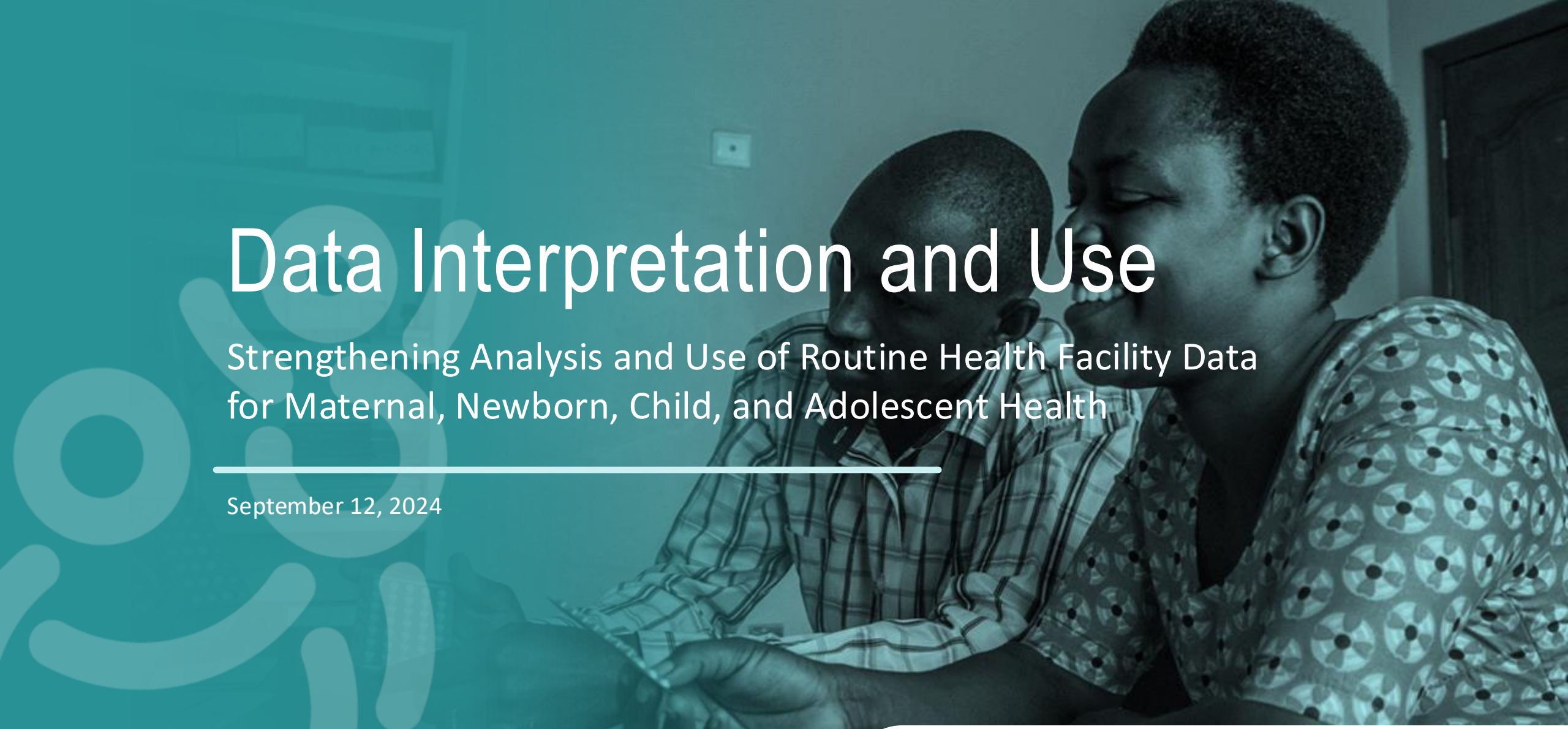
Data Interpretation and Use

Strengthening Analysis and Use of Routine Health Facility Data for Maternal, Newborn, Child, and Adolescent Health

September 12, 2024



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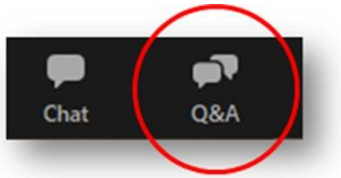
Housekeeping

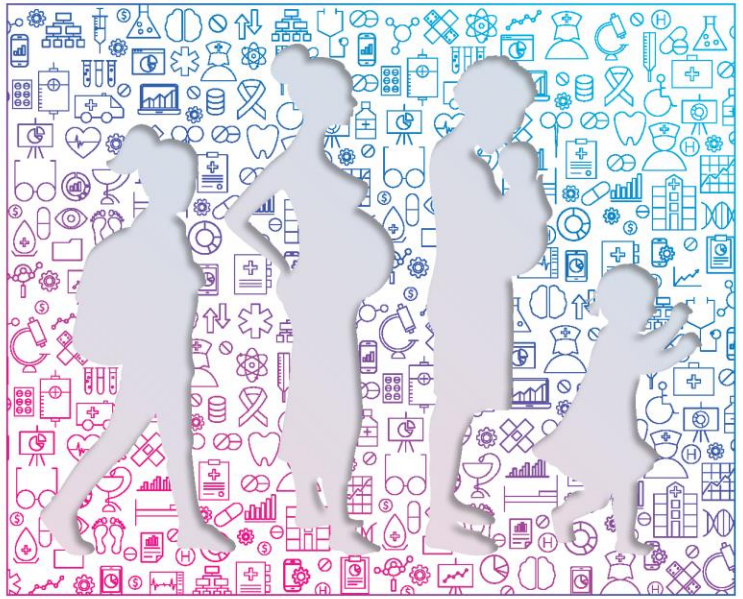
- This webinar series will be recorded, and **the recording and webinar materials will be posted on the MOMENTUM website**.
- Please access the interpretation channel and choose English or French audio.

- 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 *Analysis and Use of Health Facility Data: Guidance for Maternal, Newborn, Child and Adolescent Health Programme Managers*.

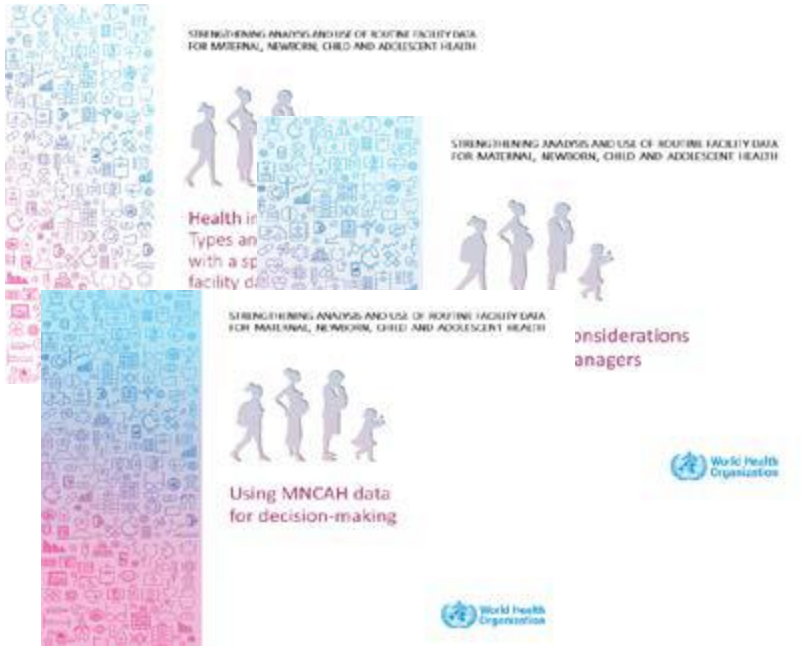


unicef
for every child

World Health Organization

Toolkit Supporting Materials

Presentation Materials



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

Slide adapted from WHO. (2023). *Analysis and use of health facility data: Guidance for maternal, newborn, child and adolescent health programme managers*.

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 Viz

Today's Presenters

- Emily Stammer, Senior Research, Monitoring, and Evaluation Advisor, MOMENTUM Knowledge Accelerator
- Scott Merritt, Technical Advisor for Information Systems, MOMENTUM Country and Global Leadership
- Emeka Victor Ifemenam, Data and Program Officer, MOMENTUM Country and Global Leadership Nigeria
- Tapson Ndundu, MEL Director, MOMENTUM Country and Global Leadership Zambia
- Mary Drake, Senior MEL Advisor, MOMENTUM Country and Global Leadership

Session Objectives

- Provide an overview of the importance of data interpretation and use to supporting partners working with routine maternal, newborn, child, and adolescent health (MNCAH) health facility data.
- Present and discuss real-world examples of how colleagues with MOMENTUM Country and Global Leadership:
  - Used maps to inform decision-making in Nigeria and Zambia.
  - Developed and implemented the Data for Action approach to promote MNCAH data use in Zambia and Indonesia.
- Highlight key tools and resources for supporting partners to interpret and use routine health facility data for MNCAH.

Data Interpretation

Data Interpretation

What is it?

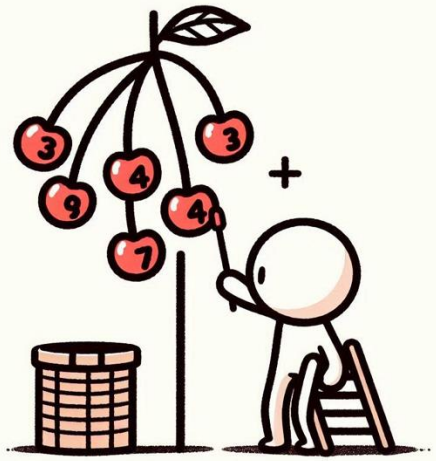
- Process for making sense of the information.
- Adds meaning to information by looking at connections and comparisons and exploring causes and consequences.

Relevance of finding	Reasons for finding	Consider other data	Conduct further research
What **do the data tell us? What does this mean for MNCAH programming?**	***Why*** **are we seeing these levels and trends for these MNCAH indicators?**	**What *other* information do we need to understand this data?**	***How*** **can I answer any remaining questions to understand the data?**

Stakeholder validation

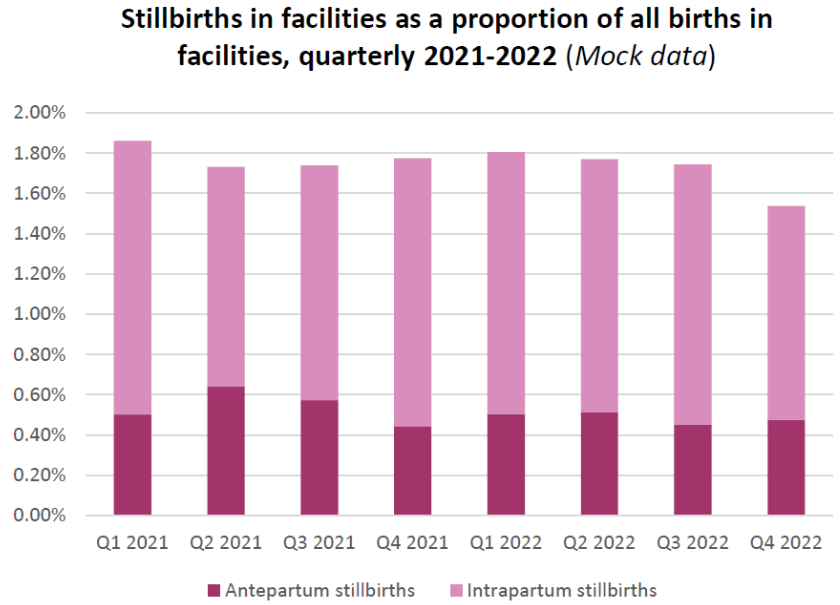
Slide adapted from WHO. (2023). *Analysis and use of health facility data: Guidance for maternal, newborn, child and adolescent health programme managers*

Data Interpretation



KEY QUESTIONS

- What do the data tell me?
- What do they NOT tell me?



KEY CONSIDERATIONS

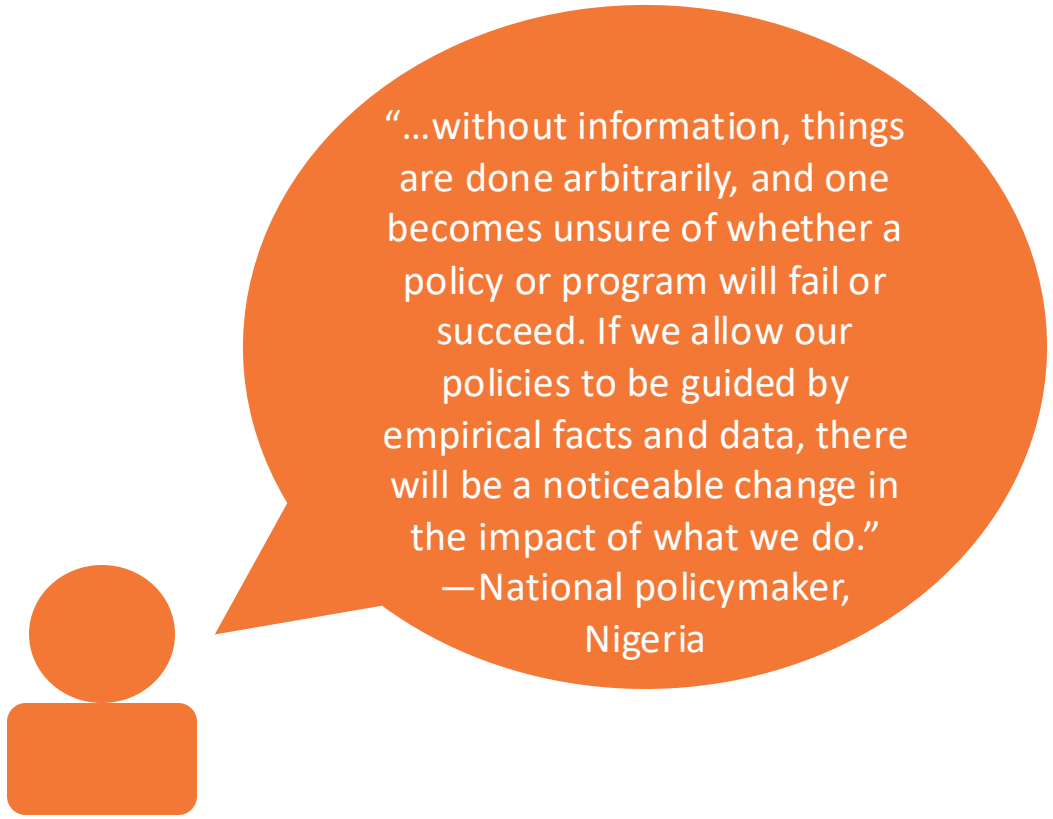
- Make sure data are standardized.
- Consider the impact of data quality.
- Remember that correlation does not equal causation.
- Consider the generalizability of your data to the entire target population.
- Review data or information supporting various factors/outcomes.
- Be honest and clear about limitations to help others interpret the data.

Slide adapted from WHO. (2023). *Analysis and use of health facility data: Guidance for maternal, newborn, child and adolescent health programme managers*.

Using Data for Decision-Making

Data for Decision-Making

Why is it important?

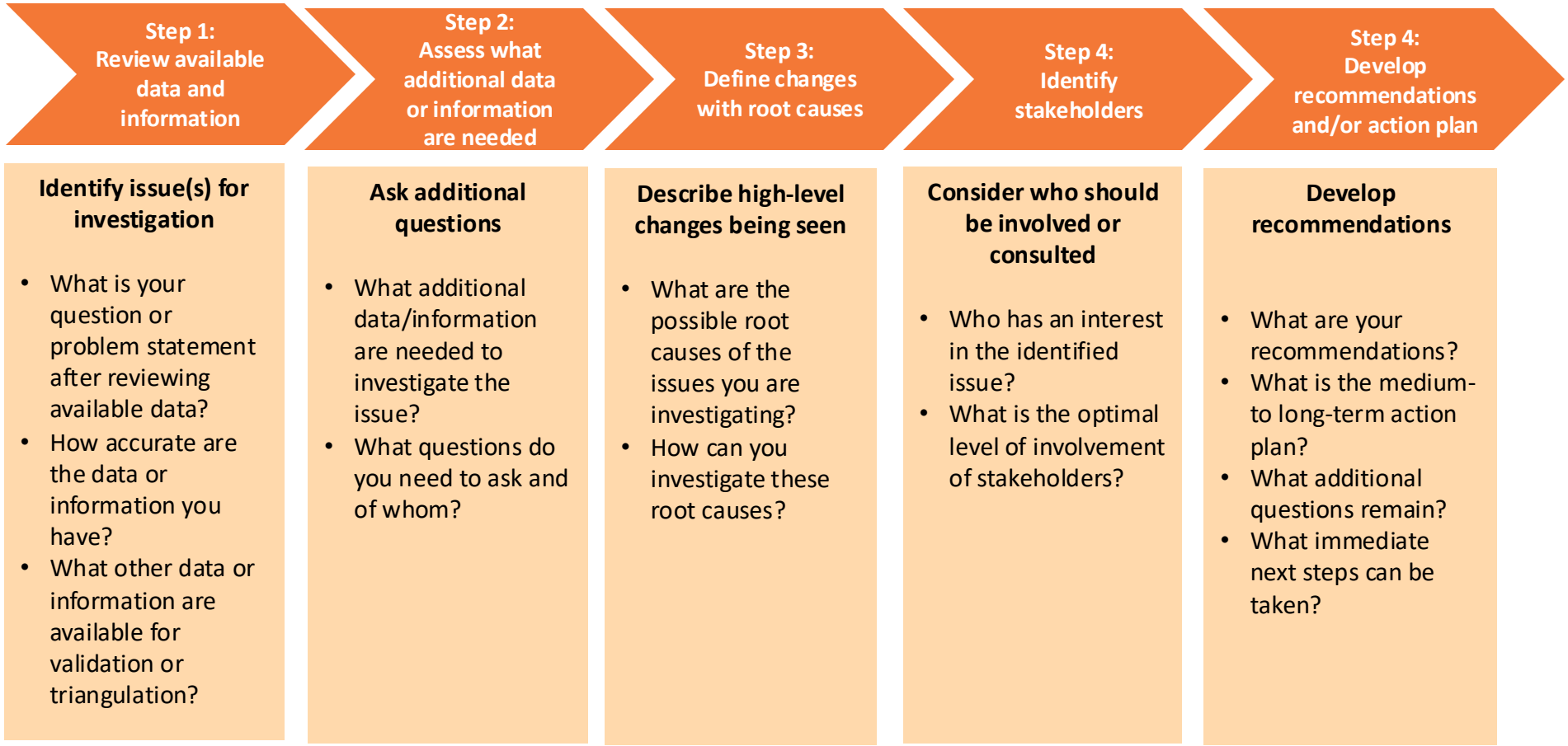


What are the key elements of data-informed decision-making?:

- Data and information.
- Stakeholders/decisionmakers.
- Decision:
  - Program design and evaluation.
  - Program management and improvement.
  - Strategic planning.
  - Advocacy and policy development.

Slide adapted from WHO. (2023). *Analysis and use of health facility data: Guidance for maternal, newborn, child and adolescent health programme managers*.

Steps in Using Data for Decision-Making



Slide adapted from WHO. (2023). *Analysis and use of health facility data: Guidance for maternal, newborn, child and adolescent health programme managers*.

Data for Decision-Making

- Should be an ongoing, continuous, purpose-driven process.
- Increased demand for data may lead to more data collection.
- Asking questions may lead to more questions.
- Establishing a culture of data use can improved data quality, which can strengthen evidence for decision-makin.g

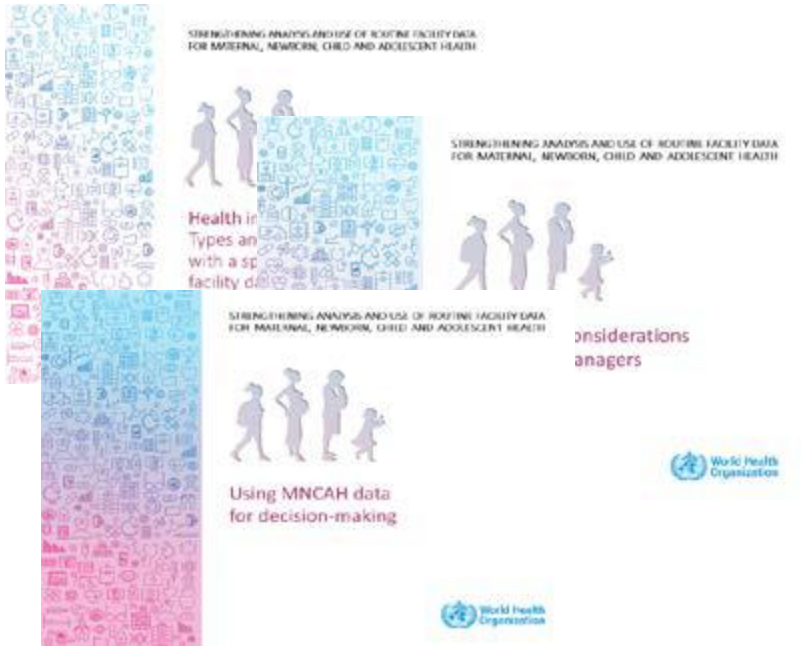
- Questions that can be answered for MNCAH:
  - Am I on track with my activities?
  - Are we meeting the population's needs?
  - Where should we concentrate our efforts?
  - How do we demonstrate that we're meeting our targets?
  - Where should we invest more resources?
  - Have we met our program objectives?

Slide adapted from WHO. (2023). *Analysis and use of health facility data: Guidance for maternal, newborn, child and adolescent health programme managers*.

Orientation to WHO Guidance and Other Relevant Resources

Toolkit Supporting Materials

Presentation Materials



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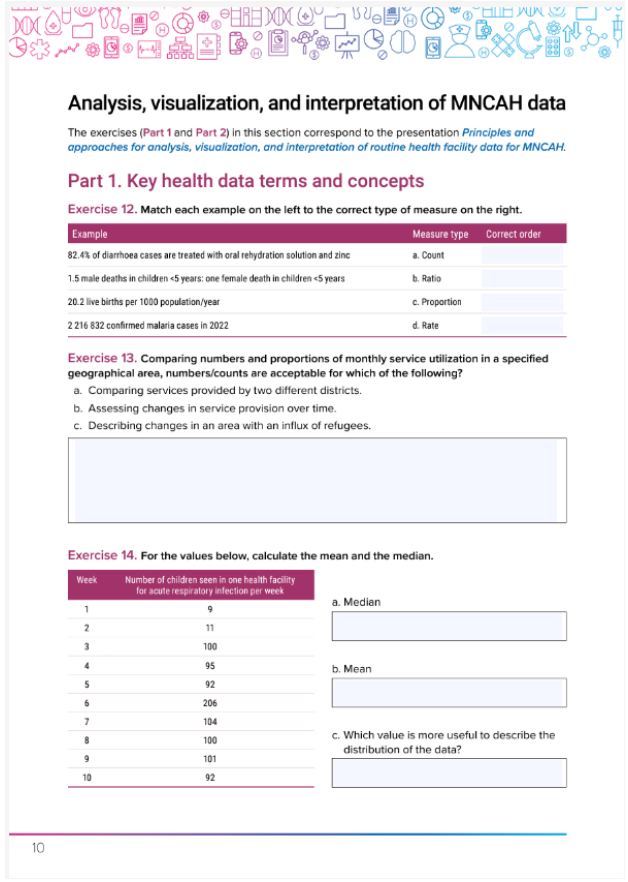
Exercises for Interpretation and Use



Analysis, visualization, and interpretation of MNCAH data

The exercises (Part 1 and Part 2) in this section correspond to the presentation *Principles and approaches for analysis, visualization, and interpretation of routine health facility data for MNCAH.*

Part 1. Key health data terms and concepts

Exercise 12. Match each example on the left to the correct type of measure on the right.

Example	Measure type	Correct order
82.4% of diarrhoea cases are treated with oral rehydration solution and zinc	a. Count	
1.5 male deaths in children <5 years: one female death in children <5 years	b. Ratio	
20.2 live births per 1000 population/year	c. Proportion	
2 216 832 confirmed malaria cases in 2022	d. Rate	

Exercise 13. Comparing numbers and proportions of monthly service utilization in a specified geographical area, numbers/counts are acceptable for which of the following?

a. Comparing services provided by two different districts.
b. Assessing changes in service provision over time.
c. Describing changes in an area with an influx of refugees.

Exercise 14. For the values below, calculate the mean and the median.

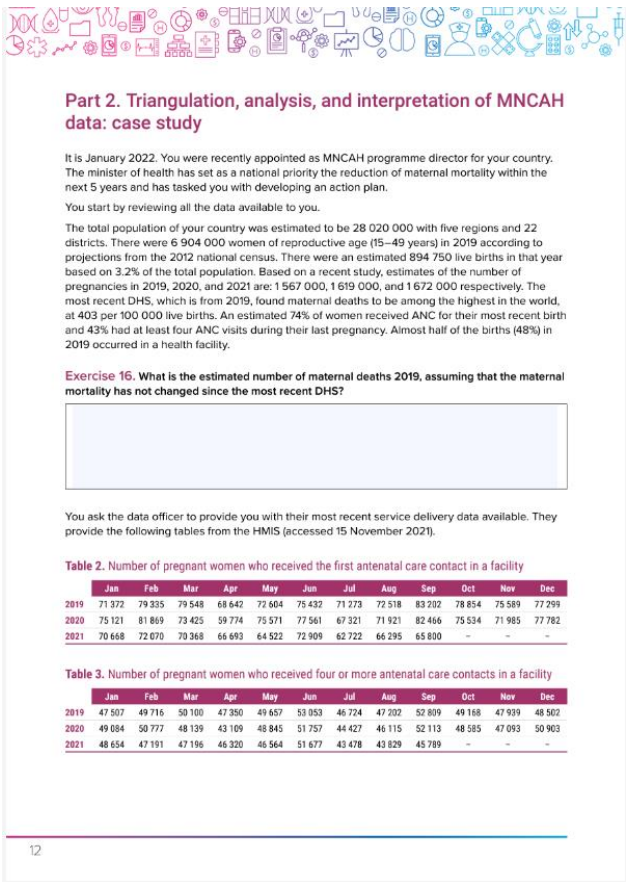
Week	Number of children seen in one health facility for acute respiratory infection per week
1	9
2	11
3	100
4	95
5	92
6	206
7	104
8	100
9	101
10	92

a. Median

b. Mean

c. Which value is more useful to describe the distribution of the data?

10



Part 2. Triangulation, analysis, and interpretation of MNCAH data: case study

It is January 2022. You were recently appointed as MNCAH programme director for your country. The minister of health has set as a national priority the reduction of maternal mortality within the next 5 years and has tasked you with developing an action plan.

You start by reviewing all the data available to you.

The total population of your country was estimated to be 28 020 000 with five regions and 22 districts. There were 6 904 000 women of reproductive age (15–49 years) in 2019 according to projections from the 2012 national census. There were an estimated 894 750 live births in that year based on 3.2% of the total population. Based on a recent study, estimates of the number of pregnancies in 2019, 2020, and 2021 are: 1 567 000, 1 619 000, and 1 672 000 respectively. The most recent DHS, which is from 2019, found maternal deaths to be among the highest in the world, at 403 per 100 000 live births. An estimated 74% of women received ANC for their most recent birth and 43% had at least four ANC visits during their last pregnancy. Almost half of the births (48%) in 2019 occurred in a health facility.

Exercise 16. What is the estimated number of maternal deaths 2019, assuming that the maternal mortality has not changed since the most recent DHS?

You ask the data officer to provide you with their most recent service delivery data available. They provide the following tables from the HMIS (accessed 15 November 2021).

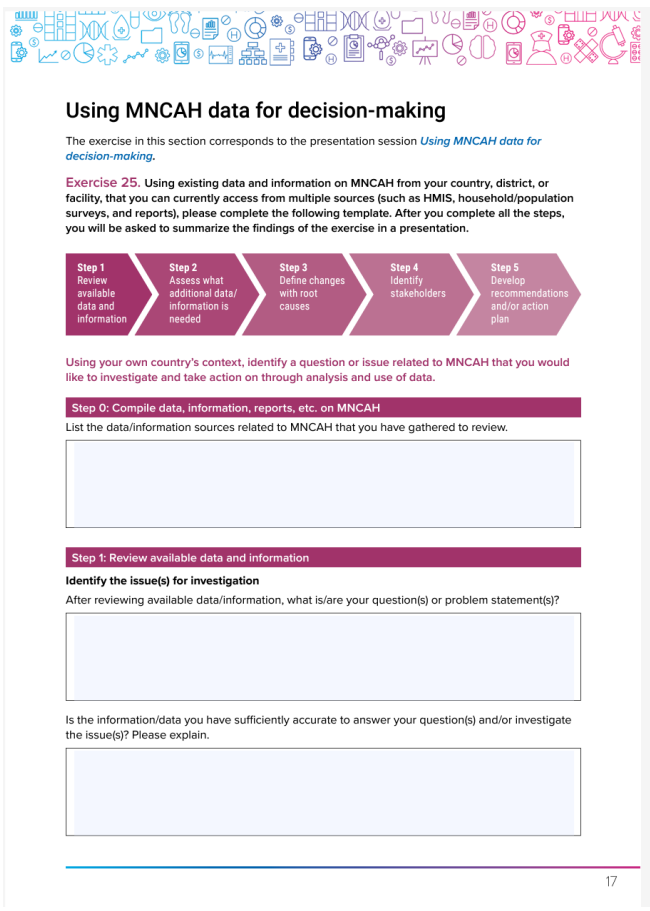
Table 2. Number of pregnant women who received the first antenatal care contact in a facility

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	71 372	79 335	79 548	68 642	72 604	75 432	71 273	72 518	83 202	78 854	75 589	77 299
2020	75 121	81 869	73 425	59 774	75 571	77 561	67 321	71 921	82 466	75 534	71 985	77 782
2021	70 668	72 070	70 368	66 693	64 522	72 909	62 722	66 295	65 800	–	–	–

Table 3. Number of pregnant women who received four or more antenatal care contacts in a facility

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	47 507	49 716	50 100	47 350	49 657	53 053	46 724	47 202	52 809	49 168	47 939	48 502
2020	49 084	50 777	48 139	43 109	48 845	51 757	44 427	46 115	52 113	48 585	47 093	50 903
2021	48 654	47 191	47 196	46 320	46 564	51 677	43 478	43 829	45 789	–	–	–

12



Using MNCAH data for decision-making

The exercise in this section corresponds to the presentation session *Using MNCAH data for decision-making.*

Exercise 25. Using existing data and information on MNCAH from your country, district, or facility, that you can currently access from multiple sources (such as HMIS, household/population surveys, and reports), please complete the following template. After you complete all the steps, you will be asked to summarize the findings of the exercise in a presentation.

Using your own country's context, identify a question or issue related to MNCAH that you would like to investigate and take action on through analysis and use of data.

Step 0: Compile data, information, reports, etc. on MNCAH

List the data/information sources related to MNCAH that you have gathered to review.

Step 1: Review available data and information

Identify the issue(s) for investigation

After reviewing available data/information, what is/are your question(s) or problem statement(s)?

Is the information/data you have sufficiently accurate to answer your question(s) and/or investigate the issue(s)? Please explain.

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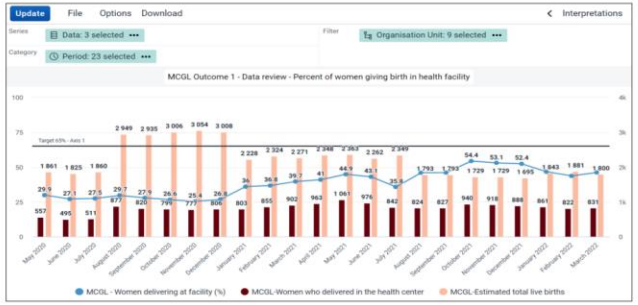
Slide adapted from WHO. (2023). *Analysis and use of health facility data: Guidance for maternal, newborn, child and adolescent health programme managers*.

Resource Spotlight

MOMENTUM Data for Action Guide

ANNEX 3. DATA INTERPRETATION TEMPLATE

The data interpretation template has two parts: 1) visual and 2) interpretation table



Level of Data Review	Observation about data quality and trend of indicator	Observations about numerator	Observations about denominator	Discussion Points
List area, for example, facility name or district name or program area	1. Is the performance of the indicator the same over time or does it change? If it is changing, why is it changing? 2. Is the performance of the indicator changing in similar or opposite ways compared to a related indicator(s)? 3. Do trends in the indicator suggest care is improving, getting worse or staying the same?	Describe changes, is it stable or not.	Describe changes, is it stable or not.	State the problem, what can be contributing to the problem, brainstorm possible actions to address.

ANNEX 4. SAMPLE AGENDA FOR DATA FOR ACTION MEETING

The meeting lead can use this sample to create an agenda that they can distribute to meeting participants. This is for a 6-hour meeting (including Lunch Break). If a smaller number of indicators are reviewed and after data for action meetings become more routine, this meeting time can feasibly be cut to 3 hours. It can also be made part of a larger routine meeting.

Meeting Title:

Date and Time:

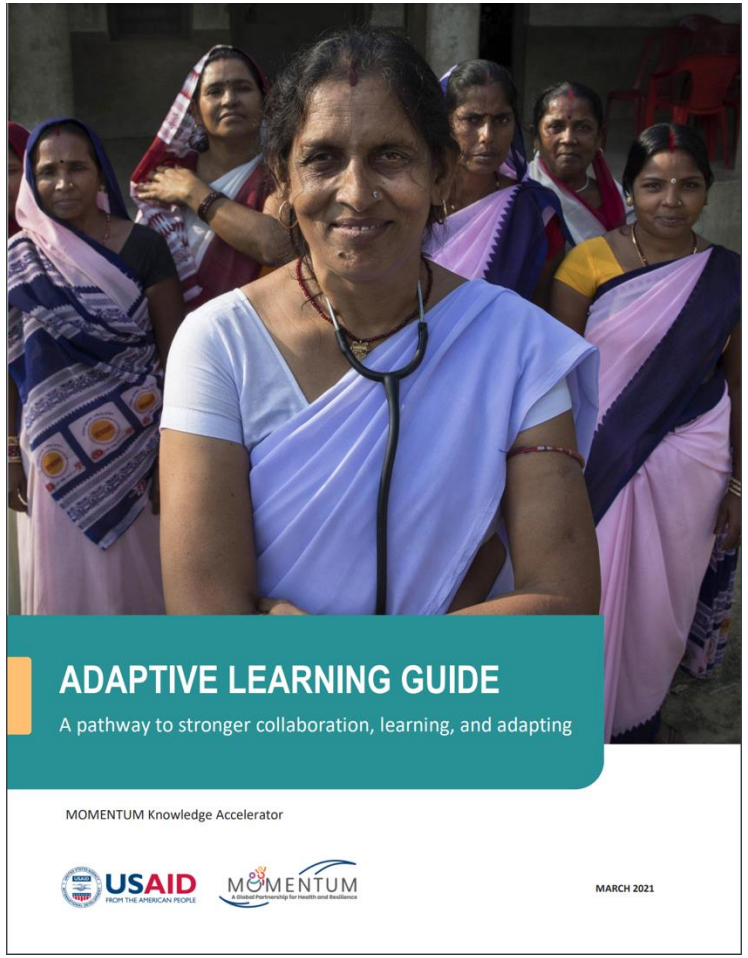
Meeting Objectives: *(This is an example. You may want to be more specific)*

- Team members will review and interpret data
- Team members will discuss the implications and decide on actions to improve programming based on the data

Time	Activity
9:00 – 9:15	**Introductions and review objectives (15 minutes)** • All team members introduce themselves. • Present overview of agenda, focus and objectives of the meeting, and meeting norms
9:15 – 9:45	**Review of completeness and quality of data (30 minutes)** • Data quality presentations • Discuss how any issues with data quality can be addressed
9:45 – 10:45	**Presentation of priority indicators that relate to the meeting's focus and objective (60 minutes)** • Look at the data and think about data attributes • Clarify any questions about the format, meaning, or context of the data • Review in relation to the meeting's focus and objectives
10:45 – 11:00	**Tea Break**
11:00 – 12:00	**Discuss and analyze root causes (60 minutes)**
12:00 – 13:00	**Generate and prioritize solutions (60 minutes)**
13:00 – 14:00	**Lunch Break**
14:00-15:00	**Action planning (45 minutes)** • Review action items from previous meeting – were actions implemented? Why/ why not? What will be done going forward? • Identify new action items
15:00 – 15:15	**Reflect on the meeting's effectiveness (15 minutes)** • What went well? • What could we improve for future meetings? • Closing

Resource Spotlight

Adaptive Learning Guide and Toolkit



Mapping Routine RMNCH Data

Using Geographic Information Systems (GIS) and Thematic Mapping for Insight and Action

Scott Merritt (MOMENTUM Country and Global Leadership/Washington DC)
Sylverius Mayokun and Emeka Victor Ifemenam (MOMENTUM Country and Global Leadership/Nigeria)
Tapson Ndundu (MOMENTUM Country and Global Leadership/Zambia)

September 12, 2024

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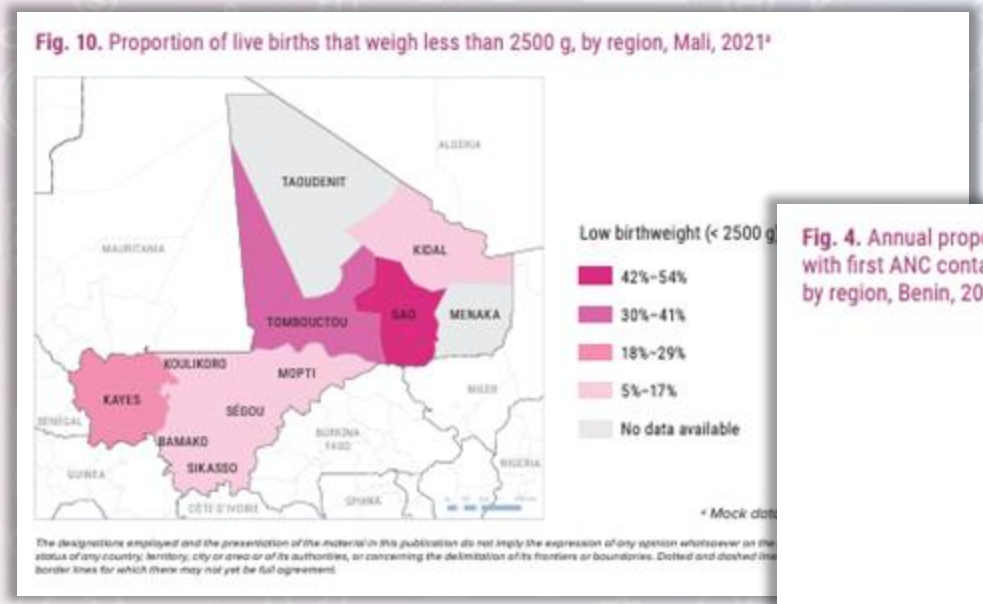
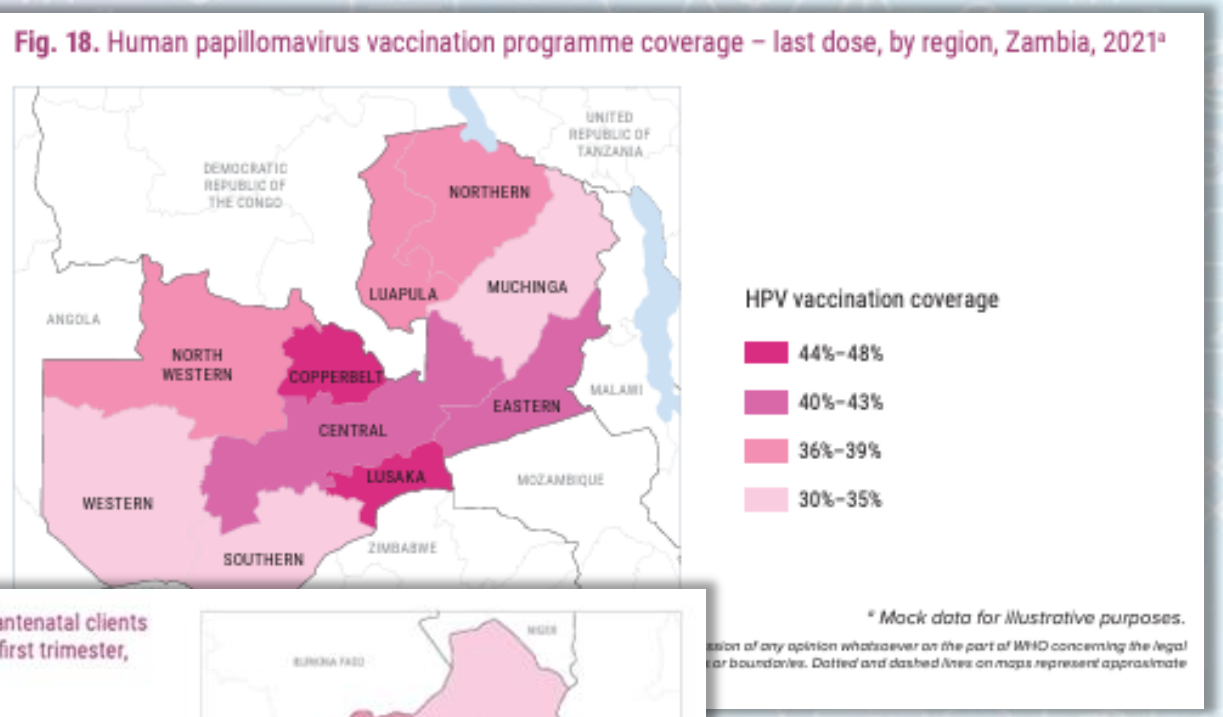
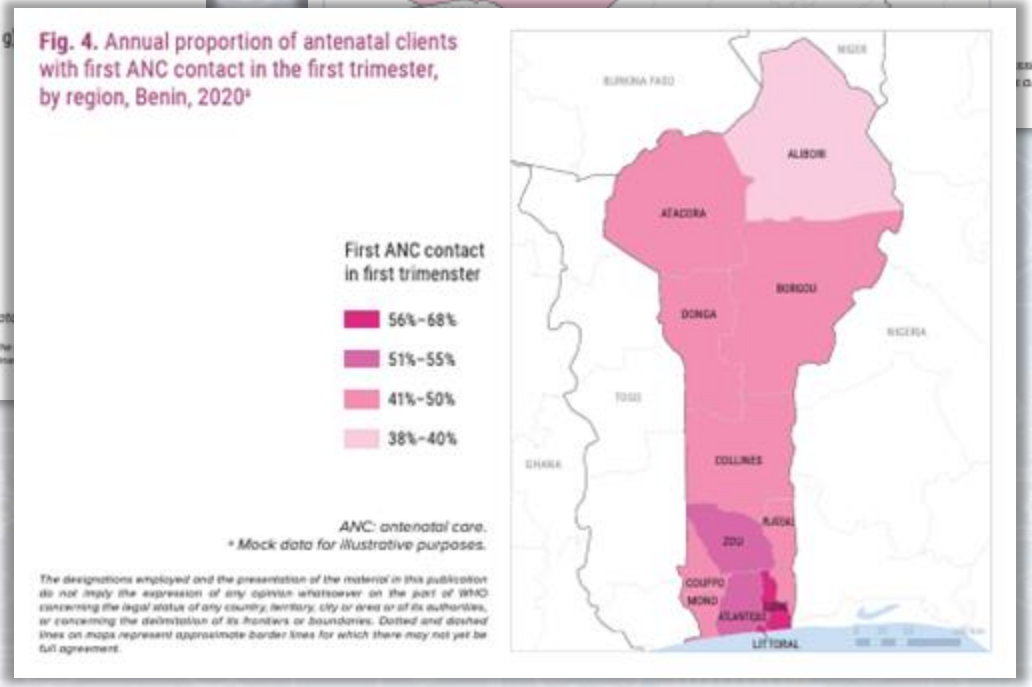
Examples From WHO's Toolkit

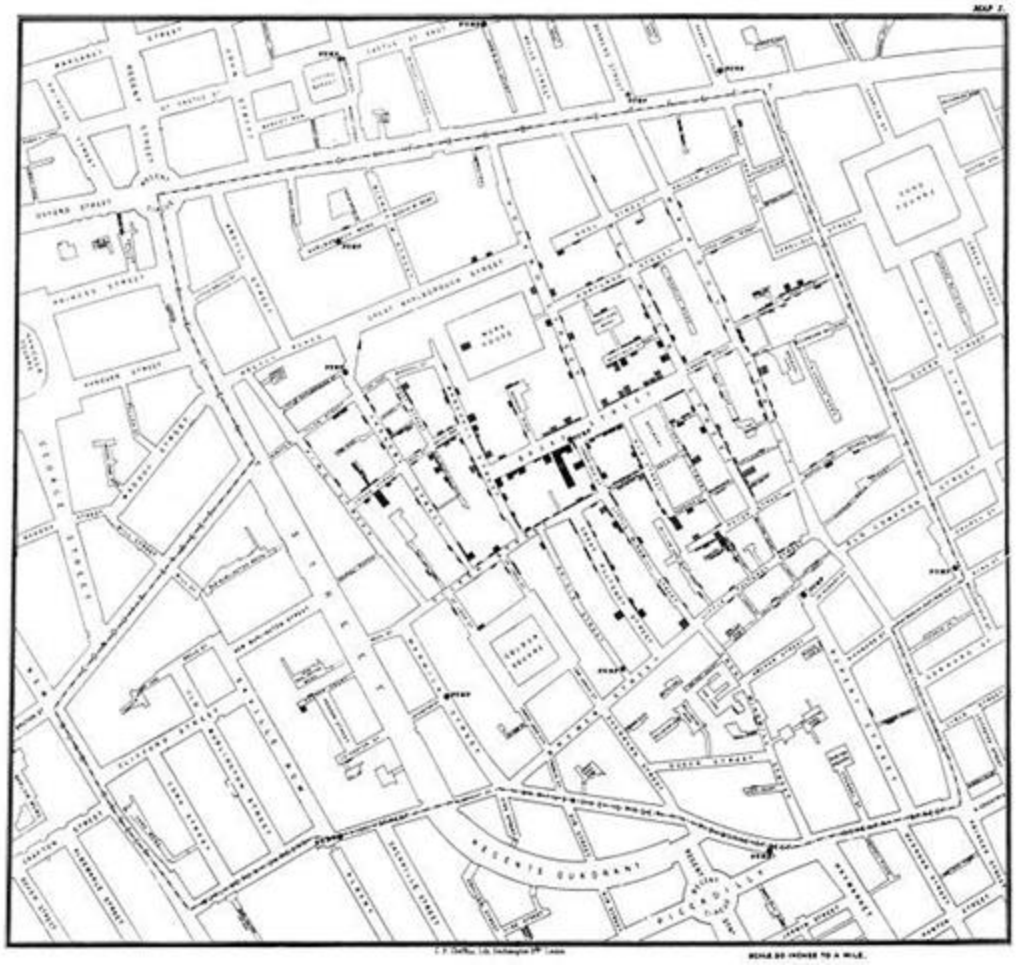






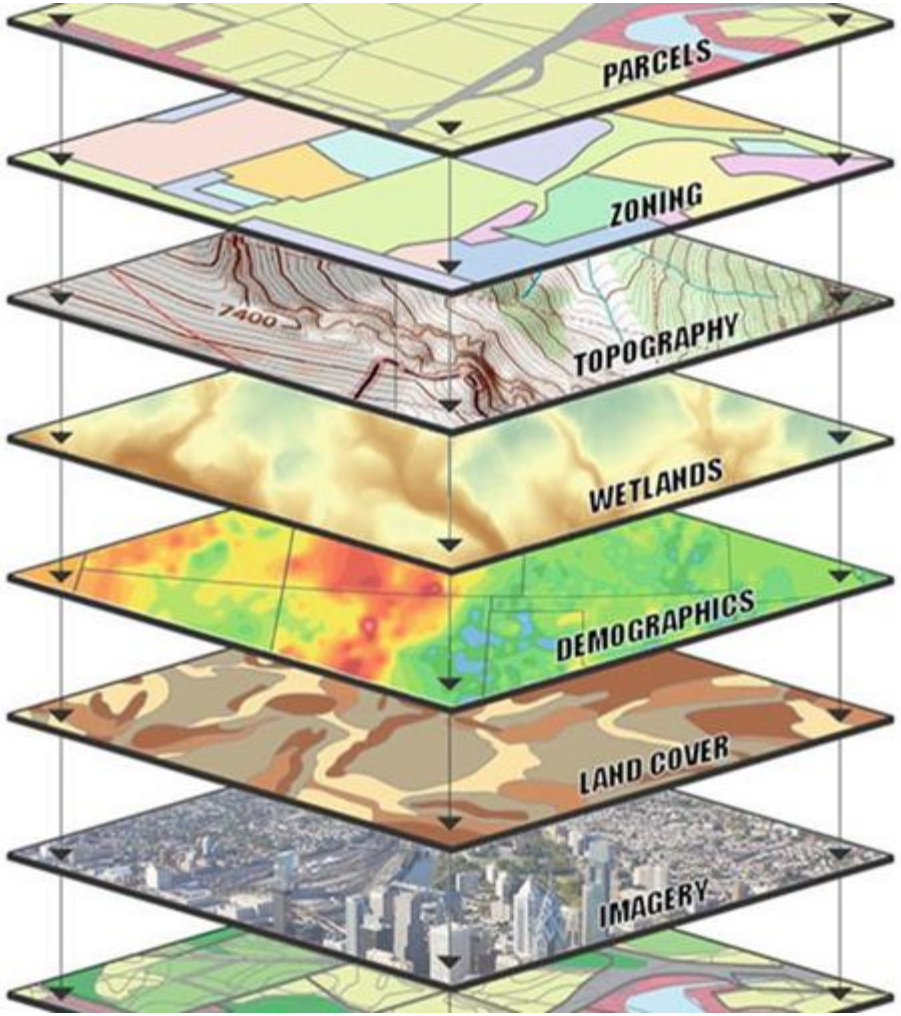
Why Maps?

- Health workers have long used maps to understand their data and to drive interventions.



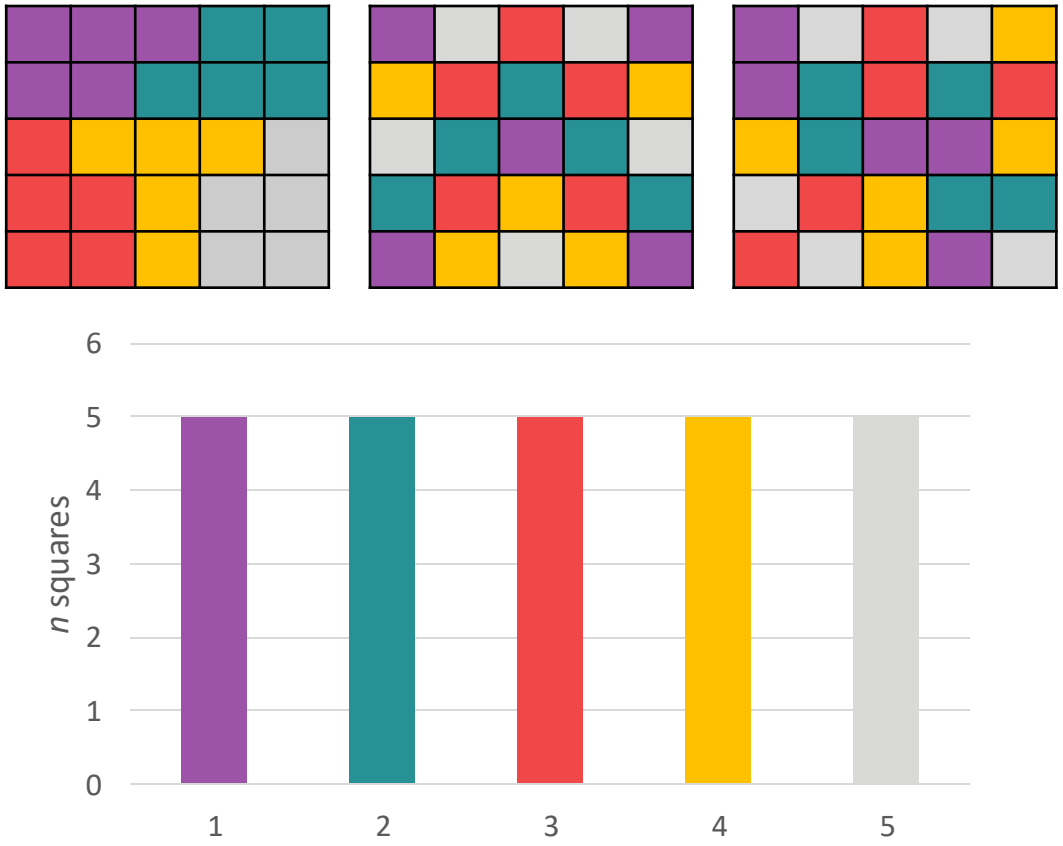
Why Maps?

- Health workers have long used maps to understand their data and to drive interventions.
- GIS data sources, software, and statistics can bring data together using location as a common thread.

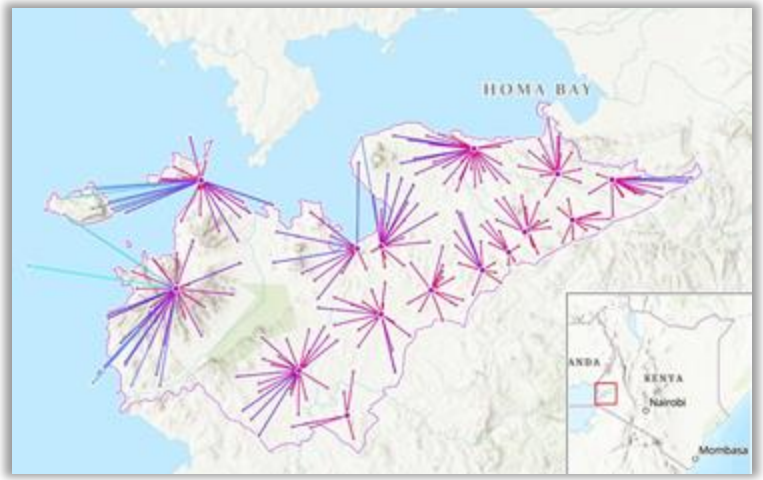


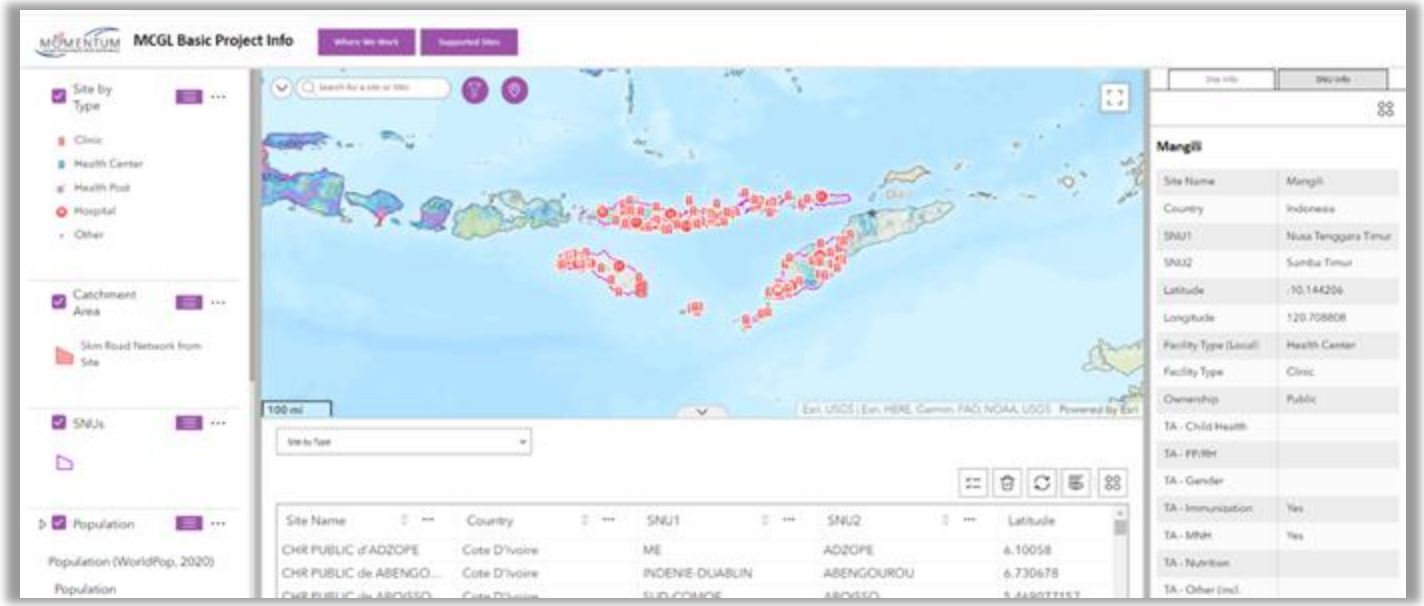
Why Maps?

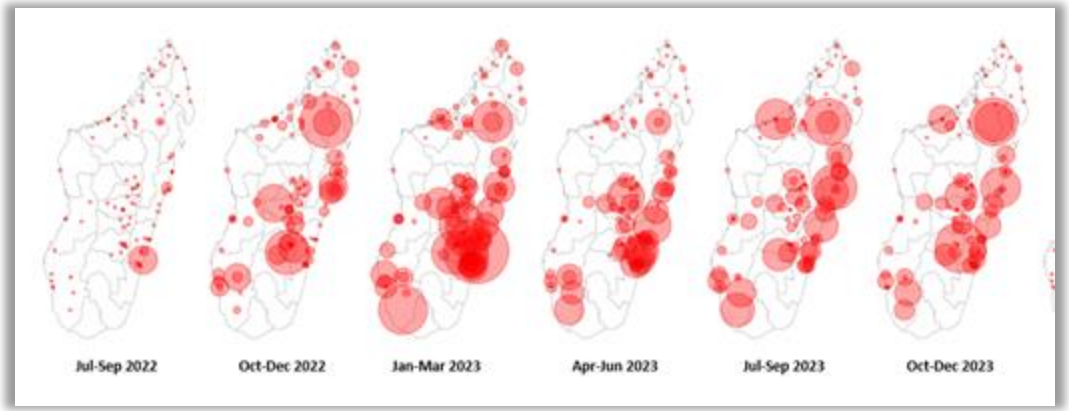
- Health workers have long used maps to understand their data and to drive interventions.
- GIS data sources, software, and statistics can bring data together using location as a common thread.
- All data are spatially distributed. Maps help us understand how results are distributed, and to recognize patterns in space.



Maps in MOMENTUM Country and Global Leadership

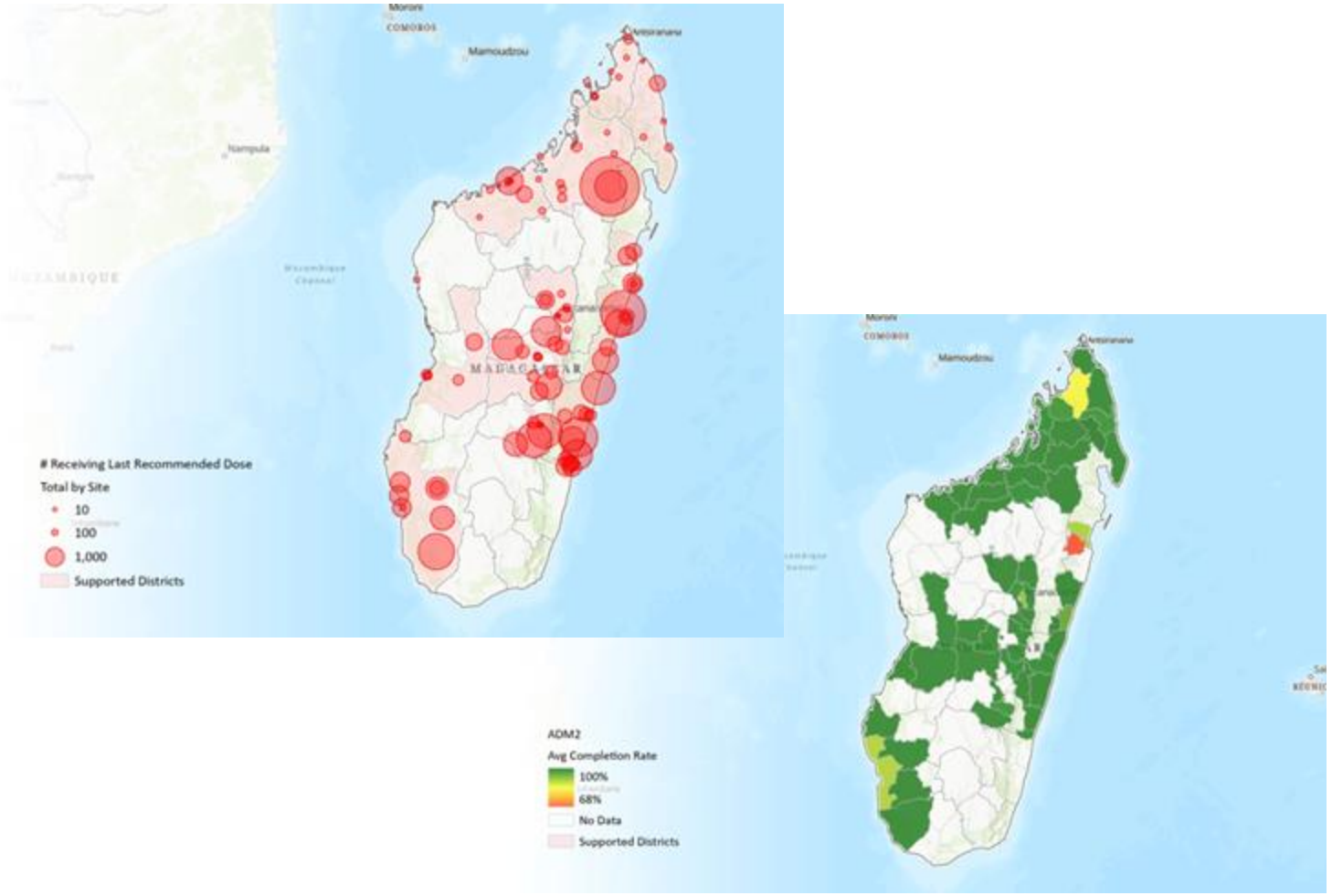






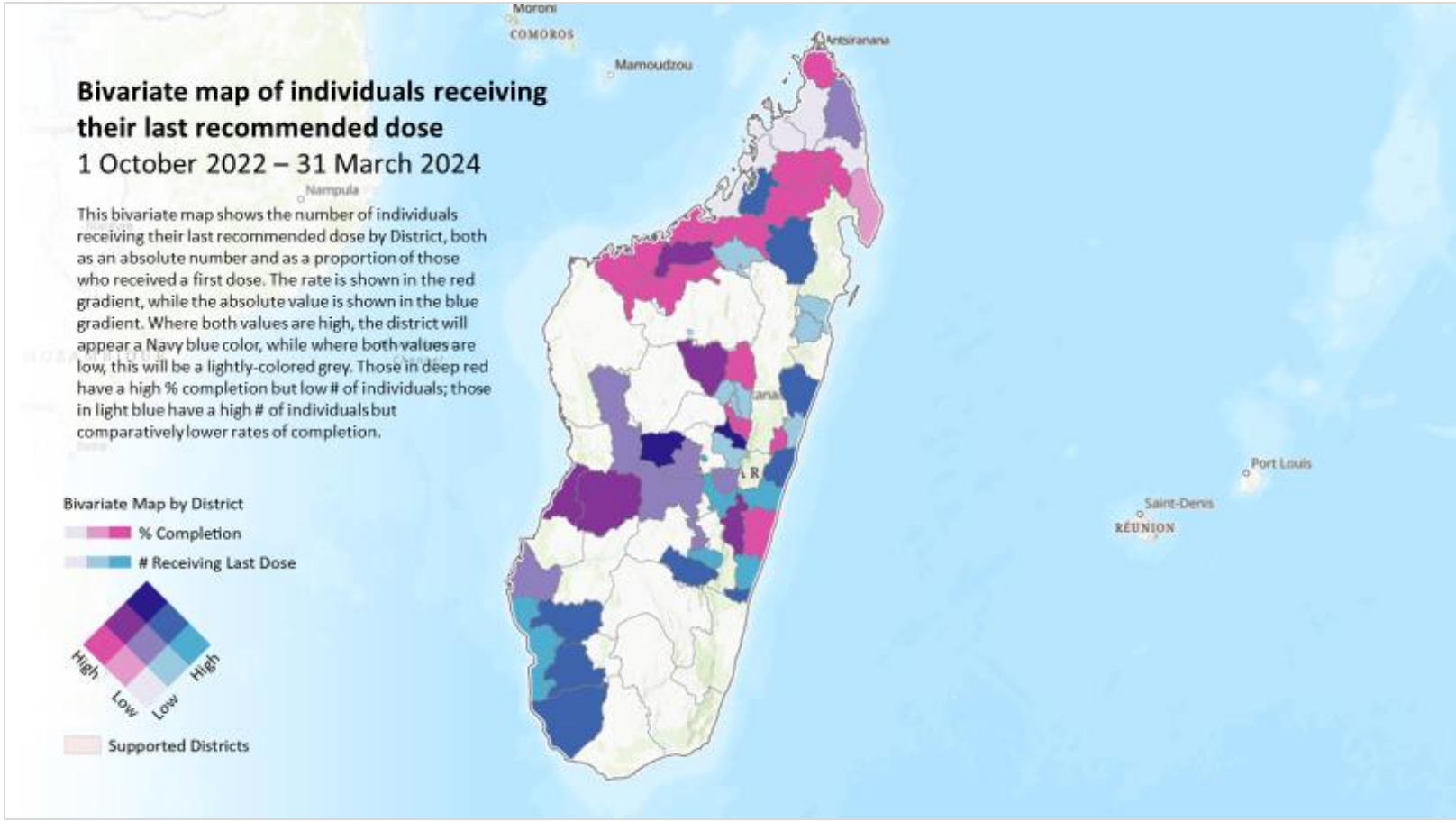
Visualizing RMNCH Data…

- By site or by district.



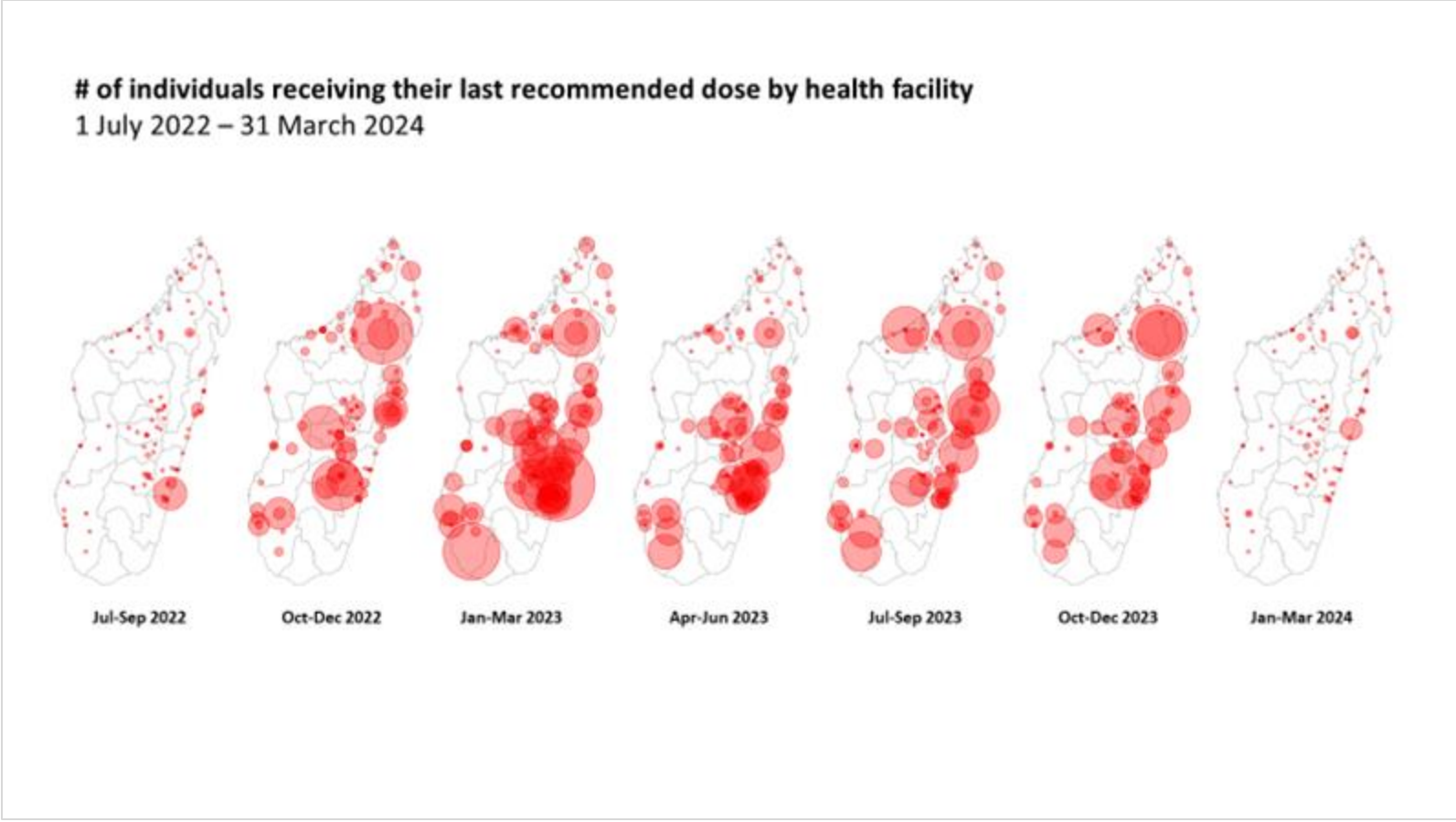
Visualizing RMNCH Data…

- By site or by district.
- With a single indicator, multiple indicators, or as a composite index.



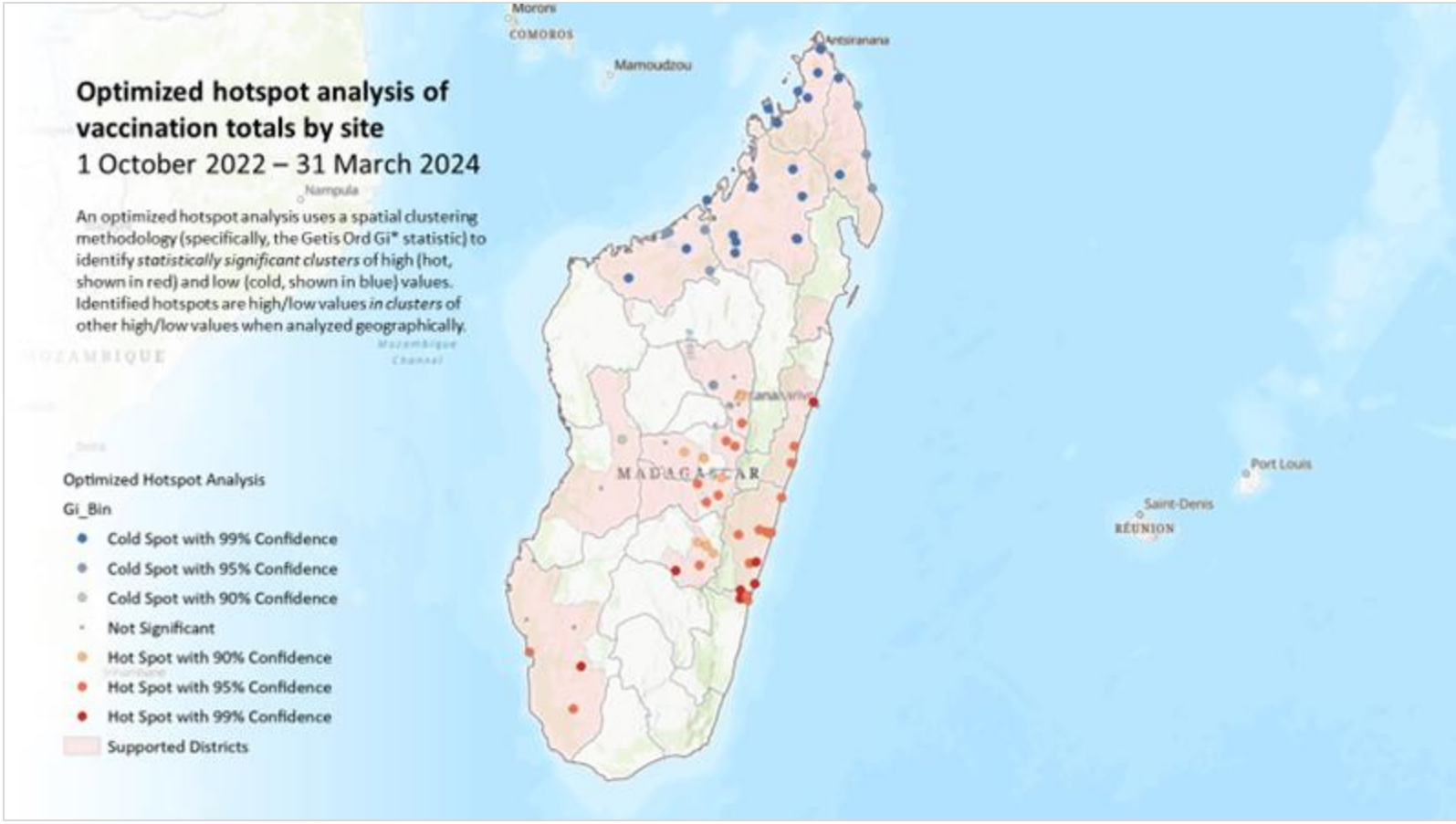
Visualizing RMNCH Data…

- By site or by district.
- With a single indicator, multiple indicators, or as a composite index.
- Aggregated, or in a time series.



Visualizing RMNCH Data…

- By site or by district.
- With a single indicator, multiple indicators, or as a composite index.
- Aggregated, or in a time series.
- As raw values, or computed through spatial statistics.



CASE STUDY: NIGERIA

Mapping to Support Gender-Based Violence (GBV) Response in Ebonyi and Sokoto States

Project Overview

Prevent and mitigate consequences of violence against women and girls, address possible drivers of child, early, and forced marriage, and promote early adoption of family planning

Objective 1

Build capacity of host-country institutions, local organizations, and providers to deliver evidence-based, quality gender-based violence (GBV), child, early, and forced marriage (CEFM) and voluntary family planning services

Objective 2

Increase access to and use of evidence-based, quality intimate partner violence (IPV), sexual violence (SV), CEFM and FP/RH information, services

Objective 3

Adaptive learning and use of evidence in GBV and CEFM programming

Objective 4

Facilitate cross-sectoral collaboration and innovative partnerships among state and non-state IPV, SV, and CEFM organizations/institutions

Implementation Sites

Ebonyi and Sokoto States in Nigeria, supporting 238 health facilities

Consortium Members

jhpiego · Save the Children · MA Insight. Action. Change. The Manoff Group · pact

Local Partners

Ebonyi: DOVENET, ECEWS, EHNRD
Sokoto: NANA, HHSGF, Rural Women & Youth Development

Period of Implementation

October 2020 – September 2024

Background

In Nigeria, **36%** of ever-married women have experienced IPV (Nigeria Demographic and Health Survey, 2018)

53.9% & 35.4% have experienced IPV, in Ebonyi and Sokoto states, respectively (Nigeria Demographic and Health Survey, 2018)

MOMENTUM Country and Global Leadership commenced implementation in 2021 with formative assessment in the two states and GBV services mapping

Co-creation with stakeholders to design evidence-based interventions and iterative work planning

Adaptive Management and Learning

Health facility support (capacity development)	**Community engagement and mobilization**	**Capacity development of local institutions**	**Multi-sectoral response and stakeholder engagement**

Implementation of GBV screening

GBV screening not done at primary health centers (PHCs)

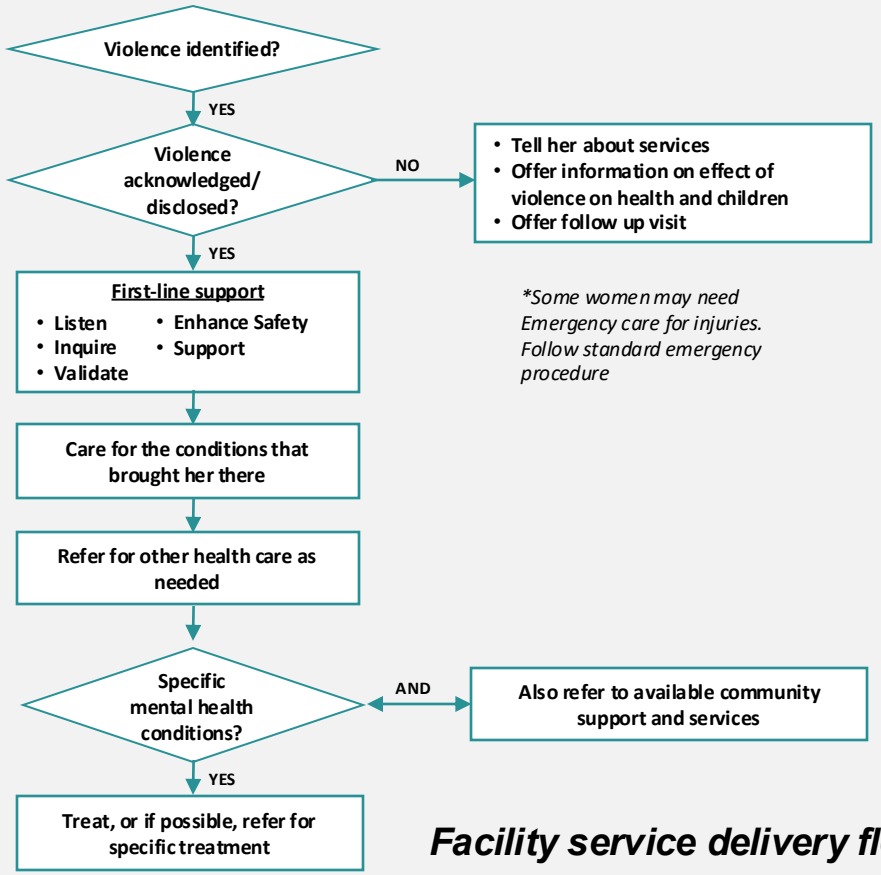
Health providers trained on post-GBV care

Health provider screens clients at outpatient, ANC, and FP visits

Clients disclosing GBV referred to trained provider

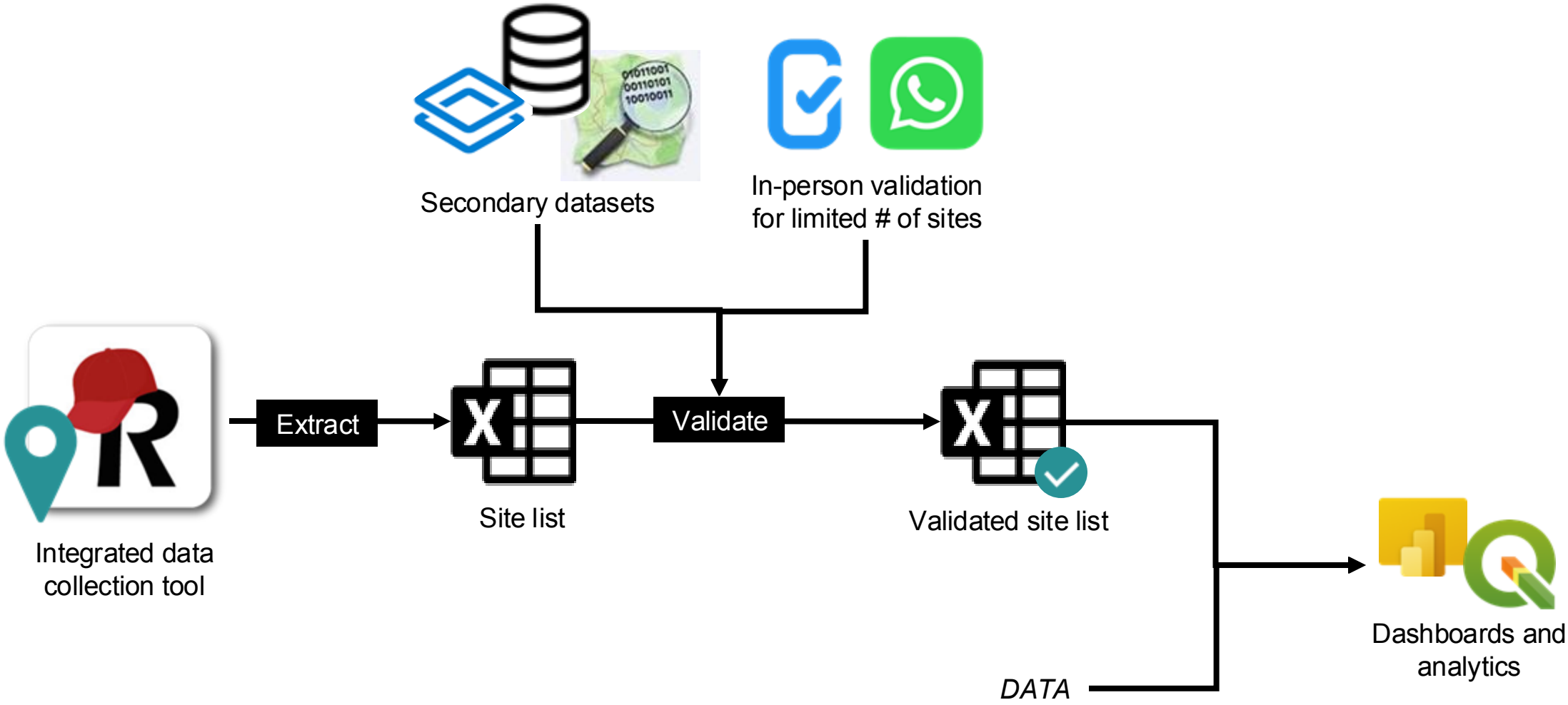
Trained focal person provides post-GBV care

Improved outcomes, e.g., survivor received care, safety assured, HIV prevented, etc.



Facility service delivery flow

GIS Workflow



Why Maps?

- **Key visuals for dashboards:** Program managers wanted to visualize GBV case identification data in dashboards for monthly data review meetings to understand and analyze trends by site and subnational unit over time.

MCGL VAWG Project Implementation Dashboard

USAID FROM THE AMERICAN PEOPLE | MOMENTUM

MOMENTUM COUNTRY AND GLOBAL LEADERSHIP PROJECT

- Executive Summary
- GBV Screening
- GBV Case Identification
- Reported GBV Cases
- Family Planning
- GBV_Services Received
- GBV Referrals
- Cumulative Achievement
- Project PMP Table

Period: Multiple selections

State: Select all | Ebonyi | Sokoto

LGA, HF Name: All

Gender: Select all | Female | Male

70K	4245	39.00	10.00	293.00	2.54K
Total Screened	Total identified ...	Total HF Referrals	Community Referrals	FTMs_PPFP Acc...	Youths_Adolesce...

Map showing MCGL Sites and Total Cases identified

Project Goal: Prevention and mitigation of consequences of violence against women and girls and addressing drivers of CEFM.

Objective 1

Build capacity of host-country institutions, local organizations, and providers to deliver evidence-based, quality GBV, CEFM and voluntary family planning services

Objective 2

Increase access to and use of evidence-based, quality IPV, SV, CEFM and FP/RH information, services.

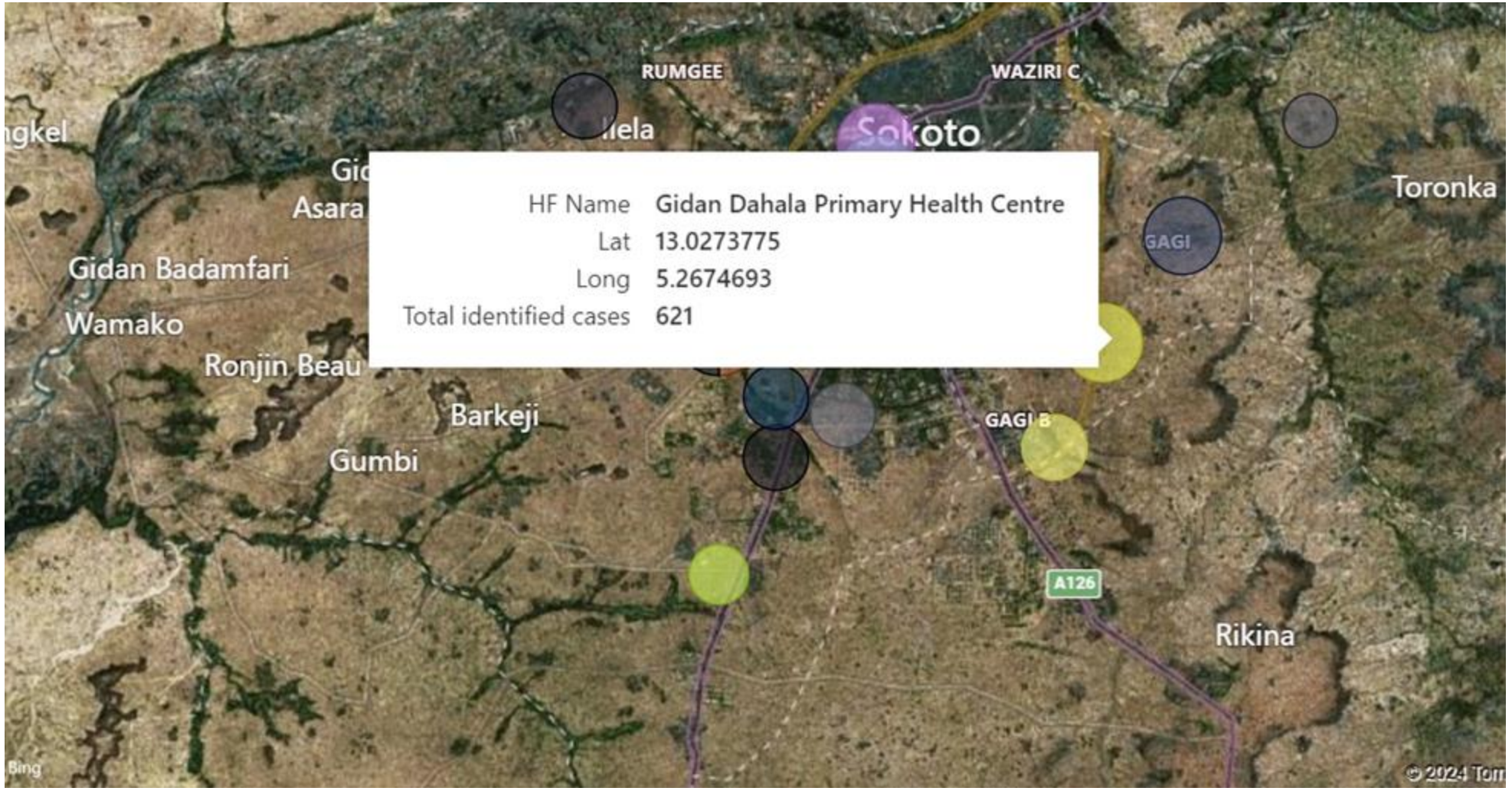
Objective 3

Adaptive learning and use of evidence in GBV and CEFM programming

Objective 4

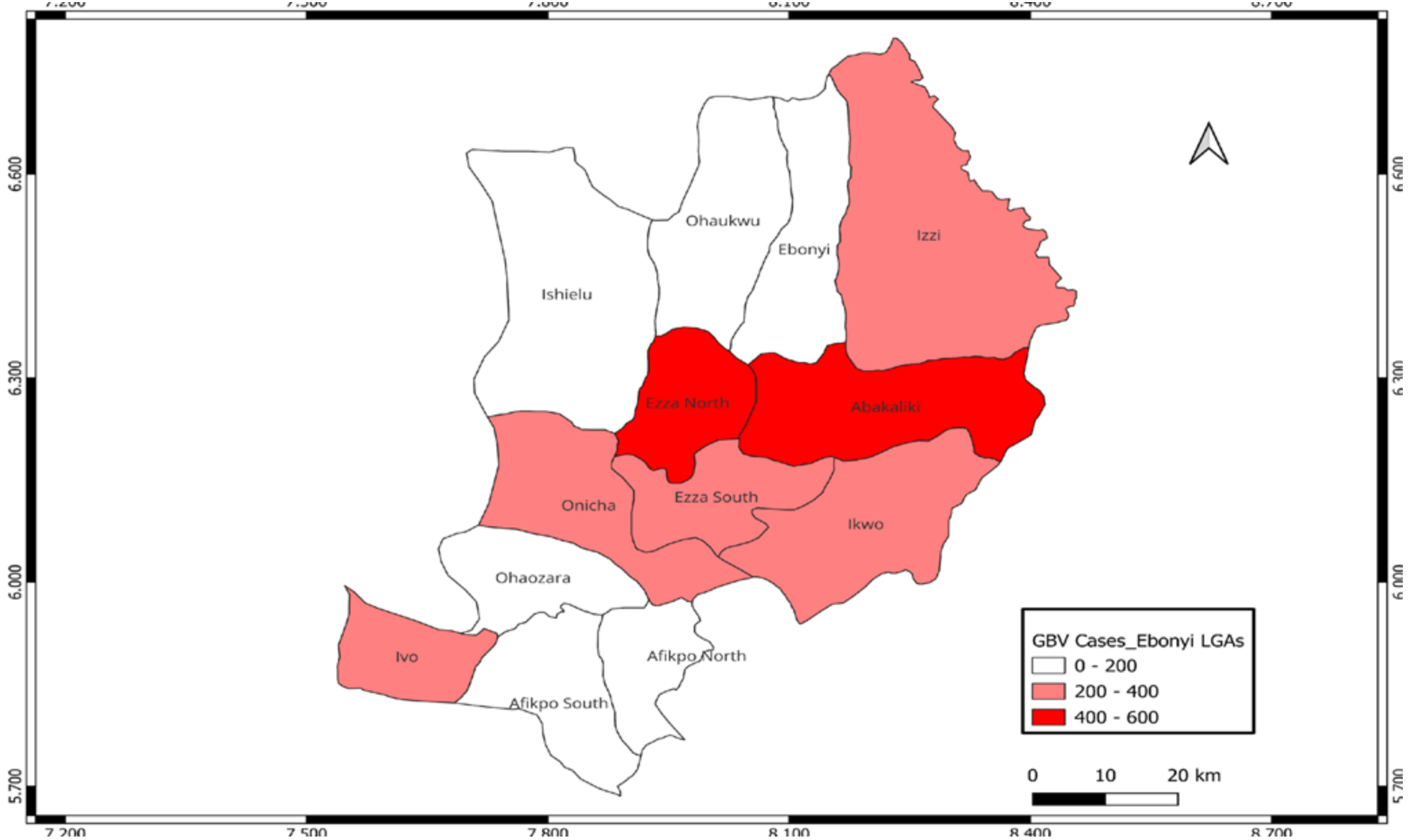
Facilitate Cross-sectoral collaboration and innovative partnerships among state and non-state IPV, SV and CEFM organizations/institutions

Visualizing GBV Cases on the Map



Why Maps?

- **Key visuals for dashboards:** Program managers wanted to visualize GBV case identification data in dashboards for monthly data review meetings to understand and analyze trends by site and subnational unit over time.
- **Understanding high GBV case identification:** For locations with high GBV case identification, the team wanted to explore underlying factors, such as unique practices by health care providers or socio-economic dynamics in the community, to understand and address the reasons for these trends.



Density map shows GBV case load by LGA in Ebonyi State, Nigeria.

Why Maps?

- **Key visuals for dashboards:** Program managers wanted to visualize GBV case identification data in dashboards for monthly data review meetings to understand and analyze trends by site and subnational unit over time.
- **Understanding high GBV case identification:** For locations with high GBV case identification, the team wanted to explore underlying factors, such as unique practices by health care providers or socio-economic dynamics in the community, to understand and address the reasons for these trends.
- **Data to action:** Data from these dashboards and maps were then used to plan next steps, including targeted mentoring visits and refresher trainings for underperforming areas.

CASE STUDY: ZAMBIA

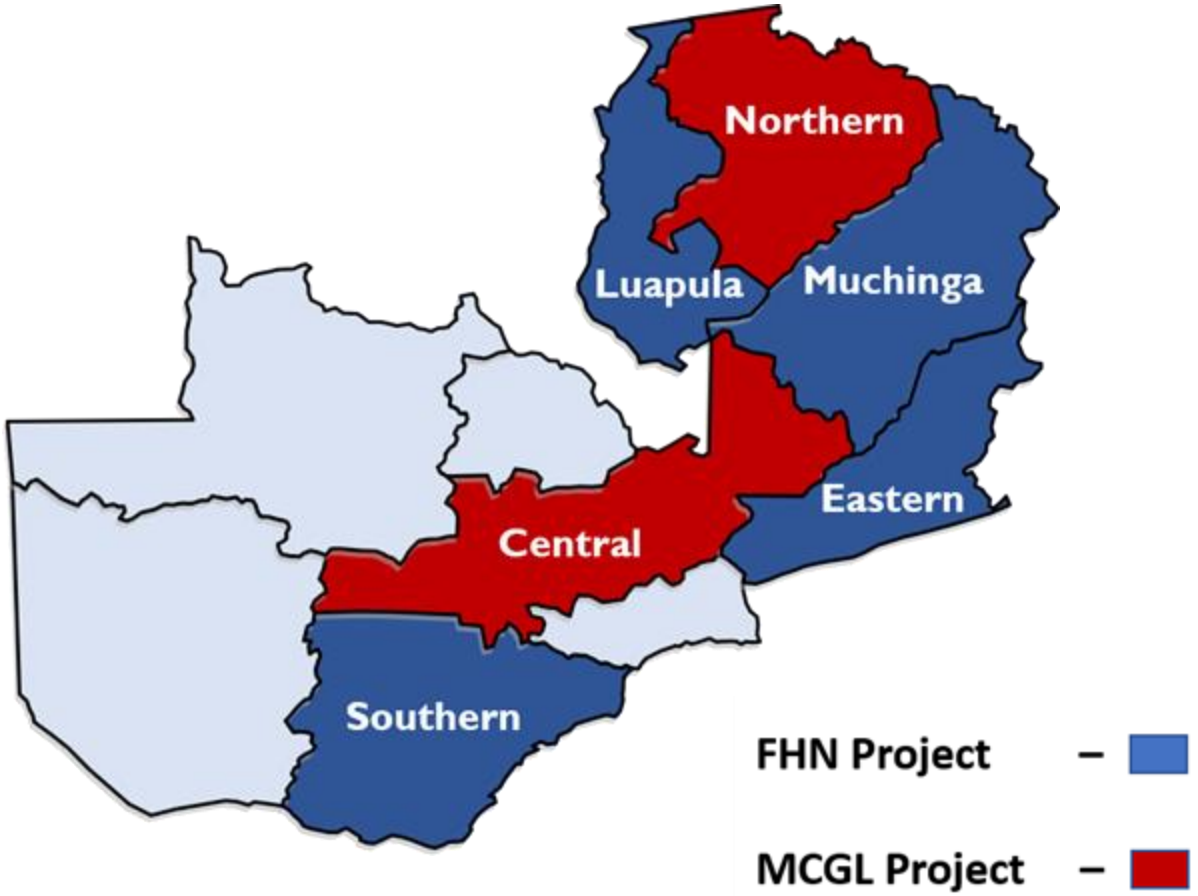
GIS for Maternal and Child Health

MOMENTUM Country and Global Leadership and Family Health & Nutrition (FHN) in Zambia

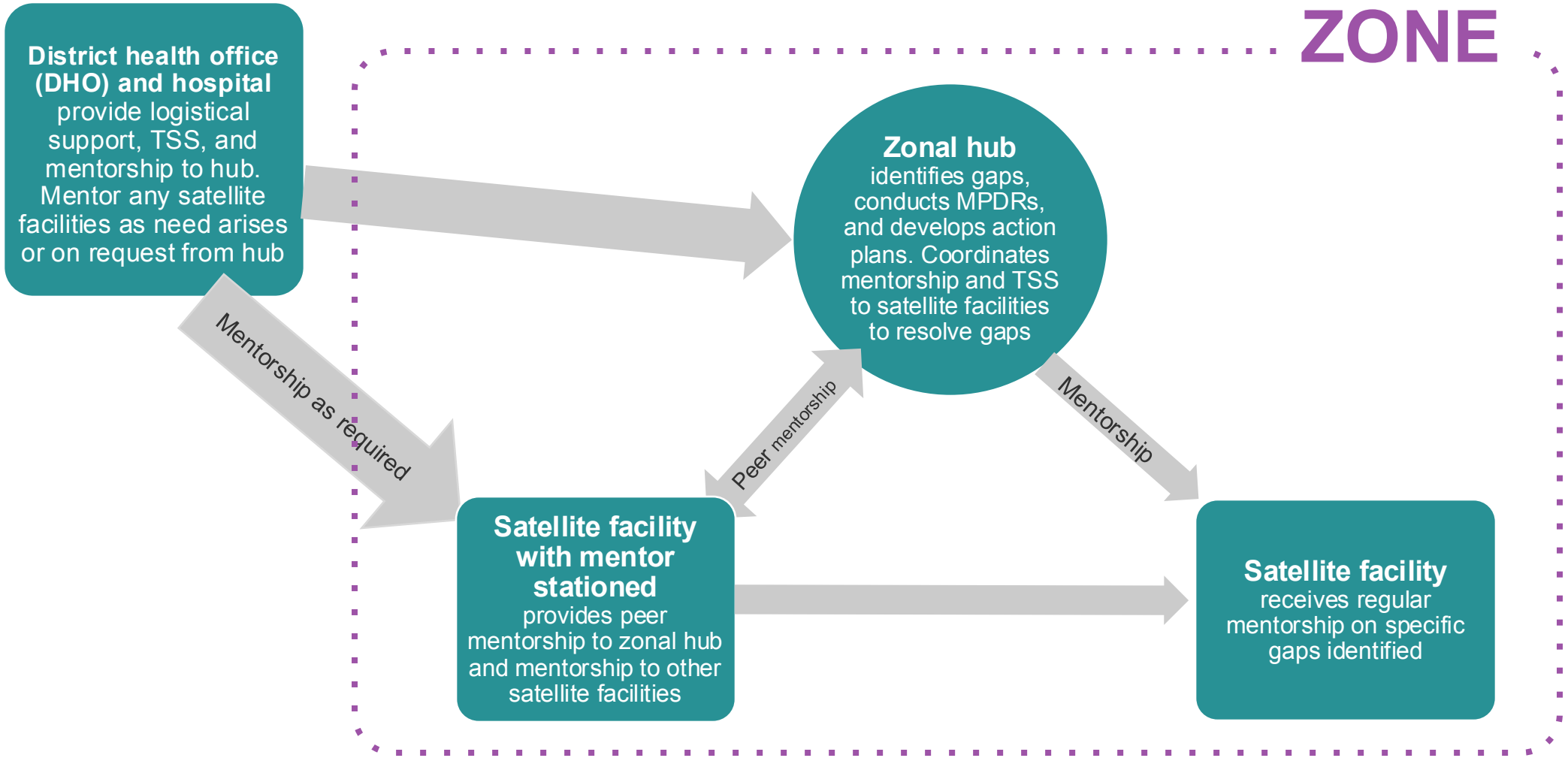
Program goal:
Contribute to the reduction of:

- Maternal mortality ratio from 252/100,000 to 100/100,000 live births
- Under-five mortality ratio from 61/1,000 to 35/1,000 live births

by building the capacity of Government of the Republic of Zambia, communities, and local partners to improve health system accountability and performance to deliver high-quality, accessible RMNCAH&N care.



Zonal Mentorship Model

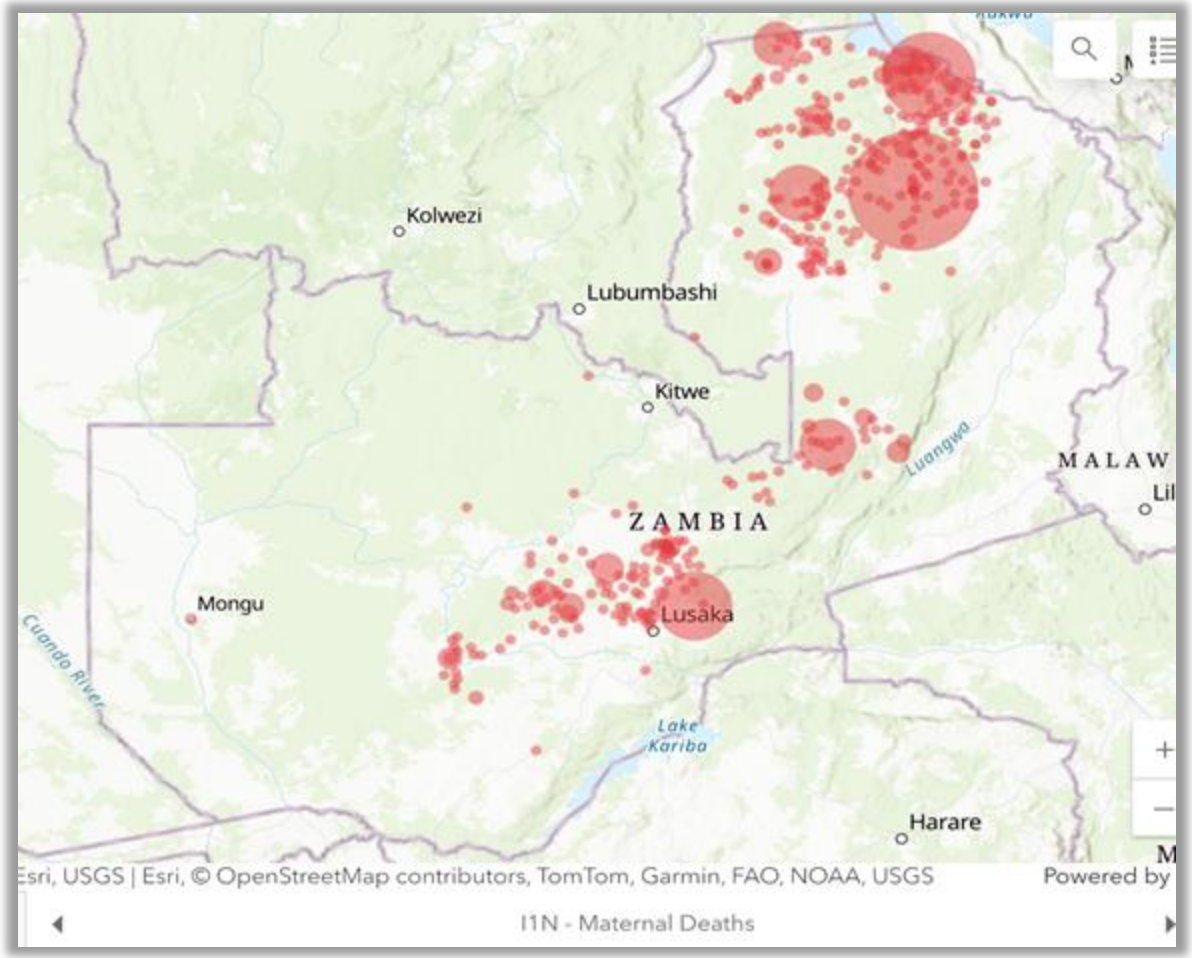


TSS: tailored supportive supervision; MPDR: maternal and perinatal death review

Using GIS to Solve Problems

GIS analysis:

- Using GIS analysis integrated into dashboards to identify high-volume and low-volume sites.



Using GIS to Solve Problems

GIS analysis:

- Using GIS analysis integrated into dashboards to identify high-volume and low-volume sites.
- Using GIS tools and statistics to identify hot spots and clusters of high and low values.

Using GIS to Solve Problems

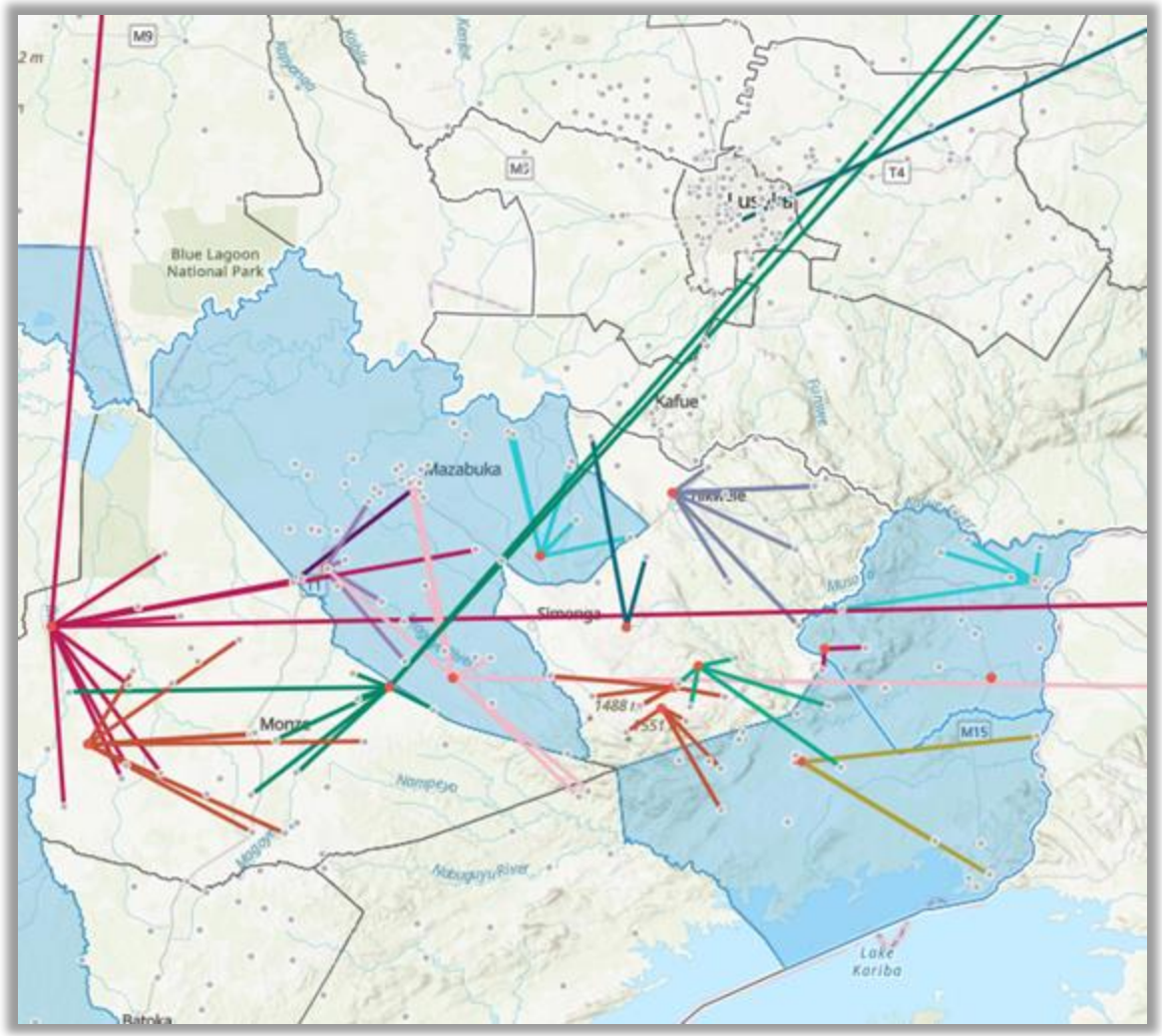
GIS interventions:

- Identifying priority districts based on GIS hot spot data.
- Structuring targeted facility mentorship and quality improvement around GIS data.

Using GIS to Solve Problems

GIS interventions:

- Identifying priority districts based on GIS hot spot data.
- Structuring targeted facility mentorship and quality improvement around GIS data.
- Visualizing the zonal mentorship model.
- Capacitating referral systems using network analysis.



Lessons Learned

- **Data quality challenges:** In addition to regular data quality challenges we see in routine RMNCH data (timeliness, completeness, etc.), incorporating GIS can introduce new types of data quality issues (accuracy of locations, consistency of naming, appropriate precision).
- **Caution** is needed in interpretation: Some GIS concepts can get complex (What do we mean by a “hot spot”? How do we compare two geographic units of different sizes?), and correctly reading a map means taking time with the data.
- **Opportunity:** Despite these challenges, using maps provides an opportunity to understand our results and our context in new and better ways, and can be extremely useful for decisionmakers and planners.

Data for Action

Improving RMNCH Program Performance in Low- and Middle-Income Countries

Mary Drake

September 12, 2024

USAID FROM THE AMERICAN PEOPLE

MOMENTUM A Global Partnership for Health and Resilience

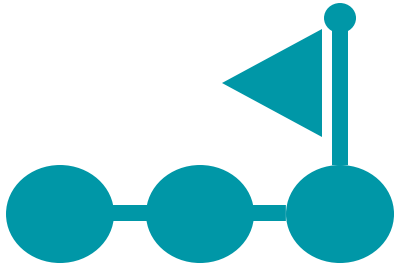
Basics of Data for Action (D4A) Meetings

What is it?	D4A meetings are intended to provide a platform to: • Review progress made on a small set of prioritized indicators (which have been agreed to previously and are presented in visualizations/dashboards to facilitate review). • Review and provide feedback on the quality of data. • Identify the problem(s), conduct root cause analysis, and generate concrete follow-up actions.
Guiding questions	• What are the trends in the indicators? Is the situation getting better, worse, or staying the same? • What is the problem? What are the root causes of the problem? • What actions will we take to address the problem(s)?
Key tools	• Agenda. • Data interpretation tool. • Root cause analysis template. • Action plan template.
Where to integrate?	• Existing learning mechanisms, meetings, and processes. • +Quarterly report planning, +portfolio reviews, +lessons learned plus meetings, +work planning. • Monthly meetings, stakeholder meetings.

How to Use D4A Meetings

PHASE	DETAILS	TOOLS AND TEMPLATES
1. Prepare	Set meeting focus and objectives. Select indicators. Organize team. Prepare visualizations, resolve data quality issues, and describe the trends. Develop and circulate agenda.	Annex 1: RMNCH service delivery indicators. Annex 2: Stakeholder tool. Annex 3: Data interpretation tool. Annex 4: Sample agenda.
2. Conduct	Describe trends and identify gaps and outliers. Analyze root causes. Develop action plan and revisit action items from last meeting.	Annex 5: Example uses of the data interpretation tool. Annex 6: Root cause analysis template and example. Annex 7: Action plan template.
3. Follow up	Implement changes. Track progress.	

How to Use D4A Meetings



PREPARE

Set meeting objectives and agenda, identify meeting lead and organize team, select indicators, prepare data visualizations, resolve data quality issues

Schedule session and invite participants

CONDUCT

Review and interpret data**,** identify problem, conduct root cause analysis, develop action plan

Assign facilitators, notetakers, and time-keepers

DOCUMENT & SUBMIT

Complete action plan template

Submit:

- root cause analyses
- action plans

Follow-up as needed

Indicator Selection

Selecting Indicators for Adaptive Management

- **Shows variation over a short time span:**
    - An indicator that measures a key outcome but will only show significant improvement over a year or more is not an indicator that can drive real-time adaptive management.
- **Reliable**: Data are fairly complete and of good quality.
- **Valid:** Measures a desired outcome or a close proxy of it.
- **Easy to understand:** Makes sense to those who need to act on the information.
- **Easy to collect:** Data collection is not burdensome.
- **Presented in granular fashion:** (e.g., per operating unit) to facilitate comparisons between operating units and to encourage emerging learning about why some are doing better than others.

Be Selective

- Not all priority indicators need to be reviewed at every data review meeting. There should be enough time to not only review each indicator, but also to interpret it, go through a root cause analysis, and then plan follow-up actions.
- As a general rule, in a one-day meeting, three to five indicators can be discussed. For six to 10 indicators, an additional half-day will be required.
- Annex 1 serves as a starting point for staff to choose indicators for review in a maternal and newborn health-focused data for action meeting.
- This list will need to be adapted to each country context, taking into account the content of the national HMIS and the current recommended global RMNCH indicators.

Recommended Indicator Lists

1A: MNH INDICATORS

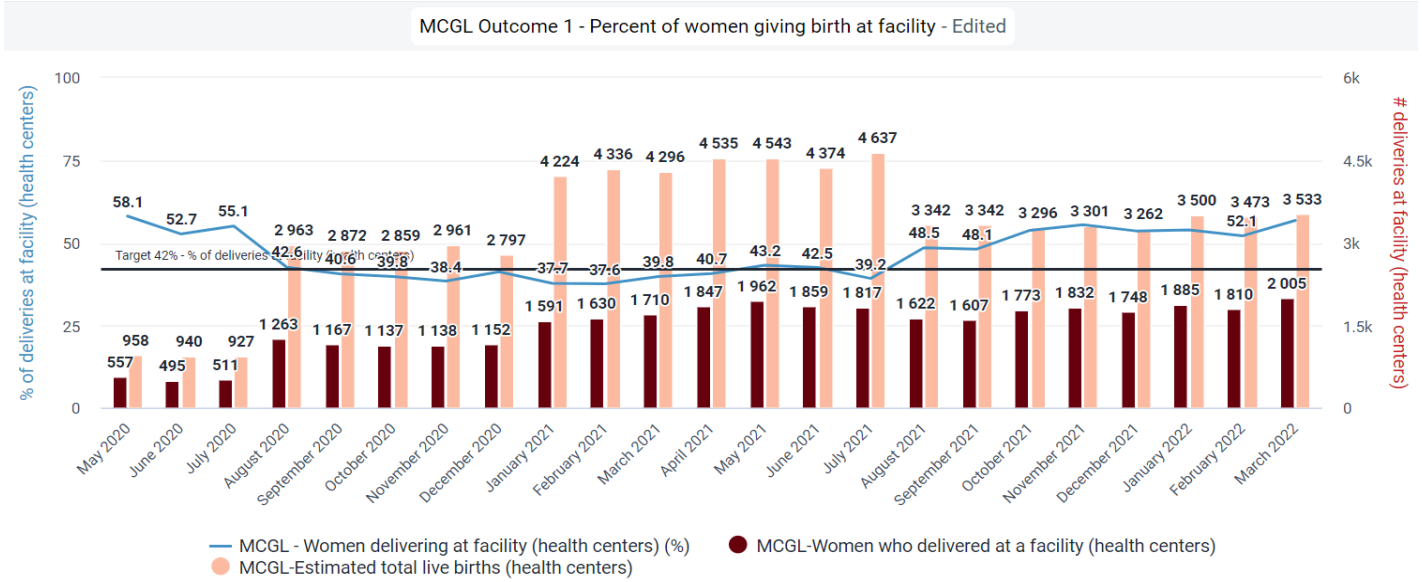
Adapted from MCSP Resource Package for Visualizing and Using Routine Reproductive, Maternal, Neonatal, and Child Health Data at Health Facilities: A Resource Package for Health Providers and District Managers, 2018.

Indicator	Numerator	Denominator	Frequency of data collection
Institutional deliveries. Number of deliveries conducted in a health institution	Number of deliveries conducted in a health institution in the specified time period.	not applicable	Monthly
Uterotonic. Proportion (%) of women receiving a uterotonic to prevent postpartum hemorrhage immediately after the birth of the baby	Number of women receiving a uterotonic immediately after the birth of the baby in the specified time period	Total number of women delivered at health facility in the specified time period	Monthly
Essential newborn care. Proportion (%) of newborns breastfed within one hour after birth	Number of newborns breastfed within one hour after birth in the specified time period	Total number of live births at health facility in the specified time period	Monthly
Essential newborn care. Proportion (%) of newborns placed skin to skin immediately after birth	Number of newborns placed skin to skin immediately after birth in the specified time period	Total number of live births at health facility in the specified time period	Monthly
SPE/E. Proportion (%) of severe preeclampsia / eclampsia cases treated with MgSO4	Number of women with severe PE/E who received MgSO4 in the specified time period	Total number of severe PE/E cases identified at health facility	Monthly
Newborn resuscitation. Proportion (%) of newborns not breathing/crying at birth who were successfully resuscitated	Number of newborns breathing/crying at birth who were successfully resuscitated in the specified time period (tactile stimulation and bag and mask)	Total number of live newborns at health facility not breathing/crying at birth in the specified time period	Monthly
Institutional maternal mortality. Proportion (%) of very early institutional maternal deaths prior to discharge (% of deliveries)	Number of very early institutional maternal deaths due to obstetric cause prior to discharge in the specified time period	Total number of women delivered at health facility in the specified time period	Monthly

- Annexes 1A and 1B in the D4A guide.
- Global indicator lists:
  - The Network for Improving Quality of Care for Maternal, Newborn and Child Health. (2019). Quality of care for maternal and newborn health: A monitoring framework for network countries. (See Annexes 1-3 for indicator list.)
  - WHO. (2023). Analysis and use of health facility data: guidance for maternal, newborn, child and adolescent health programme managers.

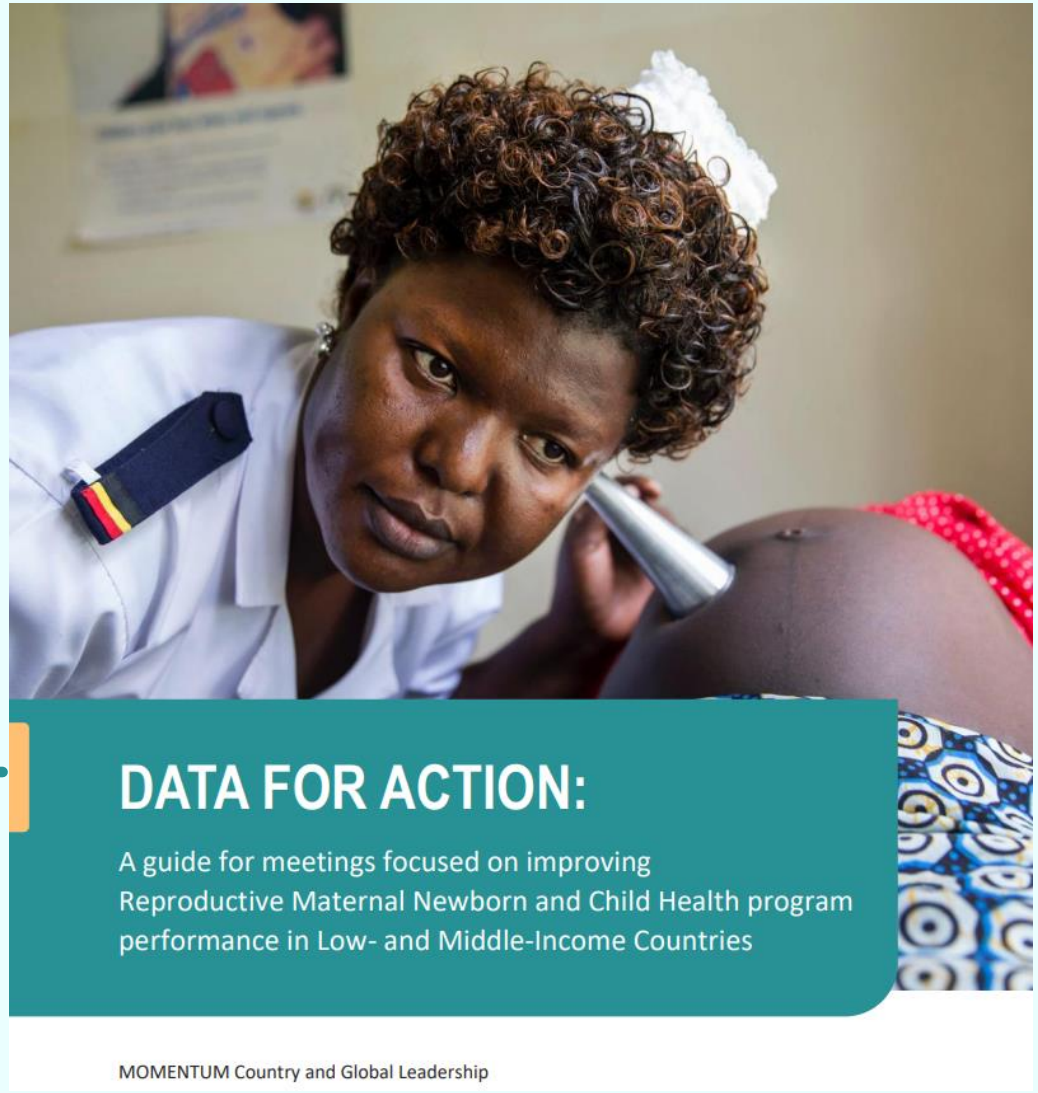
Data Interpretation

Data Interpretation Tool: Identify the Problem



LEVEL: PROGRAM	INDICATOR OBSERVATIONS: TREND, DATA QUALITY, ETC.	NUMERATOR OBSERVATIONS	DENOMINATOR OBSERVATIONS	DISCUSSION
	1. Is the performance of the indicator the same over time or does it change? If it is changing, why is it changing? 2. Is the performance of the indicator changing in similar or opposite ways compared to a related indicator(s)? 3. Do trends in the indicator suggest care is improving, getting worse, or staying the same?	Describe changes, is it stable or not?	Describe changes, is it stable or not?	State the problem, what can be contributing to the problem, brainstorm possible actions to address.
MOMENTUM Country and Global Leadership-supported area	Upward trend from 20% range to 30% to upper 40%/low 50%. May–July 2020: There was a true low number of women giving birth in HF and a low estimate. August–December 20: The number increased but estimate doubled. Jan 2021–March 2022: Stable number of births but estimate fluctuating.	Number increasing initially then remaining relatively stable.	August–December 2020: Higher number of estimated births. January–July 2021 estimate much higher than August 2021–March 2022.	What can the program do to increase facility birth? Where is the program prioritizing and when is change expected?

Root Cause Analysis



5 Whys Versus Fishbone

To understand the multiple causes of a problem, which tool will be helpful to use?

a. Five whys
b. Fishbone ☒
c. Process flow chart
d. Pareto chart

To understand a single underlying cause of a problem in depth, which tool will be helpful?

a. Five whys ☒
b. Fishbone
c. Process flow chart
d. Pareto chart

Root Cause Analysis: 5 Whys

Understanding why something is the way it is:

- Mothers are not breastfeeding.
    - **Why?**
- They feel uncomfortable taking their gowns off.
    - **Why?**
- The gown opens at the back, so they have to take the entire gown off to breastfeed, so they feel uncomfortable.
    - **Why** do they have this type of a gown?
- That is what the storekeeper orders.
    - **Why** doesn't the storekeeper order gowns appropriate for breastfeeding?
- Because no one has requested him to do that.

Understanding why something is the way it is—alternative scenario:

- Mothers are not breastfeeding.
    - **Why?**
- They feel uncomfortable taking their gowns off.
    - **Why?**
- There is no privacy to breastfeed, so they feel exposed.
    - **Why** is there no privacy to breastfeed?
- They are in a common ward. There are no curtains or separate covered space for privacy for breastfeeding.

Root Cause Analysis Example: 5 Whys

PROBLEM	WHY DOES THIS HAPPEN? Each why should go deeper and explain the previous why until we arrive at the root cause.
Facility births are still low	1. Some women have poor access because of distance from the facility. 2. They do not have funds to pay for transport. 3. There are not sufficient funds in the community transport fund. 4. Some village leaders have not gotten enough support for the village transport fund. 5. There is no ongoing encouragement and tracking of village leaders from the provincial level to motivate them.

There are several techniques and strategies that can be used for root cause analysis. One of the more common techniques for doing a root cause analysis is the Five Whys approach. This is a simple but powerful tool for cutting quickly through the most obvious symptoms of a problem to reveal the underlying causes of problem or trend. Each answer to a "why" question is followed up with an additional, deeper "OK, but why?" question. Common wisdom suggests that after about five why questions, participants will get to the root cause. The Five Whys serves as a way to avoid assumptions.

Resources:

- https://youtu.be/_56GhHgGU2U
- https://www.ihi.org/resources/Pages/Tools/5-Whys-Finding-the-Root-Cause.aspx

Root Cause Analysis: Fishbone

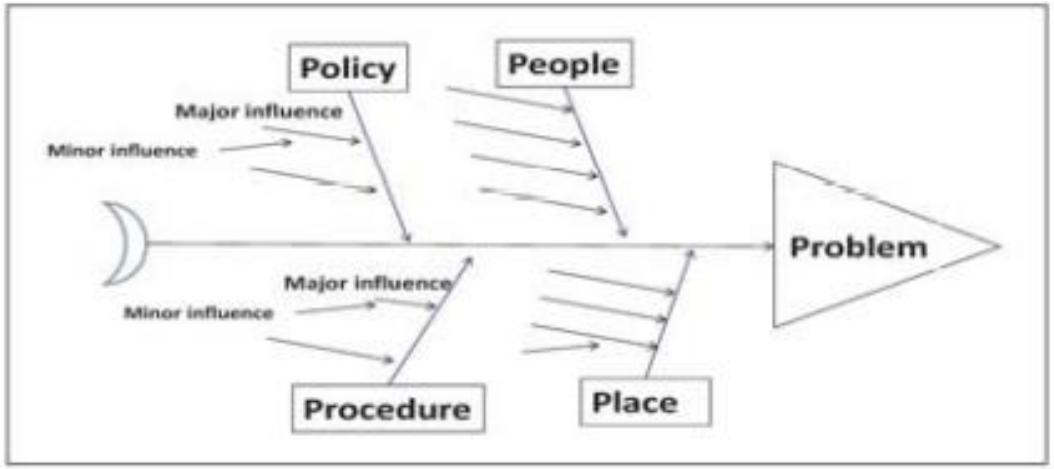
Fishbone diagrams help identify all possible contributing factors.

Why might a problem be happening?

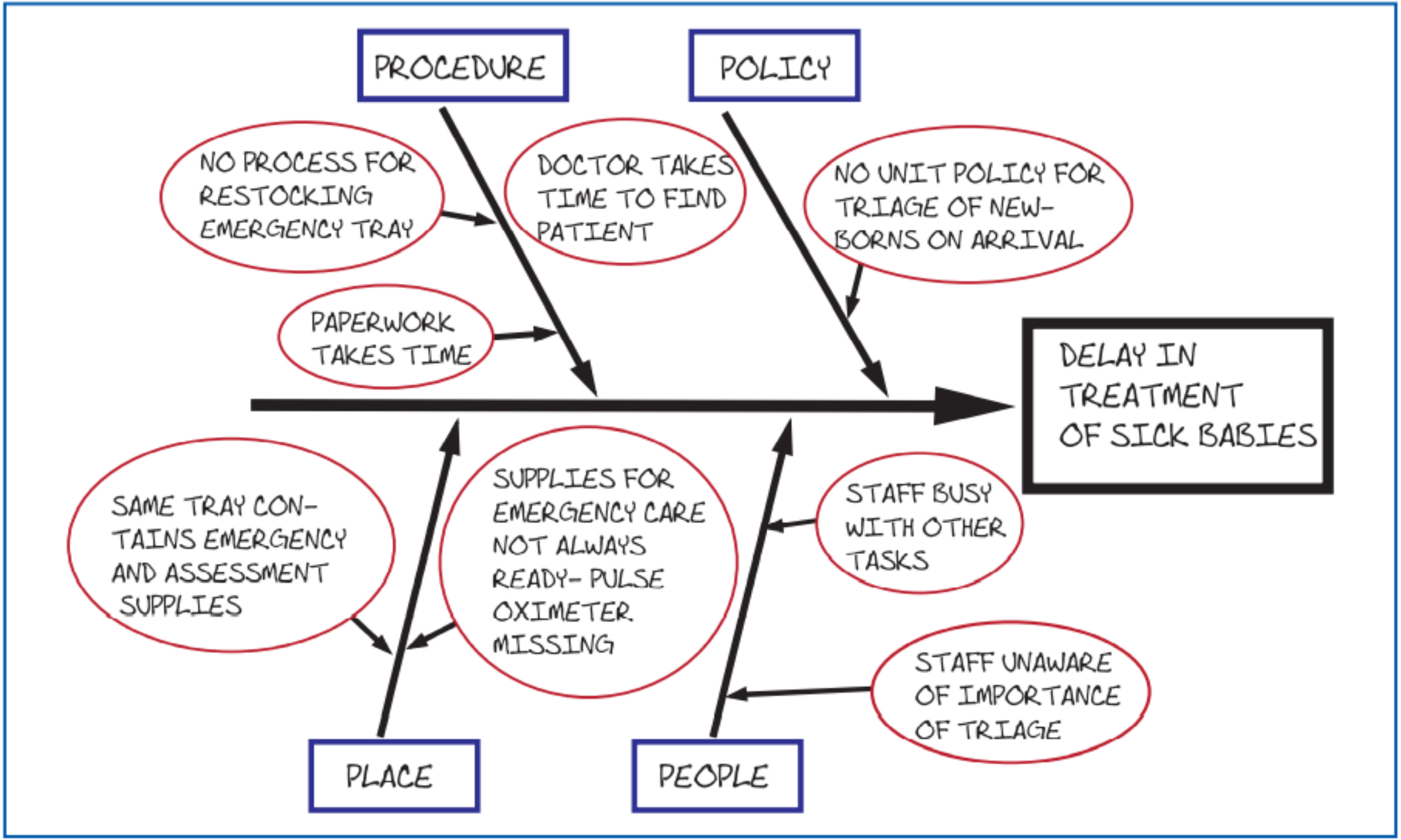
- People.
- Places.
- Procedures (practices).
- Policies.
- Anything else.

Root Cause Analysis: Fishbone

Fishbone Diagram



- One way to determine the possible causes of the problem is to draw the fishbone diagram (which looks like a fish skeleton when completed).
- There are four broad categories of causes for any observed problem:
  - People: People may not know what to do or how to do it.
  - Place: The place you are doing the work may make it hard to do the work. For example, there may be no equipment or equipment is kept too far from where it is needed.
  - Procedure: The way work is done may be contributing to the problem. For example, tasks are being done in the wrong order or at the wrong time.
  - Policy: There may be no policies or policies may be wrong or non-specific


PROCEDURE
POLICY
NO PROCESS FOR RESTOCKING EMERGENCY TRAY
DOCTOR TAKES TIME TO FIND PATIENT
NO UNIT POLICY FOR TRIAGE OF NEW-BORNS ON ARRIVAL
PAPERWORK TAKES TIME
DELAY IN TREATMENT OF SICK BABIES
SAME TRAY CON-TAINS EMERGENCY AND ASSESSMENT SUPPLIES
SUPPLIES FOR EMERGENCY CARE NOT ALWAYS READY- PULSE OXIMETER MISSING
STAFF BUSY WITH OTHER TASKS
STAFF UNAWARE OF IMPORTANCE OF TRIAGE
PLACE
PEOPLE

Root Cause Analysis Example: Fishbone

Action Plan

ENTITY/ FACILITY or DISTRICT:		DATE OF MEETING:	
INDICATOR	**ACTION**	**RESPONSIBLE PERSON**	**DEADLINE**

Documenting: D4A Meeting

- Place all resources on project Microsoft SharePoint or Teams under Pause and Reflect (PAR):
  - Data interpretation tool (includes data visualization).
  - Root cause analysis.
  - Action plans.

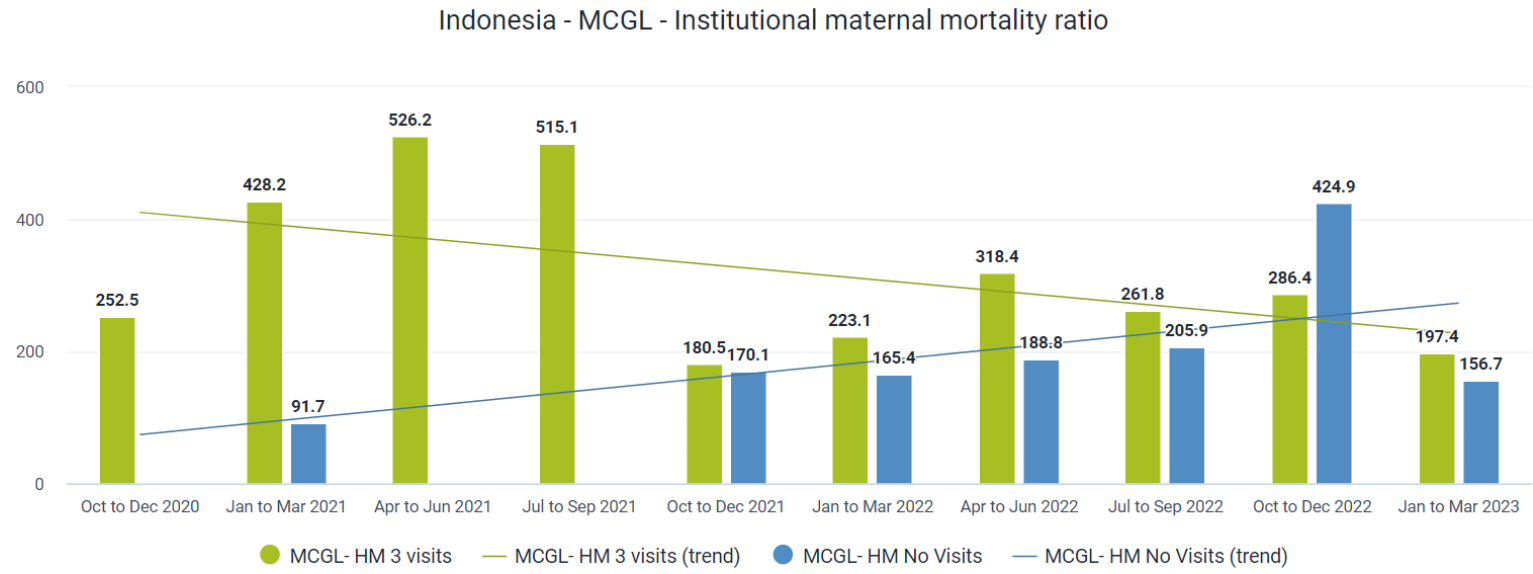
Key Roles and Responsibilities

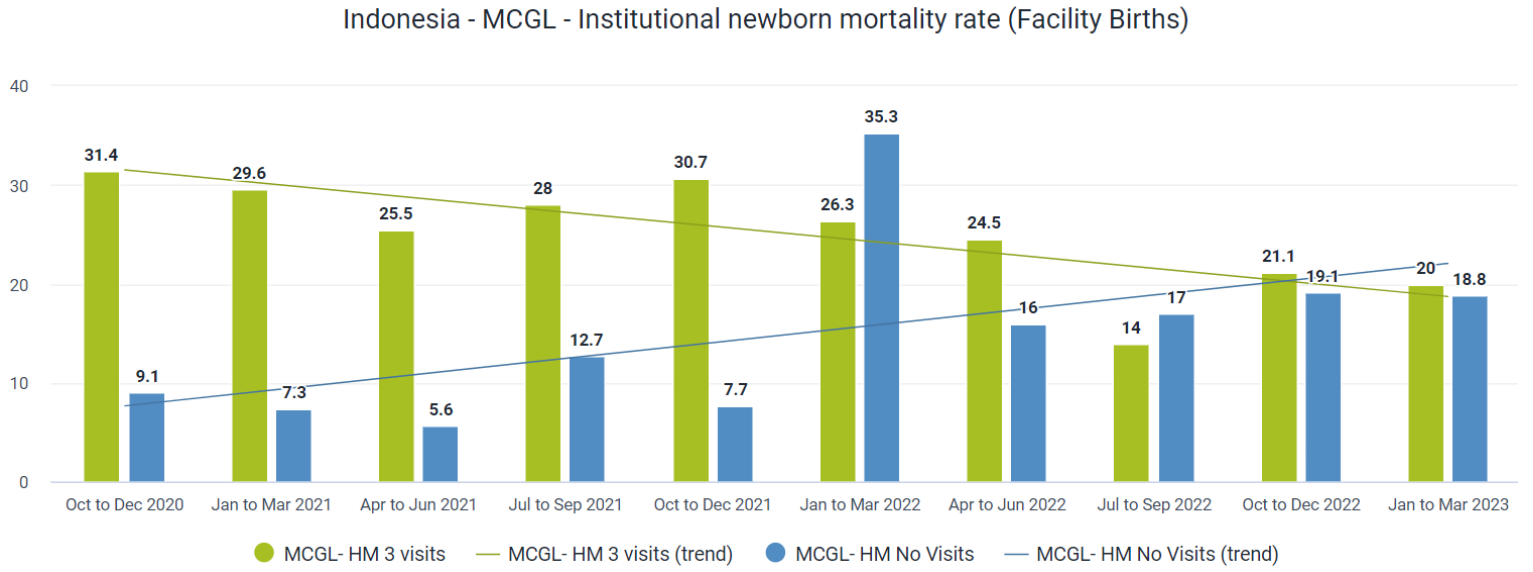
TASK	RESPONSIBLE
Set ground rules for the breakout groups	Facilitator
Keep time (start and finish on time)	
Facilitate the root cause analysis discussion	
Support online collaboration tool for developing root cause analysis	Assign note-taker to prepare this in advance
Submit root cause analysis	Notetaker
Facilitate discussion on priority actions and ensure group develops action plan	Facilitator
Write down details of action plan on action plan template	Notetaker
Submit action plan to team site	Notetaker

D4A Use in Indonesia and Zambia

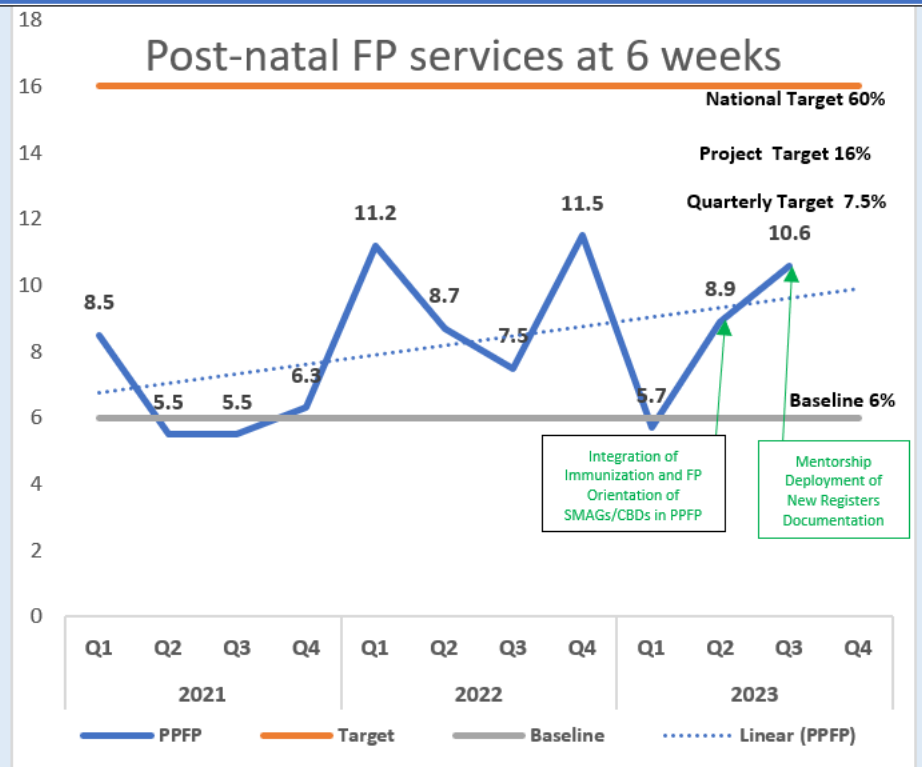
Indonesia D4A

Decreasing institutional MMR and NMR rate in **hospitals** receiving clinical/QI mentoring support versus unchanged/increasing rates in **hospitals** with no clinical/QI mentoring support (higher baseline mortality in hospitals targeted for clinical/QI mentoring)





Zambia D4A

Complete BEFORE review meeting in discussion with technical team				Complete DURING review meeting	
Indicator[ii]	**Objective: Why is it important?**	**Technical Discussions: What questions will you ask based on performance against target/benchmark?**	**Visual: How would you like the data visualized?**	**Data-Informed Actions from the Review**	**Action taken since last review: W were taken based on the data a the results?**
Indicator: Percentage women who access Post-Partum Family Planning Services. Post-natal FP services at 6 weeks **Numerator:** Number of women accepting Family Planning at 6 weeks post-partum **Denominator:** Estimated number of deliveries	To prevent unplanned conception. The baby will be breast fed according to the recommend period of 2 years It an opportunity to integrate two services (Family Planning & Immunizations) To reduce preventable maternal death	**Do facilities have the FP Commodities?** **Do all women access Post-partum family planning services?** **Is the register being documented correctly/fully?** **What challenges exist?** **What strategies worked? How can we apply elsewhere?**		Low uptake of PPFP Lower than expected percentage of PP women are taking up/accepting FP Some improvement relative to baseline, but not enough. We are still well below the target. Fluctuations from quarter to quarter	**Interventions delivered/When** District with low PPFP Mapped **Qtr. 1, Feb 23** Community engagement to incre community linked indicators. **Qtr. 3, Aug 23** Deployment of FP Registers/ Onsite Orientation on document and data capturing. **Qtr. 2, Sept 23** Integrate FP and Immunizations. **Qtr. 2, Apr 23)** Onsite orientation of SMAGs/ CBDs in PPFP and Respective Maternity care. **Qtr. 3, Aug 23** Conducted onsite mentorship on data capturing PPFP at 6 weeks. **Qtr. 3, Sept 23**

Distinct interventions developed to respond to the low postpartum family planning (PPFP):

Onsite mentorship to facility staff to integrate family planning (FP) into clinics for children under the age of 5 years targeting mothers who bring children for Pentavalent 1 at 6 weeks

Intensify on engaging community leaders and promote integrated outreach activities

Supported facilities with official standardized new updated registers that improved complete documentation of the service provision

6 Districts were provided with HMIS tool onsite orientation, data reviews and deployed with new registers and developed action plans to address the identified gaps.

Community sensitization on importance of PPFP

Consideration	
Project interventions being delivered as designed and planned	Yes
Actions related to program improvement	
Internal actions of project	Strengthening data reviews for QI/QIA, strengthening community-facility linkages, mapping facilities with lower performance, documentation and data verification
External support to MOH	Mentorship, orientation, provision of Job aid, FP wall chart and reproductive health rights to family planning, capacity building to MOH staff, Integrated outreach
Types of actions	
Health systems	Orientation/deployment of source documents/integration of FP activities and immunizations/community engagement Data capturing tools are not aligned to indicator definition
Client experience of care	
Community engagement	Community-based FP distributors were orientated in PPFP in two districts (Mungwi and Kasama) targeting priority facilities
Health care worker performance	Activity is limited to postnatal care at 6 weeks and not beyond
Actions related to data quality	Technical and supportive supervision on documentation in new revised registers to ensure completeness, accuracy, consistency and reliability of data and conducting DQAs

D4A Checklist

Visualization

- ☐ Indicator definition is clear. Can put a footnote with numerator and denominator if needed.
- ☐ Visual includes baseline value
- ☐ Visual includes project target
- ☐ Visual includes national target
- ☐ Visual included annotation on which interventions are delivered and when
- ☐ Includes trend line

Interpretation

- ☐ Describe in clear, plain language the problem are you seeing as demonstrated by the data
- ☐ What is performance compared to baseline, project target and national target
- ☐ What does data indicate about quality of care
- ☐ What interventions were delivered, when, what effect did they have?

Actions

- ☐ Document very clearly and in detail
- ☐ Include timelines and responsible persons
- ☐ Revisit actions with each data review

Consider:

- ☐ Are project interventions being delivered as designed/ planned? Y/N. If no, why not? Is there a problem with the design? Is something else needed? Refer to theory of change
- ☐ If project interventions being delivered as designed, consider different domains including the following:
- ☐ Actions related to program improvement
  - ☐ Internal actions of the project
  - ☐ External support to the MOH
  - ☐ Health systems (facility readiness)
  - ☐ Client experience of care
  - ☐ Community engagement
  - ☐ Health care worker performance
- ☐ Where to focus geographically
- ☐ Actions related to data quality

Tips and Tricks

- Build on the Adaptive Learning Basic toolkit, particularly for the intervention description. This can help to guide root cause analysis and discuss factors that strengthen or weaken indicator performance.
- Indicator selection should not be taken lightly and requires the difficult task of prioritizing some indicators above others.
- The first data review meetings mostly will have to deal with data quality issues. Use of the data drives improvements in data quality and in programming.
- Share and use tools and templates.
- Sessions to digest the data are critical to enhance data literacy. The initial sessions take more time.
- Root cause analysis is the hardest part and can take several discussions to develop the skill. Once developed, subsequent sessions go more quickly.

Resources

- https://usaidmomentum.org/resource/data-for-action-a-guide-for-meetings-focused-on-improving-reproductive-maternal-newborn-and-child-health-program-performance-in-low-and-middle-income-countries/
- https://usaidmomentum.org/resource/adaptive-learning-toolkit/
- https://km.usaidmomentum.org/user/login?destination=/toolbox/mel-resources See “Data Visualization” tab under “MEL Resources”. Create free account to access and download resources.
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Questions?

Next Session

Bonus Session: Data Visualization

September 26, 8:00–9:00 a.m. EDT

THANK YOU

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