

# Improving pediatric Quality of Care

QoC Network meeting, Accra, Ghana

“Deep-dive” breakout session

March 15, 2023



# Agenda

- Framing (8 min)
- Country presentations (20 min)
  - Nigeria
  - Bangladesh
- Group work (45 min)
- Feedback (15 min)

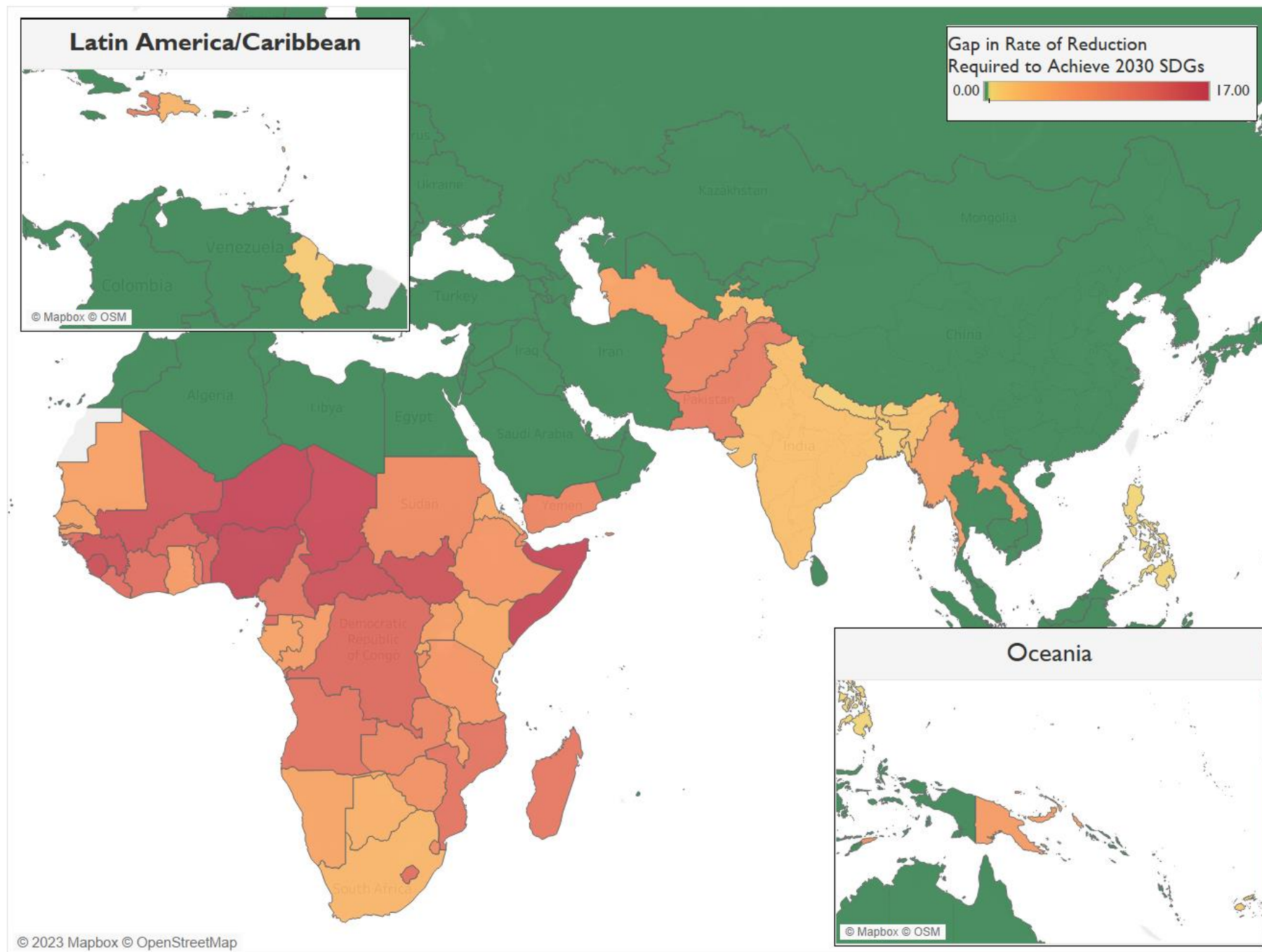
# Objectives of this session

- Share **cross-country learnings** on introducing/scaling ped QOC efforts ("scaling out" from MNH)
- Identify **barriers and opportunities** to measuring and scaling pediatric QoC across all levels
- Define **priority actions** for countries to advance pediatric QOC in terms of the LALA Framework – Leadership, Action, Learning, and Accountability

# Why?

Coverage and quality of essential child health services are crucial for progress in child survival

*54 countries need accelerated action to meet the SDG target for under-five mortality.*



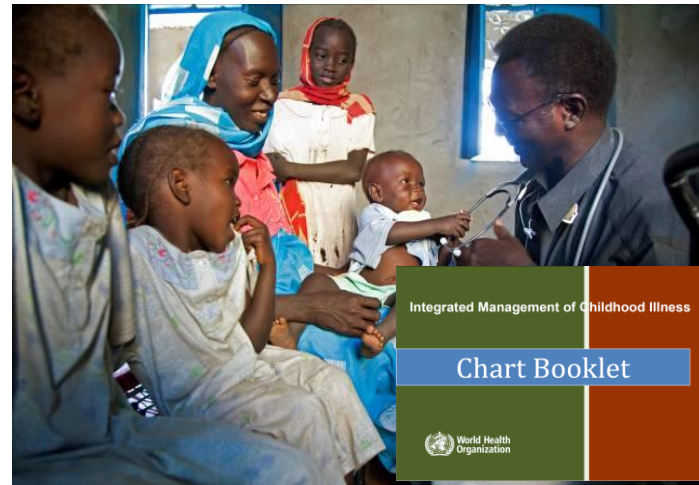
# Where: Quality improvement of child health services needs to happen at all levels

**PHC level is where most children access prevention, promotion and sick child care**

**Home/Community**



**1st level facility**



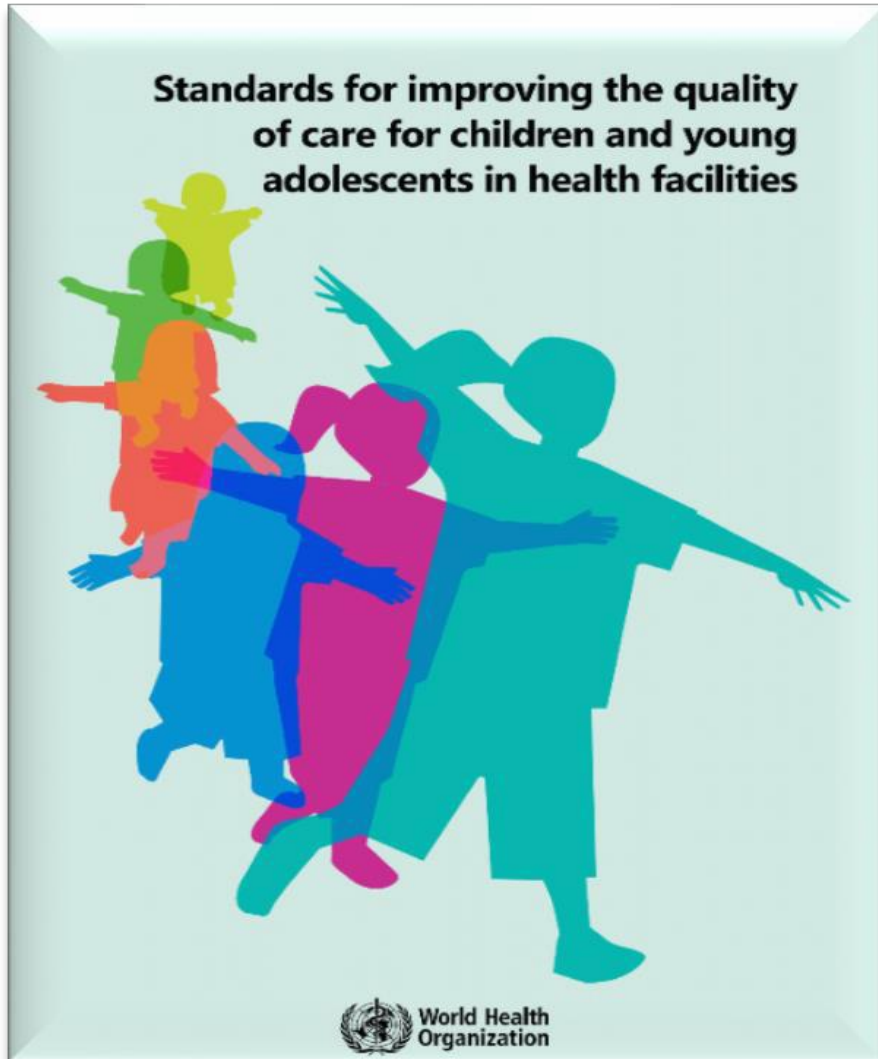
**Hospital**



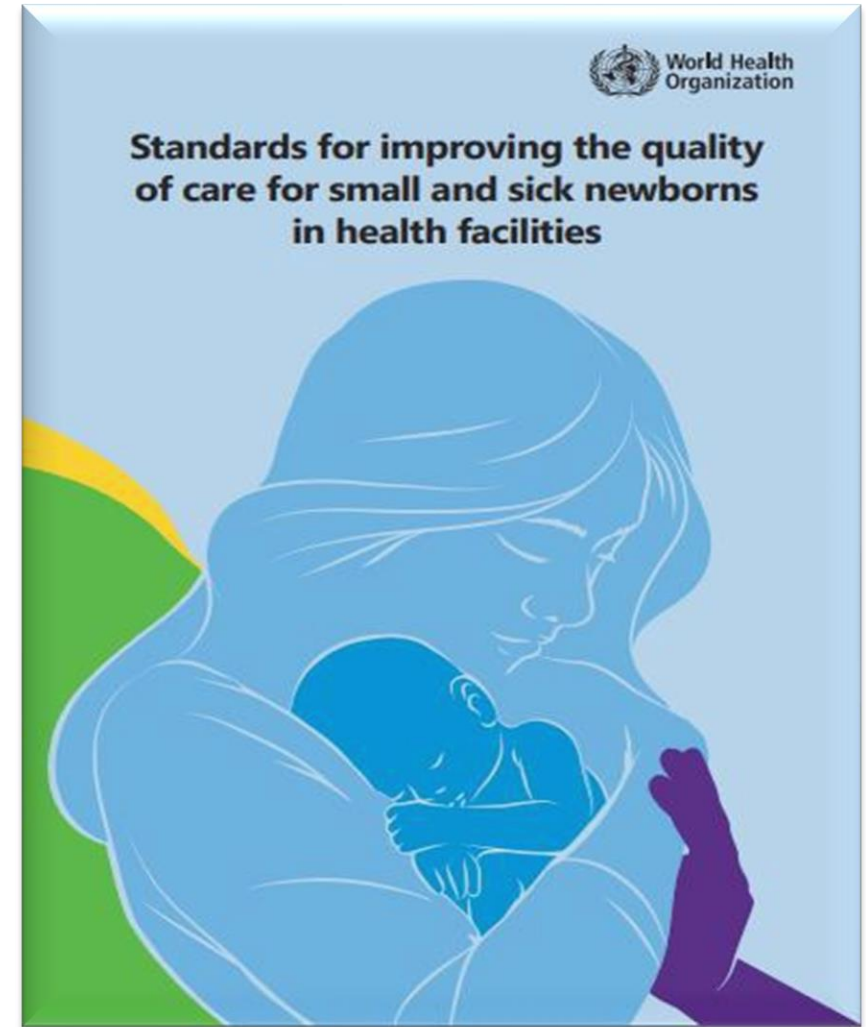
**Number of Children Seen**

**Specialized care**

# Paediatric and SSNB quality of care standards



Paediatric quality of care framework (2018)



SSNB quality of care framework (2020)

# Note: Nutrition-specific quality statements are integrated into MNH, SSNB, and Pediatric QoC Standards

## MNH NUTRITION QUALITY STATEMENTS

### Routine birth care

- Skin to skin and early breastfeeding (BF)

### PNC

- Exclusive BF support and counseling
- Nutrition counseling and IFA supplementation for mother
- No woman or newborn is subjected to unnecessary or harmful practices; includes protection from promotion of breastmilk substitutes

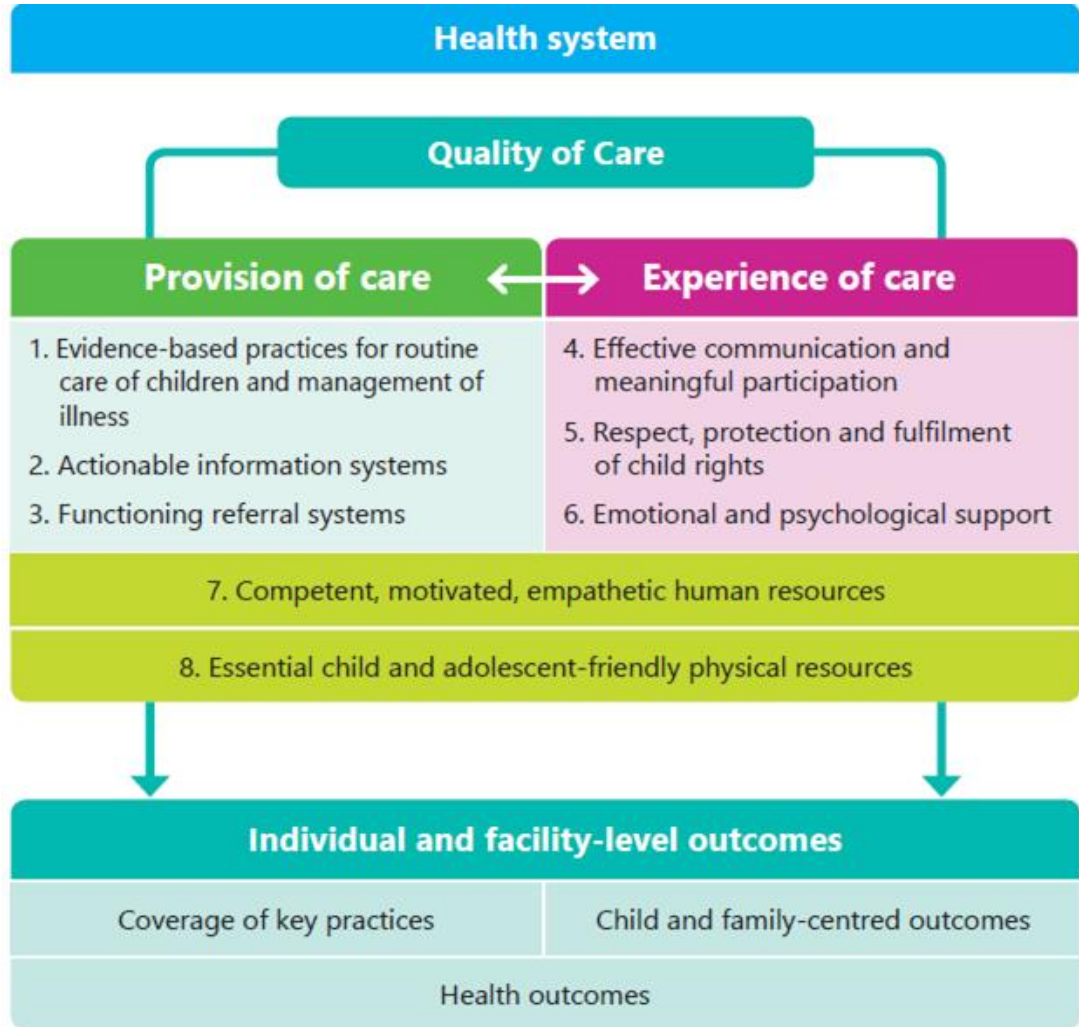
## SSNB NUTRITION QUALITY STATEMENTS

- SSNBs are fed appropriately, including assisted feeding with mother's milk
- SSNBs who cannot tolerate enteral feeding or enteral feeding contraindicated are provided with parenteral nutrition
- All newborns of HIV-infected mothers are fed appropriately
- All very-low-birth-weight newborns are given vitamin D, calcium, phosphorus, iron supplements

## PEDIATRIC NUTRITION QUALITY STATEMENTS

- All infants/young children are assessed for growth, BF and nutrition and their caregivers receive appropriate support and counselling.
- All children at risk for acute malnutrition/anemia are correctly assessed and classified and receive appropriate care.
- Assessment of status and provision of Vitamin A supplementation every 6 months

# What is the scope of paediatric QoC standards?



- Informed by the health system building blocks
- Cover care of children 0-14 years of age
- Applicable to all health facilities offering child health services across levels of care
- Prioritized areas to drive quality improvement
- Child-, adolescent- and family centered
- Address children's provision and experience of care
- No developed for community-based services but some adaptations possible



# Application and use of the Paediatric QoC standards

Guidance in the organization, planning and delivery of child health service in facilities.

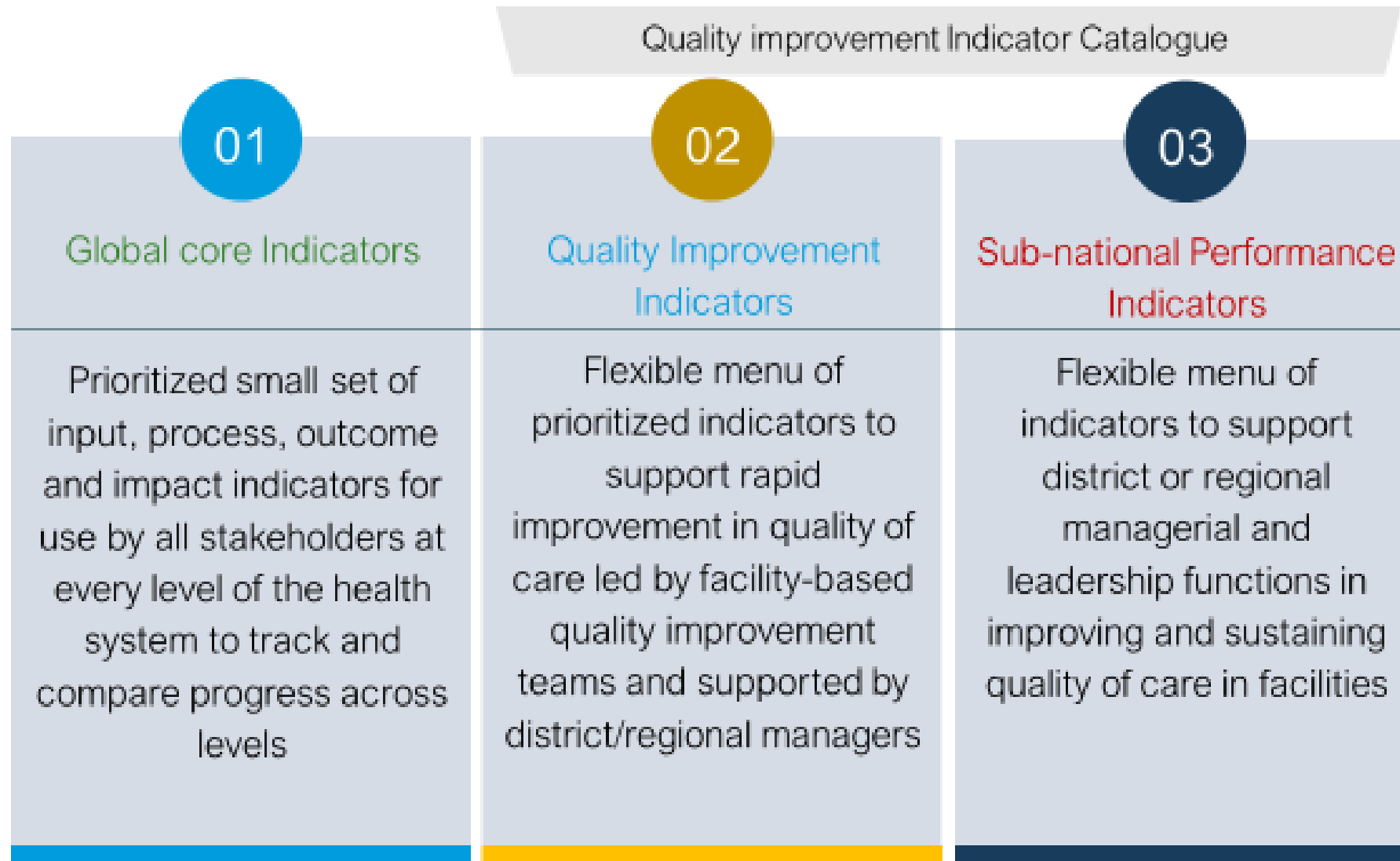
Preparing evidence-based national standards and protocols.

Identification of components of care and resource inputs that are required.

Tracking quality improvements and monitoring performance in care or service delivery.

Providing a benchmark for national health facility assessments, audits, accreditation and performance reward.

# Paediatric QoC Indicators



# 25 Pediatric QoC Core indicators

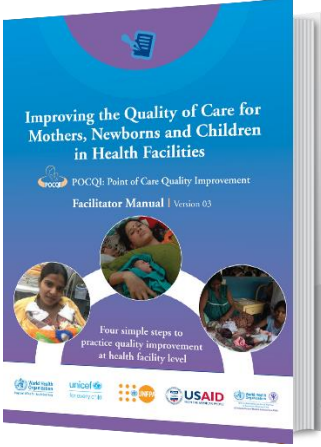
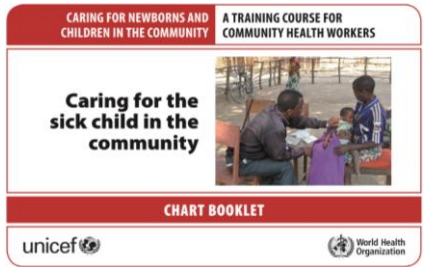
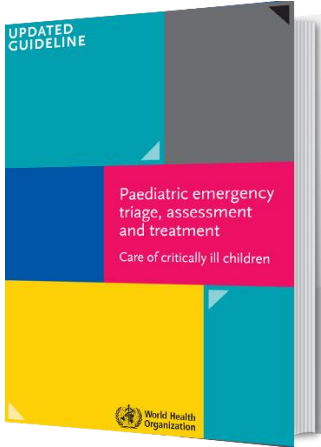
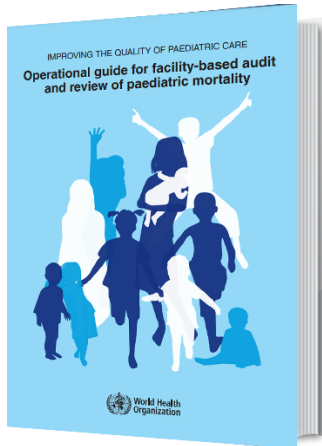
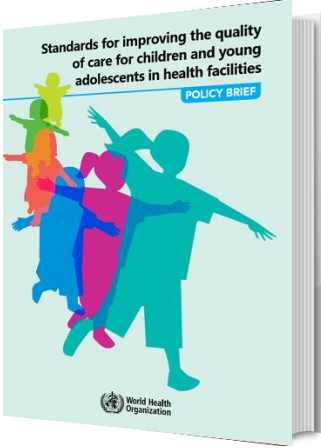
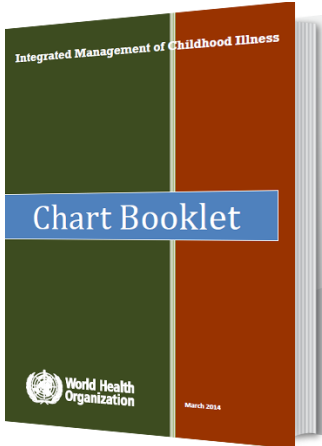
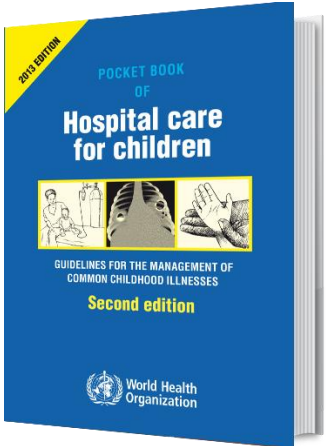
## Proposed measurement:

- HMIS (12)
- Facility registries or medical records (3)
- Surveys or interviews (9)
- Inventory (1)

|                                                                             |
|-----------------------------------------------------------------------------|
| Institutional Child Mortality Rate                                          |
| In-hospital paediatric case fatality rate (by common paediatric conditions) |
| Essential IMNCI assessment for the sick child                               |
| Treatment of PSBI at outpatient level                                       |
| KMC initiation for infants weighing 2000 g or less                          |
| Pneumonia treatment with 1st choice antibiotic                              |
| Management of acute watery diarrhea among children <5 years old             |
| Paediatric malaria diagnostic testing rate in malaria endemic areas         |
| Treatment of uncomplicated SAM                                              |
| Management of anemia                                                        |

|                                                                               |
|-------------------------------------------------------------------------------|
| HIV testing for the mother and/or the child (in high HIV prevalence settings) |
| TB evaluation for children with presumptive TB                                |
| Missed-Opportunity for vaccination (MOV)                                      |
| Inappropriate use of antibiotic for cough or cold                             |
| Completion of medical documentation                                           |
| Paediatric QoC indicator review                                               |
| Patient knowledge and understanding of their condition and treatment plan     |
| Satisfaction with decision-making process for care                            |
| Pre-discharge counselling on danger signs and feeding during illness          |
| Awareness of child rights during health care                                  |
| Disrespectful care for the child or caregiver                                 |
| Accompaniment during care                                                     |
| Access to play and educational material during hospitalization                |
| Clinical mentorship or training                                               |
| Stock out of essential child health medicines                                 |

# There are diverse resources to guide improvement of child health and nutrition services at national and subnational levels



Muzigaba et al. BMC Health Services Research (2022) 22:887  
<https://doi.org/10.1186/s12913-022-08234-5> BMC Health Services Research

RESEARCH Open Access

Global core indicators for measuring WHO's paediatric quality-of-care standards in health facilities: development and expert consensus

Moise Muzigaba<sup>1\*</sup>, Tamar Chitashvili<sup>1</sup>, Alysha Choudhury<sup>1,2</sup>, Wilson M. Were<sup>1</sup>, Theresa Diaz<sup>1</sup>, Kathleen L. Strong<sup>1</sup>, Debra Jackson<sup>3,4</sup>, Jennifer Requejo<sup>1</sup>, Anne Detjen<sup>1</sup> and Emma Sacks<sup>1,5</sup>



# Framing for thinking during country presentations and discussions

How do we ensure that **pediatric QoC is part of the overarching quality of care work** at all levels – national, sub-national level?

&

How do we ensure that **QoC is at the center of all programmes that deliver child health services** (planning, budgeting, measurement, implementation)?



# NIGERIAN EXPERIENCE ON CHILD HEALTH QUALITY OF CARE IMPLEMENTATION IN SOKOTO STATE

QUALITY OF CARE NETWORK MEETING  
14-17<sup>TH</sup> MARCH 2023, GHANA  
(CHILD HEALTH DEEP DIVE- SESSION)

# WHAT HAS TAKEN PLACE (IN TERMS OF IMPLEMENTATION), LINKAGES WITH THE RMNCAH PLAN AND NATIONAL MATERNAL, NEWBORN AND CHILD HEALTH QUALITY OF CARE (QOC) COORDINATION



## □ National Level

- Incorporation of the child death audit into the Maternal Perinatal Death Surveillance Response (MPDSR) , thus making it MPCDSR with review of the tools and capacity building at national and subnational level
- Quality of care well-embedded into on-going Reproductive Maternal Newborn Child, Adolescent and Elderly Health +Nutrition strategy review

## □ Subnational Level implementation of Child Quality of Care

- QoC TWG inaugurated at the State and LGA Level
- State Quality Improvement (QI) Operational Plan developed - Included Child Health QI goals
  - Malaria, Immunization, Nutrition
- Training of TWG members and health workers on QI approaches conducted – (state, LGA and facility levels.
- Set up QITs at the facilities – Mentored on QI approaches, creation of dashboards, data extraction from registers and analysis





# SNAPSHOT OF EXAMPLES OF CHILD HEALTH QI STANDARDS, GOALS, AND AIM STATEMENTS WORKED ON

| Thematic area       | QI Standards                                                                                               | 5-year Goal                                                        | Aim Statements                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Child health        | STANDARD I: Every child receives evidence-based care and management of illness according to WHO guidelines | 50% reduction in U5MR                                              |                                                                                                                                                                                                                                                                                                                                                                                                     |
| Malaria in children |                                                                                                            | 100% Diagnosis with mRDT prior to commencement of treatment        | <ul style="list-style-type: none"><li>• Increase the number of children presenting with fever tested with RDT from 20% to 50% by April 2021</li><li>• Increase the number of children under 5 tested positive treated with ACT from 30% to 60% by 2 months.</li><li>• Increase the number of children with complicated malaria giving pre referral treatment from 10% to 50% by 2 months.</li></ul> |
| Nutrition           |                                                                                                            | 80% of babies under the age of 6 months are exclusively breastfed. | <ul style="list-style-type: none"><li>• Increase the number of children under 6 months that are exclusively breastfed from 10% to 40% by 6 months</li></ul>                                                                                                                                                                                                                                         |
| Immunization        |                                                                                                            | 80% coverage for measles and PENTA 3                               | <ul style="list-style-type: none"><li>• Increase the number of children under five who had penta 3 from 20% to 50% by two months.</li><li>• Increase the number of children under five fully immunized from 20% to 50% by 2 months.</li></ul>                                                                                                                                                       |



# WHAT FACTORS HAVE CREATED THE ENABLING FACTORS



- Advocacy to key stakeholders
- Existence of:
  - State QoC annual operational plan
  - Business plans across QI sites
  - Functional State and LGA (District) TWG
  - Functional QITs
- Strong political will at the subnational level
- Availability of QI dashboards
- Access to Basic Health Care Provision Fund



*Photo shows: Members of QIT at a PHC extracting data from OPD register to update the malaria QI dashboard for March 2021*

# HIGHLIGHT PROGRESS/ISSUES AROUND QI CAPACITY AND MEASUREMENT FOR CHILD HEALTH AND QOC TOOLS IN U



- ❑ 600 service providers trained on MNCH+ Nutrition/Malaria (including Paediatric) QoC
- ❑ Scaled up MNCH+ Nutrition/Malaria (including Paediatric) QoC from initial 9 sites to additional 120 sites in State within 6 months.
- ❑ Supported the state to inaugurate State and 23 Local Government Areas (District) MNCH +Nutrition/Malaria(including Paediatric) QoC TWG as well as QIT in each of the QI sites

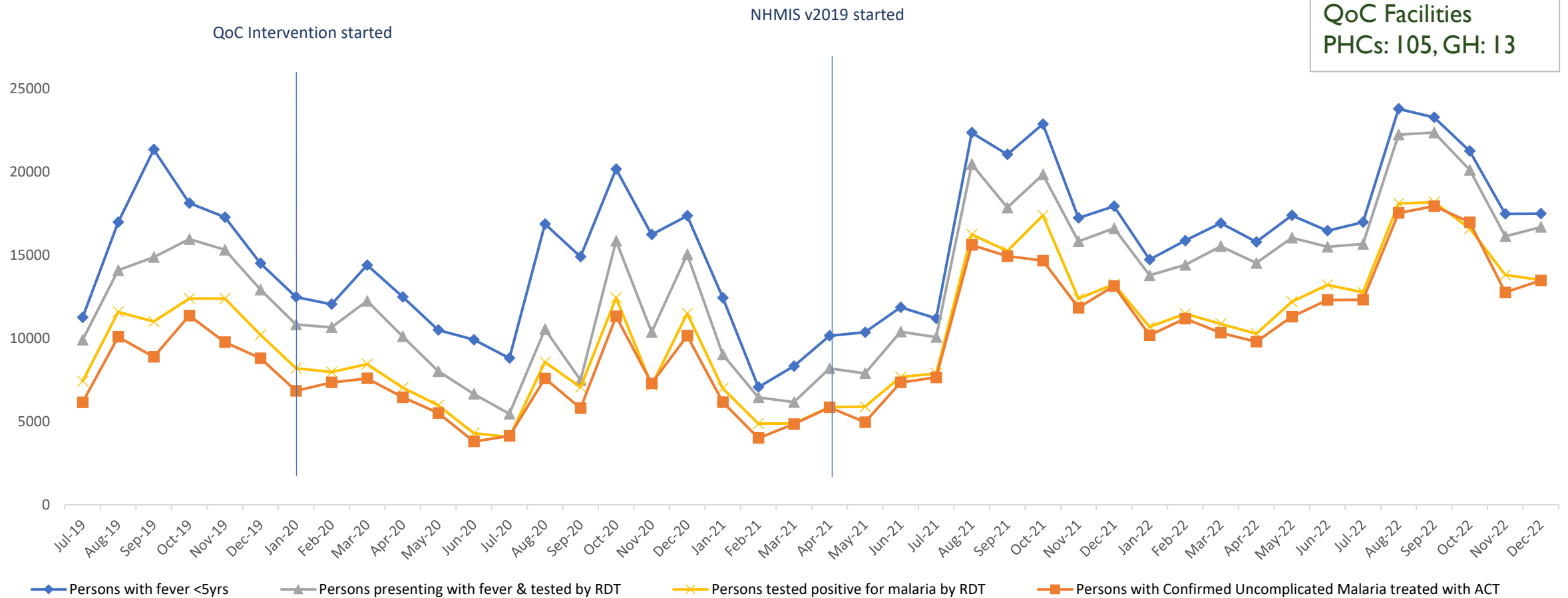
# IHP SUPPORTED FACILITIES IN SOKOTO STATE

## Malaria QoC - Children < 5 years

IHP Supported Facilities in Sokoto State



Number of Focal QoC Facilities  
PHCs: 105, GH: 13



# CHALLENGES



- Insecurity
- Frequent transfers of QoC trained staff
- Inadequate human resource for health
- Frequent stockout of some essential RMNCH commodities
- Inadequate budget release for QoC activities
- Political interference in health workers employment and distribution

# WHERE NEXT IN TERMS OF CHILD HEALTH QoC IMPLEMENTATION (NATIONAL AND STATE LEVEL)

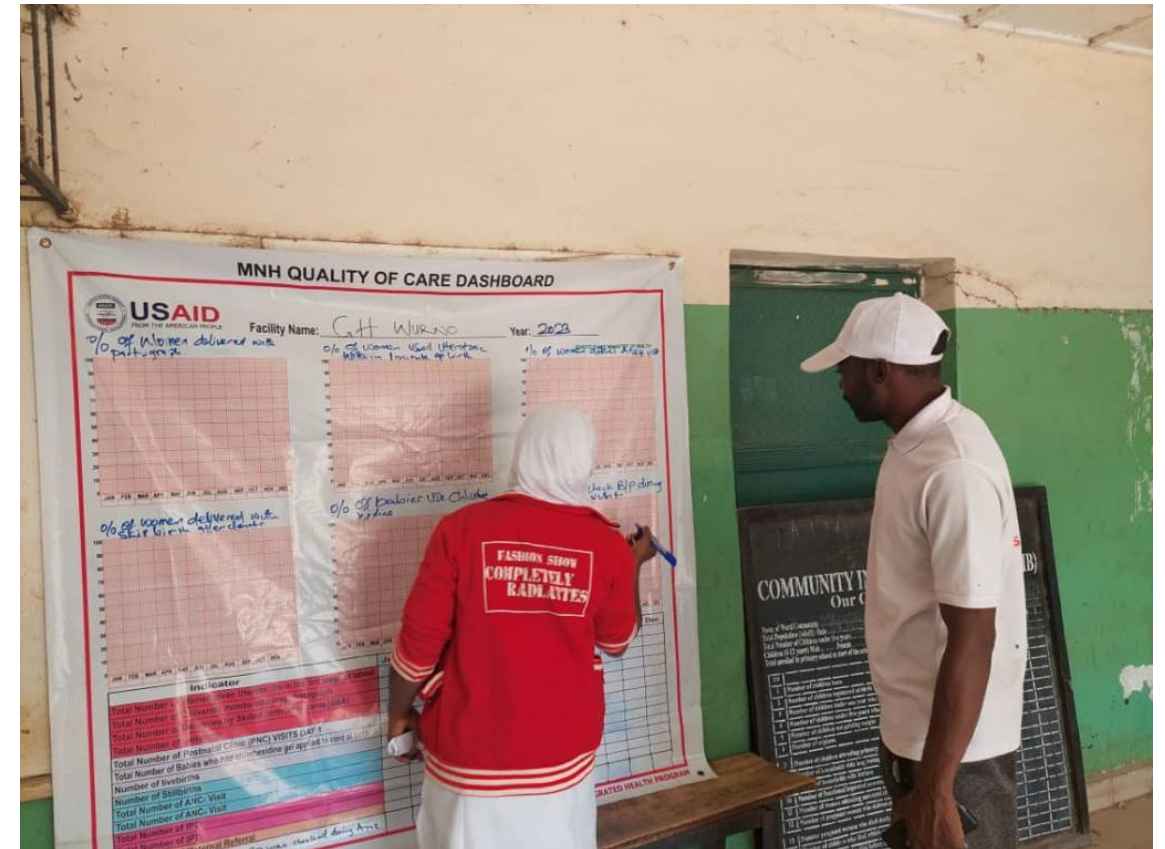


## National

- ❑ Integrate the Child and Paediatric standards into the MNH QoC strategy.
- ❑ Incorporate the child QoC into the Reproductive, Malaria, Newborn, Child and Adolescent, Elderly Health and Nutrition (RMNCAEH+N) Strategy.
- ❑ Incorporate the child QoC into National Quality Policy and Strategy (NQPS)

## State

- ❑ Evaluate the progress made in MNCH+ Nutrition/Malaria (including Paediatric) QoC implementation in the state.
- ❑ Scale up QoC implementation (especially Paediatric QoC) to additional sites in the state.





THANK YOU FOR LISTENING

Standards for improving the  
of care for children and young  
adolescents in health facilities



## *Implementation of Paediatric QoC standards in Bangladesh: OXYGEN as a case study*

*Dr. Supriya Sarkar  
Deputy Programme Manager, Hospital Services  
Management – DGHS*

*Global MNCH QoC Conference, Accra-Ghana  
14<sup>th</sup> to 16<sup>th</sup> March 2023*

# Introducing and scaling WHO Pediatric QoC standards in Bangladesh

## Assessment

Initial **2 hospitals** by UNICEF with small USAID fund (Q4 2020-2021)

### Findings:

Gaps in **staff capacity** for rational use of oxygen

Only **30% of obstetric/SCANU beds** had central gas pipelines

Inadequate **oxygen equipment and infrastructure**

**Scaled up assessment** with other funding to **120 health facilities** -> similar findings

## National consultations

National **oxygen technical committee** formed

Development of **national oxygen road map**

**Oxygen landscape analysis** conducted

Development of **National Guideline and Training Module** on oxygen therapy and pediatric standards

Development of **monitoring checklist** for oxygen system and oxygen therapy

Selection and introduction of **Oxygen therapy indicators in DHIS 2**

## Capacity development

**1 MNC officer** was recruited under the National IMCI and National Newborn Health programmes to support implementation

**15 Pediatric and Neonatology consultants** trained as national trainers

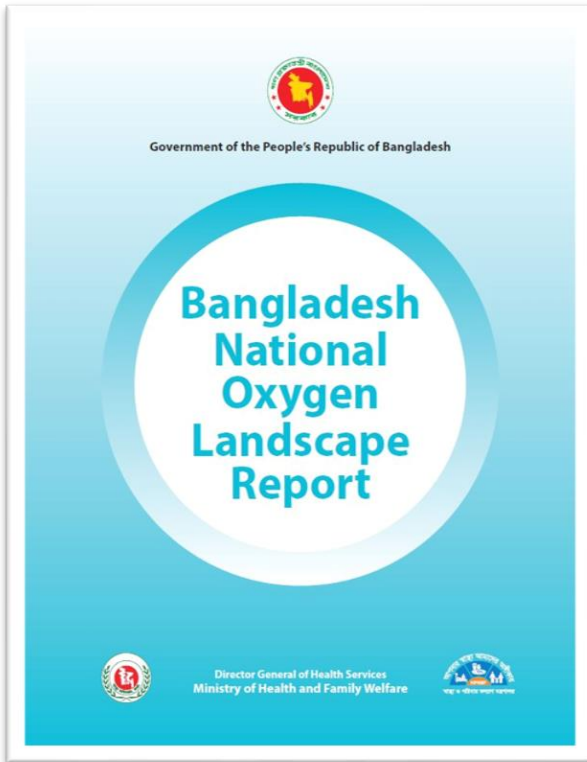
**4 Training Institutions (Medical College Hospitals)** equipped to provide subsequent trainings and clinical mentoring

Over **900 staff trained** on rational use of oxygen

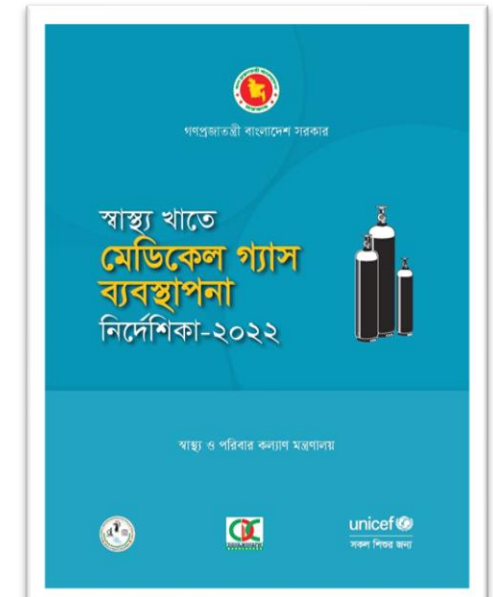
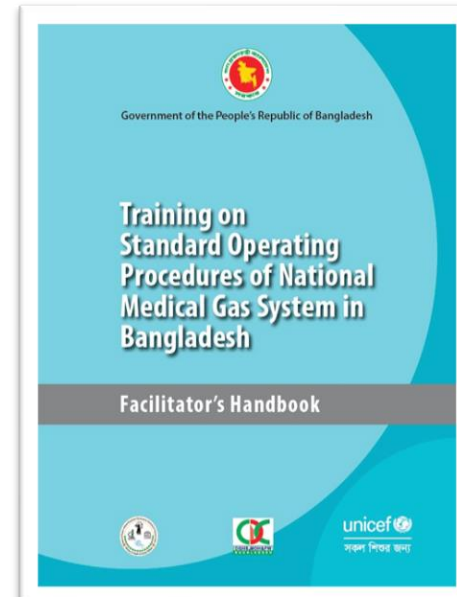
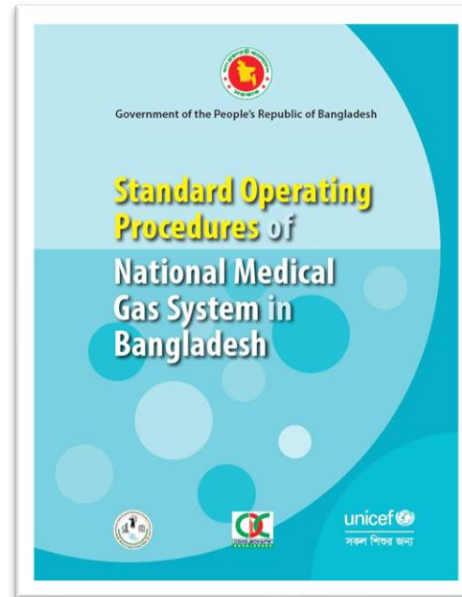


# Progress so far (1)

Strengthened coordination, policies and capacity within the DGHS & MoHFW for medical gas systems operation and maintenance in Bangladesh



“Oxypedia”



National Guideline, SOP and Training manual for operation and maintenance of medical gas systems



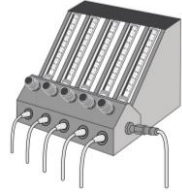
National Electro-Medical and Equipment Maintenance (NEMEMW) Unit on MoHFW capacity has been built to support operation and maintenance

# Progress (2)

Increased oxygen infrastructure and equipment at district and subdistrict levels for improved access to oxygen



Oxygen concentrators



Flow splitters



Nasal cannulas



Facility readiness ensured (renovation, gas pipelines) for oxygen management in **all SCANUs and pediatric wards**



Pulse oximeters



Oxygen monitoring devices



Oxygen analyzers

Flow meters



Central Gas Pipeline & Oxygen Manifold system in 158 UHCs, **60 by UNICEF (USAID funded)**



Liquid medical oxygen system in 98 hospitals, **30 by UNICEF (WB support), rest by Govt**



# Progress (3)

Improved oxygen monitoring systems in SCANU and pediatric wards for rational use of oxygen



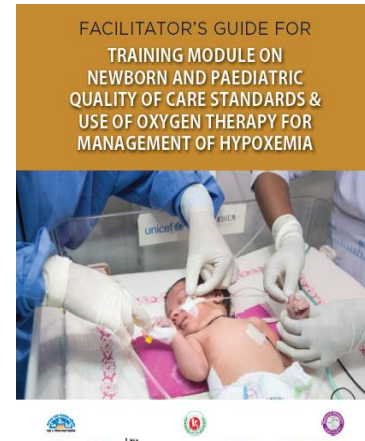
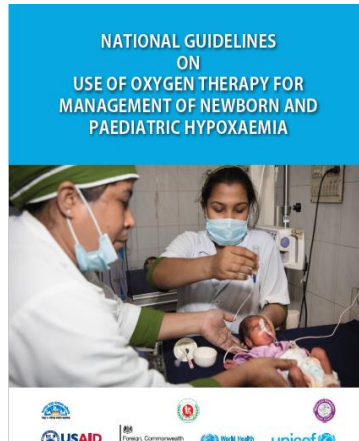
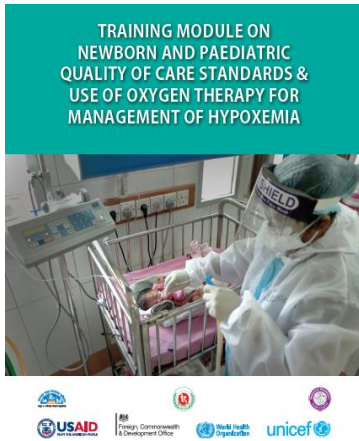
Oxygen monitoring checklist introduced in 69 facilities and reporting in DHIS2

**Daily Monitoring Chart**

|                                               |       |       |       |       |
|-----------------------------------------------|-------|-------|-------|-------|
| Date:                                         |       |       |       |       |
| 1. Patient information                        |       |       |       |       |
| Patient ID:                                   |       |       |       |       |
| Child name:                                   |       |       |       |       |
| Gender:                                       |       |       |       |       |
| Age:                                          |       |       |       |       |
| Weight:                                       |       |       |       |       |
| Diagnosis:                                    |       |       |       |       |
|                                               | Day 1 | Day 2 | Day 3 | Day 4 |
| 2. Vital sign                                 |       |       |       |       |
| Consciousness level                           |       |       |       |       |
| Central cyanosis (Y/N)                        |       |       |       |       |
| Head nodding (Y/N)                            |       |       |       |       |
| Severe Chest indrawing (Y/N)                  |       |       |       |       |
| Lung sign                                     |       |       |       |       |
| Any injury at the oxygen interface site (Y/N) |       |       |       |       |
| Inflammation at the cannula site (Y/N)        |       |       |       |       |
| SpO2                                          |       |       |       |       |
| Temperature                                   |       |       |       |       |
| Respiratory rate                              |       |       |       |       |
| Pulse rate                                    |       |       |       |       |
| 3. Fluid balance (record volume and times)    |       |       |       |       |
| IV                                            |       |       |       |       |
| By nasogastric tube                           |       |       |       |       |
| oral                                          |       |       |       |       |
| Fluid output                                  |       |       |       |       |
| 4. Treatment given                            |       |       |       |       |
| Name of treatment                             |       |       |       |       |
|                                               |       |       |       |       |
|                                               |       |       |       |       |
|                                               |       |       |       |       |

**Patient Individual Case sheet**

| Patient information                               | Treatment |
|---------------------------------------------------|-----------|
| Name                                              |           |
| Patient ID/registration #                         |           |
| Sex                                               |           |
| Age                                               |           |
| Wt                                                |           |
| Date:                                             |           |
| Dx.                                               |           |
| <b>Physical examination</b>                       |           |
| Medical follow up (last date)                     |           |
| Child Consciousness (Active/lethargy/Unconscious) |           |
| Pulse                                             |           |
| BP                                                |           |
| Temp                                              |           |
| SpO2                                              |           |
| Respiratory Rate                                  |           |
| Lung examination                                  |           |
| Severe Chest indrawing (Y/N)                      |           |
| Central cyanosis (Y/N)                            |           |
| Head nodding (Y/N)                                |           |
| Any injury at the oxygen interface site (Y/N)     |           |



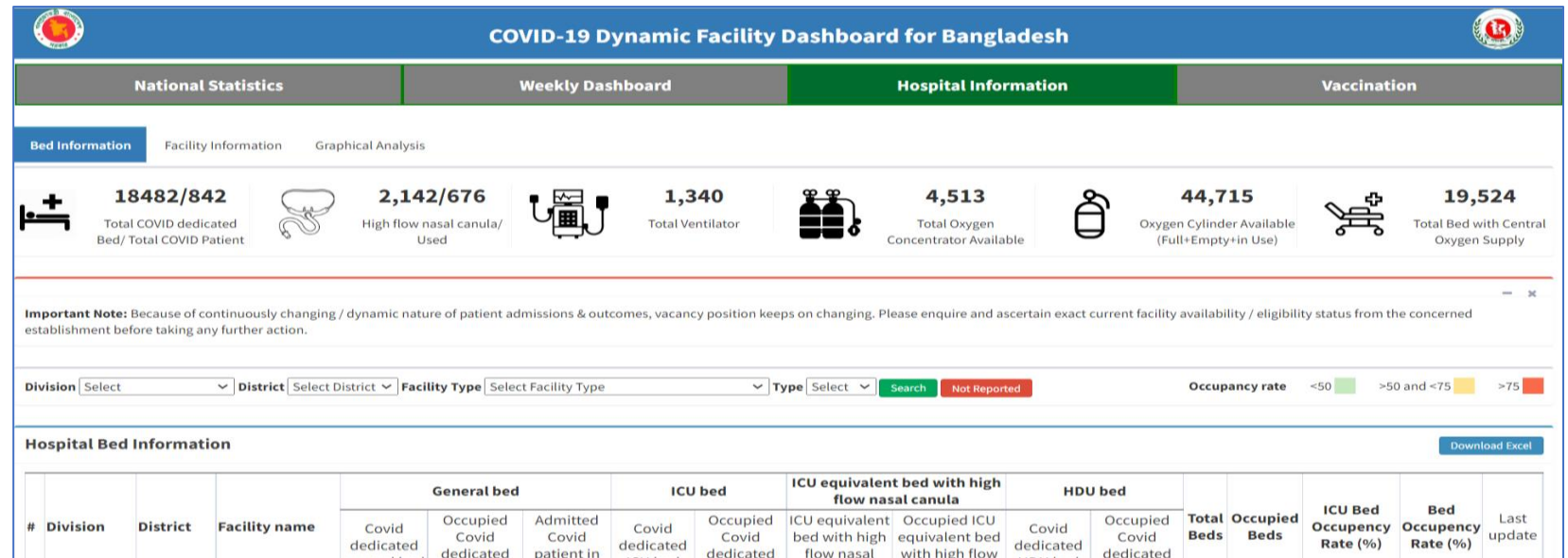
Clinical guidelines and training modules developed with pediatric QoC standards integrated

Over 900 health staff trained

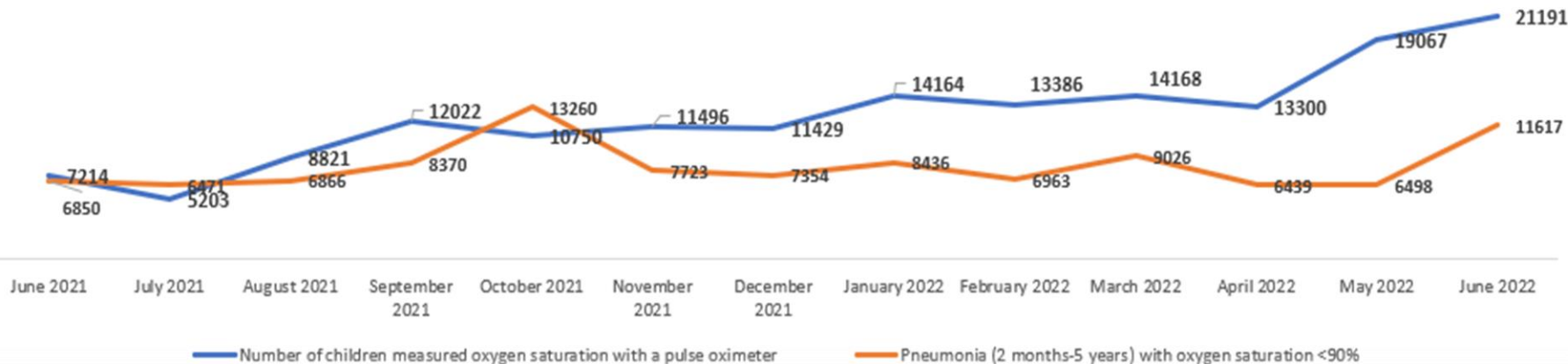
# Progress (4)

Oxygen information system developed for improved data analytics on oxygen

National dashboard on real-time COVID 19 data including oxygen



Screening of Children for hypoxemia in IMCI

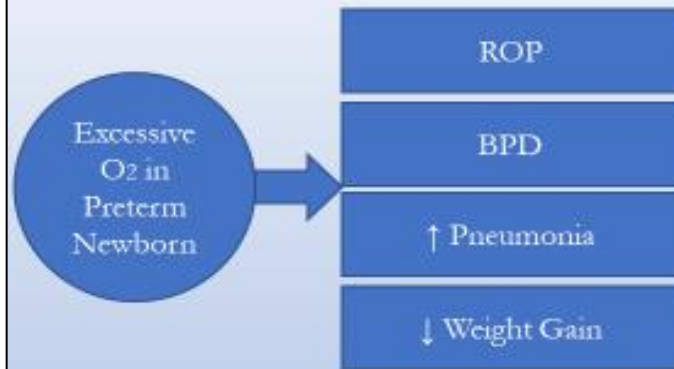


Oxygen indicators included in DHIS-2 at SCANUs and for IMCI



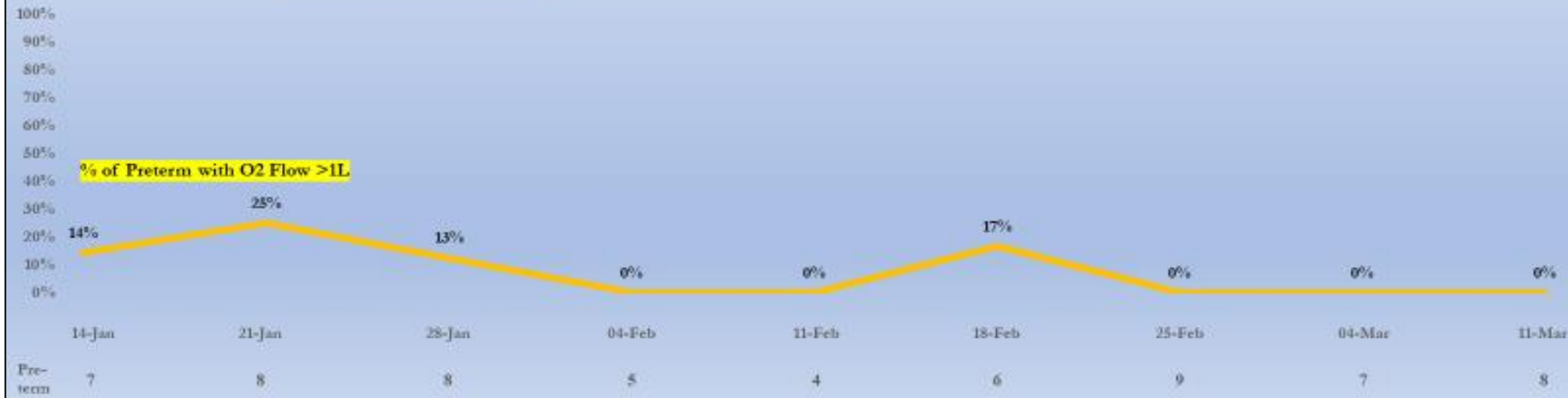
# Integrating QI approaches for rational use of oxygen

## QI Project on O<sub>2</sub> Saturation and Flow Measurement among Pre-Term New-born



### Changes Made

1. Start routine measurement of Oxygen flow and saturation 3 times a day.
2. Note down saturation and flow in treatment sheet.
3. Make a separate chart to note down saturation and flow.
4. Set a standard cut off points for Oxygen saturation upper limit 95% and lower limit 90%
5. Set standard for Oxygen flow 0.5-1 L.



Sample QI project using Plan-Do-Check-Act (PDCA) to reduce excessive use of oxygen in preterm babies

# What worked well



**Strong collaboration and partner coordination** for adaptation of the WHO standards for pediatric and small and sick newborn quality of care, guideline development including protocols, tools and job aids



**Government prioritized medical oxygen needs** during the initial phases of the COVID-19 pandemic and this helped to strengthen the health system



**COVID oxygen fund leveraged** to strengthen oxygen supply system in all SCANUs and pediatric wards with 100% beds with central oxygen pipeline including 60 Upazila Health complexes (*subdistrict*)



**Use of oxygen data to improve quality of care** at facility level using Plan-Do-Check-Act

# Areas for improvement

**Strengthen quality of  
paediatric care at the  
PHC level through  
IMNCI programme**

**Explore opportunities  
to integrate nutrition  
related paediatric  
QoC standards in  
newborn and child  
health interventions**



Thank you



Questions/comments/clarifications  
(if we have time)

# Reminder: Framing for thinking

How do we ensure that **pediatric QoC is part of the overarching quality of care work** at all levels – national, sub-national level?

&

How do we ensure that **QoC is at the center of all programmes that deliver child health services** (planning, budgeting, measurement, implementation)?

# Small Group Work (45 mins)

- GROUP 1 (times 2, if needed): Identify barriers and opportunities to "scaling up" pediatric QoC – and “scaling out” from MN QOC, e.g.
  - Leadership and coordination
  - Reaching all levels
- GROUP 2 (times 2, if needed): Define priority actions for countries to advance pediatric QOC measurement (provision and experience of care) in terms of the LALA Framework – Leadership, Action, (Learning), and Accountability

Group 1: Identify barriers to "scaling up" and "scaling out" pediatric QoC

|                                                                                                                               | Barriers | Opportunities |
|-------------------------------------------------------------------------------------------------------------------------------|----------|---------------|
| <b>Leadership and prioritization</b>                                                                                          |          |               |
| <b>Level of care</b> <ul style="list-style-type: none"><li>- Hospital</li><li>- PHC (e.g. IMCI)</li><li>- Community</li></ul> |          |               |

Group 2: Define **priority actions** for countries to advance pediatric QOC measurement in terms of the LALA Framework

|                                    | <b>Priority actions</b> |
|------------------------------------|-------------------------|
| <b>Leadership</b> and coordination |                         |
| <b>Action</b>                      |                         |
| <b>Learning</b>                    |                         |
| <b>Accountability</b>              |                         |