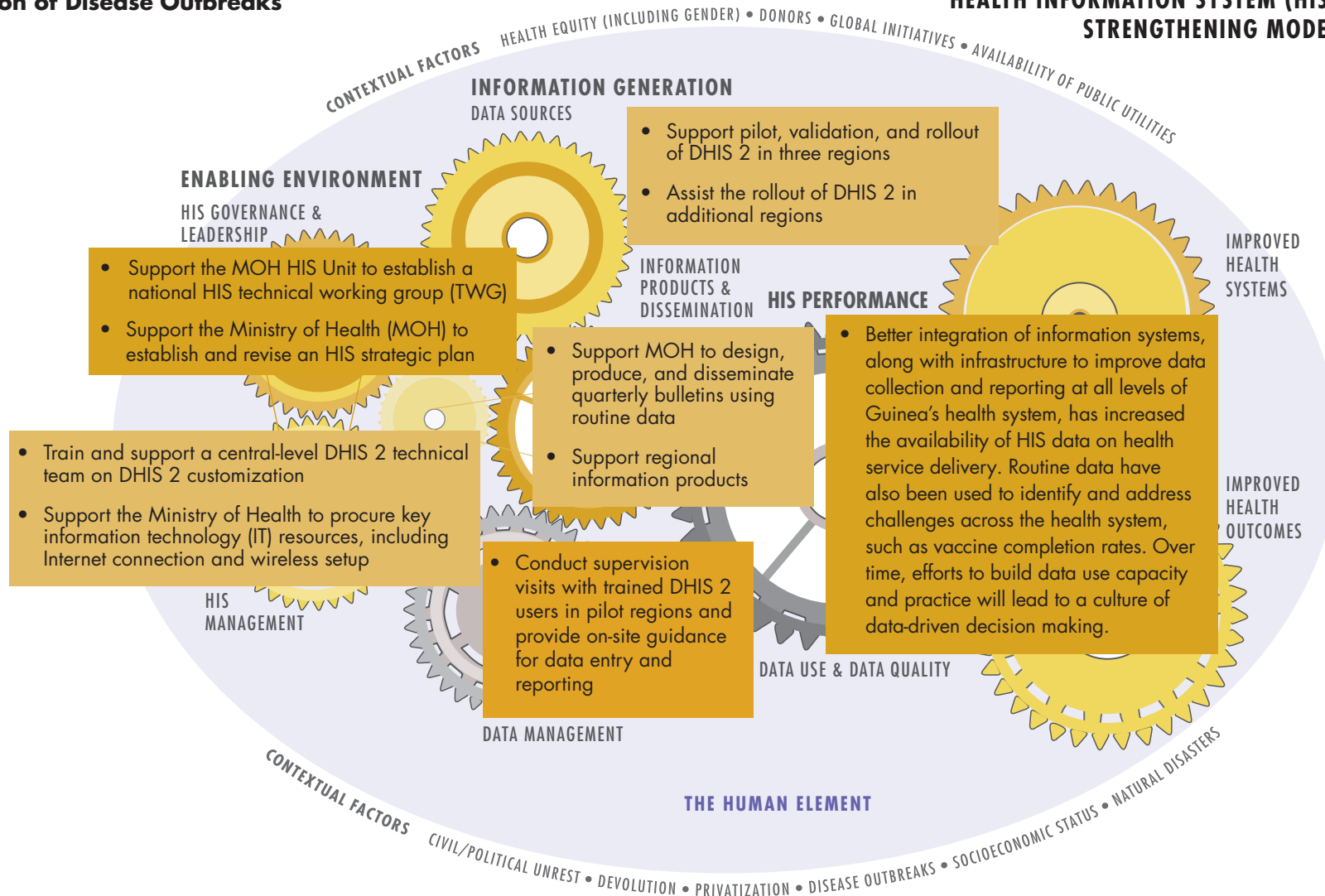

high-quality health data. By displaying interventions across the model, we see their strategic interaction, and how this combination of interventions strengthens data quality and data use at all levels of the health system. The table below the graphic lists additional MEASURE

Evaluation activities in Guinea that supported HIS strengthening. Because of these interventions, we saw improvements in the availability of routine health data and in the use of those data to improve service delivery.

**MEASURE Evaluation's Work to Support Better
Detection of Disease Outbreaks**

**HEALTH INFORMATION SYSTEM (HIS)
STRENGTHENING MODEL**

HEALTH EQUITY (INCLUDING GENDER) • DONORS • GLOBAL INITIATIVES • AVAILABILITY OF PUBLIC UTILITIES

CONTEXTUAL FACTORS

INFORMATION GENERATION
DATA SOURCES

- Support pilot, validation, and rollout of DHIS 2 in three regions
- Assist the rollout of DHIS 2 in additional regions

ENABLING ENVIRONMENT

HIS GOVERNANCE & LEADERSHIP

- Support the MOH HIS Unit to establish a national HIS technical working group (TWG)
- Support the Ministry of Health (MOH) to establish and revise an HIS strategic plan

INFORMATION PRODUCTS & DISSEMINATION

HIS PERFORMANCE

- Support MOH to design, produce, and disseminate quarterly bulletins using routine data
- Support regional information products

- Train and support a central-level DHIS 2 technical team on DHIS 2 customization
- Support the Ministry of Health to procure key information technology (IT) resources, including Internet connection and wireless setup

- Better integration of information systems, along with infrastructure to improve data collection and reporting at all levels of Guinea's health system, has increased the availability of HIS data on health service delivery. Routine data have also been used to identify and address challenges across the health system, such as vaccine completion rates. Over time, efforts to build data use capacity and practice will lead to a culture of data-driven decision making.

IMPROVED HEALTH SYSTEMS

IMPROVED HEALTH OUTCOMES

HIS MANAGEMENT

- Conduct supervision visits with trained DHIS 2 users in pilot regions and provide on-site guidance for data entry and reporting

DATA USE & DATA QUALITY

DATA MANAGEMENT

THE HUMAN ELEMENT

CONTEXTUAL FACTORS

CIVIL/POLITICAL UNREST • DEVOLUTION • PRIVATIZATION • DISEASE OUTBREAKS • SOCIOECONOMIC STATUS • NATURAL DISASTERS

MEASURE Evaluation's Other Health Information System Strengthening Work in Guinea

HISSM areas	HISSM subareas (gears)	Health information system strengthening activities			
		2015	2016	2017	2018
Enabling environment	HIS governance and leadership	• Convene HIS TWG to discuss HIS development, implementation, and management plans • Support the BSD director and the head of the HIS unit to attend a DHIS 2 training in Togo	• Facilitate technical working group meetings	• Revise the terms of reference for the technical working group • Advocate more leadership for the national level in management technical working group meetings	• Support ongoing participation in national HIS TWG • Train central-level health program area staff (malaria, tuberculosis, etc.) and regional-level health directorate staff on techniques to advocate funding to support strategic HIS priorities • Support midpoint review of strategic plan and priority setting
	HIS management	• Embed an IT/organizational development advisor to serve as a mentor for central-level HIS unit staff on leadership and organizational development	• Update health indicator catalogs • Support DHIS 2 pilot training of central trainers to facilitate cascade trainings for regional statistical officers • Conduct a rapid data demand and use assessment to identify specific capacity-building needs and organizational structures to support a culture of data-driven decision making • Develop the Strengthening Leadership for Data Demand and Use program • Develop costed DHIS 2 operational plan to complement HIS strategic plan	• Buy and install a local server to support connectivity • Develop a master facility list and health facility registry • Train central-level staff on updating and maintaining the health facility registry • Train central-level staff on programming to strengthen leadership for data demand and use • Support training by central-level staff of health teams from two pilot regions: Conakry and Kindia • Support international partners to implement training programs on leadership for data demand and use programs in additional regions • Develop standard operating procedures for indicator revision and software development and management	• Finalize master facility list and health facility registry and train central-level staff to maintain it • Support the development of national guidelines for managing information technology equipment and materials • Support discussions about the hosting, configuring, and maintenance of the DHIS 2 server • Support implementing partners to implement leadership for DDU program in other regions • Develop data review meeting guidelines and support MOH to lead central- and regional-level data review meetings • Disseminate data review guidelines to malaria focal points in all districts.

MEASURE Evaluation's Other Health Information System Strengthening Work in Guinea					
HISSM areas	**HISSM subareas (gears)**	**Health information system strengthening activities**			
		2015	2016	2017	2018
Enabling environment	**HIS management (continued)**				• Support MOH to customize malaria program indicators, data collection and data analysis tools, and reports • Support MOH to set up automated DHIS 2 statistical tables and charts • Train NMCP coordinators on DHIS 2
	Information products and dissemination				• Support MOH to finalize and disseminate first HMIS quarterly bulletin • Support MOH to customize malaria program dashboards
Information generation	**Data management**		• Support the MOH to develop, pilot, and finalize HIS supervision tools for HIS management	• Develop data management standard operating procedures, including data validation, IT maintenance, and disaster recovery • Train regional and prefectural statistics officers on the use of DHIS 2 • Train central and regional MOH staff on HIS supervision and data management tools, and support cascade trainings	• Support retrospective DHIS 2 data-entry workshops • Support a data reconciliation workshop to find inconsistencies between NMCP Excel-based malaria data and the national HIS/DHIS 2 • Develop primary data collection registers for immunizations and antenatal care services • Support DHIS 2 refresher trainings • Conduct supervision visits with DHIS 2 users/statistics officers • Conduct supervision visits with district-level malaria focal points to review completeness and accuracy of malaria data in the DHIS 2

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