

# Designing interventions for data demand and use (DDU)

**First, we need to understand the existing barriers to using data.**

**Q1. Do you want to assess data use as you assess routine health information system (RHIS) performance?**

**Your tool:**  
The Performance of RHIS Management

**Q2. Or do you want a stand-alone tool to find barriers to data use?**

**Your tool:**  
Assessing Barriers to DDU in the Health Sector

**We need to align information with upcoming decisions.**

**Q1. How do we engage stakeholders and learn about their needs?**

**Your tool:**  
Stakeholder Engagement Tool

**Q2. How do we identify information needed to inform decision making?**

**Your tool:**  
Framework for Linking Data with Action

**We need to make data more accessible, available, and easier to use.**

**Q1. How can we assess and address the need for data exchange among different systems?**

**Your tool:**  
Health Information Systems Interoperability Maturity Toolkit

**Q2. How can we design effective data communication products?**

**Your tool:**  
Information Products to Drive Decision Making: How to Promote the Use of Routine Data Throughout a Health System

**Q3. How can we visualize gaps, target programs, and improve health services?**

**Your tools:**

- Data Visualization That Works— Facilitating HIV Program Targeting: Case Examples and Considerations
- Cascade Data Use Manual: To Identify Gaps in HIV and Health Services for Programme Improvement
- Analysis and Use of Health Facility Data

**Q4. How can we strengthen multidirectional data feedback mechanisms?**

**Your tool:**  
Information Use Map

**Q5. How can we use geographic data to target health programs?**

**Your tool:**  
Using Geospatial Analysis to Inform Decision Making in Targeting Health Facility-Based Programs: A Guidance Document

**And we need to ensure that decision makers have confidence in our data.**

**Q1. How do we assess if data are of high quality?**

We have many strategies for data quality assessments. Select from our Menu of Tools for Data Quality Assessment and Review.

**Now that we have the data, let's build individual and organizational capacity to use them.**

**Q1. Do you want to build capacity in data analysis and use?**

**Your tools:**

- Data Demand and Use: Facilitator's Guide
- DHIS2 Functions and Data Use for Health Information System Strengthening
- Introduction to Basic Data Analysis and Interpretation for Health Programs

**Q2. Do you want to build capacity among leaders?**

**Your tool:**  
Building Leadership for Data Demand and Use

**We also need to strengthen organizations and processes for data use.**

**Q1. Do you need procedures and policies for sharing, reviewing, and using data?**

**Your tool:**  
Guidelines for data review meetings to assess and improve performance

**Q2. How can we provide supportive supervision for DDU?**

**Your tool:**  
Data Demand and Use Coaching Guide

**Once we are using data, how do we measure that?**

**Q1. How can we monitor the results of DDU interventions?**

**Your tool:**  
Conceptualizing and Measuring Data Use: A Review of Assessments and Tools

**Q2. How can we document DDU successes and share lessons?**

**Through case studies, fact sheets, and publications, such as Strengthening Data Demand and Use in Three African Countries: Lessons Learned from the Associate Awards in Kenya, South Africa, and Tanzania**

# Designing interventions for DDU

## First, we need to understand the existing barriers to using data.

### Q1 Do you want to assess data use as you assess RHIS performance?

**Your tool:** **Performance of Routine Information System Management (PRISM) Toolkit: PRISM Tools**  
<https://www.measureevaluation.org/resources/publications/it-18-12/>

**Intended users:** Can be used in a supervisory capacity by health information system (HIS) managers and adapted and applied at international, national, or subnational levels

**What:** Used to monitor data quality and evaluate RHIS performance over time and gauge the efficacy of designed interventions to improve the information system

**Investment:** Depending on assessment scope and sample size, may require several weeks to several months for desk and data review, sufficient sampling of health facilities, and interviews with relevant stakeholders

**Tool output:** Provides detailed spreadsheets with descriptive quantitative statistics, broken down by unit of analysis (district, province, etc.), for monitoring of trends in data quality and information use over time

### Q2 Or do you want a stand-alone tool to find barriers to data use?

**Your tool:** **Assessing Barriers to Data Demand and Use in the Health Sector: A Toolkit**  
<https://www.measureevaluation.org/resources/publications/ms-18-134>

**Intended users:** National, subnational, or program teams of data users and data producers

**What:** Uses standard group assessment, individual self-assessment, key informant interviews, and site visit checklists to assess organizational, behavioral, and technical barriers to data use and inform effective approaches to address them

**Investment:** The assessment tools are designed to be administered during an all-day training workshop, plus time for site visits.

**Tool output:** Results from the four tools should be synthesized to understand an organization's program decisions, decision-making process, and information needs; current data use practices, data sources and data management practices, access to quality data for decision making, and institutional support for data use, in order to develop recommendations and prioritized actions to improve data-informed decision making.

## We need to align information with upcoming decisions.

### Q1 How do we engage stakeholders to learn what they need?

**Your tool:** **Stakeholder Engagement Tool**  
<https://www.measureevaluation.org/resources/publications/ms-11-46-e>

**Intended users:** Program managers and directors; program management team members

**What:** Guidelines for identifying and engaging data users and data producers to improve data use initiatives by using guiding principles, suggested practices, and a matrix for recording information

**Investment:** A mix of implementation methods can be used to identify stakeholders and define roles, resources, and commitments. A one-day workshop can be used to convene stakeholders to review the results of initial stakeholder mapping and develop a stakeholder engagement plan.

**Tool output:** Stakeholder analysis matrix and stakeholder engagement plan

### Q2 How do we identify information needed to inform decision making?

**Your tool:** **Framework for Linking Data with Action**  
<https://www.measureevaluation.org/resources/publications/ms-11-46-b>

**Intended users:** Decision makers, data users (e.g., program managers) and data producers (monitoring and evaluation [M&E] and health management information system [HMIS] focal persons)

**What:** Identifies and strengthens the link between data and decision-making processes; facilitates data-informed decision making by identifying actions and decisions to be made, data required to inform decisions, and sources for these data

**Investment:** A one-day participatory workshop with key stakeholders can be embedded in regular data review mechanisms or within interventions to strengthen organizational capacity to use data. The framework should be updated continually and used as a management tool.

**Tool output:** The completed framework outlines decisions and actions to be taken, programmatic or policy questions of interest, indicators and data required to address the question, data sources, timelines for data analysis and decision making, and communication channels for data dissemination and feedback. The tool should be used to monitor progress toward data-informed decision making.

## We need to make data more accessible, available, and easier to use.

### Q1 How can we assess and address the need for data exchange among different systems?

**Your tool:** **Health Information Systems Interoperability Maturity Toolkit**  
<https://www.measureevaluation.org/resources/tools/health-information-systems-interoperability-toolkit>

**Intended users:** National and subnational MOH and HIS stakeholders (including implementing partners, NGOs, and donors)

**What:** The tool assesses a country's digital HIS landscape and its ability to exchange data across multiple information systems so that decision makers can access complete and timely data to make decisions efficiently and effectively. It assesses capacity, processes, and structures for key components critical to interoperability (leadership and governance, technology, and human resources) using a maturity model approach.

**Investment:** In a one-day assessment workshop, participants complete the assessment questionnaire individually and then reach consensus on assessment results as a group. Assessment results are translated into scores, which are mapped onto the maturity model.

**Tool output:** Completed assessment scores mapped onto the maturity model to inform action planning and the development of a roadmap for strengthening HIS interoperability

### Q2 How can we design effective data communication products?

**Your tool:** **Information Products to Drive Decision Making: How to Promote the Use of Routine Data Throughout a Health System**  
<https://www.measureevaluation.org/resources/publications/sr-17-145-en>

**Intended users:** Researchers, health personnel involved in improving HIS, and communicators interested in science translation

**What:** A slide doc presents findings and guidance for developing information products to promote the use of routine data. Recommendations for information product design, testing, and dissemination; capacity building for information product development and use; and improving the utility of information products are included.

**Investment:** Time required to use this report to inform information product design and development

**Tool output:** Reference guide

### Q3 How can we visualize gaps, target programs, and improve health services?

**Your tool:** **Data Visualization That Works—Facilitating HIV Program Targeting: Case Examples and Considerations**  
<https://www.measureevaluation.org/resources/publications/wp-16-162>

**Intended users:** M&E and HIS staff, program staff, policymakers

**What:** Case studies of how data visualization tools have been used to improve HIV programs and the impact they have on decision making, with lessons learned and considerations for development of data visualizations to facilitate program targeting

**Investment:** Time required to use this report to inform development of data visualizations

**Tool output:** Reference guide

---

**Your tool:** **Cascade Data Use Manual: To Identify Gaps in HIV and Health Services for Programme Improvement**  
<https://www.who.int/hiv/pub/toolkits/hiv-cascade-data-use-manual/en/>

**Intended users:** National and subnational AIDS control program managers and health workers

**What:** A manual that provides guidance on data visualization for the HIV cascade of services (e.g., care and treatment) and use of these data to identify gaps and better link services for HIV/AIDS

**Investment:** Time required to use this guidance document to inform development of effective HIV cascade data visualizations

**Tool output:** Reference guide

### Q3 *continued*

**Your tool:** **Analysis and Use of Health Facility Data**  
[https://www.who.int/healthinfo/tools\\_data\\_analysis\\_routine\\_facility/en/](https://www.who.int/healthinfo/tools_data_analysis_routine_facility/en/)

**Intended users:** M&E and HIS staff, program managers, and policymakers at national and subnational levels

**What:** This toolkit includes a set of resources to help managers and analysts review, analyze, and present findings from routine health facility data. The guidelines include crosscutting modules on general steps and standards for analyzing health facility data, as well as guidance on specific health program areas (including HIV/AIDS, TB, and malaria). Each module includes a description of core indicators recommended for use in routine program management, best practices for assessing data quality, suggested visualizations to inform program management, and considerations for interpretation and use of data. Standard configuration packages for District Health Information Software, version 2 (DHIS2) dashboards are included.

**Investment:** Time required to use this toolkit to inform the development of facility-based data analyses and visualizations

**Tool output:** Reference guide

### Q4 **How can we strengthen multidirectional data feedback mechanisms?**

**Your tool:** **Information Use Map**  
<https://www.measureevaluation.org/resources/publications/ms-11-46-c>

**Intended users:** Program teams and M&E/HIS teams at all levels of the health system

**What:** A flowchart framework identifies existing data reporting and feedback channels from point of collection to storage, analysis, reporting, and use. The map can be amended to describe the ideal flow of information through a system, and used to identify opportunities to improve the flow of information.

**Investment:** Less than one week for informal information gathering with key stakeholders and working sessions or a formal workshop to review initial assessment findings and brainstorm recommendations for improvement

**Tool output:** Final report with baseline information map, ideal information map with improvements in information flow, and planning matrix describing priorities, required resources, and actions to improve information flow

### Q5 **How can we use geographic data to target health programs?**

**Your tool:** **Using Geospatial Analysis to Inform Decision Making in Targeting Health Facility-Based Programs: A Guidance Document**  
<https://www.measureevaluation.org/resources/publications/ms-14-88>

**Intended users:** Program planners and managers (with basic knowledge of geographic information system terminology)

**What:** Guidance document to help users identify questions that need to be answered and potential analytical approaches for using geospatial analysis to make decisions about resource allocation

**Investment:** Time to use this guidance document to inform geospatial analyses

**Tool output:** Reference guide

## **And we need to ensure that decision makers have confidence in our data.**

### Q1 **How do we assess if data are of high quality?**

**Your tool:** **We have many strategies for data quality assessments. Select from our Menu of Tools for data quality assessment and review.**  
<https://www.measureevaluation.org/resources/publications/tl-19-26>

**Intended users:** Program teams, supervisors, M&E/HIS teams at all levels of the health system, as well as donors and other stakeholders

**What:** Menu of options to provide guidance on the most appropriate data quality assessment approach to implement, given the data and system to be assessed

**Investment:** Depends on tool selected and purpose of the assessment; ranges from one week to six months

**Tool output:** Depends on tool selected; can include assessments of various dimensions of data quality including accuracy, completeness, reliability, timeliness, confidentiality, precision, and integrity

## Now that we have the data, let's build individual capacity to use them.

### Q1 Do you want to build capacity in data analysis and use?

**Your tool:** **Data Demand and Use Curriculum—Facilitator's Guide**  
<https://www.measureevaluation.org/resources/publications/ms-18-135>

**Intended users:** Data users (program teams, policymakers, and health decision makers) and data producers (M&E specialists, data clerks, HIS officers)

**What:** A training tool kit aims to increase conceptual understanding of DDU. The course covers the role of data in decision making, the context of decision making, the determinants of data use, and the importance of data sharing and feedback, and it builds skills for applying and using tools for DDU.

**Investment:** Three-day training workshop

**Tool output:** Training curriculum

---

**Your tool:** **DHIS2 Functions and Data Use for Health Information System Strengthening Training Manual: Facilitators' Guide**  
<https://www.measureevaluation.org/resources/publications/ms-17-123a>

**Intended users:** Subnational health management team members

**What:** This curriculum and facilitator's guide was developed in Tanzania with the Ministry of Health, Community Development, Gender, Elderly and Children. The course aims to augment capacity and skills to use the advanced functions and features of DHIS2 and build competencies to improve the quality, analysis, and use of routinely collected DHIS2 data for effective health program monitoring, planning, and decision making.

**Investment:** Five-day training workshop

**Tool output:** Training curriculum

---

**Your tool:** **Introduction to Basic Data Analysis and Interpretation for Health Programs: A Training Tool Kit**  
<https://www.measureevaluation.org/resources/training/capacity-building-resources/basic-data-analysis-for-health-programs>

**Intended users:** M&E/HIS officers and program staff

**What:** Training tool kit aiming to improve understanding of statistical and M&E concepts in data analysis, build skills in basic data analysis (including target setting and calculating program coverage), and enhance skills in data interpretation

**Investment:** One-day training is recommended, but modules can be separated to supplement other existing materials.

**Tool output:** Training curriculum

---

### Q2 Do you want to build capacity among leaders?

**Your tool:** **Building Leadership for Data Demand and Use**  
<https://www.measureevaluation.org/resources/training/capacity-building-resources/building-leadership-in-data-demand-and-use-a-facilitators-guide>

**Intended users:** M&E/HIS officers and program staff

**What:** This training tool kit guides the learning process for leading data use within an organization or program. The curriculum aims to raise awareness of the importance of data in decision making, define the role of leadership in promoting data use, build individual and team capacity for data use, promote and sustain capacity through strong leadership, and develop and implement specific plans to overcome barriers to data use.

**Investment:** Three- to four-day training workshop

**Tool output:** Training curriculum

## We also need to strengthen organizational structures and processes for data use.

### Q1 Do you need clear procedures and policies for sharing, reviewing, and using data?

**Your tool:** **Guidelines for data review meetings to assess and improve performance**  
<https://www.measureevaluation.org/resources/publications/tr-17-216>

**Intended users:** M&E/HIS officers and program staff

**What:** These guidelines help health teams collectively organize and strengthen collaborative data-driven review meetings to promote the use of information in decision making. They provide a framework for strengthening data-informed decision making by identifying and prioritizing programmatic issues, linking questions to available data sources and indicators, performing analyses to address questions of interest, interpreting results and communicating findings, developing action plans based on information, and monitoring the implementation of action plans to demonstrate performance improvements.

**Investment:** Time to use this resource guide to inform the design and strengthening of data review meetings

**Tool output:** Resource guide

### Q2 How can we provide ongoing supportive supervision for DDU?

**Your tool:** **Data Demand and Use Coaching Guide**  
<https://www.measureevaluation.org/resources/publications/ms-11-46-f>

**Intended users:** Individuals or teams who have participated in a data demand and use workshop or training event

**What:** A guide to the process of providing continuous technical support to individuals or teams of health professionals implementing DDU interventions; provides structure and guidance to advance the implementation of data use action plans, with guidance to coaches to reinforce skills and support health professionals

**Investment:** Time required to implement individual or group coaching sessions

**Tool output:** Templates for facilitating and documenting DDU coaching sessions: a coaching log, coaching visit form, and post-visit coaching report

## Once we are using data, how do we measure that?

### Q1 How can I monitor the results of DDU interventions?

**Your tool:** **Conceptualizing and Measuring Data Use: A Review of Assessments and Tools**  
<https://www.measureevaluation.org/resources/publications/wp-18-214>

**Intended users:** Global and country-level HIS managers and program teams interested in assessing, monitoring, and evaluating data use interventions

**What:** A review of DDU concepts and definitions, indicators that have been used to measure the process and outputs of data use, and a summary of assessments that measure varying dimensions of data use

**Investment:** Time to use this resource guide to inform the monitoring of data use interventions

**Tool output:** Resource guide

### Q2 How can we document DDU successes and share lessons?

**Your tool:** **Through case studies, fact sheets, and publications, such as Strengthening Data Demand and Use in Three African Countries: Lessons Learned from the Associate Awards in Kenya, South Africa, and Tanzania**  
<https://www.measureevaluation.org/resources/publications/wp-18-222>

**Intended users:** Program teams, supervisors, M&E/HIS teams at all levels of the health system, and donors and other stakeholders

**What:** A report highlighting the results of DDU interventions in Kenya, South Africa, and Tanzania and lessons learned about factors contributing to successful data use in country HIS

**Investment:** Time to use this resource guide to inform the design of data use interventions

**Tool output:** Resource guide