The “why” and the “how” of routine data collection: Real world examples using data from routine HMIS in policy and programming

Johnathan Drummey, PATH
Fred Njobvu, PATH
Jessica Williamson, Track20, Avenir Health
Aminatour Sar, PATH
Session 2: The “why” and the “how” of routine data collection: Real world examples using data from routine HMIS in policy and programming

Session 2. Le « pourquoi » et le « comment » de la collecte de données régulières : exemples concrets d'utilisation des données de systèmes SIGS ordinaires dans l’établissement des politiques et la programmation

Making Self-Injection Count
Monday, March 22, 2021
6am PST / 9am EST / 5pm EAT
Polling Question:

What is the biggest obstacle to greater use of family planning data for decision-making in your country?

Quel est le plus grand obstacle à une plus grande utilisation des données de planification familiale pour la prise de décision dans votre pays?
The “why” and the “how” of routine data collection: Real world examples using data from routine HMIS in policy and programming

Agenda

Putting people at the Center: Malaria elimination efforts in Zambia and Senegal – Jonathan Drummey

Better data. Better decision. Better Health: Immunization service delivery through the BID Initiative – Fred Njobvu

Analyzing Routine Family Planning Data for Policy and Programming – Jessica Williamson

Q&A with panelists
Facilitator and presenters

Aminatour Sar
Country Director, Senegal
PATH

Johnathan Drummey
Data Visualization Specialist
PATH

Fred Njobvu
Technical Advisor, Center for Digital and Data Excellence
PATH

Jessica Williamson, MPH
Data Analyst, Track20 Project
Avenir Health
Putting People at the Center

Principles to foster/improve use of routine health data for decision-making through the lens of malaria elimination efforts in Zambia and Senegal

Johnathan Drummey
Data Visualization Specialist
Ideal state
Current state
Common process for working with data
The work is not linear
Sharing data on validation issues and going through quality improvement processes on why those errors happen.

Sharing data on who is reporting and who isn’t.
Highlighting differences between data sources to resolve them.
Many opportunities to share data & give (and get) feedback

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National, Provincial, District, Facility, and Community Health Workers are engaged & involved
Data quality reviews for timeliness, completeness, and accuracy
Exploring malaria indicators from national level down to CHWs across selected regions

Used as reference for USAID PMI M-DIVE platform
Identifying areas of higher and lower performance to investigate successes, potential failures, and where to target interventions.
Delivering data in forms that work for each audience

Dear Michael Hainsworth,

The Malaria Risk Overview Dashboard for all provinces through 31/7/2018 is attached. Click to view an interactive version: Malaria Risk Overview

If you have questions or need assistance, contact NMEC at [contact information] or [contact information]. Please do not reply to this email.
### Résumé Documentation et investigations

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Specific action items

Using data to improve data quality
Dashboard supporting targeting of community health workers & spray areas for a secondary round of IRS
Malaria Cases per 1000 Population in Southern Province, Zambia

Southern Province

-80%

Zambia

-15%
The Four Principles – A Learning Framework

**Methods**
- Incremental
- Iterative
- Adaptive

**Approach**
- 4E’s
  - EXPOSE
  - EXPLAIN
  - EMPOWER
  - EXPLORE

**Activities**
- Definition & Planning
- Data Collection
- Data Preparation
- Analysis & Reporting
- Sharing & Archiving

LEARNING & INFORMED ACTION: CREATING A DATA CULTURE
### Roles & responsibilities

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There is no “one size fits all” approach.

At start partner NGOs may take on larger roles than health ministry staff in some areas.

Successful data use projects require support for local decision making and training across the organization to transition to full health ministry operation.
Many opportunities to share data & give (and get) feedback

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Questions?
Better Data.
Better Decisions.
Better Health.

Working with Government to digitalize immunization service delivery through the BID Initiative

Fred Njobvu
Zambia Lead
BID Initiative
Key principles for fostering data use for decision-making

• The BID Initiative is grounded in the belief that better data, plus better decisions will lead to better health outcomes.

• BID is working side by side with governments in Tanzania and Zambia to enhance immunization and health service delivery through improved data collection, quality, and use.

• BID was designed to enhance immunization and overall health service delivery by improving data collection, quality, and use.

• The interventions developed and deployed addresses some of the most pressing routine service delivery challenges such as:
  - poor visibility into vaccine stock levels
  - difficulty identifying children who default on immunization schedules
Putting the right information in the right hands

• The Electronic Immunization Registries (EIR) provide automated, simplified report generation, dashboards to monitor facility performance, and supply chain information.

• By automating immunization record keeping, health workers save time and can instead focus on caring for patients.

• Helps health workers trace patients across multiple facilities and follow up on true defaulters, resulting in more fully immunized children.

2,097,208 children are registered in both electronic immunization registries.

2,976 health facilities are using data quality and use interventions.
Identified strategies to overcome challenges to data use

**Change management strategies**

- **Change can be perceived as positive or negative**
- Change comes with immense levels of resistance and pushback
- Change management is a systematic approach to dealing with change.
- Change management interventions deployed incorporated tools that were utilized to help individuals make successful personal transitions resulting in the adoption and realization of change.
- The data-use approaches involved the use of Data Visualization dashboards, WhatsApp social media communications and data use posters, data use guide.
Before data quality and use interventions

53% of health workers in Zambia reported missing data as an immunization barrier.

In Tanzania, monthly reports took health workers hours to complete. 10+
Lucy often worked nights and weekends to record data on paper forms.
Time savings

EIRs automate data collection and use, saving Lucy time, so she can care for more patients. Lucy spends 41% less time registering and vaccinating children.

She no longer reconciles her immunization program records. The task is automated – saving her more than 1.5 hours at the end of each vaccination session.

Automatic reporting saves her 8 working days each year.
Data quality

Health workers now report they’re able to make better sense of data. EIRs help ensure every child is registered from birth and receives all recommended vaccines.

81% of nurses in Lucy’s clinic report data accuracy is now “good” or “excellent.”
Lucy used to feel no connection to the routine data she collected.
Data-driven decision-making

Lucy is now more likely to act on immunization coverage and defaulter data.
Data-driven decision-making

Health workers now have clear visibility into vaccine stock, coverage rates, and which children have missed vaccines, allowing them to provide more targeted care.

More than half of nurses, or 61%, know the immunization coverage of their neighboring facilities.

80% reported having ever used data from the EIR.
Role of Government in EPI Optimize implementation

- EPI Optimize is being led by a consortium of partners who works collectively to implement the strategy in a coordinated manner.
- The strategy is completely imbedded within MOH and is coordinated through Govt at each administrative level.
- The EPI TWG is responsible for providing guidance and feedback to implementing partners.
- EPI Secretariat though TWG have the final decision making as regards national scale of the interventions.
- Govt through EPI has established governance structures and determines oversight and accountability.
Questions?
Analyzing Routine Family Planning Data for Policy and Programming

*Track20’s Experience with Developing new FP Indicators from HMIS Data*
Background: How does the Track20 Project Work?

Approach Prioritized Sustainability
- Putting countries in the driver's seat
- Building capacity within RH and other departments
- Changing systems to ensure continuity

Connecting Global and Country Dialogues about Data Use, Approach, Analysis, and Findings

Advancing M&E to improve country level and global monitoring of progress and improve and expand country FP monitoring infrastructure

Improving data use overall with an emphasis on informed decision-making at all levels
Background

Key focus of Track20 Project: expanding the use of service statistics (HMIS)

1. Standardizing Indicators
2. Creating New Indicators
3. Maximizing the Use of Existing Data Elements

• Data on availability is limited (UNFPA SDP Surveys)
• Originally developed to provide subnational data for FP Goals application in Senegal
• Can be used as a proxy for access

Developing a standardized FP coverage indicator from routine data—“EMU”

• Limited comparability between country-specific coverage indicators
• Developed for use in modeling and monitoring

Repurposing service provision data (FP Visits, FP Commodities) to create a new proxy measure of “availability”
Estimating FP Availability from HMIS Data
Defining the “Availability” Proxy Indicator

% of Facilities Providing an FP Method [ex. Implants] in the Last Year

“Facilities that should provide FP” can be defined based on national protocols, or estimated based on those that provided any FP method in the timeframe.

Among all facilities that should provide family planning, what proportion provided at least one implant in prior 12 months?

The provision of at least one FP method over a set time implies a minimum level of availability/accessibility (method was in stock, trained provider was available, client was able to initiate method).

A 12-month period is used to help ensure that seasonal variation doesn’t skew estimate of availability.

Proportion calculated using facility level FP distribution data within HMIS/DHIS2.
Example: Niger Expanding Access to Implants

Slow growth in mCPR despite substantial efforts caused frustrations with lack of progress for FP program in Niger.

Data analyzed as part of FP Goals application indicated that the prioritization of access in the CIP had been effective and even implants were widely available.

Demand, on the other hand, had not been prioritized and was limiting growth in mCPR.
Data revealed substantial disparities in implant availability by region.

All regions saw “availability” of pills at 80% of facilities or more, compared to <10% of facilities with implants available in 4 regions.
Strengths and Limitations of the “Availability” Proxy

- Uses data available in most countries
- Can be monitored on a routine basis
- Easily scale-able: subnational area, program, etc
- Straightforward to calculate and interpret
- Adaptable to monitor program priorities

- How data is entered and aggregated in the system matters; sensitive to reporting issues
- Availability vs Access vs Utilization
- Causes of “lack of availability” are not explained by the indicator
- For under-utilized methods, the implications may be unclear (lack of availability vs lack of demand)
- Adaptability depends on availability of detailed data and disaggregation
Adapting the “Availability” Proxy Indicator

Among all facilities that should provide family planning, what proportion provided at least one implant in prior 12 months.

- Number could be varied to set a higher threshold for availability/access.
- Vary the type of facility or focus on a specific level or channel (ex. Outreach).
- Method Detail can be changed: a single method, type of method, all/any method(s).
- Time period could be varied to capture narrower or wider window (6 months, 2 years, etc).
- Could be specified to provision among a subpopulation (youth, postpartum women, etc).
Adapting the Availability Indicator: Exploring how well regions in DRC are serving youth

Among facilities that report providing any FP services, what % did NOT see any new FP users under 20 in the last year

Purpose:
• Monitor strategic priority
• Compare availability by province for prioritization

Results:
• Analysis identified the 6 provinces where more than a quarter of facilities had provided no FP services to youth
• Indicated areas where improvements were more effort was needed to make FP services available to youth
Adapting the Availability Indicator: DMPA-SC Availability in Senegal

Analysis of 2020 HMIS data on provision of Injectables illustrates subnational variability in the availability of DMPA-SC (by provider and self-injection).

Among facilities that report providing any injectables, what proportion served at least one DMPA-SC user (New or Active) in the last year.

Nationally, more than 90% of included facilities provided at least one user with DMPA-SC (Provider) in 2020 (product widely available).

In 8 Provinces, <25% of facilities provided DMPA-SC (Self Injection) in 2020 (local stakeholders could help explain lower availability)

Provinces where Self-Injection Training conducted in Q4 2019
Further Analysis: Preliminary Data Quality Review of Routine FP Data in Senegal

Data Completeness: Average Monthly FP Reporting Rate

- Generally, very high reporting rates – only one region with RR < 90%

External Consistency – Benchmarking HMIS Method Mix (New + Active Users) against DHS

Routine FP Data generally very consistent with DHS Method Mix.
Further Analysis: Preliminary Data Quality Review of DMPA-SC Provision Data in Senegal

Data Consistency: Checking for Moderate Outliers in Users (New + Active) of DMPA-SC (Provider)

Outlier analysis looked for “moderate outliers” (+/- 2 SDs from the monthly average). Only 2 regions (shown here) saw outliers, both in July 2020.
Using the “Availability” Indicator

**FP Goals Applications**: The “availability” indicator helps governments to understand at what level and for what methods efforts should be made to expand access to FP and plan for interventions that can achieve that (task-sharing, stock-out reductions, provider training, etc).

**Monitoring or evaluating program implementation**: The availability proxy could be adapted to monitor the implementation of specific programs focused on channels of service delivery, such as Mobile Outreach and Social Marketing, or focused on specific methods, such as Implants or DMPA-SC for self-injection.

**Special Analysis**: M&E Officers working with Track20 are using this indicator to help monitor CIPs and answer questions about progress. Track20 can also provide TA on implementing this indicator for special analysis or for monitoring purposes.

**FP Module for DHIS2/HMIS (in progress)**: The “availability” indicator will be an essential component of the new FP Module – an application for DHIS2 being developed by Track20 to support governments in routine monitoring of FP programs and analysis of FP service statistics.
Questions?
Poll results:
What audience members think are the greatest obstacles to use of FP data for decision-making
Panel Q&A

Marie-Reine Rutagwera
Strategic Information Advisor, PAMO Plus
PATH

Zénon Mujani Ndembu
Monitoring and evaluation Officer and Focal Point for Track20
Discussion and Q&A

Questions for panelists:

1. Reflect on what you see as the biggest challenge to greater use of data for decision-making. What strategies have you used to try to overcome it?

2. How can projects work more effectively with government to build capacity for increased data use at all levels of the health system?