

# Drivers of Poor Data Quality, and Usability: Findings and Lessons from a Multi-State Health Facility-Based Research in Nigeria

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## BACKGROUND

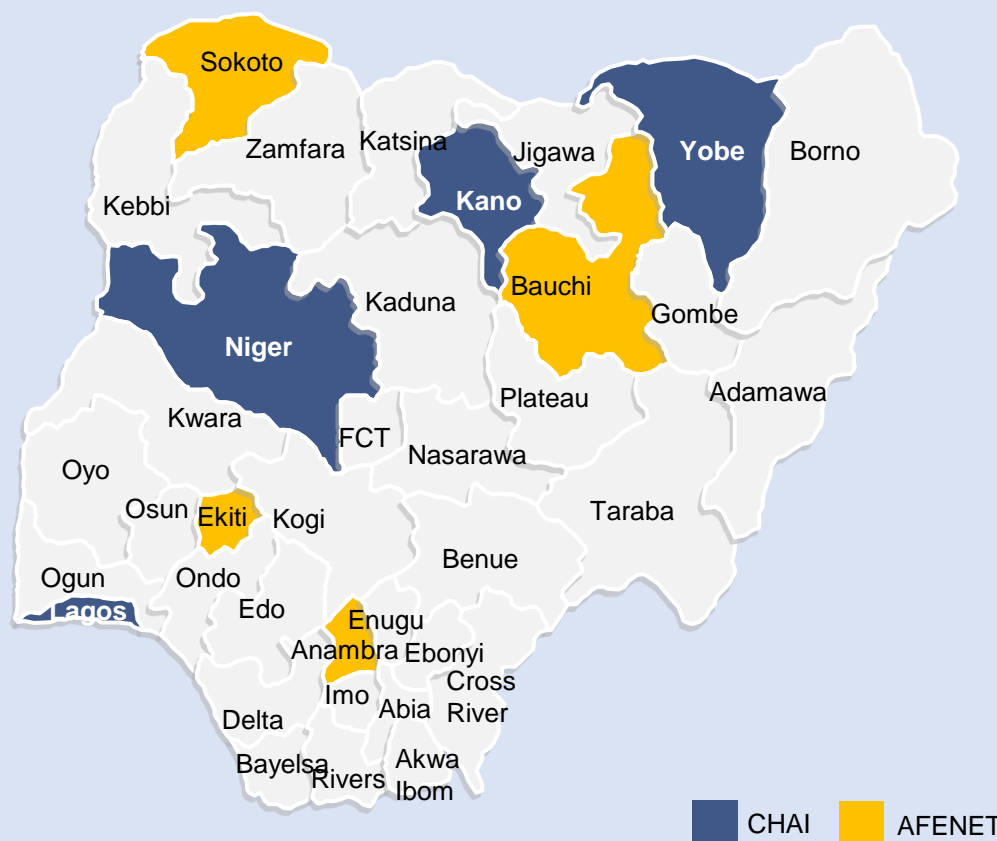
- High-quality data is crucial for data-driven decision-making that includes policy formulation, planning, implementation, and impact monitoring at all levels of healthcare delivery
- In Nigeria, poor quality health data limits data use for decision-making.
- Data-driven planning and use for action in the PHC context is important in improving health outcomes and enhancing program efficiency.
- This multi-state health facility-based study was conducted to identify key drivers of poor data quality in Nigeria.

## METHODOLOGY

- Study Design:** Mixed Method descriptive research.

- Models adopted includes - **qualitative, quantitative, survey, interviews, focus group discussions, observations** etc.

### Map of the Study Area



### Scope of the Study

- 8 states in Nigeria**
- 64 LGAs across the 8 States**
- 128 PHCs across 64 LGAs in 8 states**

### Data Collection

#### Key Informant Interview

**88** face-to-face interviews with state officials (ES SPHCs, Directors of PRS, PMs of SERICC, IPO, partners), LGA PHC Directors and facility in-charges

#### Focus Group Discussion

**48** facilitated focus group discussion sessions of state, LGA and facility service providers

#### Mystery client

**192** discrete observation sessions of RI, ANC, FP and malaria sessions with a checklist

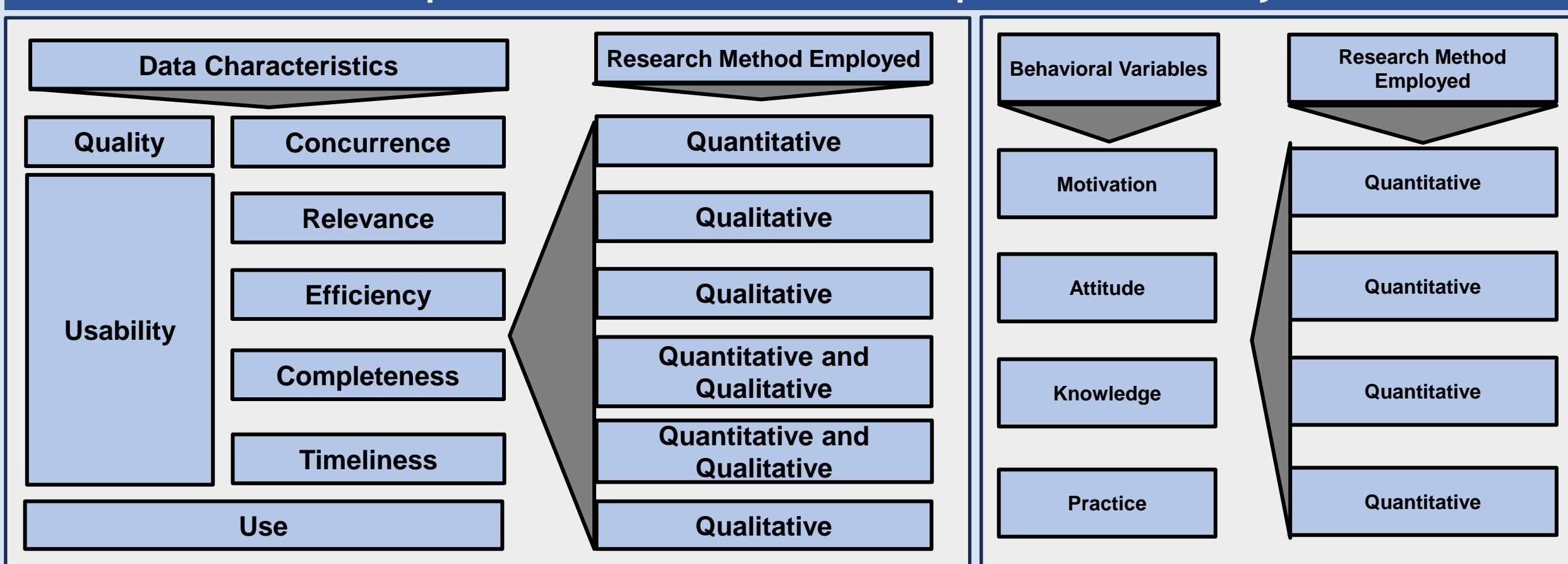
#### Data mining

**144** data sets review for Q1, 2018, 2019 & 2020 was mined for selected indicators on RI, ANC & FP

#### Self-assessment

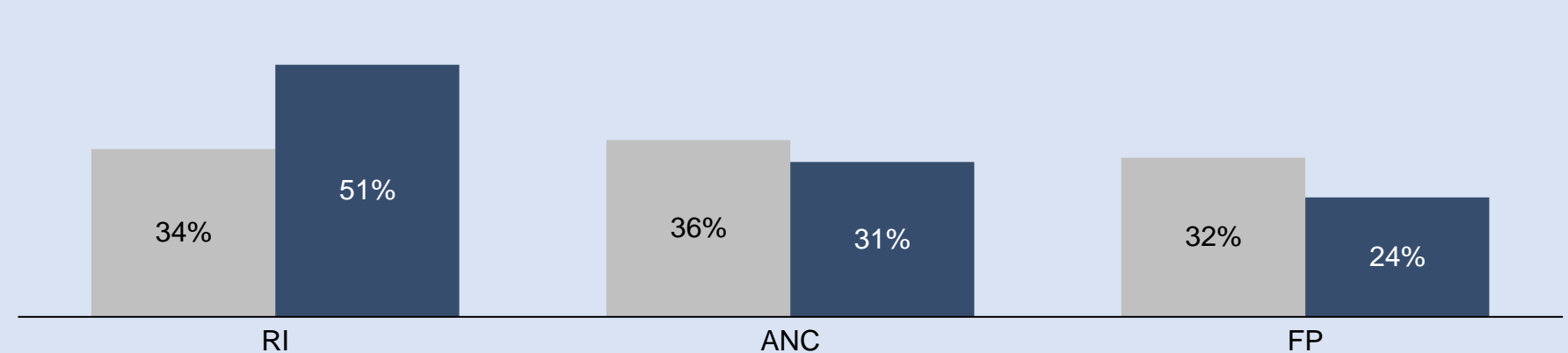
**447** behavioural self-administered questionnaire LGA officers (M&E, LIO, PO, and CCO) record officers, in-charge and service providers.

### Description of mixed methods adopted in the study

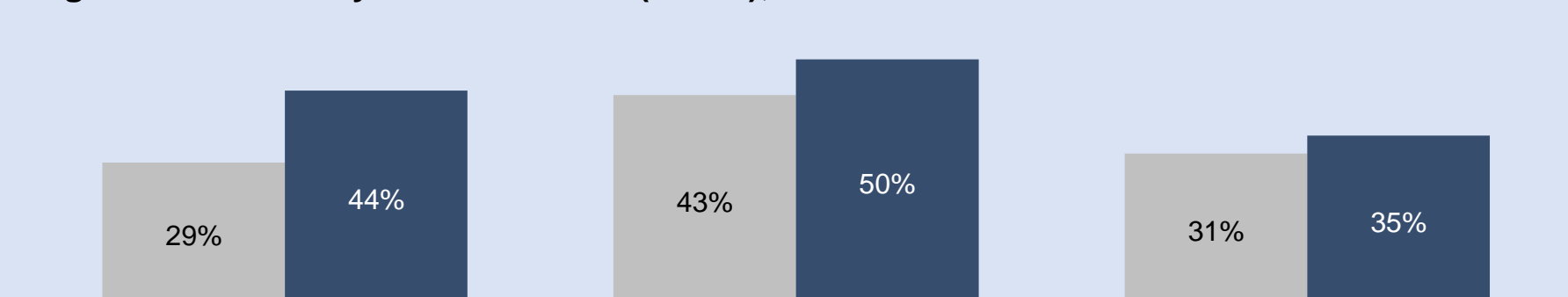


## RESULTS

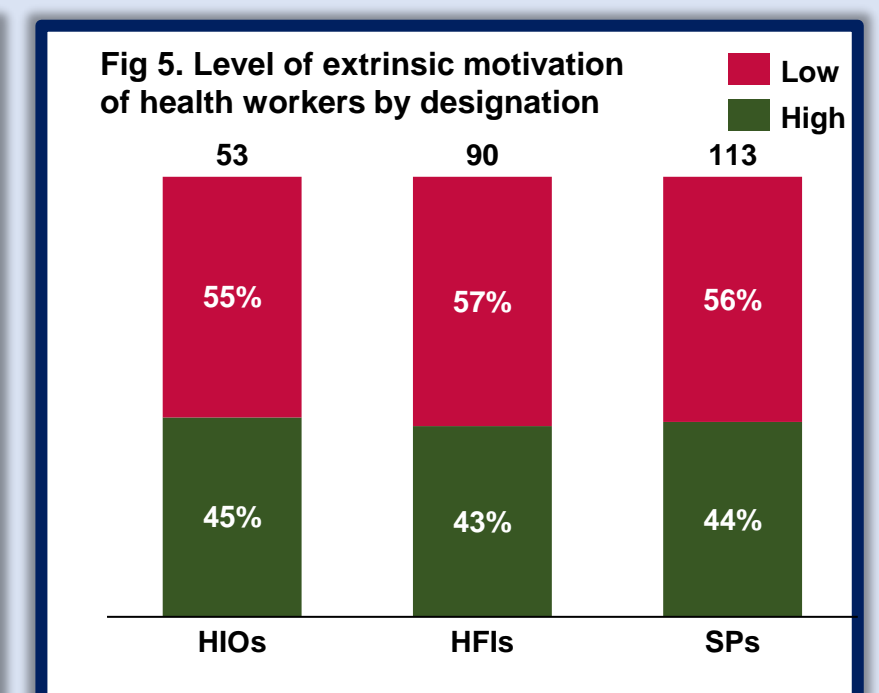
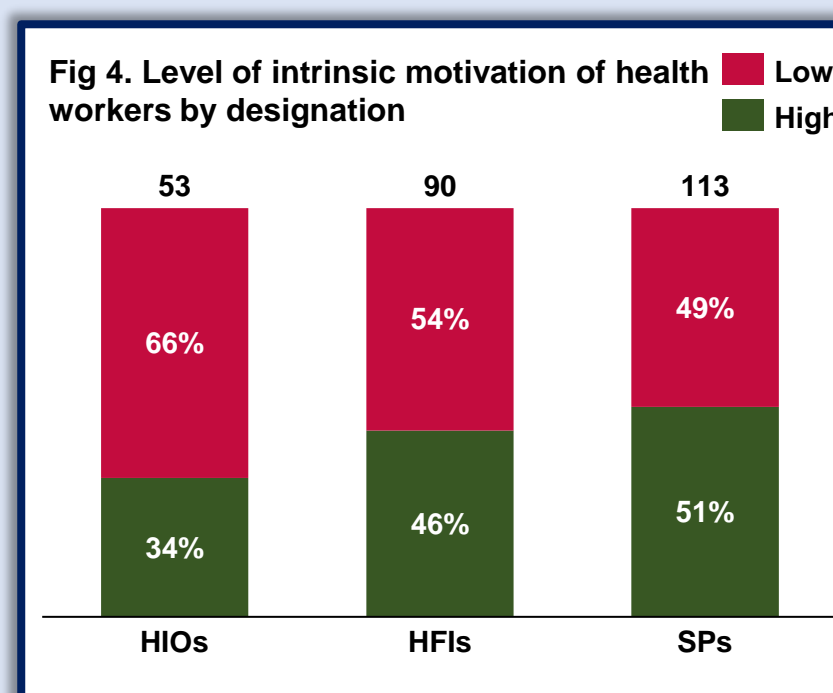
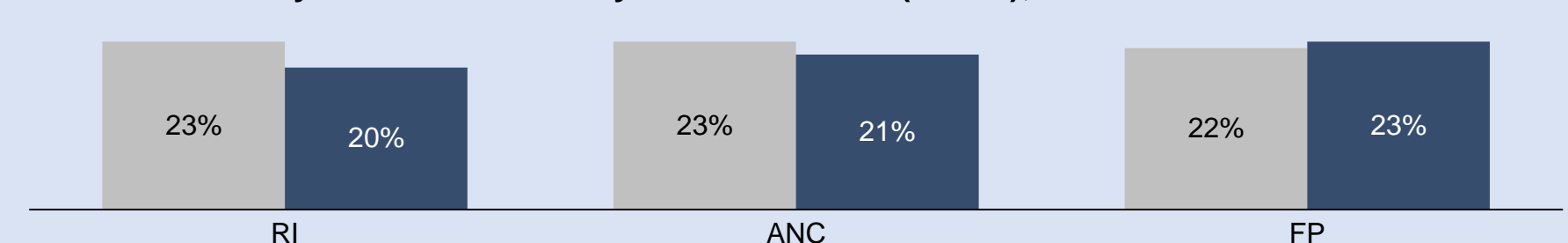
**Fig 1. Proportion of health facilities with concurrent data (<10% discrepancy) between HF register vs NHMIS summary forms by thematic areas (n=112); Q1 2019 – Q1 2020**



**Fig 2. Proportion of health facilities with concurrent data (<10% discrepancy) between HF register vs DHIS2 by thematic areas (n=112); Q1 2019 – Q1 2020**



**Fig 3. Proportion of health facilities with concurrent data (<10% discrepancy) between NHMIS summary forms vs DHIS2 by thematic areas (n=112); Q1 2019 – Q1 2020**



### Key Highlights

- Among health workers, service providers demonstrated the most intrinsic motivation with the least motivation among HIOs who are administratively the custodians of data at the facilities
- Among health workers, HIOs find the data tools the most convenient to use which serves as a key factor that affects their internal drive to improve data quality

**Table 1. Relationship between the various behavioral factors was explored to understand the correlation and how it affects data quality**

Behavioral Factor	Motivation	Knowledge	Attitude	Practice	DQ
Motivation	---				
Knowledge	0.54	---			
Attitude	0.39	0.15	---		
Practice	0.30	-0.26	0.56	---	
Data Quality (DQ)	0.10	-0.05	0.16	0.07	---

Motivation( $r=0.10$ ), attitude( $r=0.16$ ) and practice( $0.07$ ) had positive relationship with data quality. This implies that as motivation, attitude and practice increases, data quality also increases and vice versa. However, knowledge( $r=-0.05$ ) had inverse relationship with DQA.

## SUMMARY OF FINDINGS ON THE DRIVERS OF POOR DATA QUALITY IN HEALTH CARE SETTINGS

**Pressure to Meet Target:**

Pressure to meet up with targets for service delivery leads to data assumptions and over reporting. This was observed when comparing data on the registers and summary form

**Negligence towards reporting:**

Health care workers attitude towards documentation during service provision, they believe there is no repercussion for not recording.

**Poor Motivation:**

Healthcare workers not appreciated & acknowledged for good data quality by supervisors  
Underpayment of salary is a high demotivating factor among Healthcare workers

**Poor knowledge on what to do with data generated:**

The lack of ownership and usage of data at the health facility and LGA level affects the quality of data. LGA officers sees themselves as data entry clerk and HCW as data generators

**Multiplicity of data tools:**

Health workers expressed that the multiplicity of data tools and the numbersome data variables to collect at the facility and LGA level plays a significant role in poor quality of data

**Poor data storage:**

Suboptimal HCW data archiving practices and the poor quality of material used to produce data tools results in damage of tool thereby leading to incomplete/missing data and stock out of data tools

**Workload and inadequate HRH:**

The unavailability of a designated data recorder increased the workload on the available service providers which affects the quality of data collected at the facilities

**Suboptimal capacity of health workers:**

Poor data management practices as a result of weak capacity of health workers at the LGA level and health facility results in poor data quality

### Recommendations

- Provide adequate work equipment for data officers at all levels. Funding can be source from BHCPF
- Automate data collection and reporting system for PHCs across the state.
- Enforce sanctions for untimely submission of data

### Limitations

- Some study findings are based on self-reported information, and this threatens the reliability and validity of the data.
- The study was conducted in only eight states of the thirty-six states in Nigeria. This may limit the generalization of the findings to other states despite the focused states were spread across the regions in the count

### Acknowledgements

- We acknowledge
- Bill and Melinda Gates Foundation for providing funding for this study
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