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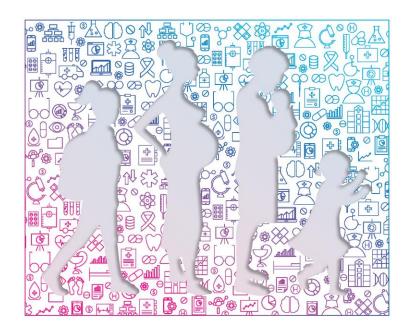


 Please submit your questions for the presenters in the Q&A box. Presenters will either reply to you via text in the Q&A box or will answer your question during the Q&A discussion portion of the webinar.



Series Overview

- Training of trainers on strengthening data use and analysis.
- Based on World Health Organization
 (WHO) guidance <u>Analysis and Use of Health</u>
 Facility Data: Guidance for Maternal, Newborn, <u>Child and Adolescent Health Programme</u>
 <u>Managers.</u>



Analysis and use of health facility data

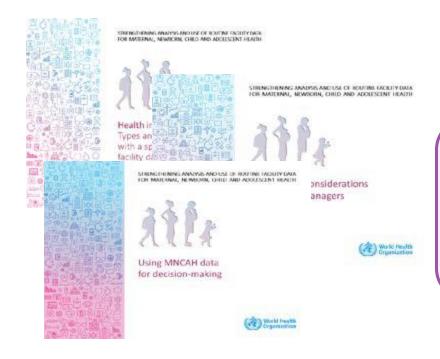
Guidance for maternal, newborn, child and adolescent health programme managers





Toolkit Supporting Materials

Presentation Materials



- 1. <u>Health Information System: Types and Sources of</u> <u>Health With a Spotlight on Routine Health Facility Data</u>
- 2. Routine Health Facility Data Indicators for MNCAH
- 3. <u>Data Quality Considerations for MNCAH Managers</u>
- 4. <u>Data Triangulation: Using Multiple Sources of MNCAH</u>
 <u>Data Together</u>
- 5. <u>Principles and Approaches for Analysis, Visualization, and Interpretation of Routine Health Facility Data for MNCAH</u>
- 6. <u>Data Communication Products for MNCAH</u>
- Using MNCAH Data for Decision-Making

Series Overview

Each session in the webinar series will:

- Introduce key concepts related to analysis and use of routine data.
- Feature examples from MOMENTUM awards.
- Highlight tools and resources to support technical assistance activities.

Date	Session
August 1	Introduction to Health Facility Data
August 13	Data Quality
September 5	Data Triangulation and Analysis
September 12	Data Interpretation and Use for Decision-Making
September 26	Bonus Session: Data Visualization

Today's Presenters



Emily Stammer

Senior Research, Monitoring,
and Evaluation Advisor,
MOMENTUM Knowledge
Accelerator



Adriana Almiñana
Senior Technical Officer
for Immunization, JSI



Jean Dorvil

Data Manager, MOMENTUM

Routine Immunization

Transformation and Equity

Session Objectives

- Provide an overview of the importance of data triangulation and analysis to supporting partners working with routine maternal, newborn, child, and adolescent health (MNCAH) health facility data.
- Highlight key tools and resources for supporting partners to triangulate and analyze routine health facility data for MNCAH.
- Present and discuss real-world examples of triangulation and analysis from colleagues:
 - How the Universal Immunization through Improving Family Health Services (UI-FHS) project developed and implemented a tool to triangulate immunization data for improved decision-making and action.
 - How MOMENTUM Routine Immunization Transformation and Equity in Haiti have supported the analysis of immunization data from the national health information system.

Data Triangulation

Data Triangulation

What is it?

"Synthesis of existing data from two or more sources to address relevant questions for program planning and decision-making."

Why is it important?

- Corroborates findings.
- Makes up for a source's weakness(es) and/or capitalizes on its strengths.
- Provides a clearer picture for evidence-based decision-making.



Data Triangulation for MNCAH Programs

You could triangulate MNCAH data to:

- Assess current system performance and identify gaps.
- Evaluate program effects on MNCAH outcomes.
- Gain a better understanding of the context in which programming takes place.
- Improve confidence in findings through methodological rigor.
- Strengthen capacity for critical thinking, data analysis, and data use by promoting review and use of multiple sources.

Sources:

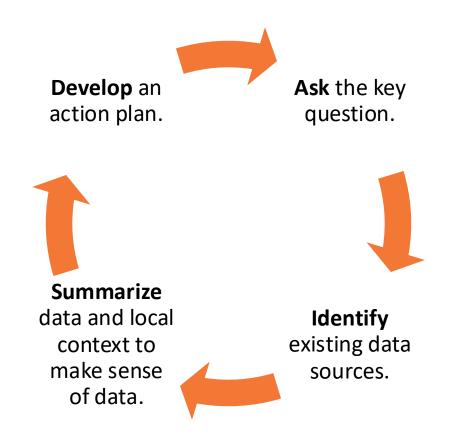








How Can We Support Data Triangulation Efforts?



- Work with partners through the four-step cycle:
 - 1. Ask the key question.
 - 2. Identify existing data sources.
 - 3. Summarize data and local context to make sense of data.
 - 4. Develop an action plan.

Steps 1 and 2: Asking Key Questions and Identifying Data Sources

- Identify the key program problem and ask related questions:
 - Have we defined the scope of the analysis?
 - How do I plan to use data to answer the question?
 - What do other stakeholders think?

- 2. Identify data sources:
 - Identify all relevant sources.
 - Determine ease with which data can be accessed and compiled.
 - Consider strengths and limitations of each source.
 - Consider documenting for the future.

What Kind of Data Should We Use?

It depends on what you want to do:

- For more context, consider diverse types of data and sources (including "non-health" sources).
- To support specific findings, consider similar data collected using a different methodology (e.g., RHIS or facility surveys).
 - Useful for describing trends in process and outcome indicators.

*Where possible, make sure data overlap in terms of when and where they were collected.

Steps 3 and 4: Summarize and Action Planning

- 3. Summarize the data and local context:
 - Assess data quality.
 - Evaluate trends.
 - Incorporate context and local knowledge.
 - Brainstorm hypotheses.
 - Identify, document, and explain limitations.

- 4. Develop an action plan for information dissemination:
 - Generate simple key messages for your target audience.
 - Tell a story based on the data.
 - Create actionable recommendations based on results.

Don't forget to validate with your stakeholders!

MNCAH Program Issues That Could Be Improved With Triangulation

Program Issue	Key Questions
Inaccurate target population estimates	Do the target population estimates for the MNCAH program align with known demographic trends?
Assess MNCAH program performance	Why do specific subnational areas or facilities have low delivery of MNCAH interventions? Which subnational areas or facilities consistently have data quality issues?
Assess impact of COVID-19 on MNCAH services	What factors can explain the extent of MNCAH service disruptions due to the COVID-19 pandemic?

Data Analysis

Analysis: Getting Us From Data to Information

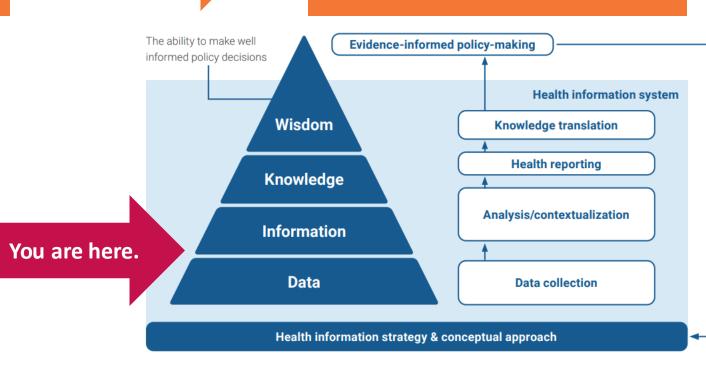
Data refer to raw, unprocessed numbers, measurements, or text.

Analysis

Information refers to data that are processed, organized, structured, or presented in a specific context.

Analysis....

- is <u>not</u> just complex calculations.
- involves transformation of data.
- requires examining data in the context of questions to be answered.



Source: Support tool to strengthen health information systems: guidance for health information system assessment and strategy development. Copenhagen: WHO Regional Office for Europe; 2021. Licence: CC BYNC-SA 3.0 IGO.

Public Health Measurement Concepts

Coverage

Ratio Count

Association

Correlation

Proportion

Mean

Trend

Causation

Rate

Mode

Median

Planning for Data Analysis

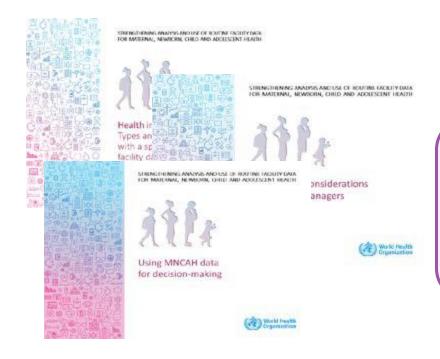
- Step 1: Understand why you want to analyze the data.
- Step 2: Review available data and indicators.
- Step 3: Prepare data and plan for analysis.



Orientation to WHO Guidance and Other Relevant Resources

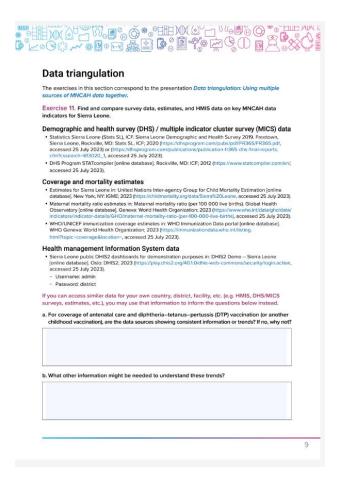
Toolkit Supporting Materials

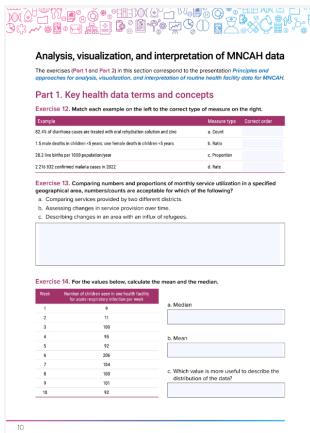
Presentation Materials

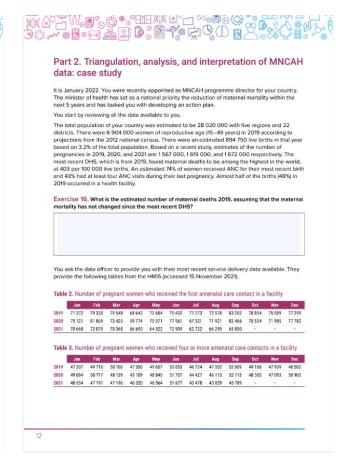


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Exercises for Triangulation and Analysis

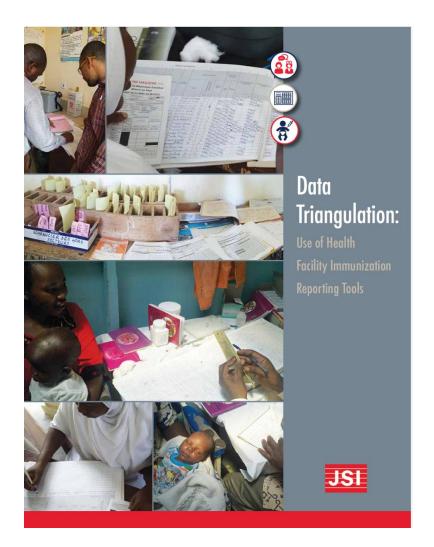


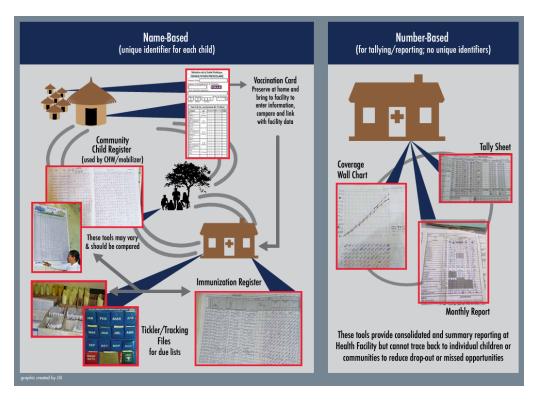




Resource Spotlight

Data Triangulation Brief

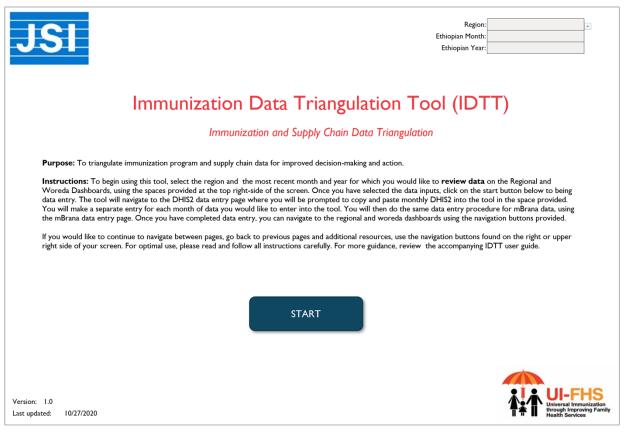




In Spanish, French and Portuguese!

Resource Spotlight

JSI/UI-FHS Immunization Data Triangulation Tool







Resource Spotlight

Measure Evaluation: Introduction to Basic Data Analysis and Interpretation for Health Programs: A

Training Tool Kit

ANALYSIS AND INTERPRETATION FOR HEALTH PROGRAMS







Home > Resources > Training > Capacity Building Resources > Introduction to Basic Data Analysis and Interpretation for Health Programs

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Compendium
Family Planning and Penroductive

Family Planning and Reproductive Health Indicators Database

Community-Based Indicators for HIV Programs

Introduction to Basic Data Analysis and Interpretation for Health Programs: A Training Tool Kit

This training tool kit aims to increase the skills of M&E officers and health program staff to conduct basic data analysis and interpretation for health programs. Specific learning objectives include:

- > To improve understanding of statistical and M&E concepts in data analysis
- To build skills in basis data analysis, including setting targets and calculating program coverage, and service utilization and retention
- > To enhance skills in data interpretation

The training materials are designed to help trainers conduct effective training of program and M&E officers in the specific area of basic data analysis and interpretation. The tool kit provides trainers with user-friendly, modifiable training components to adapt for use in various contexts. It is recommended that the modules be presented sequentially in a one-day training, but they can also be separated to supplement existing material of a similar topic.

Training Tool Kit Components

Download all materials as a ZIP file, or separately:

Facilitator Guide

Introduction

Module 1: Data Analysis Key Concepts

Module 2: Basic Analyses

Module 3: Data Presentation and Interpretation

Review

Data Analysis and Presentation Job Aid

Activity Handouts

- > Small Group Activity: Calculation questions
- > Small Group Activity: Calculation answers

Background reading materials

Early Lessons From Ethiopia in Establishing a Data Triangulation Process to Analyze Immunization Program and Supply Data for Decision-Making

September 2024 Adriana Almiñana





Background and Development of Tool and Process



Background

Existing data: EPI=DHIS2, LMIS=mBrana Admin EPI data quality challenges (timeliness, completeness)

Limited data sharing between departments, little coordination

Regional EPI
officers didn't
regularly
review/use data for
program
improvement and
did not leverage
supply chain data

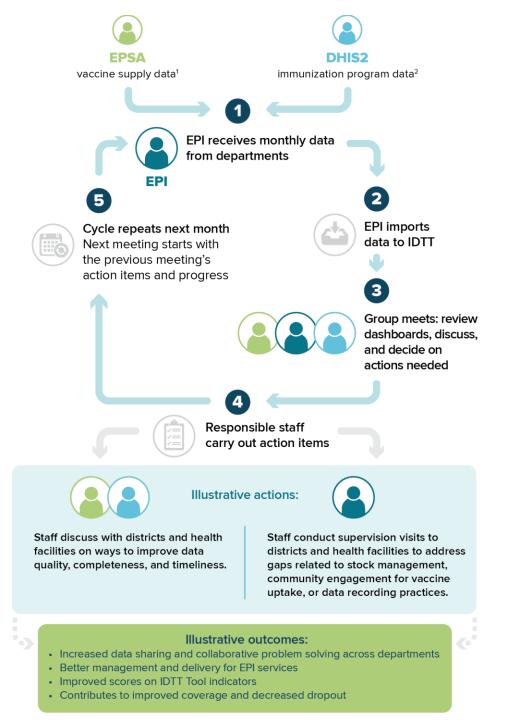
EPI = Expanded Programme on Immunization LMIS = Logistics Management Information System

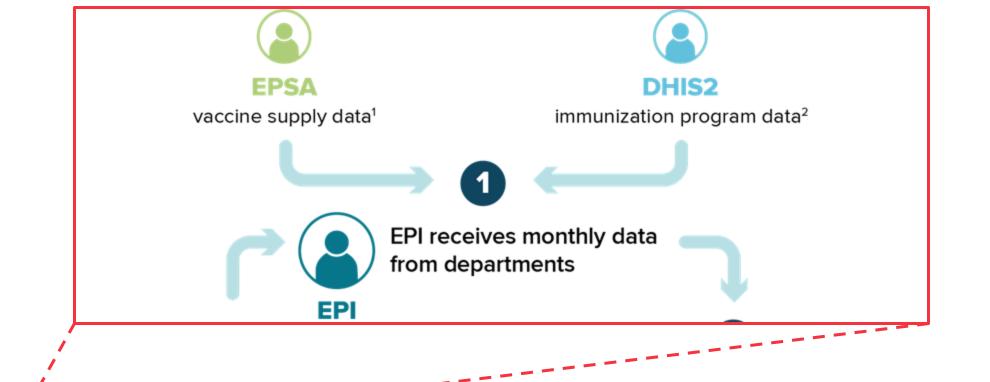


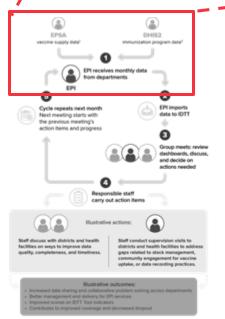
Indicators

- Focused on short list of indicators; analyzed the same ones every month.
- Once indicators chosen, developed "suggested actions" depending on the data.
- Example:

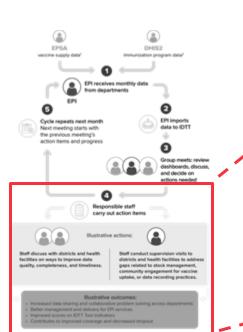
Doses administered + stock on hand (prev. 3 mo)	Doses issued (prev. 3 mo)	Ratio	Interpretation/Action
135	120	1.125	 Over time, ratio should be close to 1. If ratio >1, may indicate data quality issue or over-reporting of doses administered. Solution: Investigate the reasons at District X and provide support for proper re-coding procedures; supervisors should incentivize accurate reporting vs. high reporting.















Responsible staff carry out action items



Illustrative actions:

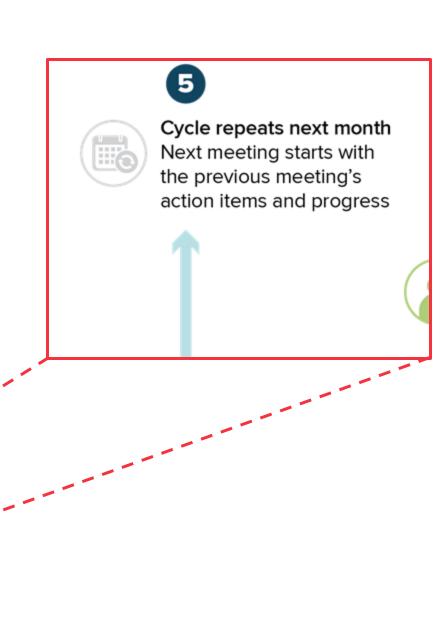


Staff discuss with districts and health facilities on ways to improve data quality, completeness, and timeliness.

Staff conduct supervision visits to districts and health facilities to address gaps related to stock management, community engagement for vaccine uptake, or data recording practices.

Illustrative outcomes:

- · Increased data sharing and collaborative problem solving across departments
- · Better management and delivery for EPI services
- Improved scores on IDTT Tool indicators
- · Contributes to improved coverage and decreased dropout



(a) EPSA

Cycle repeats next month Next meeting starts with the previous meeting's action items and progress

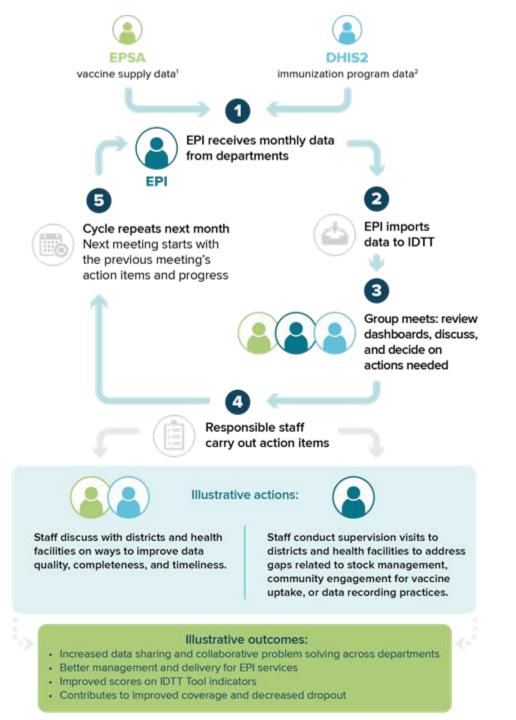
Staff discuss with districts and health

EPI receives monthly from departments

Responsible staff carry out action items

DHI52

Staff conduct supervision visits to districts and benth facilities to address gaps related to stock management, community engagement for vaccine uptake, or data recording practices.





Findings



Selected Findings

- Committee members interacted with and examined the data holistically.
- Simultaneous review of immunization coverage and supply data was a new process
 → stakeholders recognized as a value add.
- One implementation area demonstrated rapid uptake of tool/approach:
 - Regular use of tool for decision-making, consistent meetings, increased mastery over time.
- One area experienced slower rollout \rightarrow recurring conflict, COVID-19 waves:
 - Reporting to data systems had lapsed (especially supply chain data) → steps taken to improve data availability prior to starting to ensure adequate data available to triangulate and analyze.

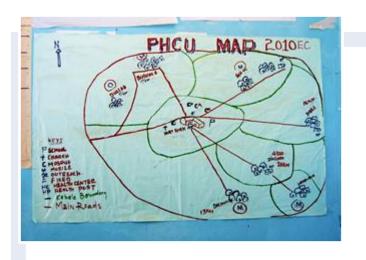


Documented Outcomes



Increased number of outreach sites

- · Analysis: Low coverage in town; adequate vaccine supply.
- Action: EPI team met with district staff and identified issues.
- · **Outcome**: Launch of additional outreach sites.



Revised target population

- · Analysis: Small town in urban area with poorer performance than neighboring areas.
- Action: Supportive supervision visit → realized some neighboring communities had been rezoned into the town, resulting in high number of unimmunized.
- · Outcome: Town recognized and revised target population and adjusted microplan to plan to reach these areas.



Lessons Learned



Establishing Regular Processes for Using Triangulated Data in Immunization

Triangulation can foster better coordination among health staff with different professional roles.

2

Regular availability of data is important to fully leverage the benefits of triangulation.

3

Subnational managers could use data triangulation to monitor issues at the district level.



Introducing Tools and Processes Into Health Systems

Design with and for the users.

Manage change and encourage new practices through frequent follow-up support.

Embed implementation research into introduction processes.

Don't let the perfect be the enemy of the good.

Way Forward and Recommendations



(Selected) Recommendations...

- More research and documentation (including at more advanced stages of implementation over a longer period) are needed to further understand:
 - What regular, practical data triangulation processes can look like for country EPIs.
 - How data triangulation processes contribute to better programmatic decision-making and better data quality.

...& some parting thoughts

- Facilitate collaboration and decisionmaking across teams/functions (Break down silos!).
- Promote regular data use—make it routine.
- Encourage attention to data availability and data quality.
- Focus on concrete actions.

Thank you!

JOURNAL ARTICLE:

https://doi.org/10.9745/GHSP-D-21-00719

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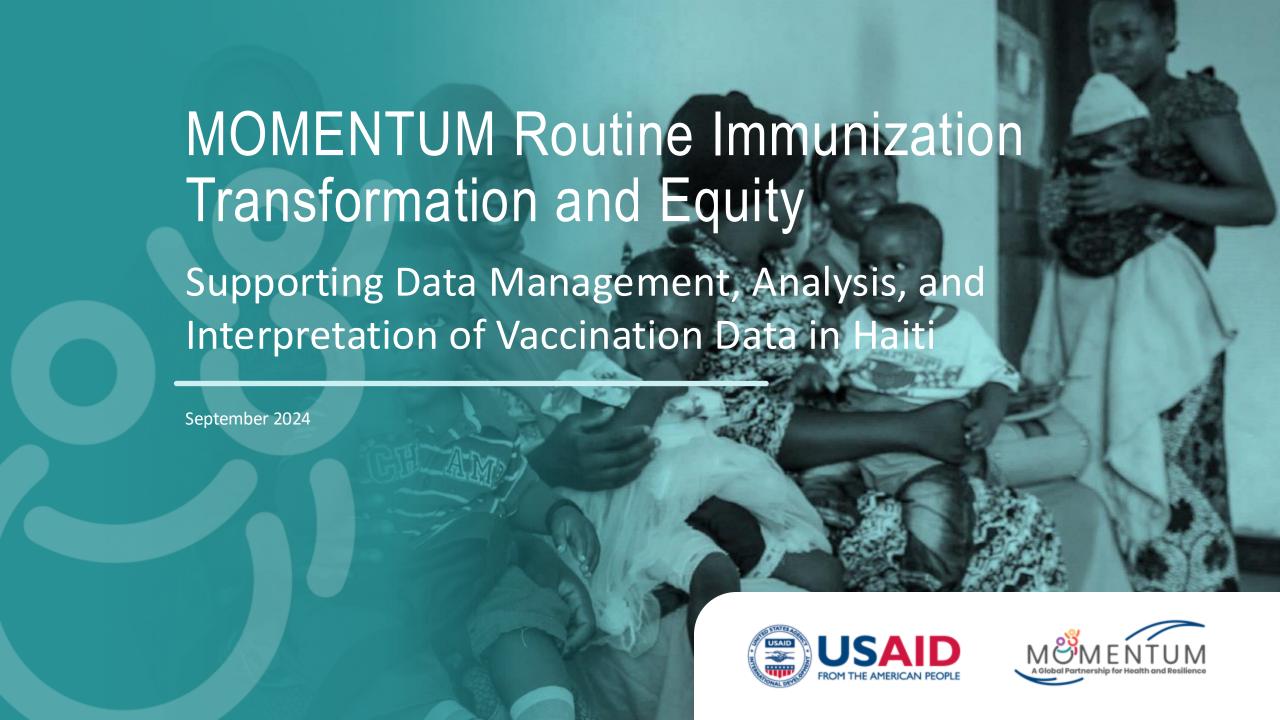












Program Objectives



Northwest, Artibonite, North, Northeast, South

Project-supported departments

Non-project-supported
departments

- Initiate technical support to the five departments to eliminate data entry backlogs and improve the quality of COVID-19 vaccination data.
- Support the implementation of subnational and national data review and utilization processes with emphasis on the five project departments.

Completed Activities





- Supervision missions and data correction and validation workshops.
- Organization of data review, analysis, and interpretation meetings (National Coordination Unit of the Immunization Program (UCNPV) Unit for Studies and Programming (UEP).
- Capacity-building of 124 health department managers in data interpretation and analysis, in conjunction with CHISU.
- Organization of data validation activities on DHIS2:
 - 51,114 records corrected.
 - 62,265 records entered into DHIS2.

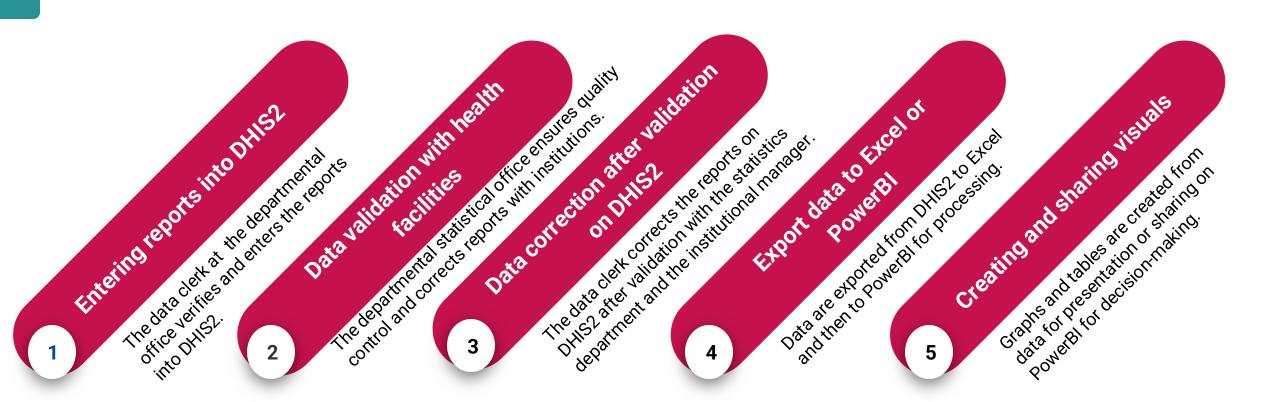
Data Analysis

Data analysis is a process of inspecting, cleaning, transforming and modeling data to uncover hidden insights and make informed decisions.

It may include:

- Identifying relevant data and establishing relationships.
- Using statistical techniques to understand trends and patterns in data.
- Visualizing data for clear, easy to use presentation.

Data Validation Process at Departmental-Level



Analysis Goals

- Observe trends in vaccination coverage between current and previous years.
- View vaccination coverage by municipality and health facility.
- Calculate/review dropout rates by health facility.
- Compare zero-dose and under-immunized children in the current period with the same period in the previous year.
- Review trends in the proportion of fully vaccinated people.



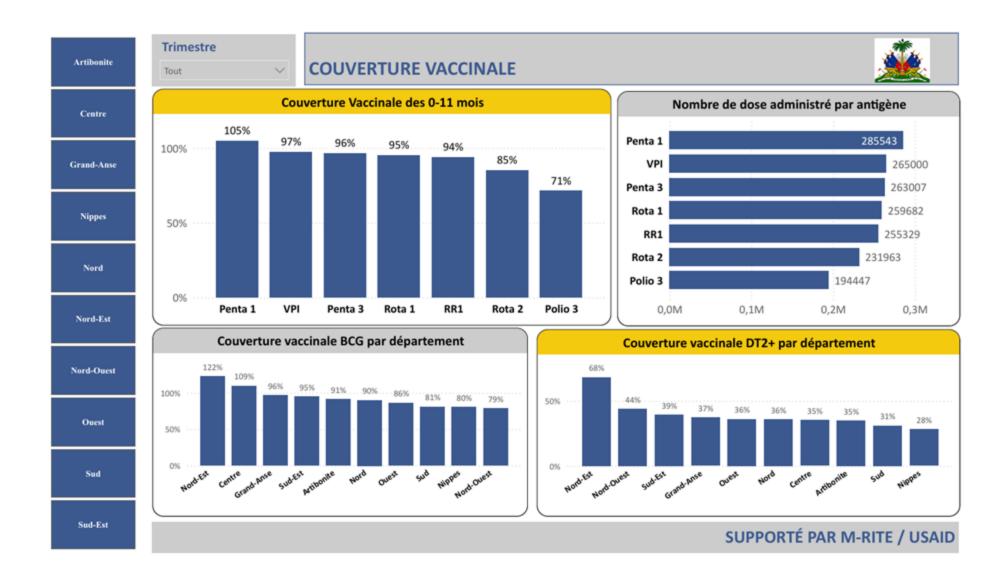
Dropout Rates

Commune CV des N	Moins d'un Ans
Anse-a-Pitres	155%
Bainet	80%
Belle-Anse	76%
Cayes-Jacmel	110%
Cotes-De-Fer	77%
Grand-Gosier	183%
Jacmel	94%
La Vallee	52%
Marigot	89%
Thiotte	156%
Total	95%

Commune	Taux d'abandon Penta	Taux d'abandon Rota	Taux d'abandon BCG
Anse-a-Pitres	18,8	6,66	-11,91
Bainet	1,2	-3,79	-19,43
Belle-Anse 💳	22,2	18,61	-77,05
Cayes-Jacmel	-0,1	-1,12	31,24
Cotes-De-Fer	12,1	6,76	5,32
Grand-Gosier	30,0	23,10	-55,02
acmel	-3,3	3,38	21,60
a Vallee	-9,3	10,64	16,80
Marigot	13,7	14,89	3,11
Thiotte	13,0	10,70	-12,33
Total	8,3	7,68	5,47



Routine Immunization Data by Antigen and Department



Lessons Learned From Analyzing Administrative Data

- Recordings may be missing essential information, so we need to find a way to retrieve the missing data.
- Investing in the training of health care professionals is crucial to ensure comprehensive data collection.
- Health program managers rarely use data analysis to guide their actions.
- Data are not always available to perform the requested analysis.



Recommendations

- Make analytical tools available to program managers, formerly program managers on the use and analysis of immunization data, and promote the use of data for timely decision-making
- Introduce the digital vaccination register into the SISPEV to facilitate the collection and longitudinal monitoring of patients

Impact of Data Analysis on Vaccination

- With the support of MOMENTUM in Haïti:
 - Better manage data quality and promote reliable data analysis.
 - Map areas with low and high vaccination coverage rates to identify priority populations.
 - Triangulate vaccine consumption data with doses of vaccine administered.



Questions?



Data Interpretation and Use

September 12, 8:00–9:30AM EDT

THANK YOU

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