Strengthening Health Management Information Systems for Improved Service Delivery: Lessons from Nigeria

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Presenter Disclosures

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(1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

- "No Relationships to Disclose"
Outline

➢ Introduction
  • WHO Health System Framework
  • Health Management Information Systems (HMIS): A Critical Health System Building Block

➢ Process
  • HMIS in Nigeria
  • Intervention

➢ Results
  • Improved rate and timeliness of reporting
  • Enhanced data quality standards
  • Availability of data for decision making

➢ Conclusion and Recommendations
WHO Health System Framework

THE WHO HEALTH SYSTEM FRAMEWORK

SYSTEM BUILDING BLOCKS

SERVICE DELIVERY

HEALTH WORKFORCE

INFORMATION

MEDICAL PRODUCTS, VACCINES & TECHNOLOGIES

FINANCING

LEADERSHIP / GOVERNANCE

OVERALL GOALS / OUTCOMES

ACCESS

COVERAGE

QUALITY

SAFETY

IMPROVED HEALTH (LEVEL AND EQUITY)

RESPONSIVENESS

SOCIAL AND FINANCIAL RISK PROTECTION

IMPROVED EFFICIENCY
HMIS: A Critical Health System Building Block

A Well-functioning HMIS

- “...is one that ensures the production, analysis, dissemination, and use of reliable and timely information on health determinants, health system performance and health status” (WHO 2007)

The Goal of the Nigerian HMIS (NHMIS)

- “…establish...an effective NHMIS by all governments of the Federation to be used as a management tool for informed decision making at all levels” (FMOH 2005)
HMIS in Nigeria

Established to:
✓ Collect, process, and disseminate relevant and necessary information required for national health planning and monitoring utilization of resources in accordance with national priorities, objectives, and health indicators
HMIS in Nigeria: Key Challenges

• Extensive duplication of data collection, entry, and analysis
• Multiple data pathways
• Inadequate quality control measures
• Staff inadequately trained in data analysis, interpretation, and use
• Weak monitoring, evaluation, and managerial capacity
• Absence of a strong central co-coordinating institutional framework
• Dataset too restricted and does not meet the reporting needs of programme officers and PHC and hospital programme managers
• Scant use of data to inform decision making and poor feedback loops
Three-pronged Approach to Strengthen HMIS

- Strengthening Data Collection
- Improving Data Quality
- Institutionalizing the District Health Information System (DHIS) 2.0
Strengthening Data Collection

- PATHS2 supported the government of Nigeria to review, harmonize, and pilot test revised national data collection tools

- Tools were made available at service delivery points

- Local Government Area (LGA) and state teams were trained to collate and analyze data, develop data trends and health profiles

- Health facility staff were trained on the use of new tools to generate quality data
Improving Data Quality

- States and LGAs were supported to conduct Data Quality Assurance (DQA) processes
- Trained LGA M&E officers and other relevant staff to conduct supervisory monitoring and DQA exercises for health facilities in their domains
- Support structures were developed within LGAs to improve the quality of data generated
Institutionalizing DHIS 2.0

- Supported the configuration of a national ICT-based database
- Enhanced the capacity of LGA, state, and federal level personnel on use of web-based DHIS 2.0 for data entry and transmission
- Access to the system is with a username and password
- User roles are defined for each level of user with appropriate user access levels
- Guest users can register on the system but have limited access to the dashboard and data visualizer
The system is currently hosted by Federal Ministry of Health through Health Information Systems Programme Nigeria and can be accessed on the URL: https://dhis2nigeria.org.ng

Quality data is collated and transmitted from LGAs to the state level using ICT

Analysis of data occurs at LGA level with development of health information products for LGA decision making
Results

✓ Increased reporting rates from 36% to 80%

✓ Increased timeliness of reporting from 5% to 67%

✓ Percentage of facilities in focal states whose HMIS met acceptable standards for data quality increased from 54% in 2009 to 74% in 2013

✓ Data entry being managed exclusively by LGA M&E officers

✓ National database hosts comprehensive information on provision and utilization of services at all levels of care
Results (cont’d)

Availability of data for planning and decision making through:

➢ Annual performance reviews

➢ Mid-Term Sector Strategy

➢ LGA operational plans

➢ PHC reviews

➢ Facility management

DQA exercise at Subol Hospital, Alimosho LGA, Lagos State
Jigawa State: Rate and Timeliness of Reporting

Percentage

Timeline

2011 2012 2013

Reporting Rate  Timeline
Kano State: Rate and Timeliness of Reporting

Reporting Rate - Kano State
(Jan 2012 - Jan 2013)
Kaduna State: Trends in Data Quality


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Conclusions

- Web-based HMIS ensures timely availability of data for decision making at all levels of the health system.

- Instituting an integrated HMIS improves the rate and quality of data reporting in resource-poor settings.

- Enhanced data management capacity at the local level empowers facilities and LGAs to take action on their health care needs.
✓ Mobile platforms should be utilized for effective data generation at facility level

✓ Policy and systems support needed for scaling up DHIS2 implementation to other states of the country
Thank You!!

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