World Health Organization

STRENGTHENING MATERNAL AND PERINATAL DEATH SURVEILLANCE AND RESPONSE IN NIGERIA

Experience and lessons learned from the MPD-4-QED program

Tuesday, 11 October 2022

8am New York , 1pm Lagos, 2pm Geneva, 5.30pm New Delhi

Quality, Equity, Dignity

A Network for Improving Quality of Care for Maternal, Newborn and Child Health

Strengthening MPDSR in Nigeria: Experience & lessons learned from MPD-4-QED program

INTRODUCTION | 11 October 2022

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Strengthening MPDSR in Nigeria: Experience and lessons learned from MPD-4-QED program

Introduction

- Ms Francesca Palestra, Technical Officer, Department of Maternal, Newborn, Child and Adolescent Health and Ageing,WHO Geneva
- Dr Tina Lavin, Technical Officer, Department of Sexual and Reproductive Health and Research WHO Geneva

Part 1: Overview of the MPD-4-QED program in Nigeria

Prof Jamilu Tukur, National Coordinator, Maternal and Perinatal Database for Quality Equity and Dignity (MPD-4-QED)

Part 2: Next steps and plans to institutionalize the program at national level

Dr Kamil Shoretire, Head Inspectorate Division and Focal Point for MPD-4-QED Programme, Department of Hospital Services, Federal Ministry of Health, Nigeria

Questions & Answers

Facilitated by **Dr Martin Joseph**, Medical Officer, Maternal and Child Health, WHO Nigeria

Closing remarks Dr Tina Lavin, WHO Geneva

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Strengthening MPDSR in Nigeria: Experience & lessons learned from MPD-4-QED program

QUESTIONS

For the **Questions & Answers session, we invite questions from all participants.**

Please place your questions in the CHATBOX

Strengthening MPDSR in Nigeria: Experience & lessons learned from MPD-4-QED program

Overview of the MPD-4-QED program in Nigeria

11 October 2022

Prof Jamilu Tukur
National Coordinator
Maternal and Perinatal Database for Quality Equity and Dignity (MPD-4-QED)

MPD-4-QED Programme

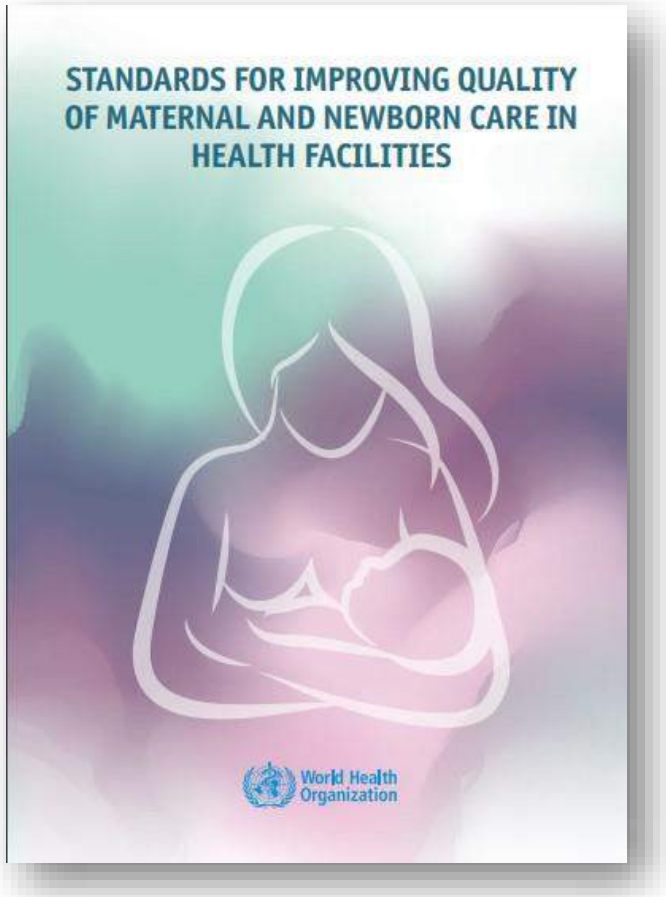
Background

- Nigeria accounts for close to one quarter of the global burden of maternal deaths

Priority country if SDG-3 targets are to be achieved

- WHO launched the *Quality, Equity and Dignity* (“QED”) initiative in 9 countries in 2016, including Nigeria

Background



http://www.qualityofcarenetwork.org/

- WHO-QED has an ambitious goal to **halve maternal and newborn deaths and stillbirths in health facilities** within 5 years.
- Nigeria's National Strategy to Improve Quality of Care for Mothers and Newborns
- Requires every health facility to have mechanism for **routine data collection, analysis and feedback**
- Implementation of QED project in Nigeria depended on continuous gathering of high quality routine maternal and perinatal data

BUT….

- Vital registration of births and deaths in Nigeria is challenging, and many births and deaths are not reported
- Available data come from individual health facilities and segregated groups of researchers working in isolation in different parts of the country
- Implementation of MPDSR in Nigeria can be strengthened through a centralized database that is accessible to key stakeholders

Aim of MPD-4-QED Programme

Harmonize electronic database system in Nigeria

Enable routine data collection during labour, childbirth, and early postnatal period;

Maternal and perinatal death audit are integrated into the system

Guide Quality Improvement strategy

QED indicators

Scope

All women admitted for childbirth or within 42 days of childbirth or spontaneous loss/termination of pregnancy (irrespective of site or duration of pregnancy), and their newborn babies

Facility audit - *periodic*

Individual woman:

Key antepartum, intra-partum and post-partum events

Death audit – *if occurred*

Baby:

Early neonatal record up to first week of life

Death audit – *if occurred*

Scope– Quality of Care indicators

QED indicators

1. Pre-discharge maternal deaths
2. Pre-discharge maternal deaths by cause
3. Neonatal deaths in health facilities by cause
4. Institutional stillbirth rate (disaggregated by fresh and macerated)
5. Pre-discharge early neonatal mortality rate
6. Obstetric case fatality rate (disaggregated by direct and indirect)
7. Pre-discharge family planning counselling for mother
8. Companion of choice during childbirth
9. Newborns breastfed within one hour of birth
10. Immediate postpartum uterotonic for PPH prevention
11. Newborns with birthweight documented
12. Basic hygiene provision
13. Basic sanitation available to women and families

Programme development

- FMOH and MPD-4-QED Programme central coordinating team met to discuss how to develop the Programme in-line with existing FMOH processes
- WHO ERC, National Health Research Ethics Committee, Institutional ethics approvals
- Development of DHIS-2 electronic platform and case report forms through consultative process
- Development of SOPs and manuals
- Regional training
- Support systems in place

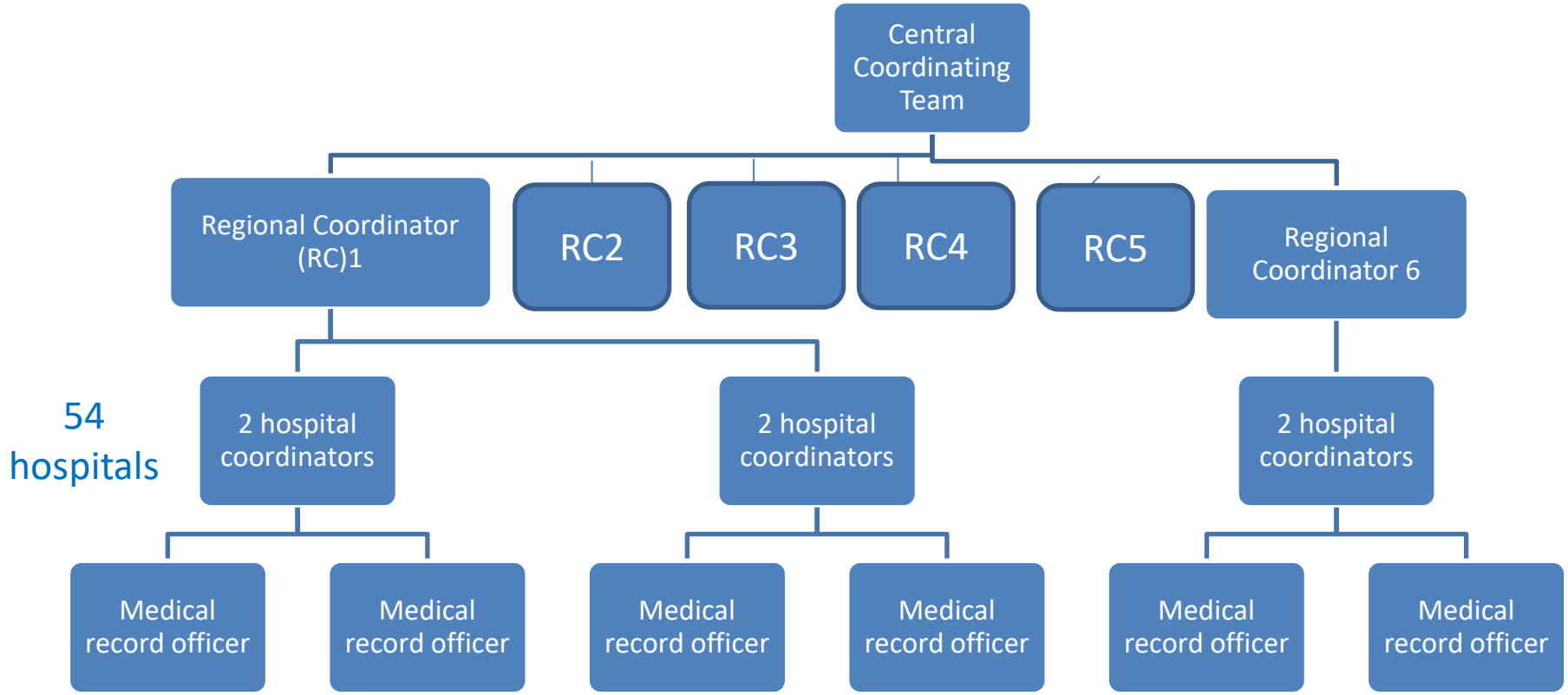
The Network

- 54 Nigerian referral-level public and private hospitals
- The platform was officially launched by the Minister of Health of Nigeria on 24 April 2019 and data collection commenced at all participating hospitals on 1 September 2019

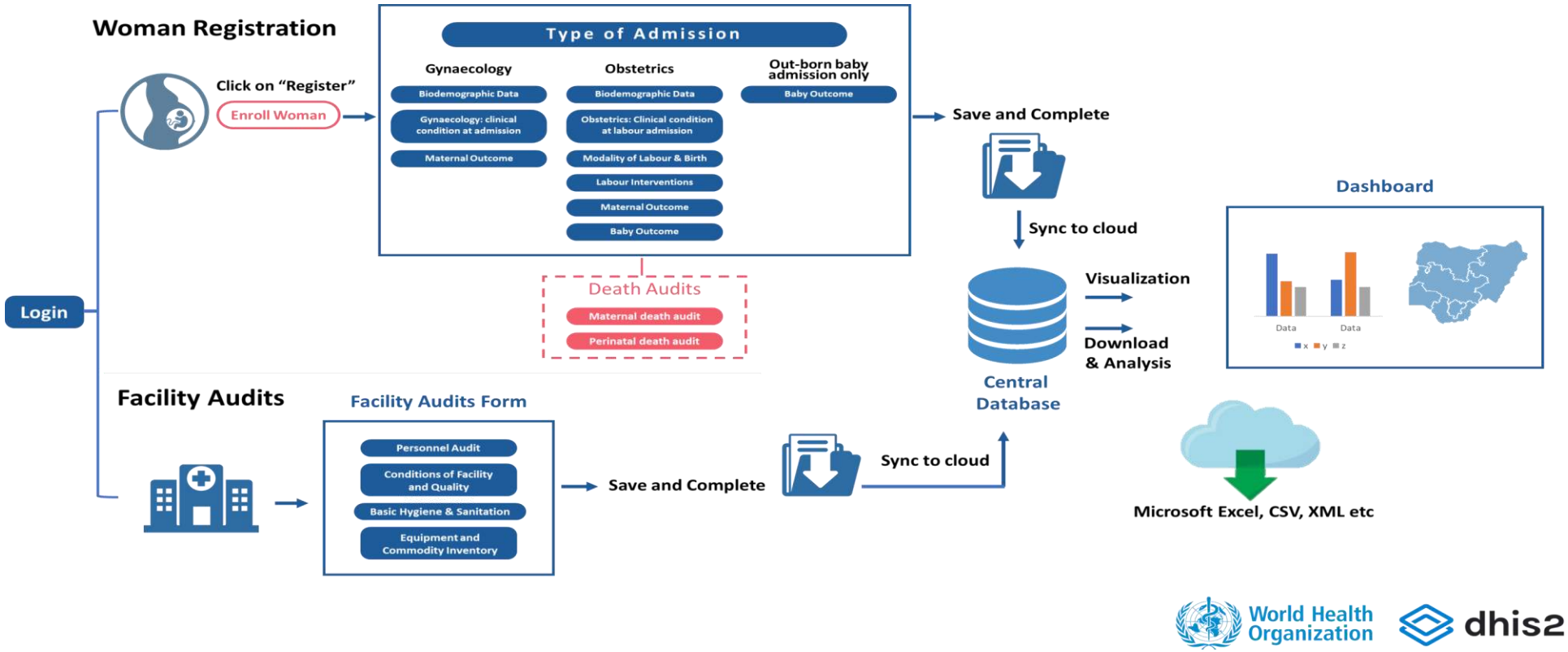
Dr Adebimpe Adebiyi, Director Family Health, FMOH (representing the Honourable Minister of Health Prof Isaac F. Adewole), launching the MPD-4-QED platform.

Dr Adebimpe Adebiyi, Director Family Health, FMOH, Prof Hadiza Galadanci, Prof Olufemi Oladapo and Prof Isaac Adewole (the then Honourable Minister of Health, FMOH) at the launch of the MPD-4-QED programme in Nigeria.

Structure of the programme



Programme framework



Operating manuals

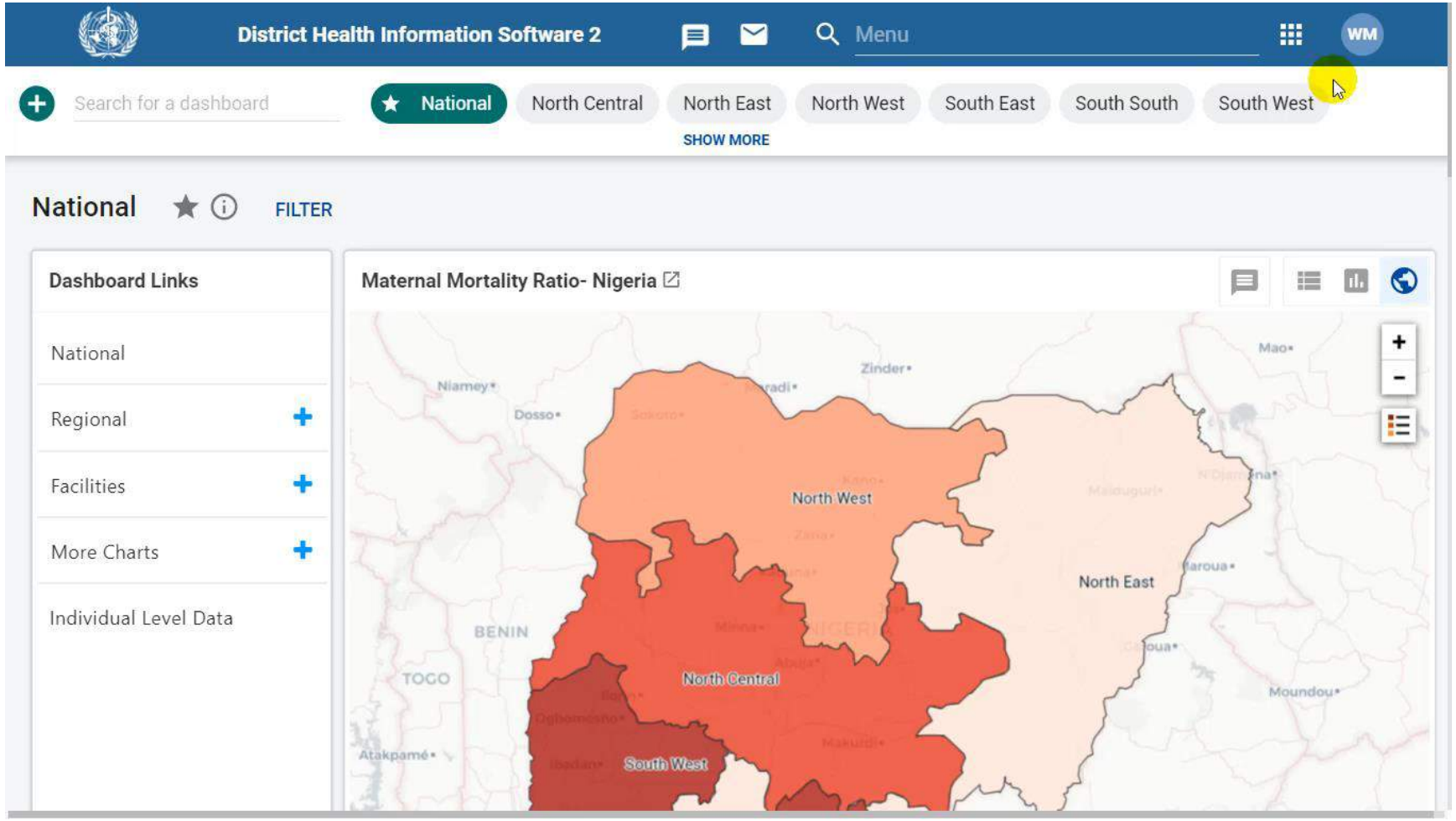
- Two operating manuals have been developed
- The ICD codes for causes of maternal and perinatal deaths have been explained in the manual and glossary of terms.
- When a death occurs the hospital coordinator (obstetrician or neonatologist) enters the information from the audit review into the MPD-4-QED platform

Quality assurance processes

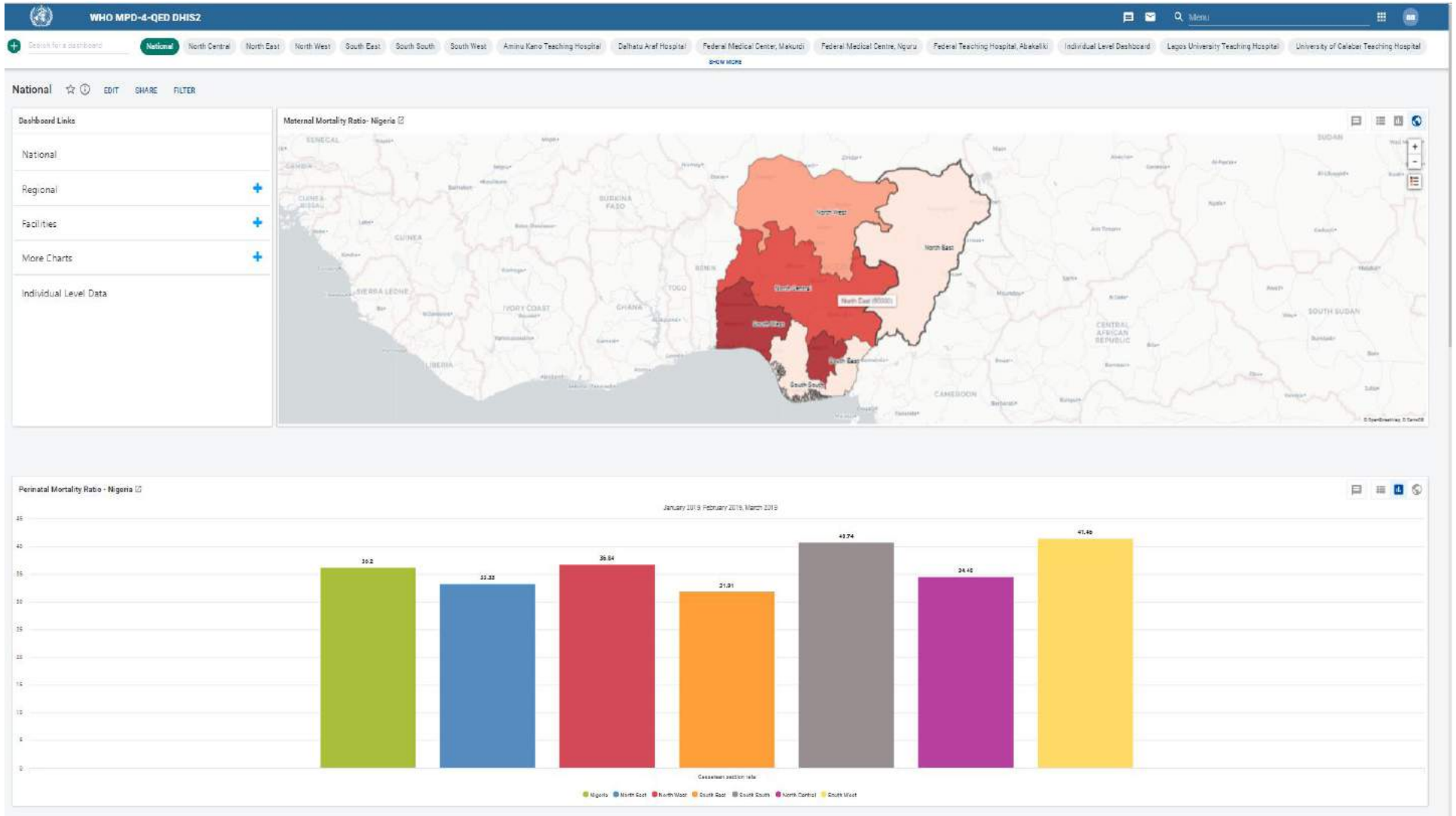
- Validation rules
- Weekly enrollment report
- Data quality checks
- Monthly quality data report
- Monthly regional calls

Biodemographic Data

Time of hospital admission	HH:MM
a.m/p.m	Select or search from the list
Age as at last birthday (years)*	
Marital status	Select or search from the list
Gravidity	
Parity*	
Number of previous miscarriage or abortion	
Number of children alive	
Number of previous caesarean sections	
Educational level completed	Select or search from the list
Woman's occupation	Select or search from the list


District Health Information Software 2
Menu
WM
Search for a dashboard
National
North Central
North East
North West
South East
South South
South West
SHOW MORE
National
FILTER
Dashboard Links
National
Regional
Facilities
More Charts
Individual Level Data
Maternal Mortality Ratio- Nigeria
Niamey
Dosso
Zinder
Mao
North West
North East
North Central
South West
BENIN
TOGO
Atakpamé
Moundou

Example of dashboard



How data is collected

- Limited functionality
- For data capturing only
- Used mainly by MROs
- Internet-enabled
- Functions online & offline

- Full DHIS2 functionality
- Capture data, dashboard view, data download, etc.
- Access by HC, RC, National team

Data collection

- Through daily visits to relevant units, the MRO obtain the data from the medical records
- The MRO completes and uploads an electronic data capture form on a tablet for all women and/ or baby.
- The form will be completed immediately after the discharge (or death) of the mother and/or baby.
- The collected data will cover the period that the woman and baby were on hospital admission.
- Data extraction will be restricted to what is available in the medical records of women and their babies.

Data collection - maternal/ perinatal death audit

- In the event of the death of the mother and/or the baby, additional information is filled in the relevant forms after death audit has occurred
- This includes clinical condition responsible for the death and contributory factors.
- This is be obtained from the hospital maternal and perinatal death audit
- Role of hospital coordinator

How the data can be used

Data from mother-infant can be used in different ways including:

- Maternal and perinatal death audit (which are linked to patients other sociodemographic, clinical data)
- Data and QED indicators can be viewed in the form of statistics, graphs and tables by hospital coordinators and hospital management through the dashborard at hospital, regional and national level; changes can be seen over time

- Data can be analyzed at facility, regional, national level
- Periodic reporting on Quality, Equity and Dignity (QED) indicators on quality of care and coverage of essential interventions
- Comparisons can be drawn between facilities and regions
- Exported as raw data for statistical analysis

Achievements to date

- 200 people mobilized - highly motivated
- Well-functioning dynamic platform
- On-going analyses with interim reporting
- Quality of care and outcomes for maternal and perinatal care analyzed from the first year of data
- Three years of continuous data collection (Sept 2019 to Oct 2022): more than 234,542 women and their babies
- After first year 97% of deaths were audited

First year of data

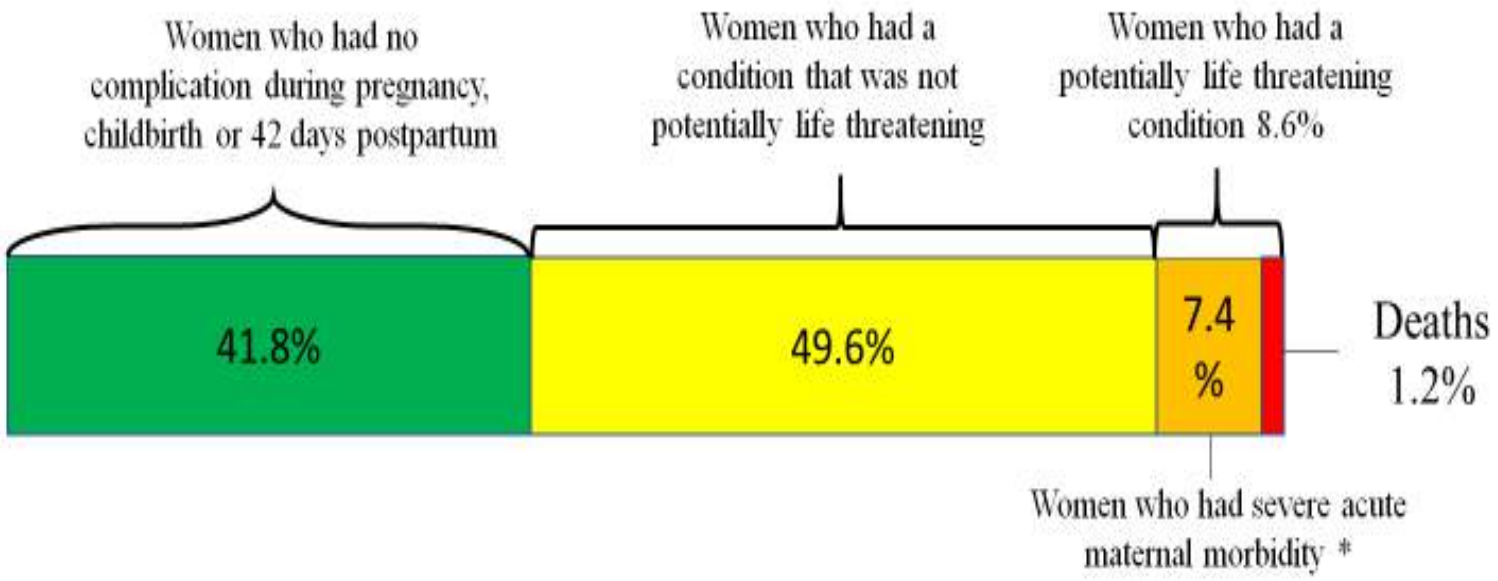
EClinicalMedicine. 2022 Apr 28;47:101411. doi: 10.1016/j.eclinm.2022.101411. eCollection 2022 May.

Quality and outcomes of maternal and perinatal care for 76,563 pregnancies reported in a nationwide network of Nigerian referral-level hospitals

- Between 1 September 2019 and 31 August 2020 76,563 women
- 69,055 live births, 4,498 stillbirths, and 1,090 early neonatal deaths.
- Data is high quality with <1% missing data on vital status
- Gaps in coverage of essential interventions and quality of care

World Health Organization hrp

Burden of morbidity



Quality of Care indicators

QED indicator §	National	Range across regions
Pre-discharge maternal mortality ratio	682 per 100,000 hospital live births	430 per 100,000 to 974 per 100,000
Institutional stillbirth rate	59·3 per 1000 hospital births	40.1 per 1000 hospital births to 90.1 per 1000
Antenatal stillbirth rate	26·8 per 1000 hospital births	18.9 per 1000 to 34.2 per 1000
Intrapartum stillbirth rate	32·3 per 1000 hospital births	21.2 per 1000 to 56.0 per 1000
Pre-discharge neonatal mortality rate	15·3 per 1000 hospital live births	13.3 per 1000 to 20.2 per 1000
Pre-discharge family planning counselling for mother and baby	74·8%	64·5% to 86·9%
Companion in labour	26·4%	17·1% to 35·1%
Newborns breastfed within one hour of birth	59·7%	52·8% to 67·1%
Immediate postpartum uterotonic use for postpartum haemorrhage (PPH) prevention	81·9%	70·5% to 94·2%
Newborns with birthweight documented	96·6%	91·1% to 97·9%
Basic hygiene provision *	91·0%	41·0% to 100%
Basic sanitation for women and families *	89·0%	43·0% to 100%

§ 832 births have missing data on vital status at birth these have been excluded from mortality calculations; * facility level indicators

Maternal mortality

There were 940 deaths (910 audited)

Causes of maternal mortality	Number (%)
Hypertensive disorders	289 (31.8)
Obstetric haemorrhage	181 (19.9)
Pregnancy-related infection	147 (16.1)
Abortion complications	69 (7.6)
Obstructed labour	22 (2.4)
Other direct obstetric complications	70 (7.7)
Indirect causes	63 (6.9)

The highest case fatality rates were for sepsis (40.8%) and eclampsia (24.9%)

"Prospective surveillance of maternal and perinatal data, including the use of selected quality of care indicators, for periodic assessment of hospital performance and quality improvement is critical for achieving the aims of the WHO QED initiative and for meeting the third sustainable development goal targets at the country level. A nationwide database programme for harmonizing and aggregating data could be implemented in settings with similar medical record infrastructure as Nigeria, to identify interventions that could be readily implemented to drive policy change and impact. With the global shift towards increased facility births and the digitization of routine national health management systems, there is a huge potential to scale up this programme to other countries"

Explore the leading causes of death in more detail

BMC Pregnancy and Childbirth

Secondary supplement with 9 analyses investigating in more detail:

1. Caesarean section
2. Post-partum haemorrhage
3. Hypertensive disorders in pregnancy
4. Obstructed labour
5. Early pregnancy loss (<28 weeks)
6. Birth asphyxia
7. Neonatal jaundice
8. Preterm birth
9. Neonatal sepsis

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Next steps and plans to institutionalize the program at national level

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Dr Kamil Shoretire
Head Inspectorate Division, Department of Hospital Services &
Focal Point for MPD-4-QED Programme, Federal Ministry of Health, Nigeria

The Transition plan for the MPD4QED program

MPD-4-QED Project so far

- Three years of successful implementation and capacity building for the 54 health facilities
- Three years of continuous data collection (Sept 2019 to Oct 2022): more than 234,542 women and their babies
- Completed Death Audits for three years, still ongoing
- Current funding structure (WHO/MSD for Mothers) is ending soon
- FMOH has started efforts since last year to reposition and institutionalize the MPD-4-QED project.

Transition Plans

- The Federal Ministry of Health through the Tertiary Hospitals take over the collection and collation of data.
- Transmit data to the Database at the National level
- Retain the services of the coordinating centre at AKTH Kano
- Maintain the current structure at the facility level (MROs and coordinators) and discuss future modification with stakeholders
- Integrate the MPD4QED into the MPCDSR platform
- The MPCDSR facility Committee to be chaired by the Medical Directors
- The Medical Directors to ensure funding of logistics for data transmission

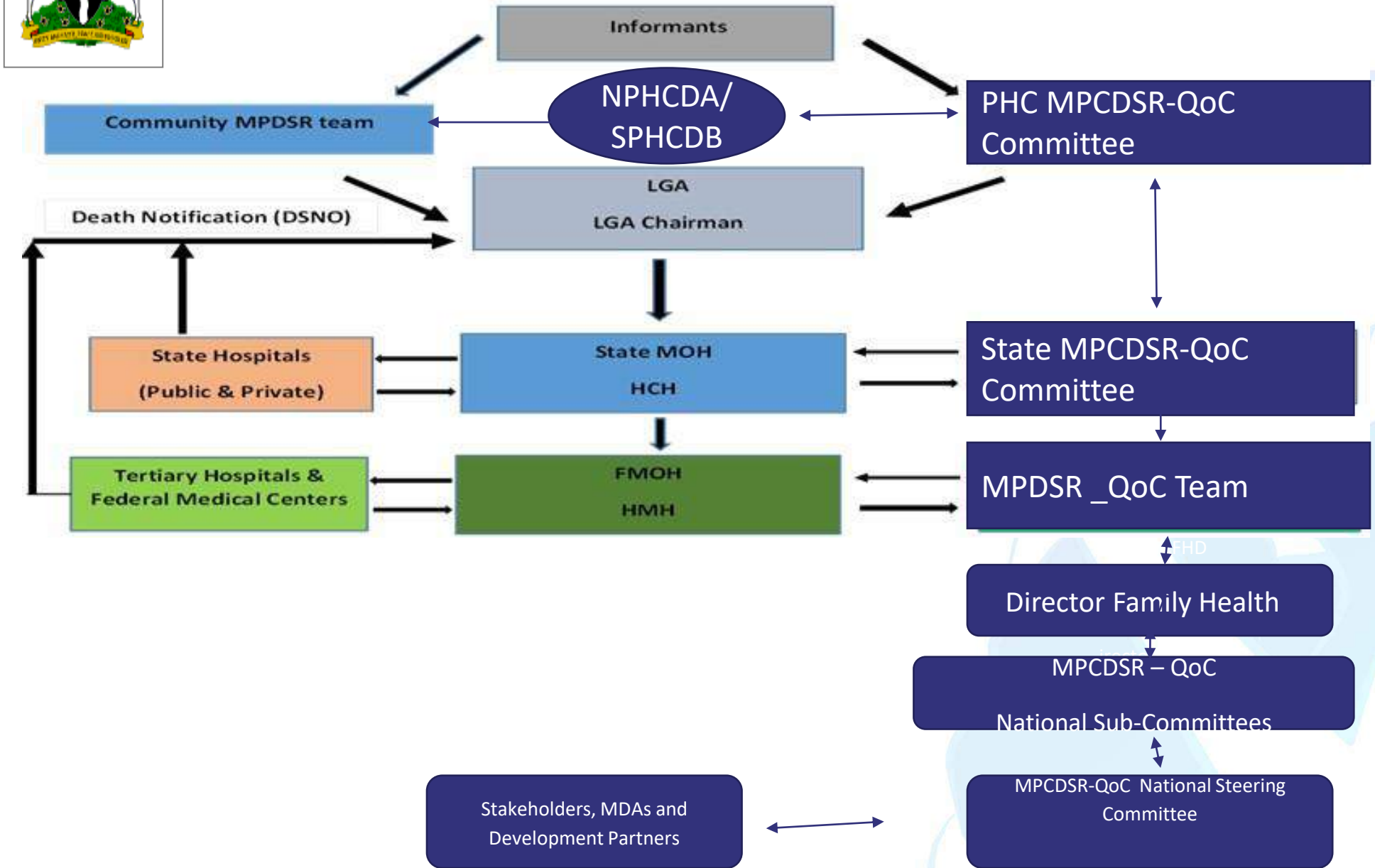
Transition Plans

- A Desk officer appointed in the office of the Director of Hospital Services under the supervision and guidance of a technical team.
- MPCDSR committee to be headed by the Chief Medical Directors of our Tertiary Hospitals
- Use data analysis for programmatic planning and decision making.
- Track the QoC Indicators across the 36 states and Abuja FCT
- Database to be hosted through the FMOH website through the Galaxy Backbone Nigeria Ltd
- Annual MNCH Conference to share experience and reward performances

Transition Plans

- Data Collection in some facilities slowed due to logistic challenges
- Directive for the federal tertiary Hospitals to commence support of data collection logistics
- All the relevant Hospitals contacted on this.
- Effort to ensure State-owned health facilities are brought on board with relevant support from the respective state governments
- The Federal Ministry of Health will be working on the seamless integration of data collection with the DHIS-2

Coordination mechanism



Appreciation

- World Health Organization (WHO) and MSD for Mothers for supporting the MPD-4-QED project
- WHO Technical team in Geneva for the support to make the three year project a success
- UNICEF for the sponsorship of the MPCDSR training manual review.
- JHPIEGO for the sponsorship of the MPCDSR training manual review.
- Ehealth4everyone and team for the technical and training support
- National MPD-4-QED team and the hospital teams.

Questions & Answers

Facilitated by

Dr Martin Joseph
Medical Officer, Maternal and Child Health, WHO Nigeria

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