



World Health
Organization



WHO & UNICEF GLOBAL EXPERT CONSULTATION ON A **GENERIC** **MODEL FOR INPATIENT CARE OF** **SMALL AND/OR SICK NEWBORNS**

Wednesday 1, Thursday 2 & Friday 3 December 2021

13:00-16:00 CET (Geneva time)

Please note we have interpretation for English, French, Portuguese, Spanish and Arabic.
Please click the globe icon and choose your language in which you want to hear the presentation.

**ENDING PREVENTABLE
NEWBORN DEATHS and STILLBIRTHS**
by 2030



MEETING RULES

1. Due to the size of the meeting, we will not introduce each person.
You can give a greeting in a ChatBox
2. Please rename your profile to include your country name
3. Kindly remain on mute.
4. Please post your questions in the ChatBox.
If there is additional time, we can give the floor to individuals who raise their hands during question time.

PURPOSE

Arrive at a consensus on core elements of a generic model for the inpatient care of small or sick newborn (SSNB) at the district level.

This is in line with the ENAP Target 4 - 80% of districts have at least one functional level 2 (special care) inpatient newborn care unit including CPAP.

Objectives & Outputs

1. Share country experiences of scaling up inpatient units for sick or small newborn care.
2. Build consensus on the key elements of a generic model for scaling up quality inpatient SSNC that can be adapted to local contexts.

Introduction of Participants

Countries – ENAP Priority Countries

1. Afghanistan
2. Angola
3. Argentina
4. Bangladesh
5. Benin
6. Brazil
7. Burundi
8. Central Africa
Republic
9. Chad
10. China
11. Comoros
12. Côte d'Ivoire
13. Democratic Republic
of Congo
14. Djibouti
15. Egypt
16. Equatorial
17. Ethiopia
18. Guinea
19. Guinea-Bissau
20. India
21. Indonesia
22. Kenya
23. Lesotho
24. Liberia
25. Malawi
26. Mali
27. Mauritania

Partners

28. Mozambique
 29. Niger
 30. Nigeria
 31. Pakistan
 32. Philippines
 33. Sierra Leone
 34. Somalia
 35. South Sudan
 36. Sudan
 37. United
Republic of
Tanzania
 38. Uganda
 39. Vietnam
 40. Yemen
- UNICEF
WHO
UNFPA
USAID &
Momentum
BMGF
Save the Children
PATH
Jhpiego
IPA
African Neonatology
Association
ICM
COINN
KMC Foundation
Country Professional
Associations
Academic Institutions
Other ENAP Partners



AGENDA DAY 1



Time	Session 1 - Introduction (20min)	Moderator - Rajiv Bahl (WHO)
13:00-13:05	Welcome, Objectives & Outputs	Rajiv Bahl 5 mins
13:05-13:20	Opening remarks	Kim Dickson (UNICEF) 15 mins Lily Kak (USAID) Anshu Banerjee (WHO)
Time	Session 2: Learning from Country experiences - Core elements of the model of care	Moderator – Gagan Gupta (UNICEF)
13:20-14:05	Asian Experiences	India 15 mins each Bangladesh Viet Nam
14:05-14:25	Discussion	20 mins
14:25-14:35	Break	10 mins
Time	Session 2 (Continued) Learning from Country experiences: Core elements of the model of care	Moderator - Teshome Desta (WHO)
14:35-15:35	Sub-Saharan Africa Experiences	Ethiopia 15 mins each Malawi Uganda Sierra Leone
15:35-16:00	Discussion	25 min



AGENDA DAY 2



Time	Session 2 (continued) Learning from Country experiences	Moderator	
		Hema Magge (BMGF)	
13:00-13:30	PAHO Experiences	Brazil Argentina (Post-discharge follow up of at-risk newborns)	15 mins each
13:30-13:50	Discussion		20 mins
	Session 3 Specialist perspective on SSNC		
13:50-14:10	What does it take to scale up facility based newborn care?	Gagan Gupta (UNICEF)	20 mins
14:10-14:25	Synthesis of country experiences	Cyril Engmann (PATH)	15 mins
14:25-14:40	Discussion		15 mins
14:40- 14:50	Break		10 mins
14:50- 15:30	Country groups discussion to exchange lessons	Teshome/Gagan	40 mins
15:30-15:45	MNICU	Harish Chellani - Vardhman (India)	15 mins
15:45-16:00	HR road maps	Karen Walker (COINN)	15 mins



AGENDA DAY 3



Time	Session 4 : New, important, innovations, 'looking forward' topics	Moderator – Tedbabe Hailegebriel (UNICEF)	
13:00-13:15	Innovative technologies	Rebecca Richards Kortum (RICE University) Adriana Velazquez Berumen (WHO)	15 mins
13:15-13:30	Lactation management, human milk banking	Kirsten Israel Ballard (PATH)	15 mins
13:30-13:45	Maternal wellbeing including mental health	Shanon McNab (Independent Consultant)	15 mins
13:45-14:00	Developmentally supportive care	Susan Niermeyer (AAP)	
14:00-14:30	Discussion		30 mins
14:30-14:40	Break		10 min
Time	Session 5 : Putting it all together and next steps	Moderator – Rajiv Bahl (WHO)	
14:40-14:45	Introduction to Group work	Teshome/Gagan	5 mins
14:45-16:40	What does a generic model of care for SSNC look like taking into consideration all the presentations and health systems approach to quality of care (Key lessons from Day 1, Day 2 & Day3).		55 mins
	Feedback from group work and consensus on the key elements of a generic model for scaling up quality SSNC	Rajiv Bahl (WHO)	30 mins
15:40-16:00	Planning for implementation guidance Wrap up and next steps	Luwei Pearson & Gagan Gupta (UNICEF) Rajiv Bahl & Teshome Desta (WHO)	20 mins



OPENING REMARKS

Dr Kim Dickson, Chief Maternal, Newborn and Adolescent Health,
UNICEF HQ

Dr Lily Kak, Newborn Health Team Lead, USAID

Dr Anshu Banerjee, Director Maternal, Newborn Child and
Adolescent Health, and Ageing, WHO Geneva

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**ENDING PREVENTABLE
NEWBORN DEATHS and STILLBIRTHS**
by 2030





Session 2 – Learning from Country experiences: Core elements of the model of care INDIA, BANGLADESH & VIETNAM

MODERATOR: DR GAGAN GUPTA, UNICEF

ENDING PREVENTABLE
NEWBORN DEATHS and STILLBIRTHS
by 2030

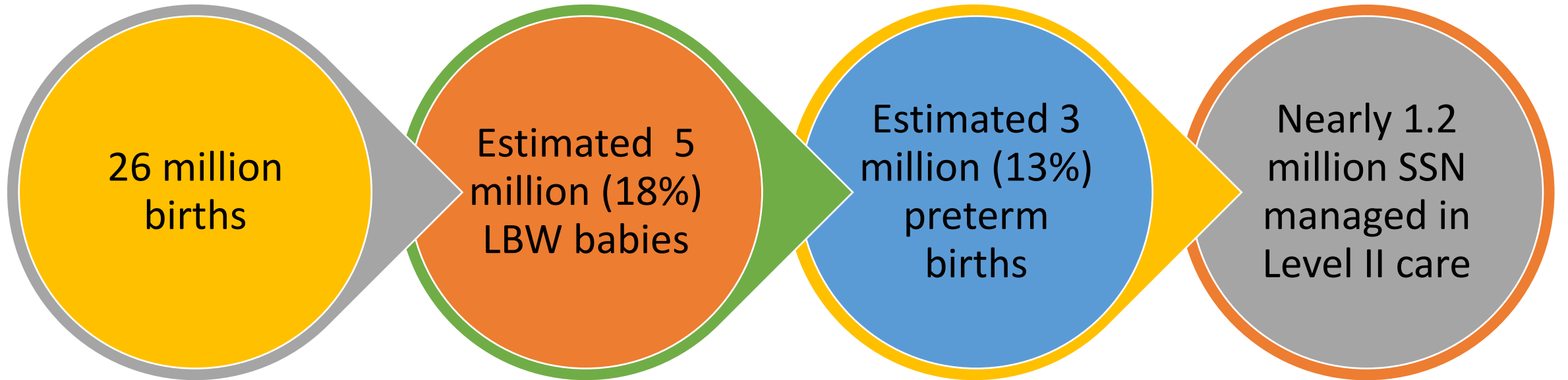


MODEL OF INPATIENT NEWBORN CARE IN LMIC: CORE ELEMENTS OF THE INDIA MODEL

ENAP expert consultation on a generic model for inpatient small and sick newborn care (SSNC) in low-resource settings, 1 -3 December 2021

Dr Sumita Ghosh
Additional Commissioner In Charge
Ministry of Health and Family Welfare
Government of India

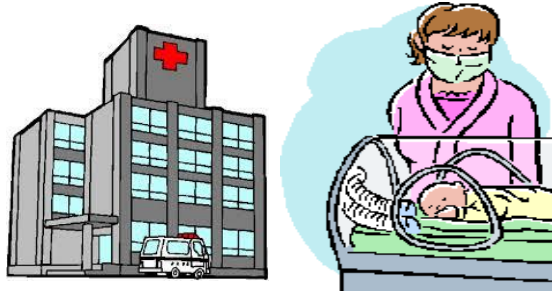
NEWBORN CARE IN NUMBERS!



India Newborn Action Plan: RMNCAH approach to Newborn Survival



Facility Based Sick & Small Newborn Care



Sick Newborns

Universal Home Based Newborn Care



Follow up after discharge

CONTINUUM OF NEWBORN CARE

Sick Newborns



Healthy Newborns

Immediate essential newborn care & resuscitation for ALL births

Care at birth for **ALL** newborns

Essential newborn care and resuscitation at delivery points

Labour room quality improvement initiative (Laqshya)

Comprehensive Screening For Visible Birth Defects

Postnatal care for 48 hours; birth doses of vaccines



Universal Home Based Newborn Care



Incentive to ASHA
for complete set
of home visits

Schedule of home visits in first 42 days of life:



- For institutional delivery
6 home visits for postnatal care

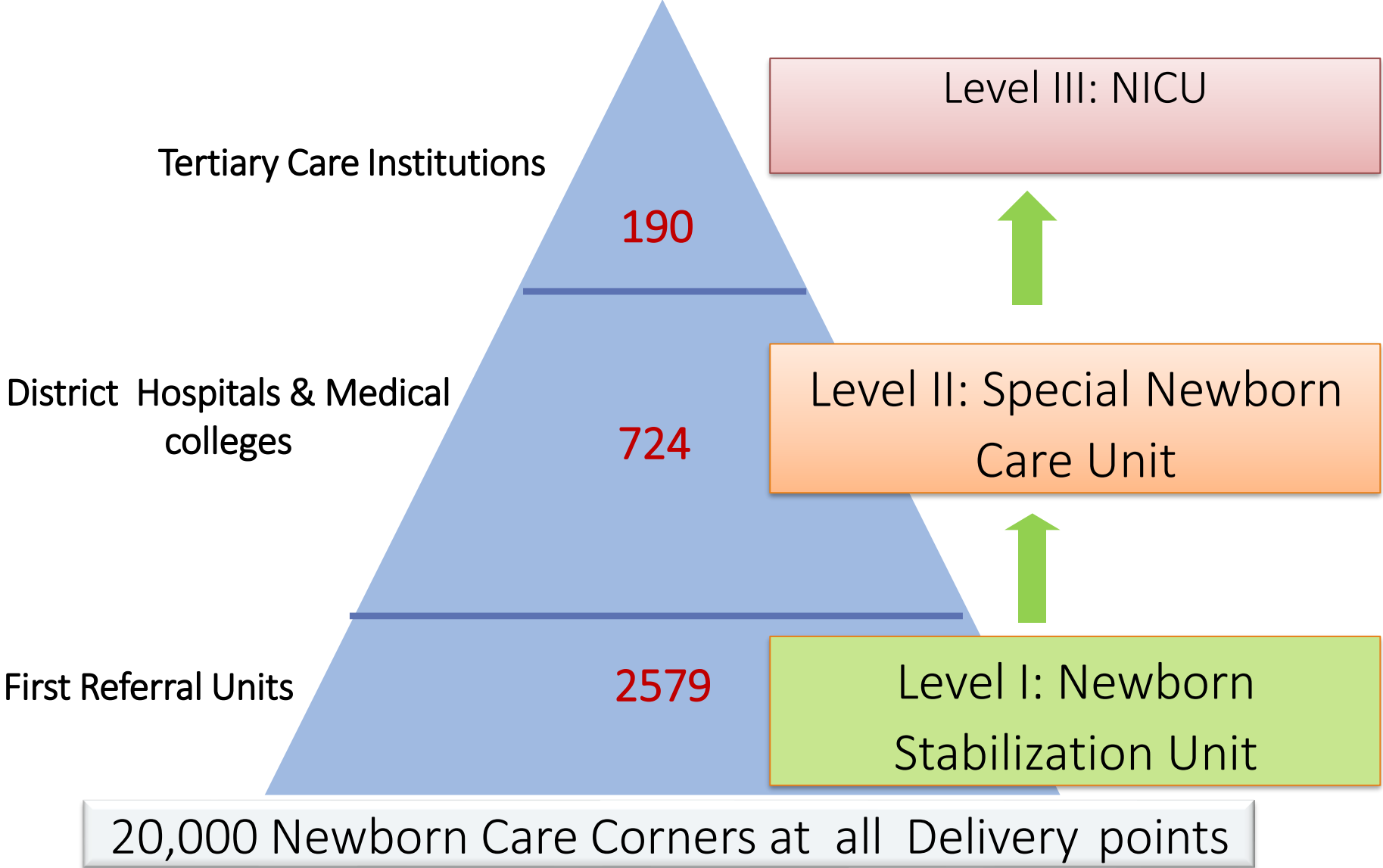
- For Home Delivery
7 home visits,
one extra visit within 24 hours of birth



- Follow up care for SNCU alumni

ASHA: Accredited Social Health Activist; a trained volunteer

Facility Based Newborn Care



Inpatient newborn care has expanded in last decade.

Rapid increase in numbers:

2579 NBSU ; **724** SNCU; **190** NICU

85% districts now have one functional SNCU

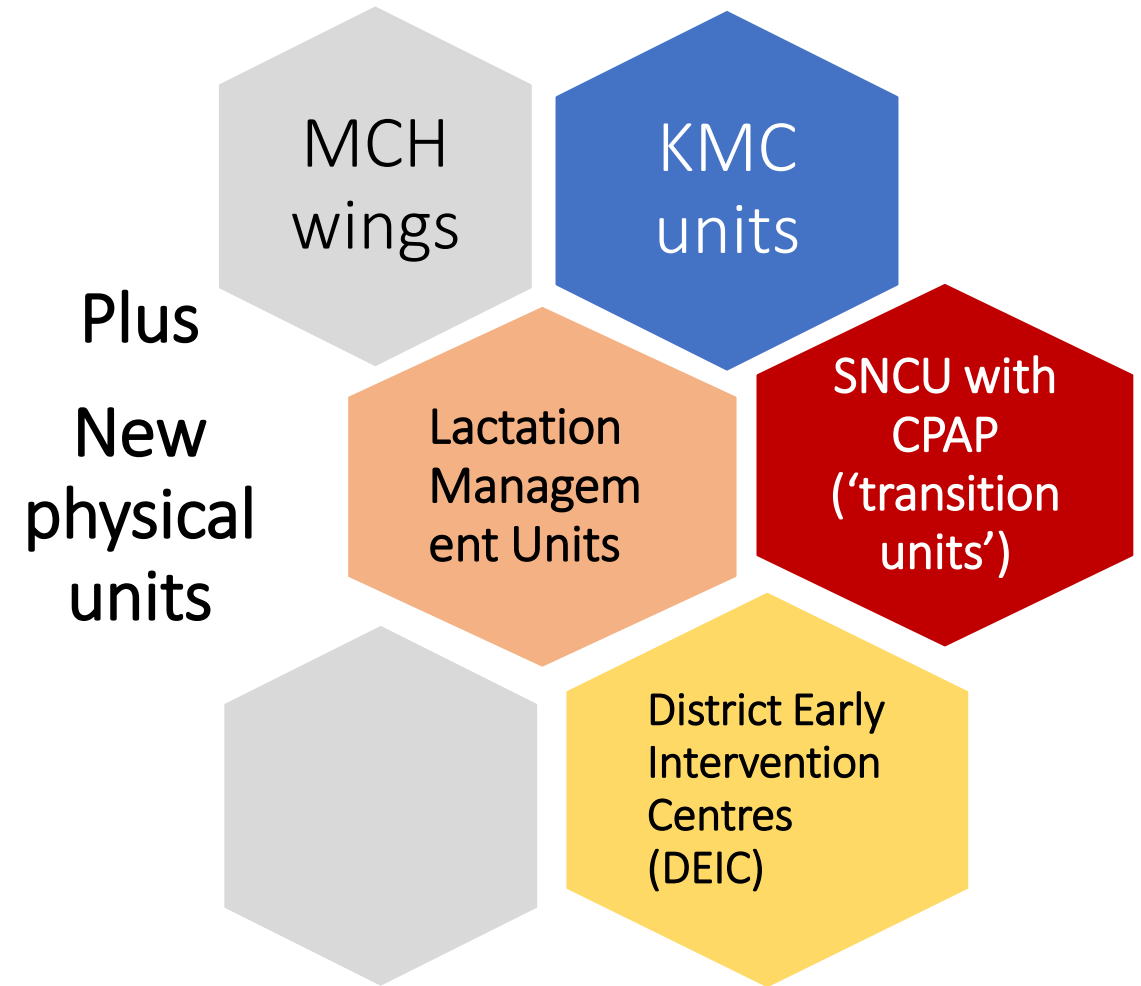
Nearly ALL (except 8 of 112) Aspirational Districts have SNCU

New MCH wings came up with SNCU as an integral part

SNCU initially envisaged as 12 bedded units, now most units have **24-30** beds ; facilities with low delivery load have '**Mini SNCUs**'



Newborn care services at district hospitals has evolved over one decade!



SNCU graduates linked with DEIC during follow up for early detection and management of development delays, ROP

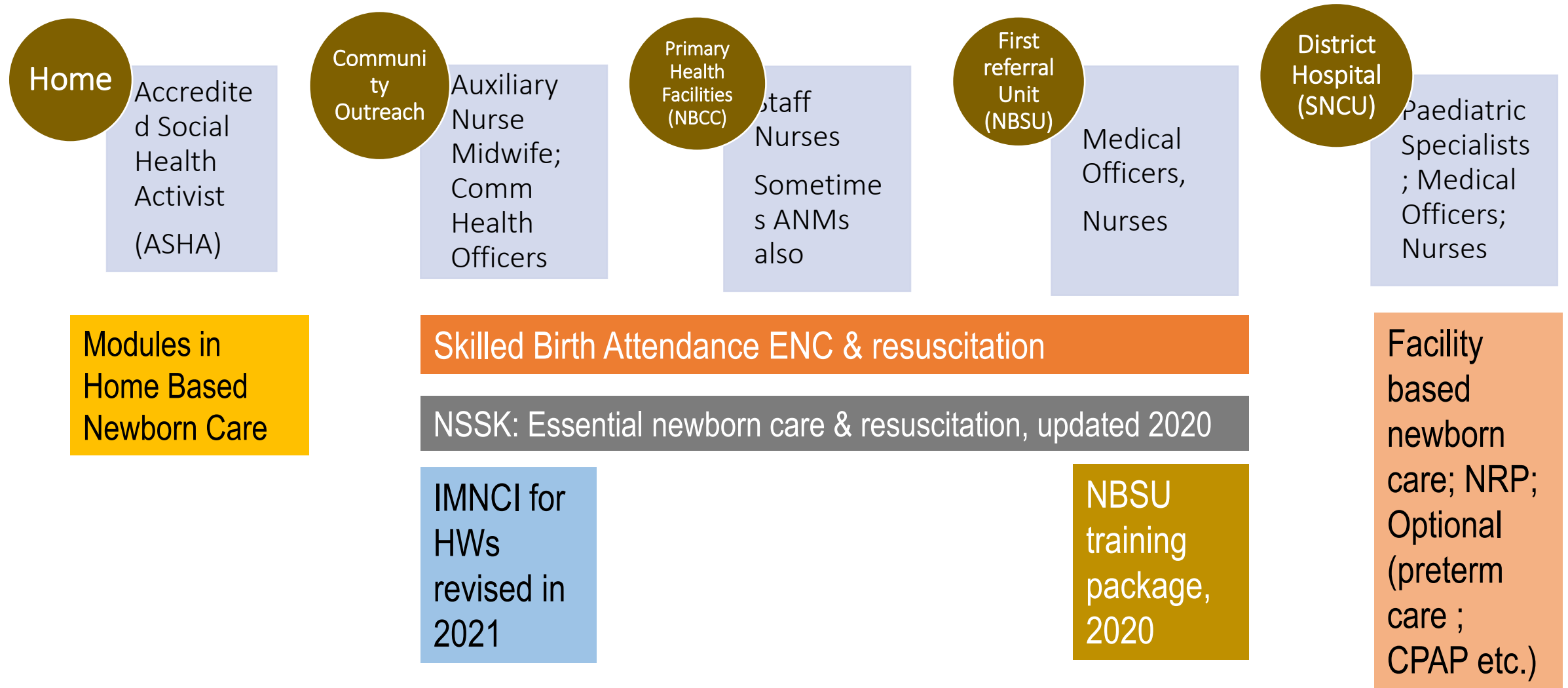


**FAMILY PARTICIPATORY
CARE INTRODUCED IN
2017**

Parental inclusion for improved survival & development of small & sick newborns

Audio visual resource pack for training of staff as well as parents and families.

Capacity building for newborn care at various levels of public health system



Human Resources for inpatient newborn care



SNCU has dedicated HR to some extent (which is not the norm across other health units such as pediatric wards)



Establishing the midwifery cadre; training neonatal nurses



Hiring specialists (with higher remuneration) for difficult areas



HR policy and reforms across states



Universal health coverage for newborns

JSY, JSSK: Free referral transport and free of cost inpatient care for sick & newborns and infants (up to 1 year)

AB-PMJAY: Several health insurance packages for sick and small newborn care in private health facilities

SUMAN: Safe pregnancy, childbirth and immediate postpartum care with respect and dignity by translating the entitlements into a service guarantee

Free Referral transport system



Facility Based Newborn Care Database

(Real Time Monitoring and Tracking of Small & Sick Newborn)

Developed by UNICEF for National Health Mission



User Name:

Password:

Captcha: 319427

Enter Captcha:

Special care for newborns
Giving chances to life...



Website Created & Maintained by NCS ^ Pvt. Ltd. Indore Under Supervision of Govt. of India, NHM and UNICEF

Data management

- Dedicated **SNCU Online data** portal for real time data reporting and monitoring newborn service utilization and outcomes
 - More than 90% units report into the data platform
 - Monthly and Quarterly clinical data analysis undertaken
 - Labour room data captured in SNCU Online
- **Regional FBNC Coordinators** in position; monitor data quality through monitoring visits
 - More than 4.5 million newborns, including SNCU graduates, received home visit under home based programme in Apr-Sept 2021
 - Periodic rapid assessment of newborn care units conducted using standardized tools-- feeds into preparation of action plan based on identified gaps



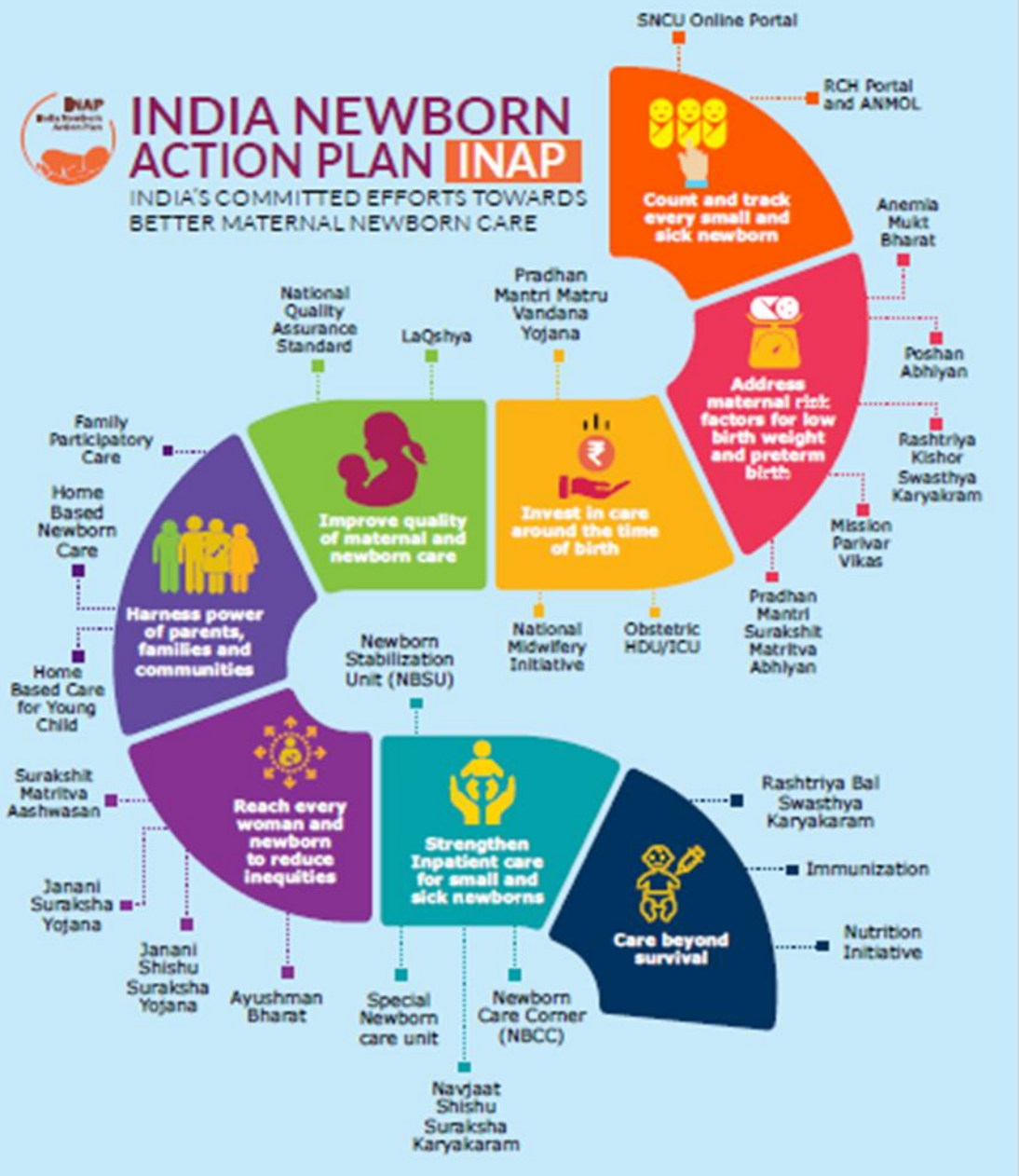
Focus on quality newborn care

- Institutional mechanism being strengthened: **National Collaborating Centre; State Resource Centers** provide capacity building and mentoring support-make states self –sufficient
 - **MusQan guidelines** 2021 for Child Friendly Quality Health Services; aim is to have NQAS certified newborn care units; QI process inbuilt into this guideline
 - Monitoring ‘performance’ based on quality indicators and composite index
-



INDIA NEWBORN ACTION PLAN INAP

INDIA'S COMMITTED EFFORTS TOWARDS BETTER MATERNAL NEWBORN CARE



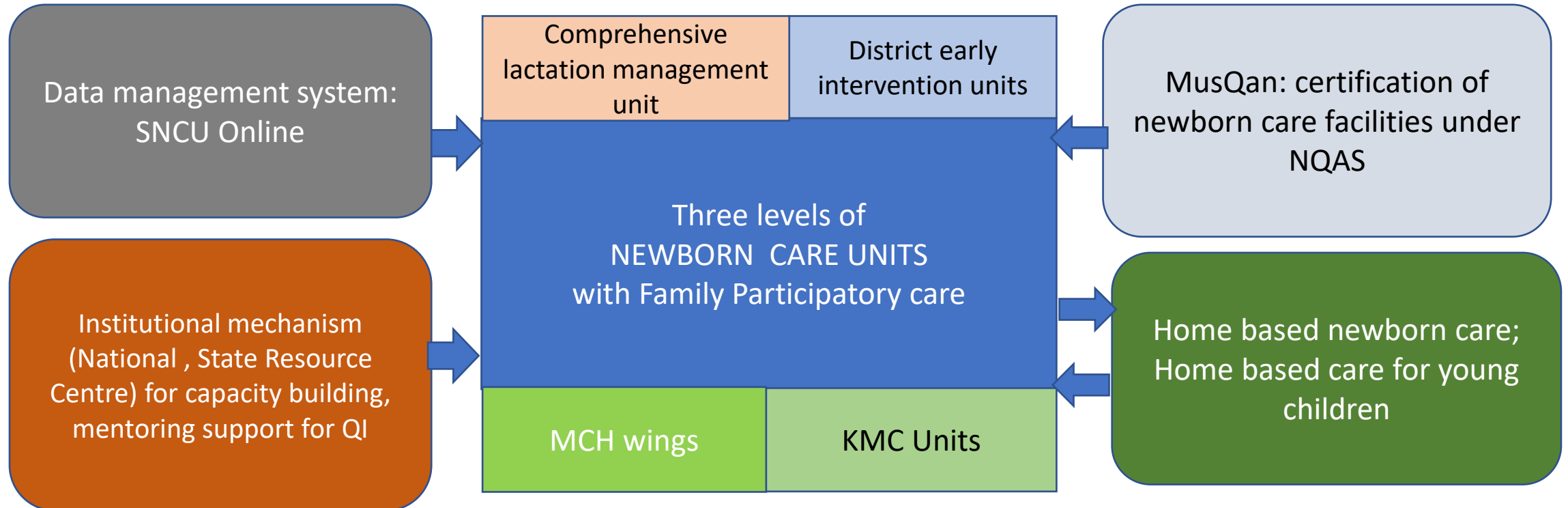
What led to rapid scaleup?

- Political commitment & national targets
- Readiness to include evidence-based interventions & recommendations as they are published
- National guidelines with dedicated budgets and HR provisions
- Federal government's willingness to commit financial resources
- Standard implementation guides, toolkits and training packages across the country
- Institutional mechanism supporting capacity building and mentoring
- Data management system (SNCU online) guiding action at all levels
- Introduction of Quality improvement initiatives

Moving forward: Vision 2025

- **Review INAP & develop Roadmap to 2030**
- **Strengthen level I care (NBSUs)**
- **Establish level III care (NICU) at medical colleges**
- **Support establishment of Mother Newborn Care Units (MNCU)**
- **Re-envision the Newborn Care Complex integrating various units and services (KMC units, MNCU, CLMC, DEIC)**
- **Leverage increased availability of ventilators to provide CPAP in newborn care units**
- **Digital platforms for capacity building**
- **Focus on quality of care**
- **Build cadre of midwives and neonatal nurses**
- **Establish newborn care units in all Aspirational districts**

OVERVIEW OF THE INDIA MODEL FOR INPATIENT NEWBORN CARE



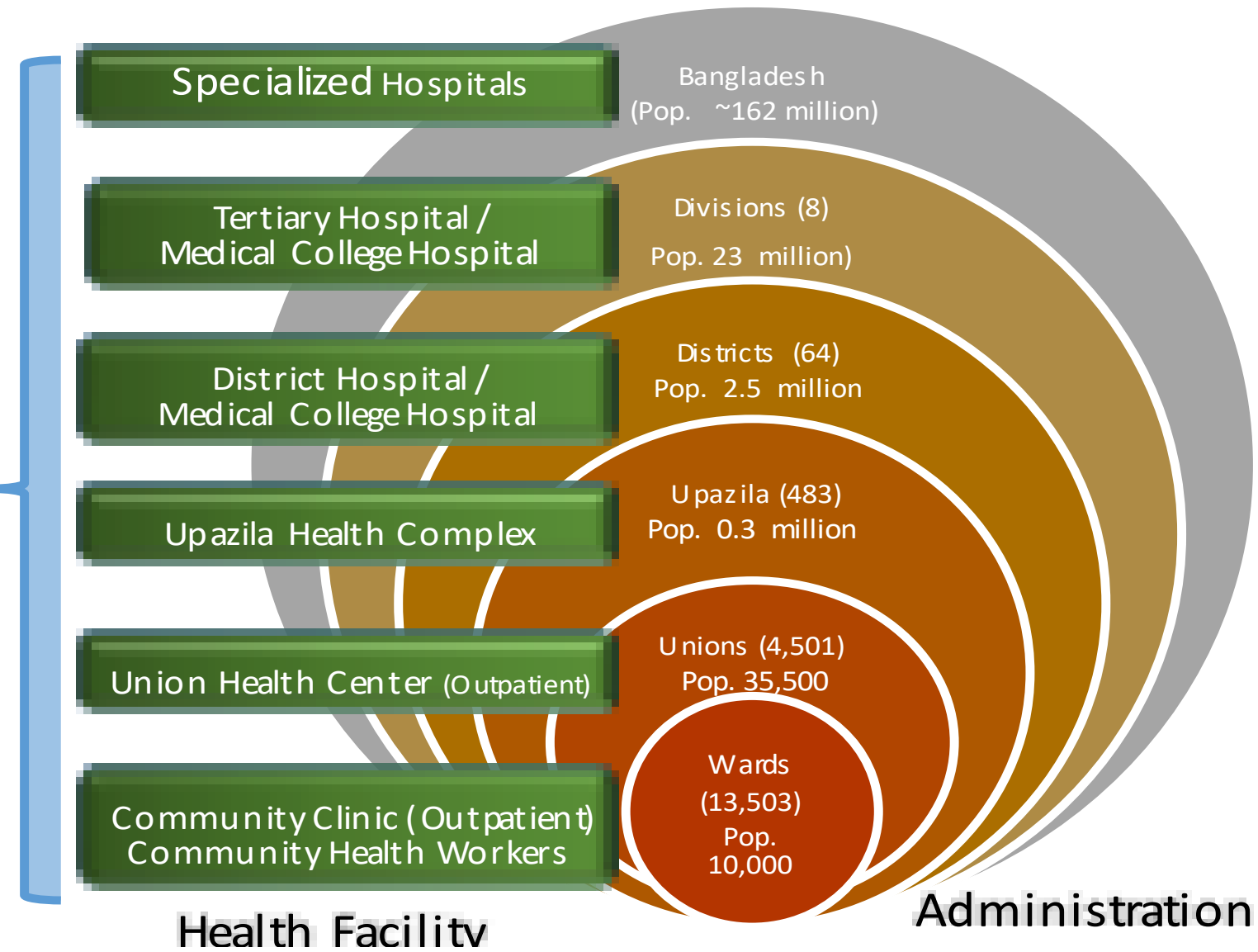


Inpatient care of small and sick newborns in Bangladesh

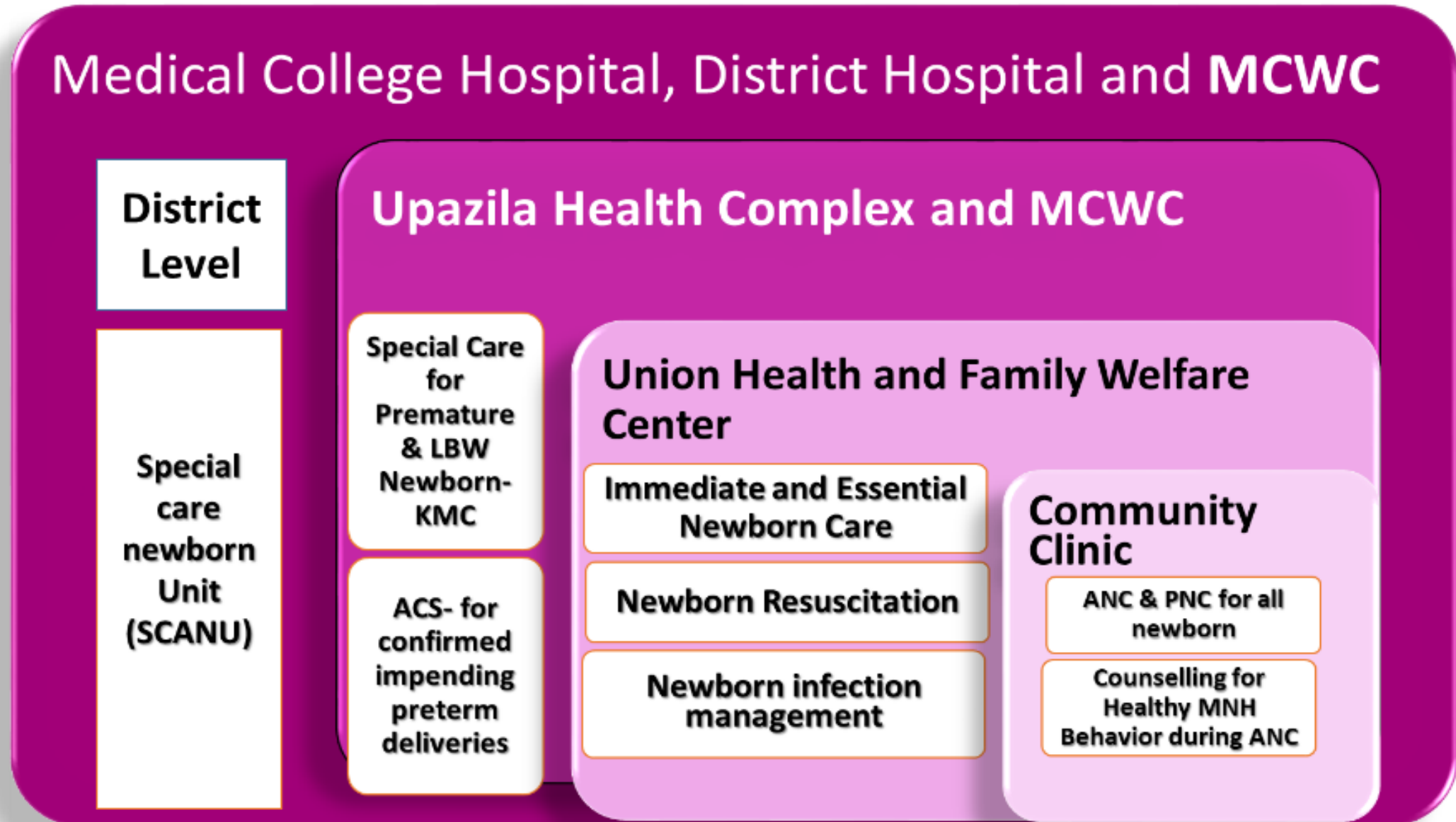


Dr. Muhammad Shariful Islam
Program Manager
NNHP& IMCI
Directorate General of Health Services (DGHS)

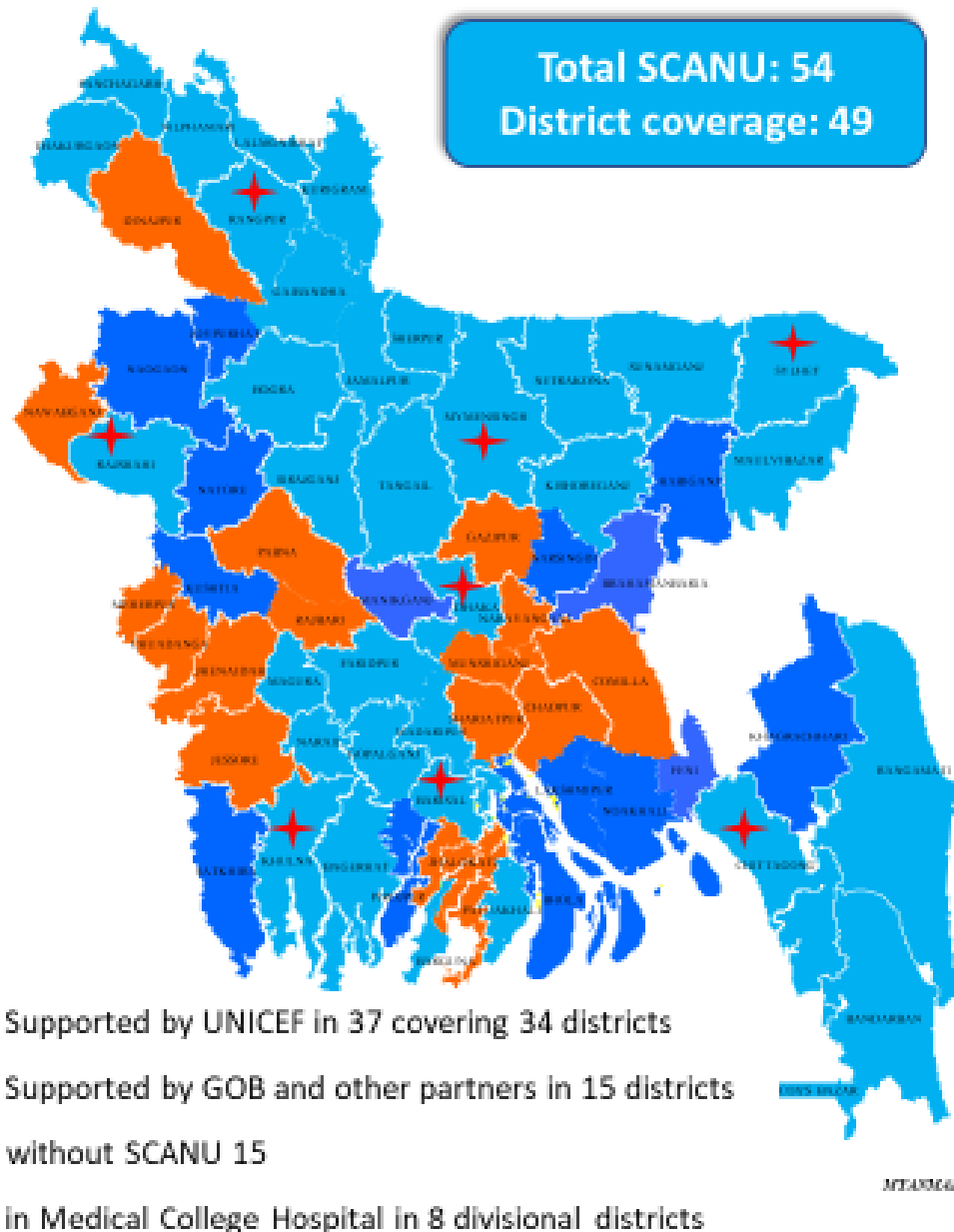
Population coverage with health structure



Levels of care for small and sick newborn care at different levels of health facility

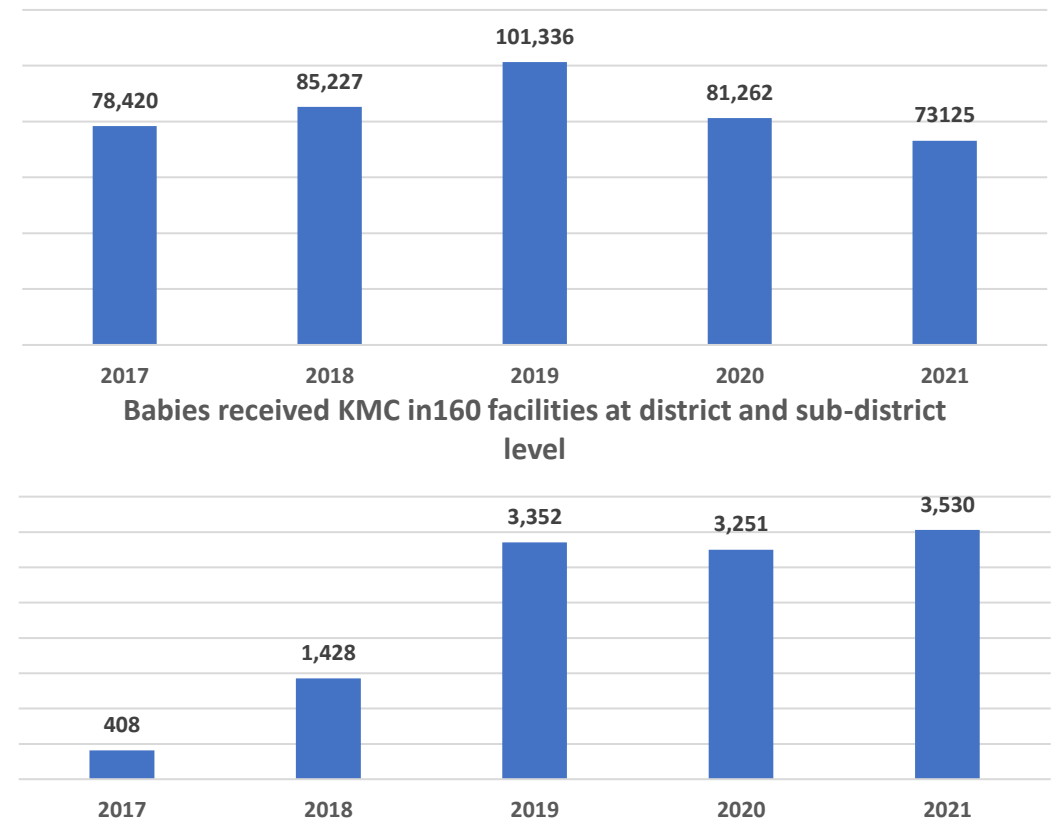


Country coverage of care for small and sick newborn

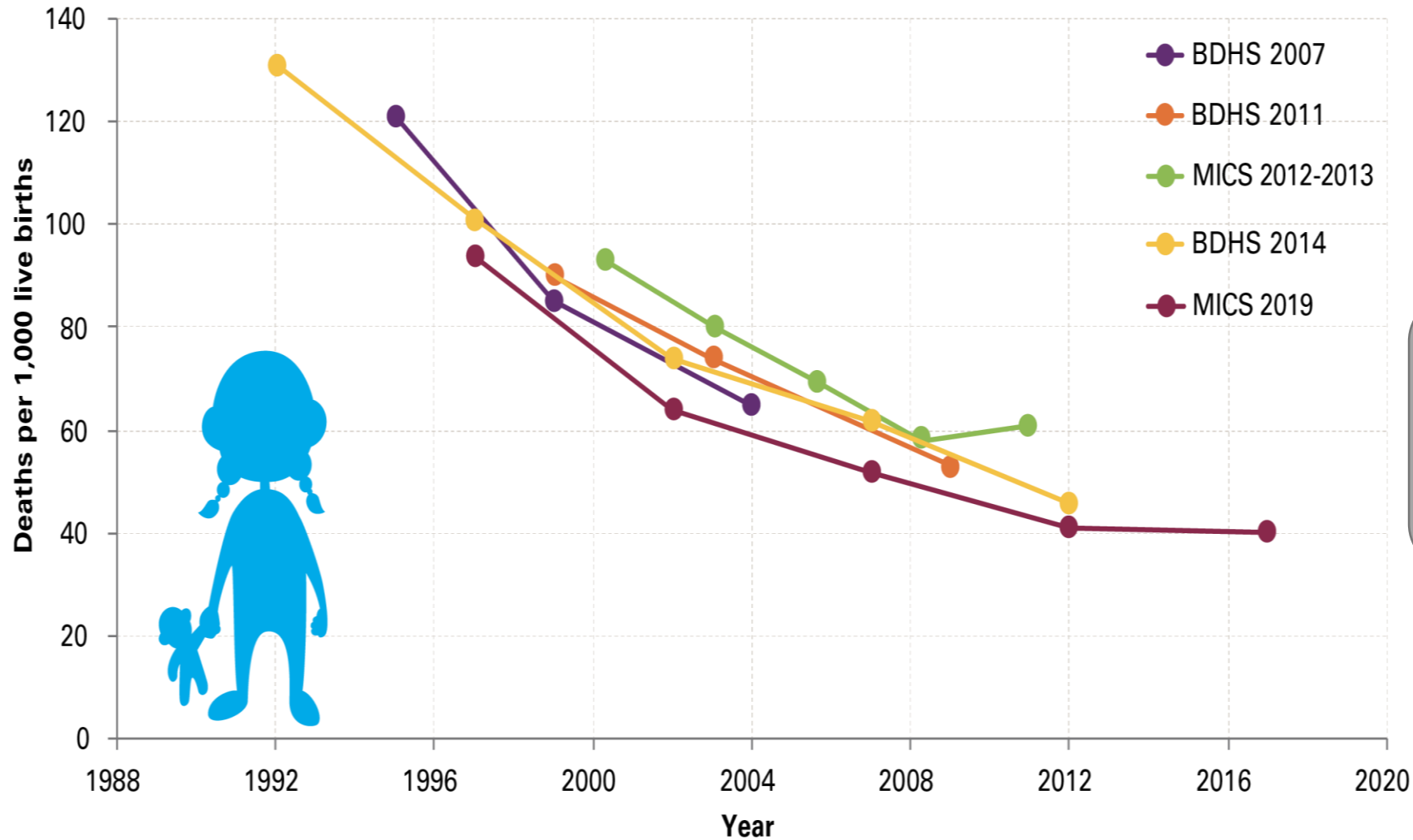


76% districts have level 2 inpatient care unit
100% level 3 care has CPAP and 8 level 2 hospital have CPAP
100% of SCANU has built capacity for oxygen management

Small and sick newborn admission in SCANU



NMR: Success – YES; BUT – more to be done.



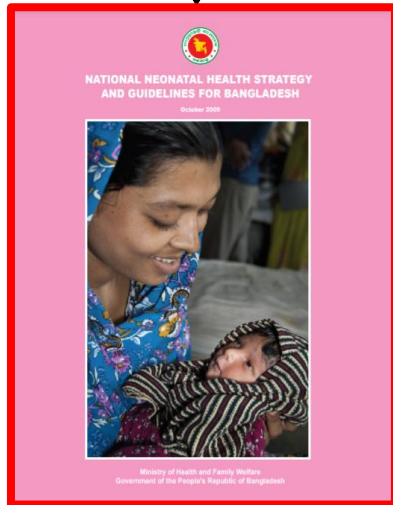
SDG targets:
NMR: 12 per 1000 LB by 2030
U5MR: 25/ 1000 LB by 2030

Neonatal deaths: 55,542
(NMR 19/1000 LB)
Under 5 deaths: 89,796
(U5 MR: 31/1000 LB)
*Source: UNIGME 2020

Sources: Bangladesh Demographic and Health Survey 2007, 2011, 2014; Multiple Indicator Cluster Survey 2012-13, 2019

Major Milestones of Key Initiatives for small and sick newborn in Bangladesh

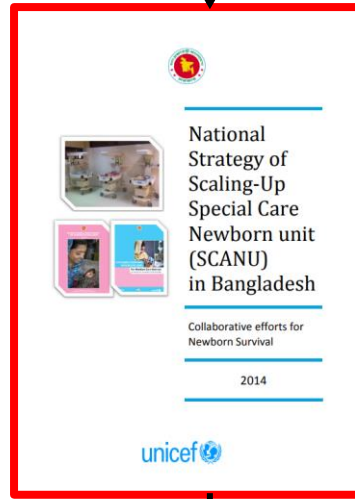
2009



National neonatal health strategy provided guidance on

- Essential newborn care
- Strengthening small and sick newborn management through SCANU and KMC

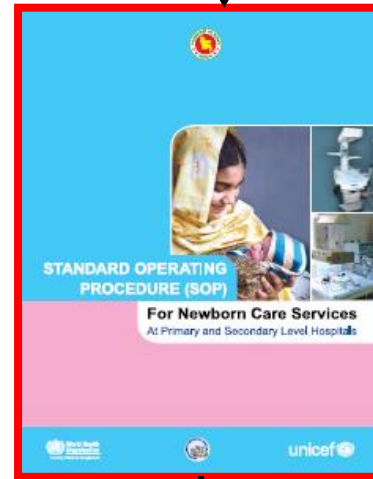
2014



National strategy directed on

- SCANU scale up plan
- Human resource Plan,
- Equipment repair and maintenance plan
- Quality improvement initiative
- Individual case tracking through web-based MIS
- referral linkages

2014



Key guidance on establishing -

- SCANU at level 2 and 3 care at district hospital/medical College Hospital
- Newborn Stabilizing Unit at level one care at Upazila
- Newborn resuscitation corner at labour room.

2015



National Newborn Health Program (NNHP) established in 4th HPNSP

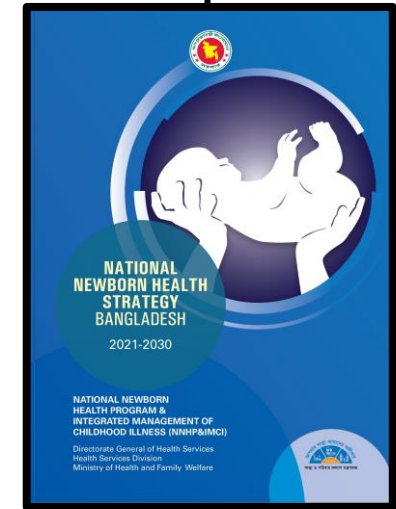
National Newborn Action Plan integrated in different OP

All priority newborn intervention for small and sick newborn scaled up (SCANU and KMC)

ENAP indicators integrated in national MIS system

Detail NNHP costed Implementation Plan 2019-2022 developed

2021



Developing National newborn action plan based on the updated global ENAP indicators, SDG targets and national newborn health strategy

SOP and Technical Guidelines supported scale up of SCANU By the MoHFW

The SOP provided standards for managing small and sick newborn care at three level-

1. Level 2 or 3 care at DH or MCH SCANU
2. Newborn Stabilizing unit at Upazila health complex and
3. Newborn Resuscitation corner at delivery room

Space and bed distribution:

- Location in close proximity to the labor room
- Size based on a principle of 3 beds for every 1000 intramural (within the facility) annual deliveries plus 50% extra bed for extramural (outside the facility) deliveries.
- Minimum space requirements: 50 sq ft per bed
- Must have Gowning room, hand washing stations

Human Resources and capacity building:

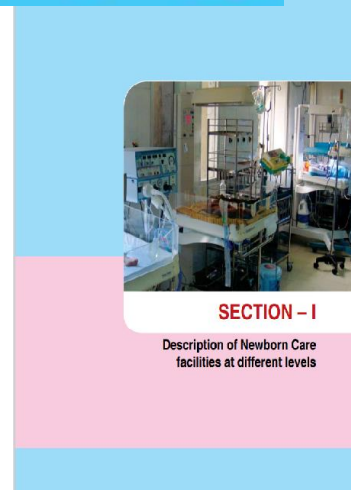
- trained and qualified doctors, nurses and supporting staffs. A designated consultant Neonatologists/ pediatrician responsible for the clinical standards of the care of newborn babies.
- For a 10-bed unit, the recommended staffing is Staff Nurses: 8, Consultant: 1, Medical officer: 3, Support Staff: 4.
- Capacity developed for doctors, nurses and midwives on Emergency Triage and Treatment (ETAT), SOP, KMC, and comprehensive newborn care by UNICEF support. The training scaled up through USAID/ Save the Children support.

Procurement: standardized list of equipment with provision of installation, commission and user training

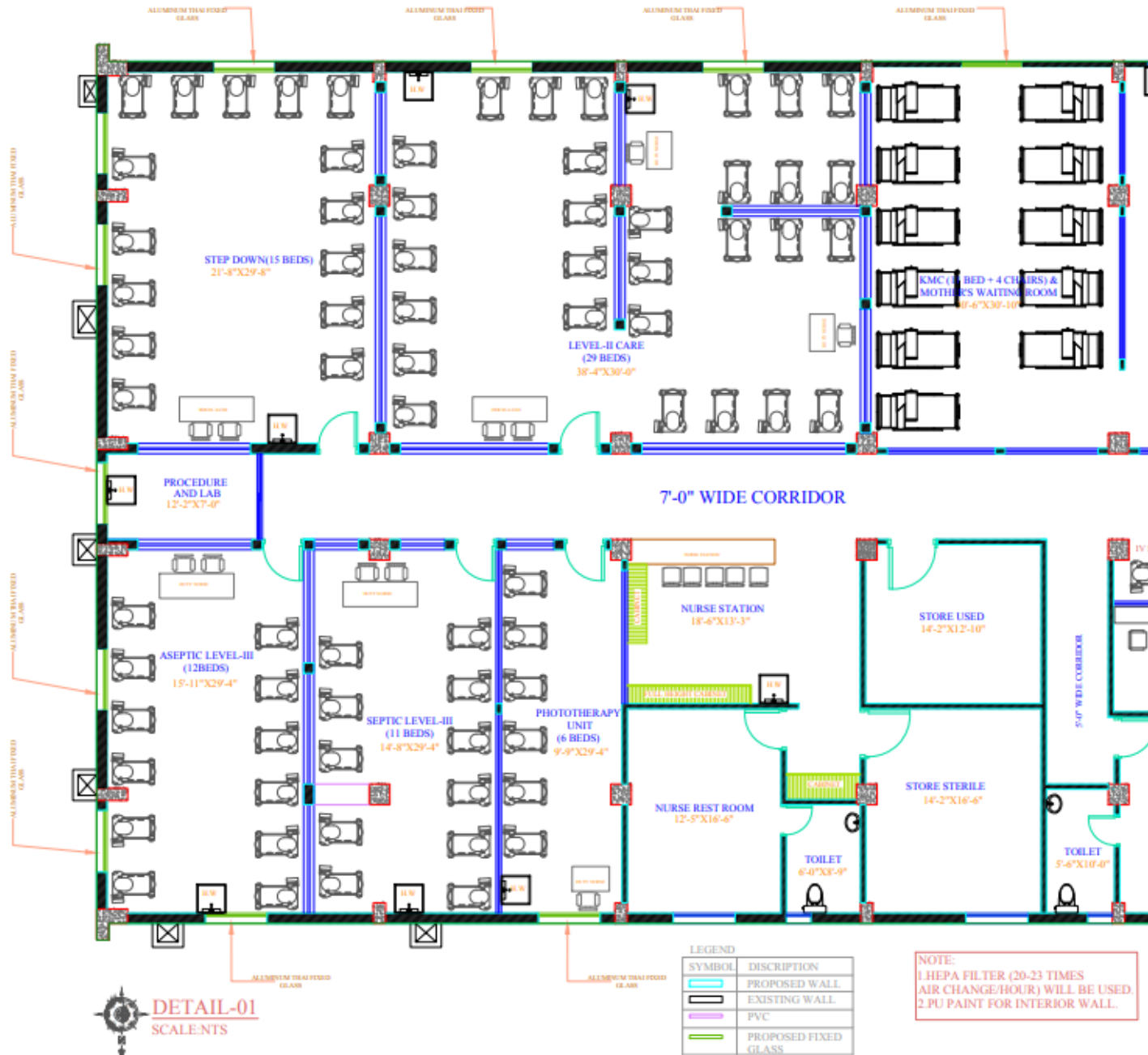
Plan for list of renewable items with costing should be available

Operation and maintenance: Technical specifications of the equipment and Annual maintenance requirement for critical equipment

Quality Improvement and quality of Care: center of excellence, training institute, RRT, QI implementation



Level 3 facility-based care



Generic design of 75 bed SCANU in Medical College hospital including KMC, mother's room and counselling room

Critical services area included in level 3 SCANU-

Triage, assessment and resuscitation area

ICU: 10 bed

Septic level 3

Aseptic level -3

Level 2 Care

Photo therapy unit

Stepdown

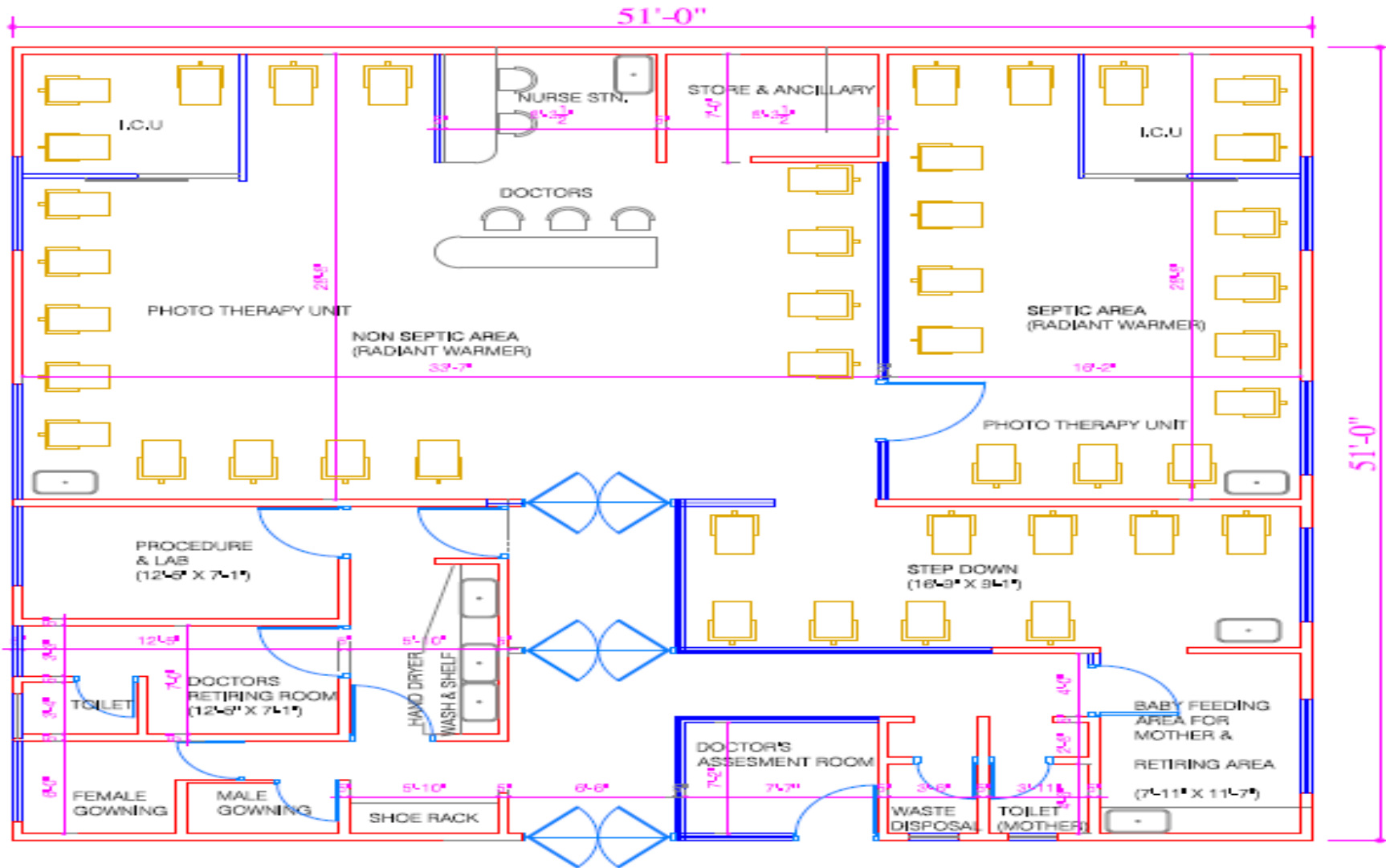
Procedure and lab area

KMC and breast-feeding room,

Wash and infection prevention

facilities following SOP

Level 2 facility level care



Critical services area included in SCANU-

Triage, assessment and resuscitation area

ICU: 3 to 4 bed

Septic area

Non-septic area

Photo therapy unit: 6 to 8 bed

Stepdown

KMC and breast-feeding room

Wash and infection prevention facilities following

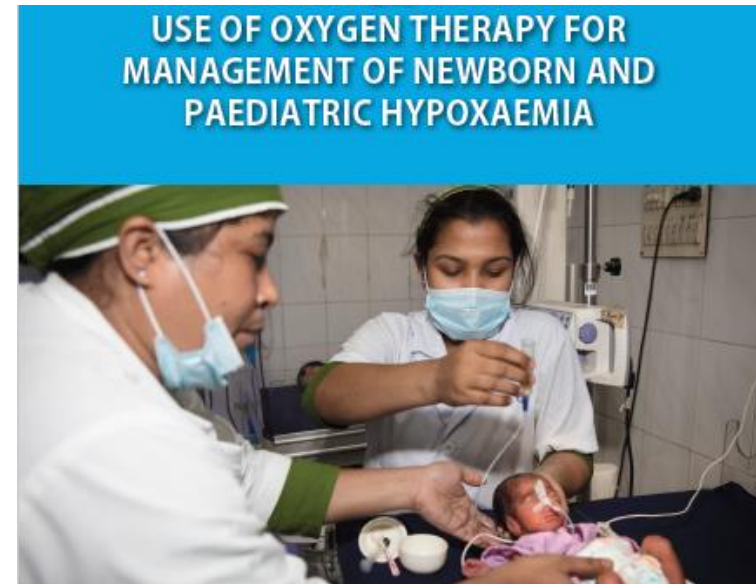
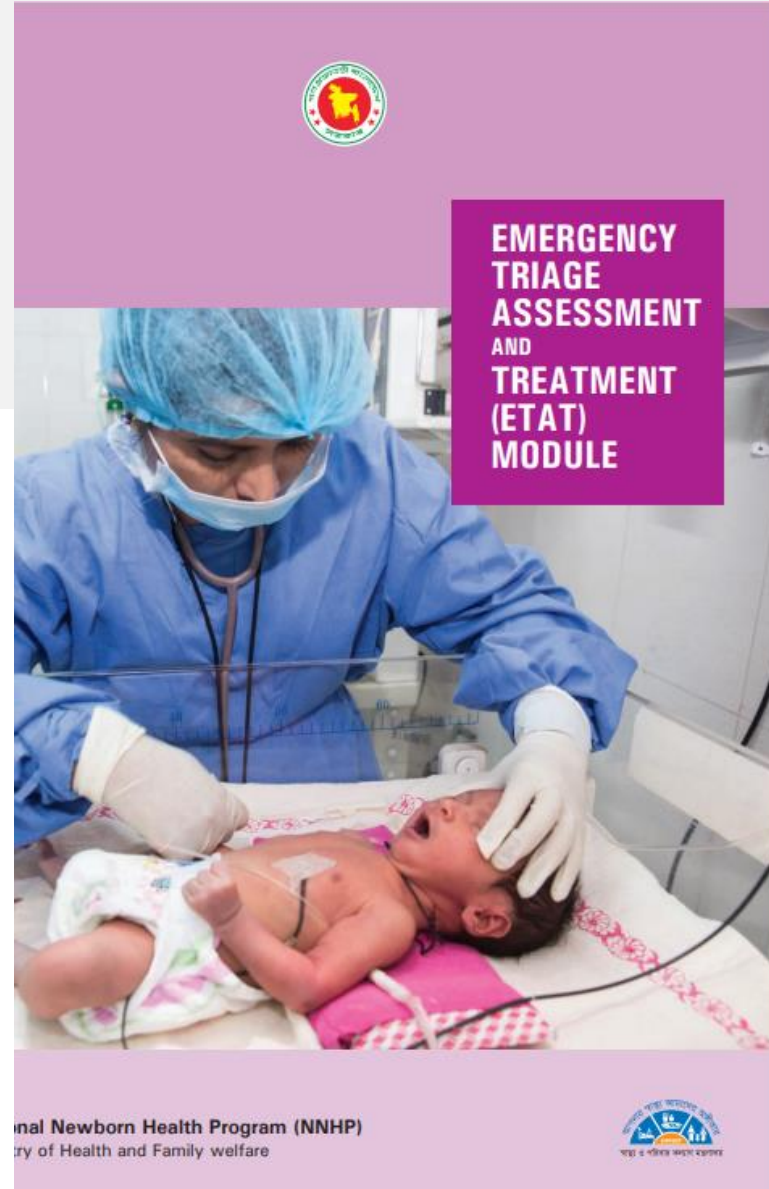
SOP

REVISED (RIV-3) PLAN OF A TYPICAL SCANU
AREA: 2500 SFT (APPROX)

Generic design of 35 bed SCANU in district hospital including KMC, Feeding area

Capacity development on small and sick newborn management

- Capacity developed for doctors, nurses and midwives on Emergency Triage and Treatment (ETAT), SOP, KMC, and comprehensive newborn care by UNICEF support. The training scaled up through USAID/ Save the Children support.
- Capacity development on quality of Care standard following WHO (EMEN standard)
- National guideline and training module on rational use of oxygen for hypoxemia management for sick newborn and Children developed
- Capacity developed among more than 800 doctors and nurses on oxygen therapy from SCANU and pediatric ward.
- Oxygen monitoring tool introduced to measure oxygen saturation and oxygen therapy
- Training for sick newborn included in operational plan with GOB budget



Procurement and deployment of equipment including their maintenance



Procurement plan

- Standardized essential equipment list and procurement plan developed for SCANU and NSU and incorporated in the hospital service management plan including unit cost.
- Equipment for 35 SCANU procured by UNICEF support, 10 by GOB fund and 8 by USAID support

Equipment maintenance

- UNICEF is supporting routine preventive maintenance, trouble shooting and repairment of SCANU and NSU equipment through Hospital Service management.
- Budget and equipment maintenance plan included in HSM 2021 Operational plan

Line Item	Unit cost	Quantity for MCH/DH (30 bed)	Total Cost
Table, Resuscitator, newborn with radiant warmer	1000000	10	10,000,000
Radiant Warmer, fixed height stand,	350000	20	7,000,000
Neonatal Phototherapy Unit, Single head, high intensity,	150000	10	1,500,000
Monitor, vital sign, NIBP, HR, SpO2, ECG, RR, Temp,	50000	10	500,000
Cot, baby, hospital, w/bassinet, on castors,	20000	20	400,000
CPAP (Continuous Positive Airway Pressure)	400000	5	2,000,000
Ventilator machine	600000	2	1,200,000
Syringe pump, 10,20,50 ml, single phase,	80000	25	2,000,000
Light,examination,mobile,220-12V,	5000	10	50,000
Stand, infusion, double hook, on castors,	3000	30	90,000
Bilirubinometer, total bilirubine, capillary based,	20000	5	100,000
Glucometer	5000	10	50,000
Sterilizer,steam,40L,electric,w/access	20000	3	60,000
Tape, measure, vinyl-coated, 1.5m.	2000	20	40,000
Infantometer, plexi, 3½ft/105cm,	4000	5	20,000
Pulse Oxymeter (Neonatal)	25000	10	250,000
Pump suction, foot operated,	5000	5	25,000
Pump Suction, Portable, 220v, w/access,	10000	5	50,000
Scale, baby, electronic (10kg)	5000	5	25,000
Stethoscope for Neonatal use	2000	50	100,000
Sphygnomanometer (Neonate)	3000	25	75,000
Neonatalie Complete, Light (Neo Natalie Newborn Simulator + Bag & Mask + Bulb suction)	6000	10	60,000
Neonatalie Bulb Suction,	1000	50	50,000
Neonatalie Resuscitator,	3000	50	150,000
Oxygen Concentrator	15000	5	75,000
Oxygen hood, S and M, set of 3 each, including connecting tubes (Prongs, nasal, Oxygen, neonate)	2000	20	40,000
Clinical/Digital Thermometer (Neonate)	100	100	10,000
Room Thermometer	100	4	400
Air conditioner (3 ton)	150000	4	600,000

HR needs for small and sick newborn including capacity building and supportive supervision

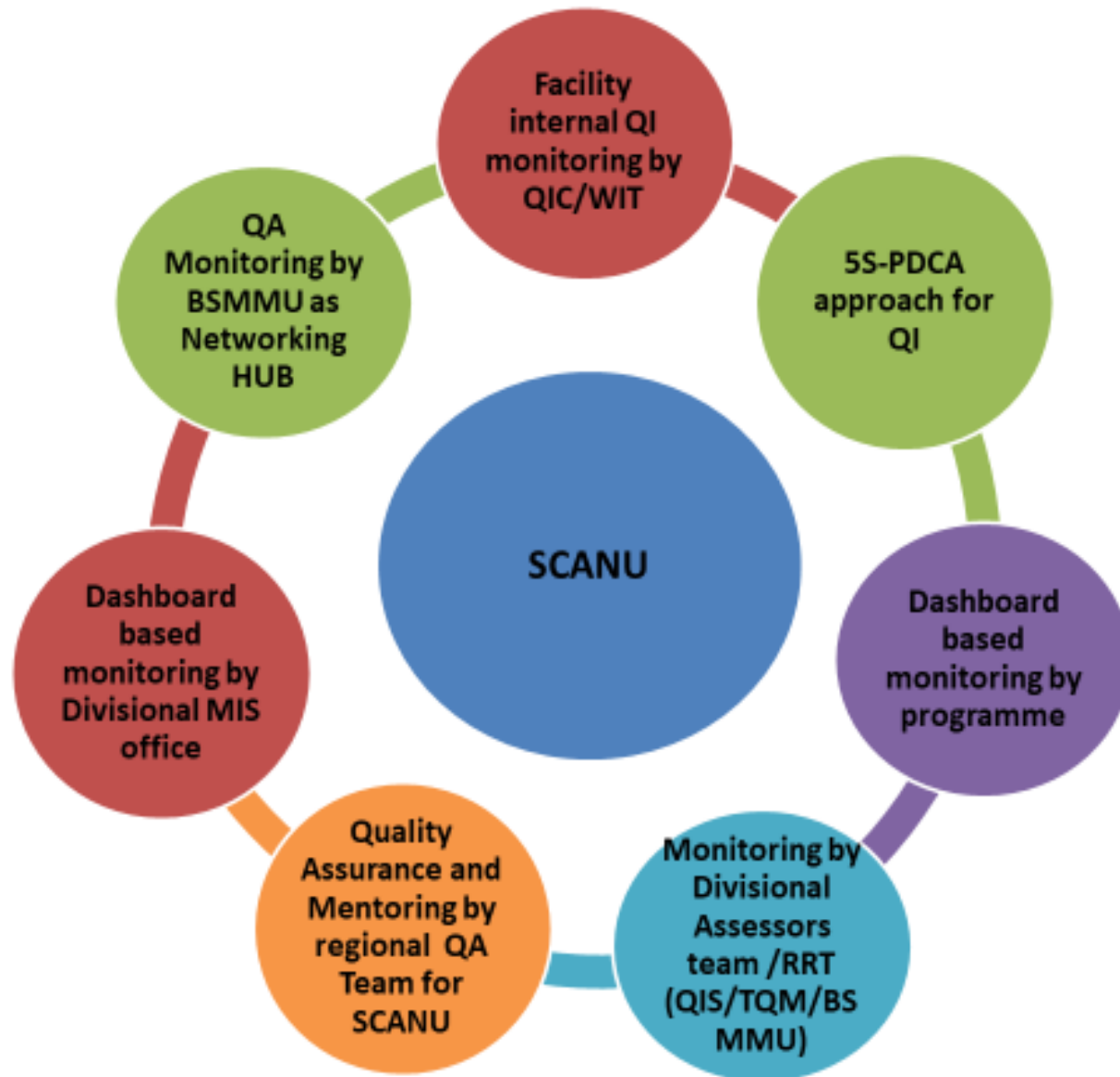
- No dedicated HR plan with dedicated budget line in national and district plans for SCANU but the existing neonatologist / pediatric doctors, Nurses and supporting staffs (cleaner, Aya, guard) are assigned in SCANU.
- UNICEF supported HR in some SCANU for strengthening 24/7 services under district local level planning



A comprehensive national proposal for scale up of SCANU has been developed by MOHFW with support from UNICEF which focused on-

- Human resource organogram for 30/50/75 bed SCANU including deployment, capacity development and retention plan
- Cost-analyzed Annual Training Plan
- *Equipment procurement plan following the standards, maintenance and Repair plan including cost estimation*
- Quality improvement through implementing small and sick newborn QoC standards, mentoring and monitoring by technical team

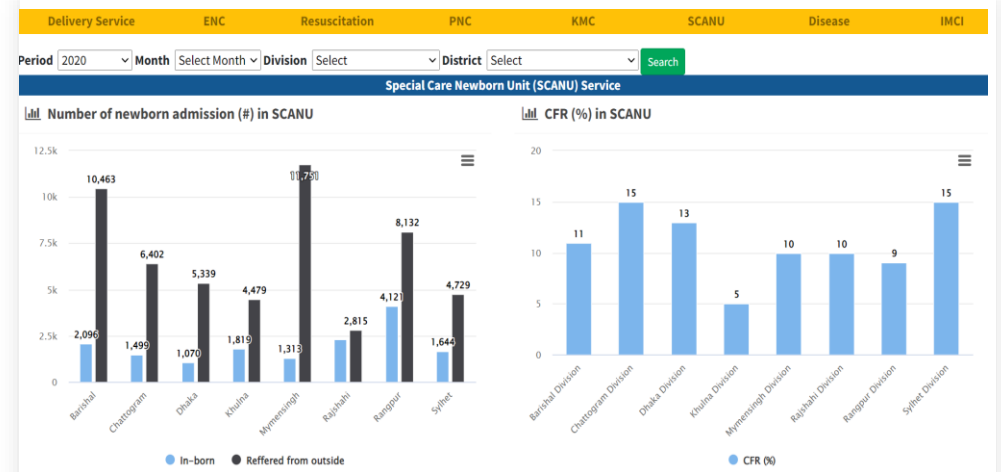
Quality improvement, mentoring and supportive supervision is in place



- Established **Center of excellence for small and sick newborn** care at Bangabandhu Sheikh Mujib Medical University
- A **National Newborn Knowledge Center** has been established at BSMMU
- National and regional **training center** established in the country.
- **Quality improvement system** developed for SCANU
 - National and divisional **Regional Roaming team** established for monitoring and mentoring of SCANU
 - Online monitoring and mentoring through **CCTV networking system**
 - Established **onsite coaching and mentoring** through existing quality improvement system
 - Capacity developed for increased **use of data** for quality improvement
 - Improved capacity of service providers on Small and sick newborn standards as per **WHO QoC standards**
 - Mentoring and training through the online platform proved effective during the COVID 19 lock down

Reporting and monitoring

- SCANU/ NSU and KMC register is developed, updated and available in all facilities
- Key indicators on SCANU, NSU and KMC included in national HMIS system (DHIS2) which includes service utilization indicators, disease specific indicators and SCANU/KMC quality monitoring indicators including admission and follow up
- Individual Case Tracking at facility and community through DHIS 2 SCANU Dashboard
- Facility statisticians and dedicated nurses from SCANU and KMC were trained on report keeping and reporting (data entry) in the DHIS2.
- SCANU and KMC data analyzed and reviewed in Quarterly divisional meeting and monthly district progress review meeting done for corrective measure



National Newborn Health Campaign

- Government of Bangladesh launched the “National Newborn health Campaign” in November 2017 with support from UNICEF and Every Child ALIVE campaign, which was launched jointly with MOHFW has boosted the ongoing National newborn Health campaign steered by the Ministry of health

Key social media platforms and hashtag

Facebook, Twitter, Instagram, #EveryChildALIVE, #prematurityday, #SCANU

On social media we have **reached** more than **750 million people** and **engaged 70 million people**.

We have posted **200 unique messages**, amounting to **600+ total posts** across Facebook, Twitter and Instagram per year on newborn care, prematurity, KMC, SCANU services etc.

- Launch of a **Newborn Care Facebook group** whereby mobilised and engaged members to become change agents in their respective communities.
- Petition to engage current supporters and generate new ones in the run-up to the World Health Assembly.

Print and visual media, Community mobilization

- Development of video documentary, IEC and SBCC materials for service providers and parents/ caregivers which increased awareness on newborn care and services
- Courtyard session, engagement of community leaders improved the knowledge among the community hence increased facility SCANU and KMC services

- Illustrated GIFs and factographs** on SCANU locations, how to provide Kangaroo Mother Care in both English and Bangla



Key Enablers for scaleup and learnings

- **Presence of newborn champions and a strong newborn working team** to push the newborn agenda in the country
- **Strong commitment of the MOHFW** for scale up of sick newborn care (SCANU) in all 64 districts through health sector programme of GOB
- **Strong advocacy, persistent technical support and collective commitment of the development partners** to prioritize and scale-up small and sick newborn care
- **Stewardship and ownership of the program** that enabled to incorporate scale up small and sick newborn care in the operational plan
- Development of the **National Newborn Health program with resource allocation** from GOB
- **Engagement of professional bodies and academia** like BSMMU for SOP and guideline development, technical capacity building, quality monitoring, mentoring and coaching
- **Strong data system** for performance tracking, monitoring and quality improvement

Key challenges

- **High case load in the SCANU challenging the quality of care:** Monthly SCANU Bed Occupancy Rate is as high as 135% in district hospitals and more than 270% in some MCH, thus affecting the quality of care
- **Inadequate skilled human resources:**
 - Nurses bed and Doctor bed ratio remains very low.
 - No dedicated SSN/MO for SCANU, thus trained service providers are not allocated to SCANU
- **Inadequate resources for scaling up of small and sick newborn care across the country**
 - Inadequate space
 - Inadequate capacity of program personal to manage scale up
 - Complex Procurement system
 - Weak maintenance system
- **Lack of a structured referral and f-up system impede achieving maximum gain from the sick newborn care**

Priority actions moving forward

- **Policy advocacy to increase financing for small and sick newborn:** Increase financing for scaling up of SCANU and NSU in remaining facilities including operational cost
- **HR and capacity development:** deployment of adequate skilled HR and capacity development for evidence-based practices on small and sick newborn care
 - ✓ Create HR structure dedicated to SCANU
 - ✓ Count training in SCANU for Post-graduation education
- **Improve quality of small and sick newborn care:** improve capacity at the local level for increased use of data for quality improvement, institutionalize coaching, mentoring and learning system and ensure patient-centered care in SCANU/NSU
- **Equipment operation and maintenance:** strengthen GOB capacity and system for operation and routine maintenance of live saving equipment
- **Establish referral and Follow-up system:** Generate good evidence on functional referral system and post-discharge f-up using digital/on-line system
- **Mobilize parents, family and community:** for social norms and behaviour change and improve the small and sick newborn caring practices

Newborn resources developed by country

National strategies, SOP and guidelines

http://nnhp.dghs.gov.bd/?page_id=49843

http://nnhp.dghs.gov.bd/?page_id=49845

Training modules

https://drive.google.com/drive/folders/178ISuUqWMLAGaSgb5aEfKykczipwr2A_A

https://drive.google.com/drive/folders/178ISuUqWMLAGaSgb5aEfKykczipwr2A_A

http://nnhp.dghs.gov.bd/?page_id=49837

Training data base

<https://drive.google.com/file/d/1-lfF9R8AqXcX8WSohLXvC5Vm6SHNeQKN/view>

https://drive.google.com/file/d/1A6Y_5Iy7vhPaURiYq0RdwgfEFv7BAmv/view

Registers and reporting format

https://drive.google.com/drive/folders/178ISuUqWMLAGaSgb5aEfKykczipwr2A_A

<https://drive.google.com/file/d/1y4XS6j2D-4omy-Qafd7fQKOonkVde8y/view>

https://drive.google.com/file/d/1--kQlcjf8py_pmK85qnwyTYjoEDACsSe/view

IEC and SBCC material as part of Newborn health campaign

https://drive.google.com/drive/folders/16XX9S_qlw0MvlCH0kz3AarmAEH5G7dpX

Thank you



Inpatient small or sick newborn care in Vietnam

Dr Hoang Anh Tuan, Dr Tran Thi Hoang
Dr Pham Quynh Nga, Dr Nguyen Huy Du
Ha Noi, December 2021

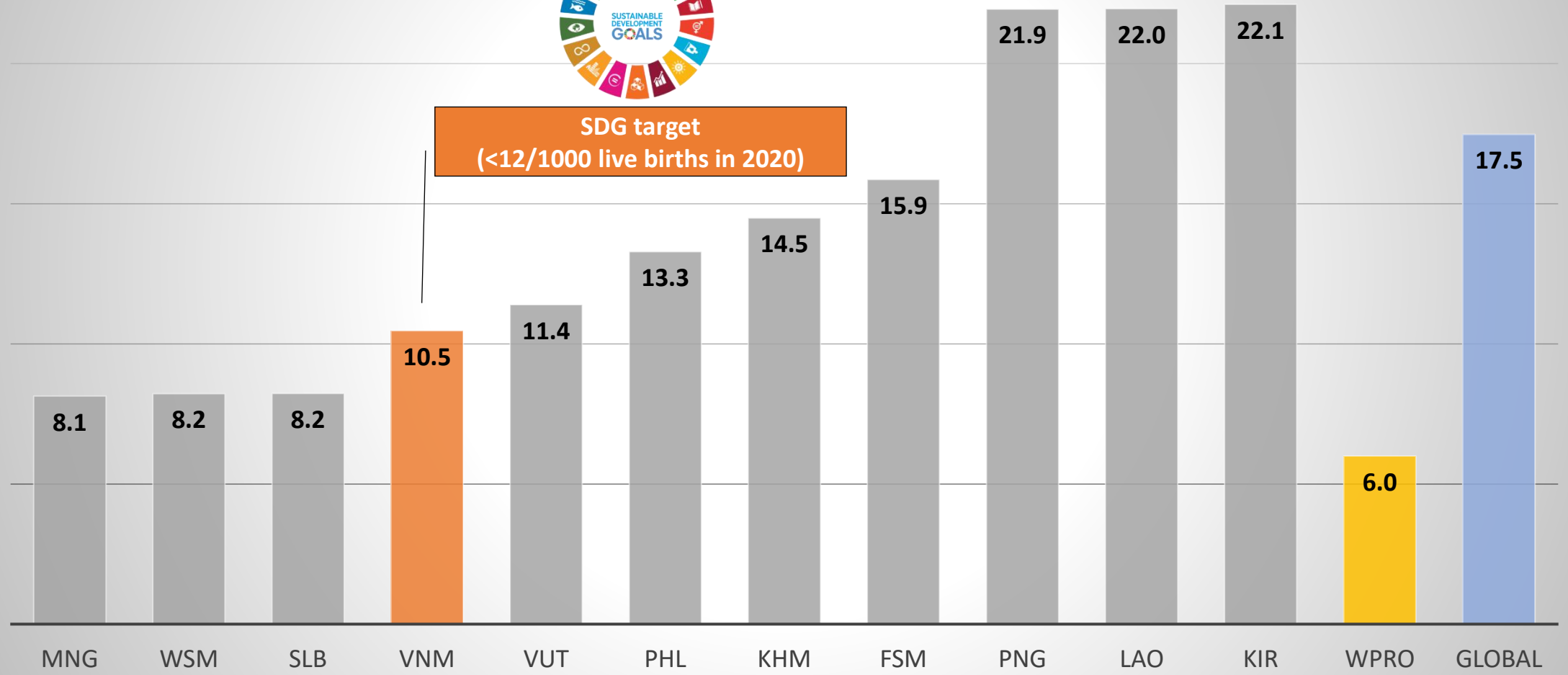
Content

- Neonatal mortality in Vietnam
- Care for sick or small newborn in Vietnam
 - Early essential newborn care
 - Kangaroo mother care
 - Care for sick newborns
- Challenges and directions

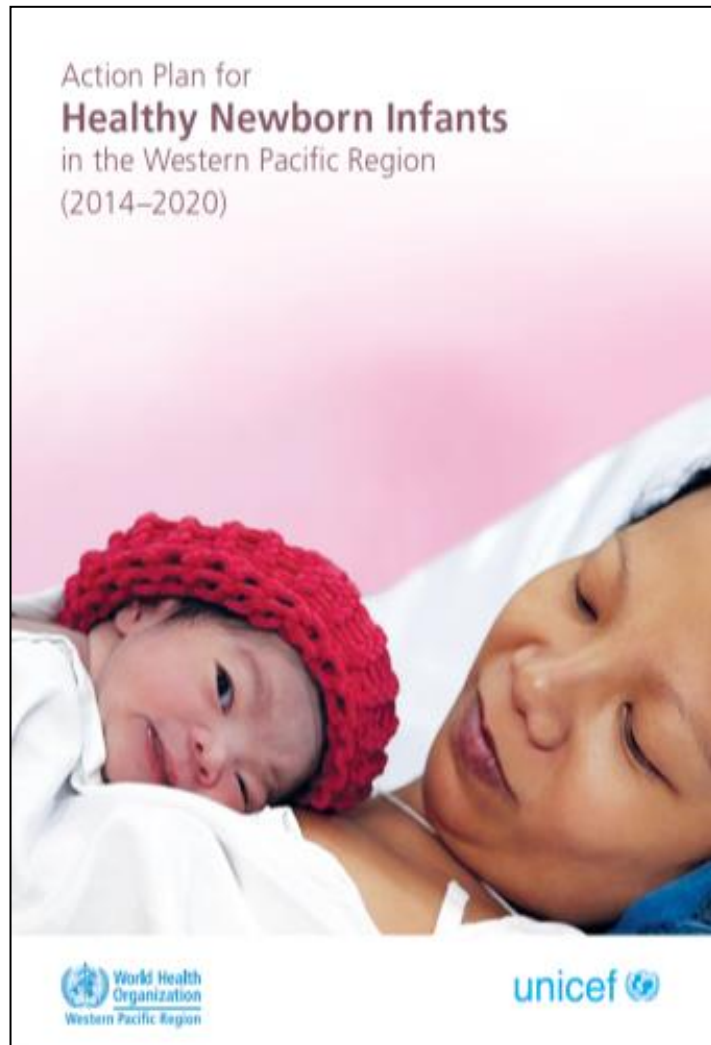
Neonatal mortality rate by countries in 2019 (per 1000 live births)



SDG target
($<12/1000$ live births in 2020)



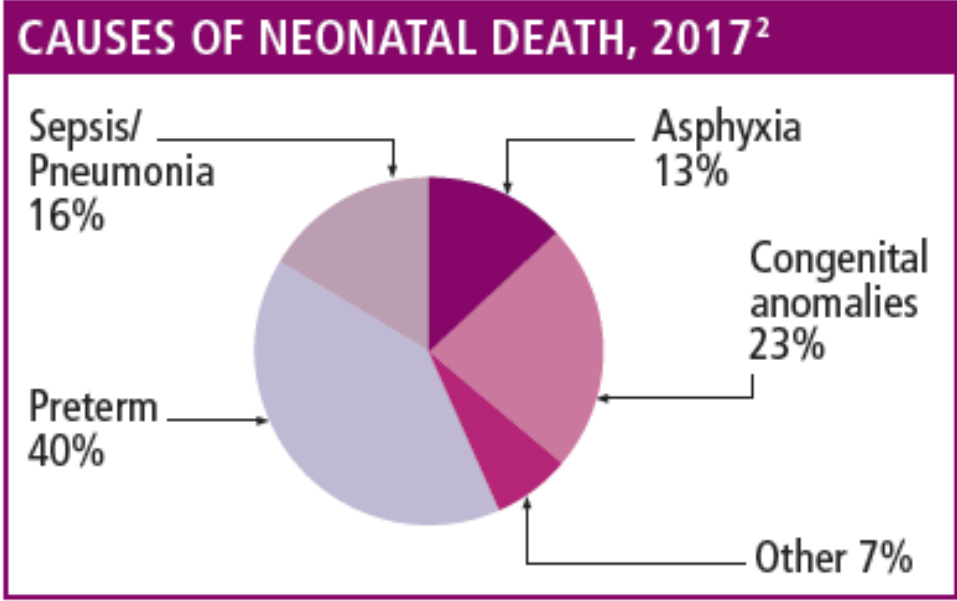
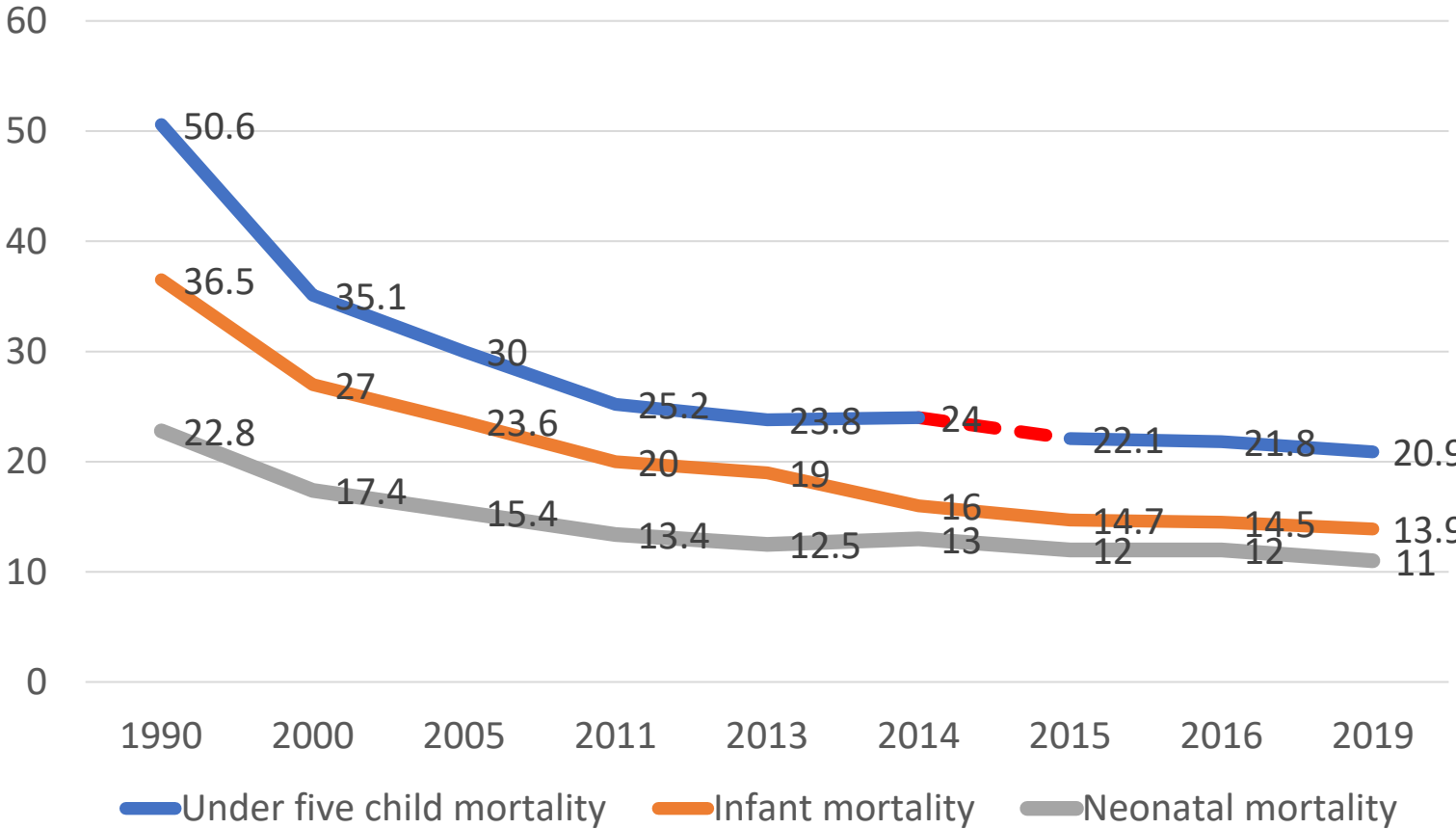
Action Plan for Healthy Newborn Infants in Western Pacific Region (2014-2020)



8 priority countries accounting for 96% of deaths in the Region

- Cambodia
- China
- Laos
- Mongolia
- Papua New Guinea
- Philippines
- Solomon Islands
- **Viet Nam**

Neonatal mortality in Vietnam



Government policy

- Party resolution No20 on strengthening the protection, care and management of people's health in the new situation (25 Oct 2017). Objectives to 2030:
 - Reduce child under 5 mortality to 15 ‰; and infant mortality to 10 ‰.
 - Increase patient satisfaction to health care facilities to more than 90%
- National Action Plan on Maternal, Newborn and Child Health 2021-2025
 - Overall: Reduce child under 5 mortality to < 18.5 ‰; and neonatal mortality to <9 ‰.
 - Increase EENC coverage to 75%
- National program on Child under five mortality reduction until 2030
 - Reduce child under 5 mortality to < 15 ‰; and neonatal mortality to <8 ‰.
 - Increase EENC coverage to 90%

EENC and KMC

- Development of National Guideline on Early Essential Newborn Care for normal delivery (Decision No 4673/QD-BYT 10 Nov 2014) and for C-section (Decision No 6734/QD-BYT 15 Nov 2016)
- Development of National Guideline on Kangaroo Mother Care KMC (Decision No 4674/QD-BYT 10 Nov 2014)
- TOT trainings for all provinces on EENC for normal delivery and for C-section
- Training on KMC
- Reproductive health reporting system
- Bi-annual review 2015, 2017, 2019
- Monitoring for implementation



Progress

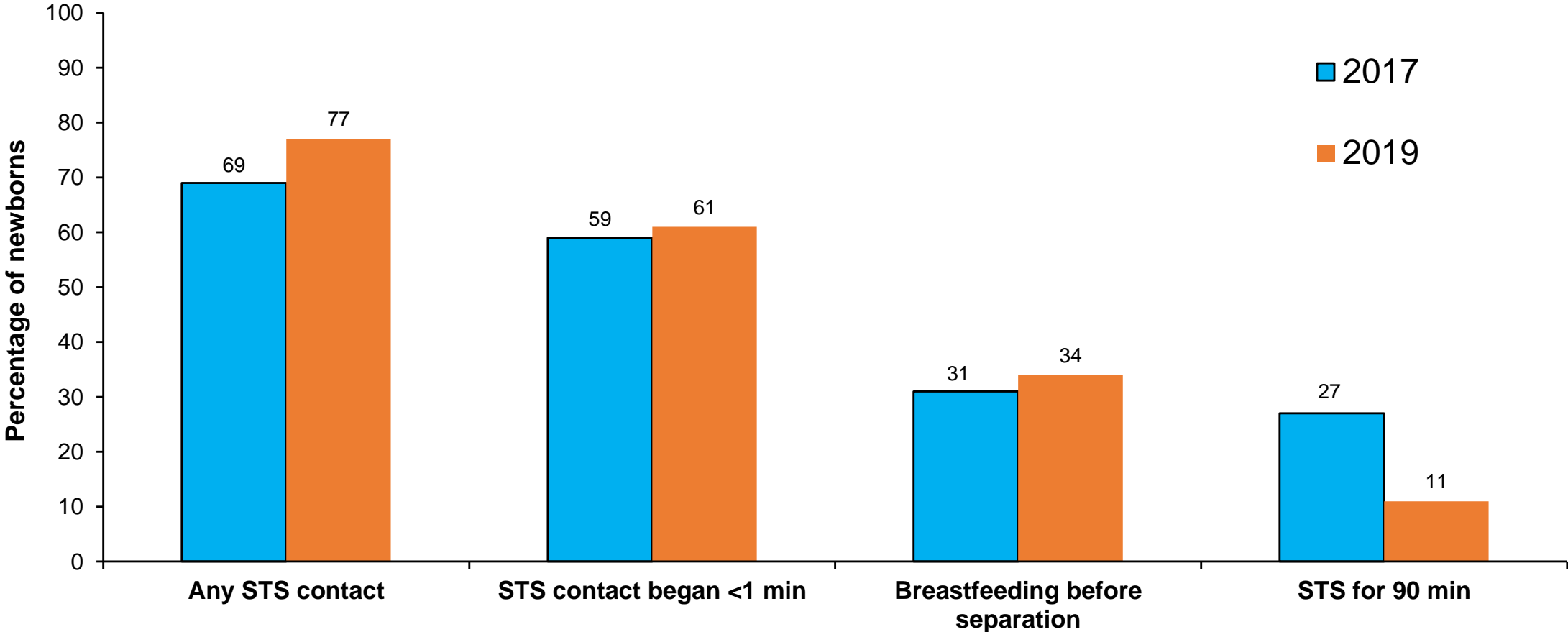
- Up to now, 100 percent health facilities of central and provincial levels; about 85 percent health facilities of district level and all of the health facilities which offer delivery services have implemented Early Essential Newborn Care (EENC) for normal delivery.
- The Kangaroo Mother Care approach for newborns with premature birth and low birth weight is in the process of implementation nationwide
 - 4 central hospitals and 54 provincial hospitals (59%) are implementing KMC (no data on district level)
- According to MCH reporting system in 2019
 - EENC: 1,044,340/1,392,583 live births (75%);
 - KMC: 13,044/41,185 preterm live births/low birthweight (31.7%)



Annual Implementation Review

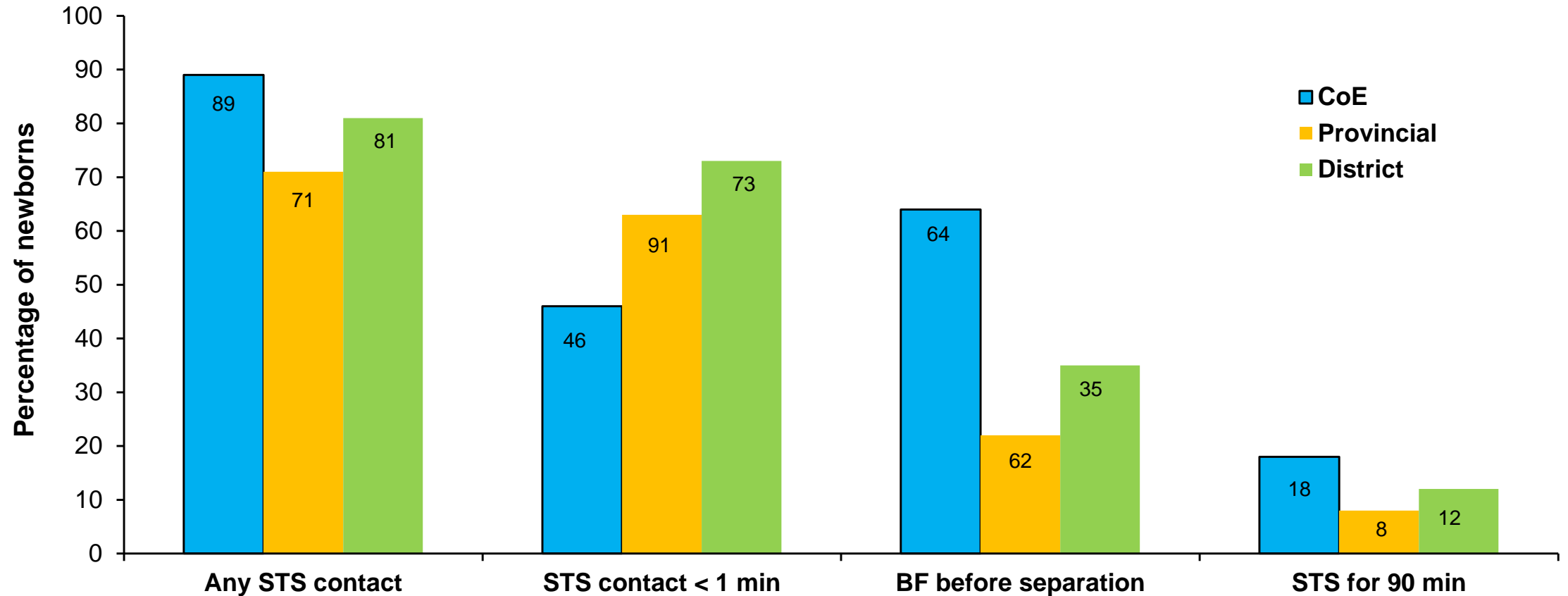


Skin-to-skin Contact and Early Breastfeeding Practices - Preterm Babies, 48 hospitals, Viet Nam, 2017 and 2019



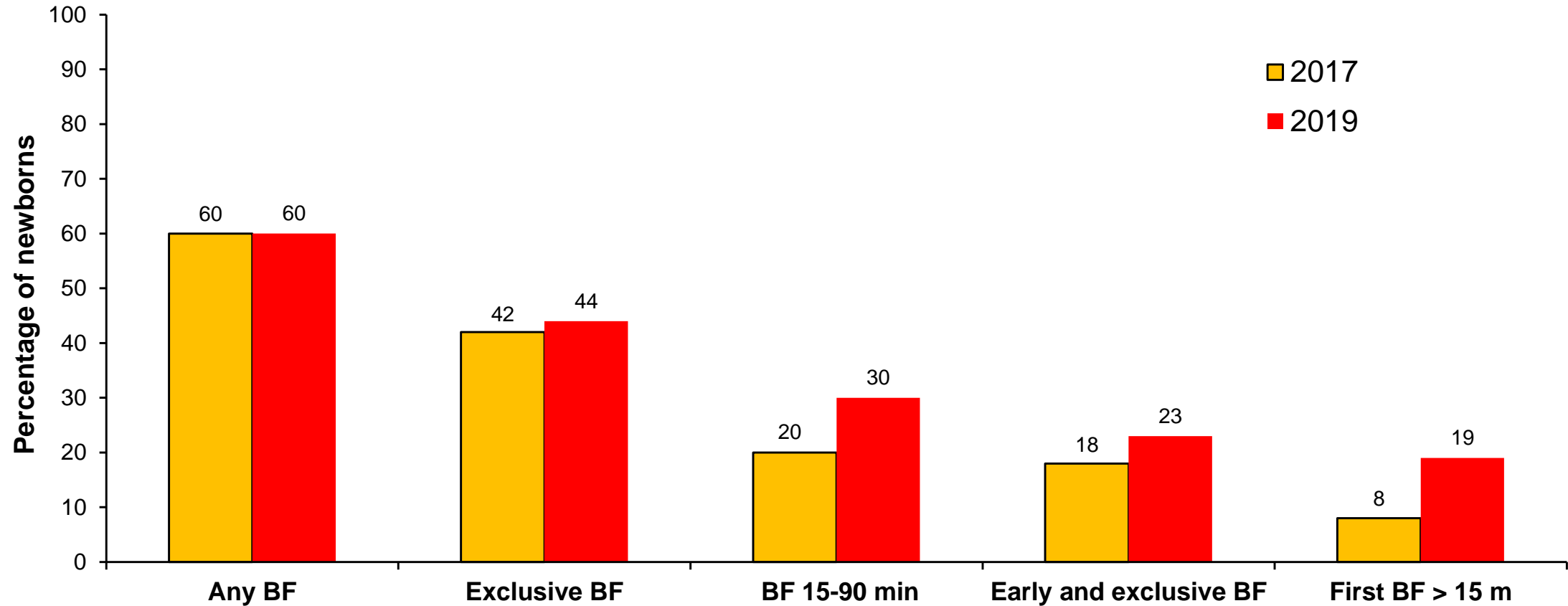
Exit interviews with mothers. 2017: N=127; 2019: N=74 from a sample of 3 CoE, 15 provincial and 30 district hospitals

Skin-to-skin Contact and Early Breastfeeding Practices – Preterm Babies, by Level of hospital, Viet Nam, 2019



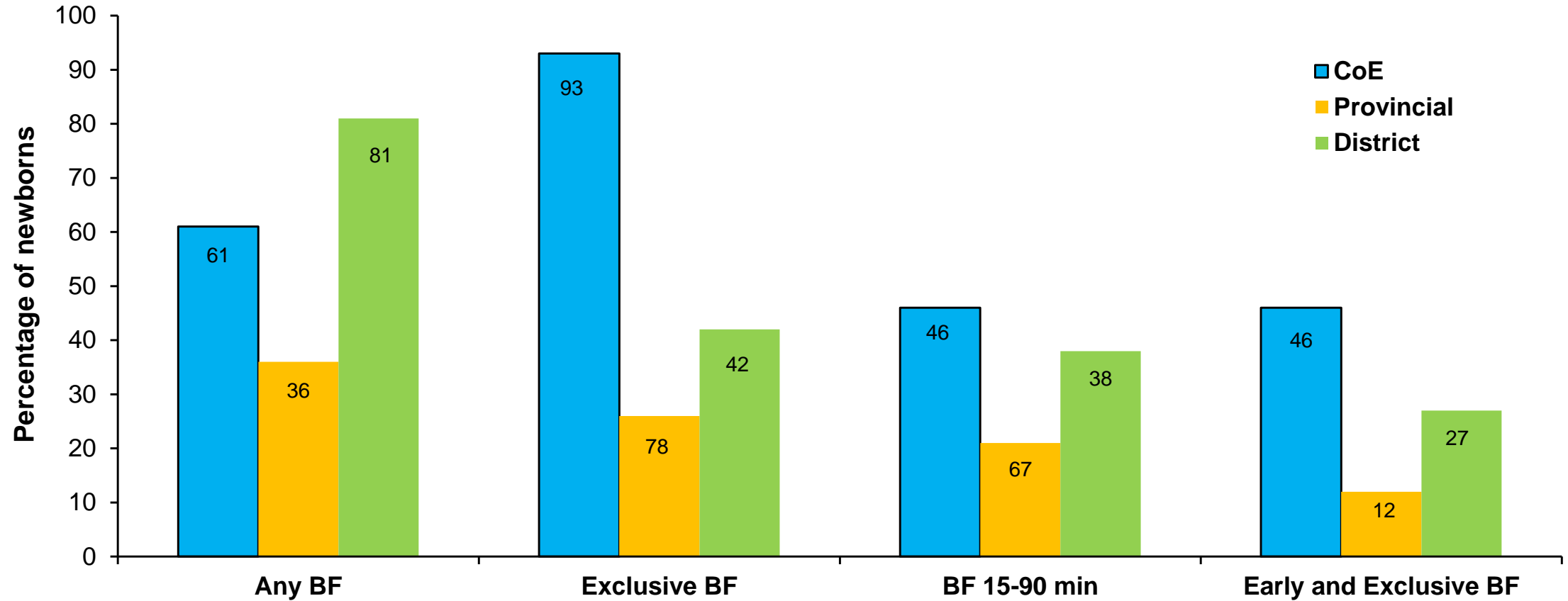
Exit interviews with mothers. CoE: $N = 28$; Provincial: $N = 73$, District: $N = 26$ from a sample of 3 CoE, 15 provincial and 30 district hospitals

Breastfeeding Practices (BF) – Preterm Babies, 48 Hospitals, Viet Nam, 2017 and 2019



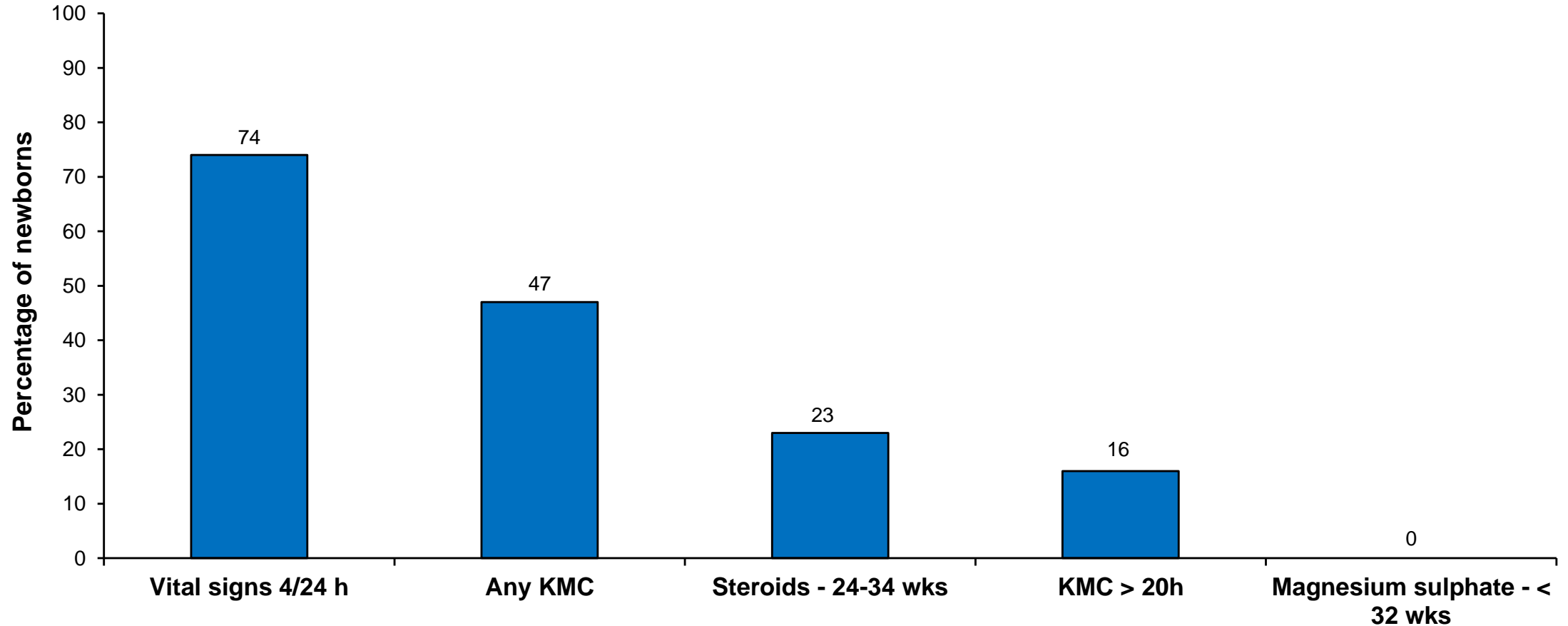
Exit interviews with mothers. 2017: N=74 ; 2019: N = 127 from a sample of 3 CoE, 15 provincial and 30 district hospitals

Breastfeeding Practices – Preterm Babies, by Level of Facility, Viet Nam, 2019



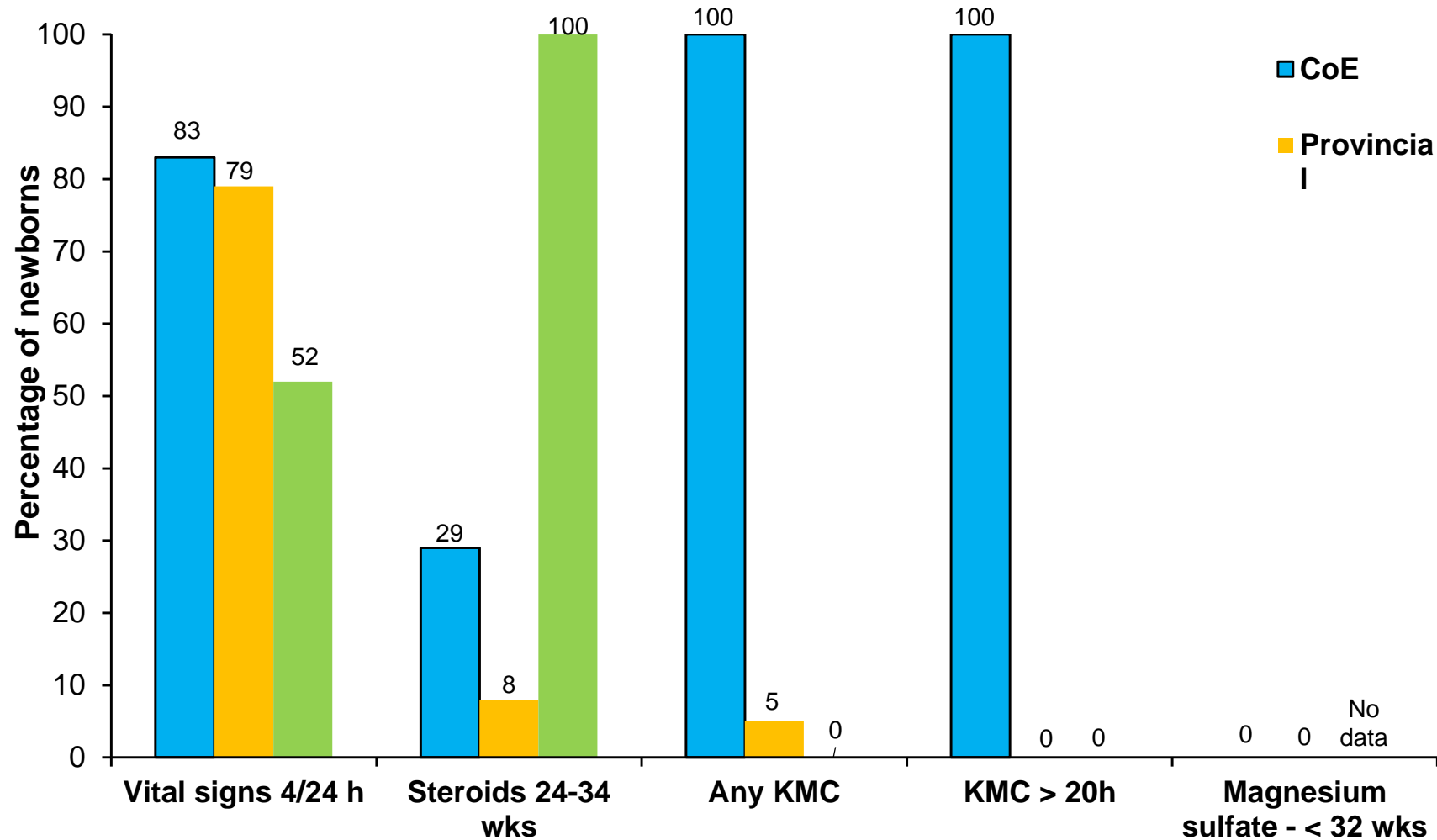
Exit interviews with mothers. CoE: $N = 28$; Provincial: $N = 73$, District: $N = 26$ from a sample of 3 CoE, 15 provincial and 30 district hospitals

Management of Preterm and Low Birth Weight Babies, 48 Hospitals, Viet Nam, 2019



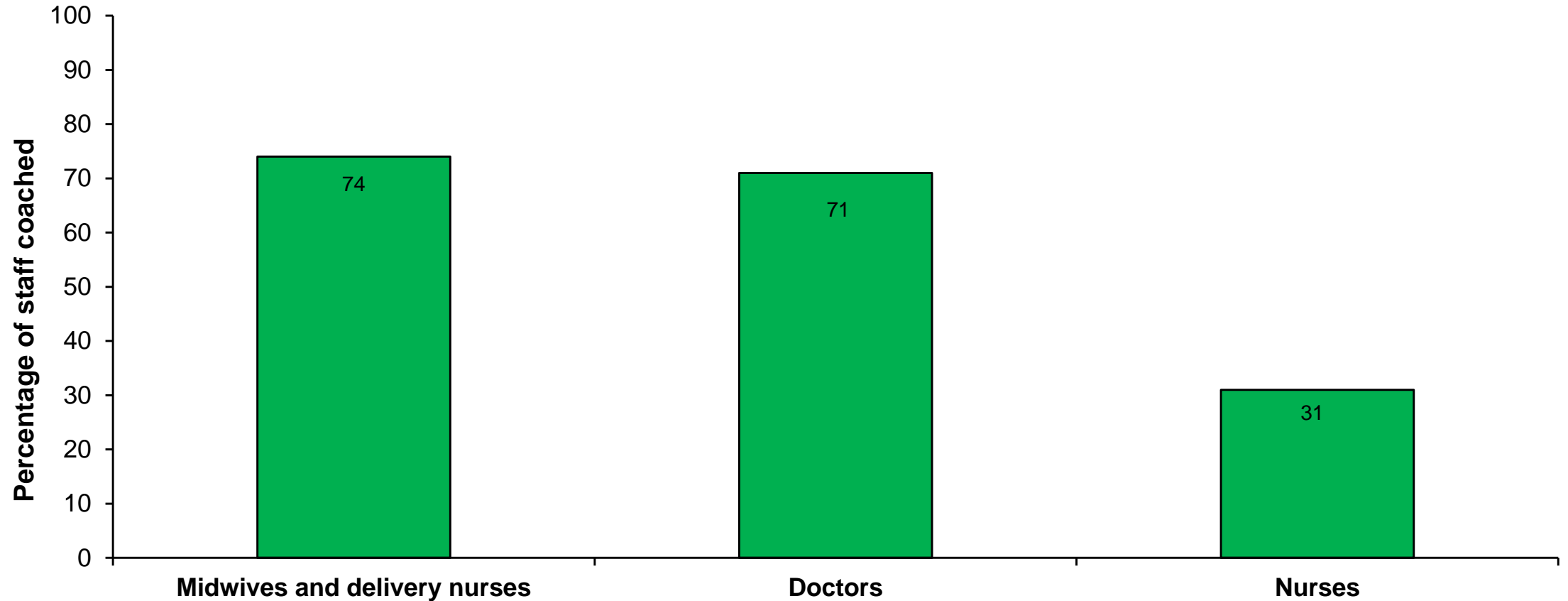
Exit interviews with mothers and Chart reviews, $N = 127$; (preterm/LBW) ,eligible for KMC $N=32$ ($<2000g$) , eligible for steroids $N = 22$ (24-34 wks), eloigible for magnesium sulfate $N = 12$ from a sample of 3 CoE, 15 provincial and 30 district hospitals

Management of preterm and low birth weight babies 48 hospitals, Viet Nam, 2019



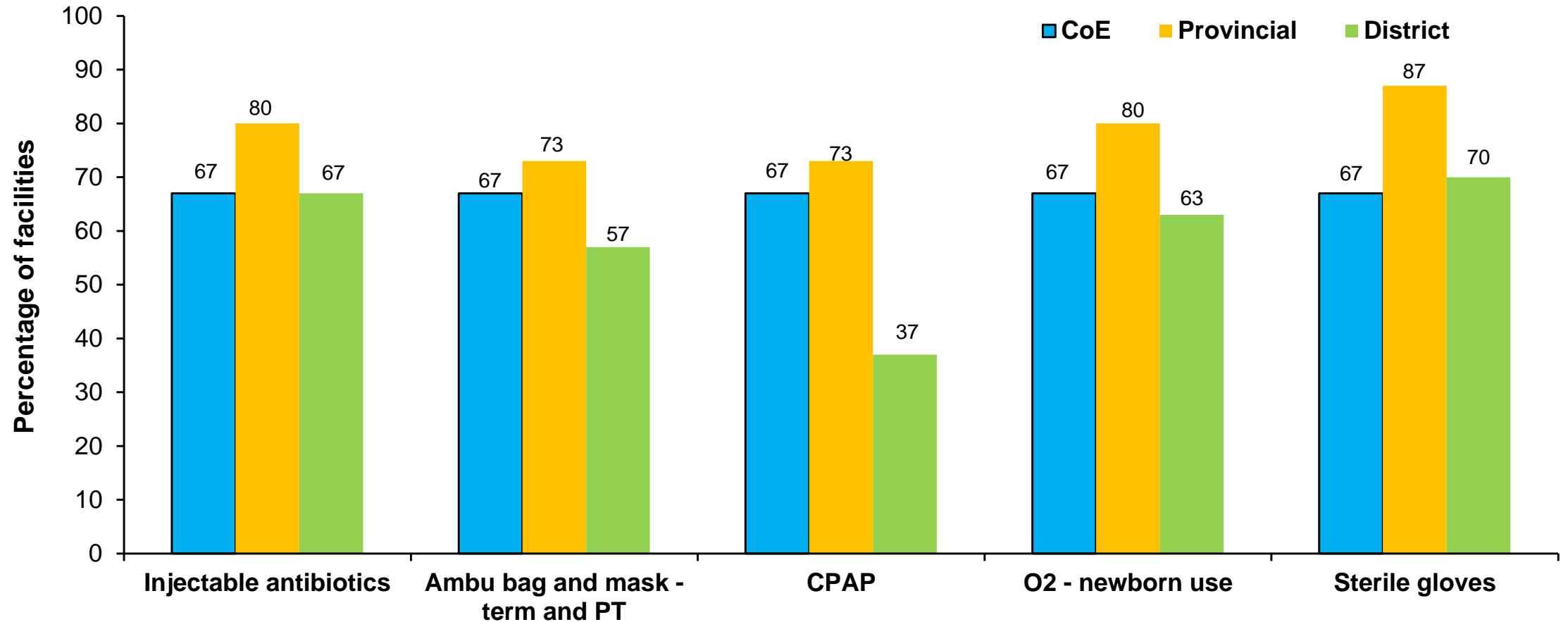
Exit interviews with mothers and chart reviews: CoE: $N = 25$ (preterm/LBW), eligible for KMC $N=5$ (<2000g), 24-34 wks $N= 7$, < 32 wks $N = 1$; Provincial: $N = 62$ (preterm/LBW), eligible for KMC $N = 22$ (< 2000g), 24-34 wks $N= 13$, < 32 wks $N = 11$; District: $N = 15$ (preterm/LBW), eligible for KMC $N = 5$, 24-34 wks $N= 2$, < 32 wks $N = 0$

EENC coaching status of staff, 48 hospitals, Viet Nam, 2019



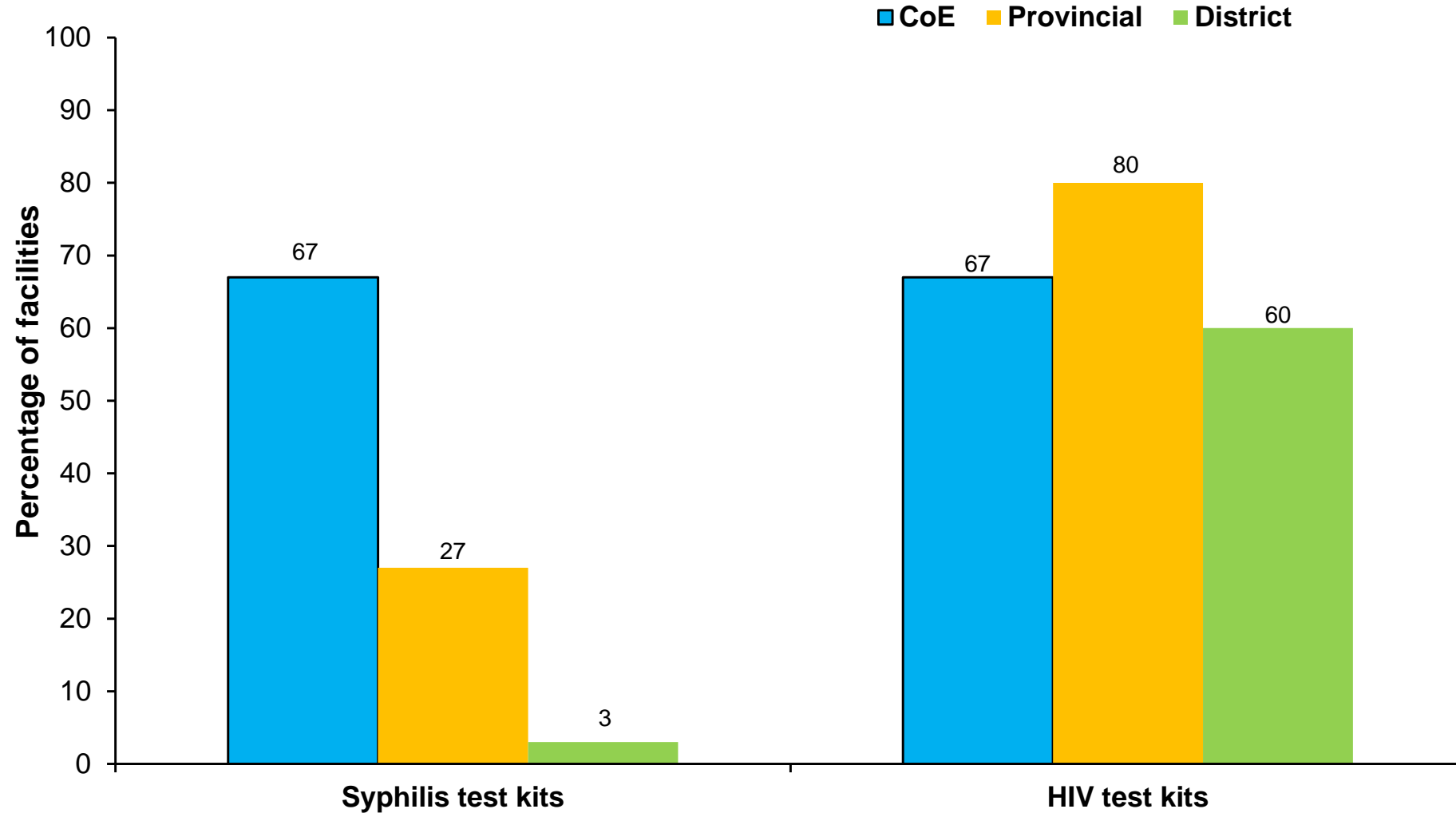
Midwives: $N = 1214$; Doctors: $N = 467$; Nurses: $N = 626$ from a sample of 3 CoE, 15 provincial and 30 district hospitals

Availability of medicines and supplies in hospital neonatal intensive care areas, Viet Nam, 2019



Hospitals sampled from northern, central and southern zones of the country: CoE: $N = 3$; Provincial: $N = 15$, District: $N = 30$;
Available at time of review + stored correctly + no stock-outs in previous 12 months.

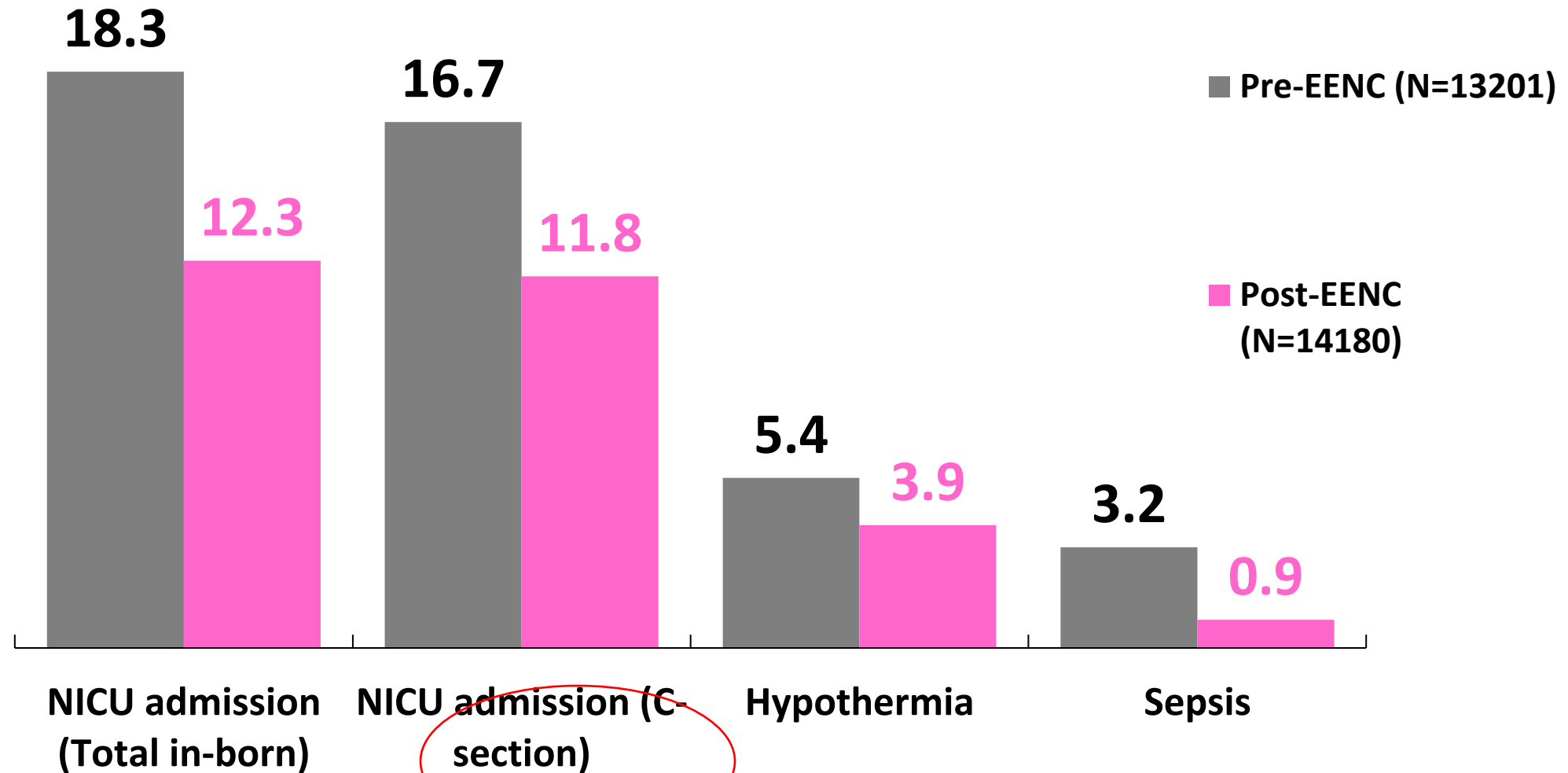
Availability of test kits in hospital pre-delivery and delivery areas, Viet Nam, 2019



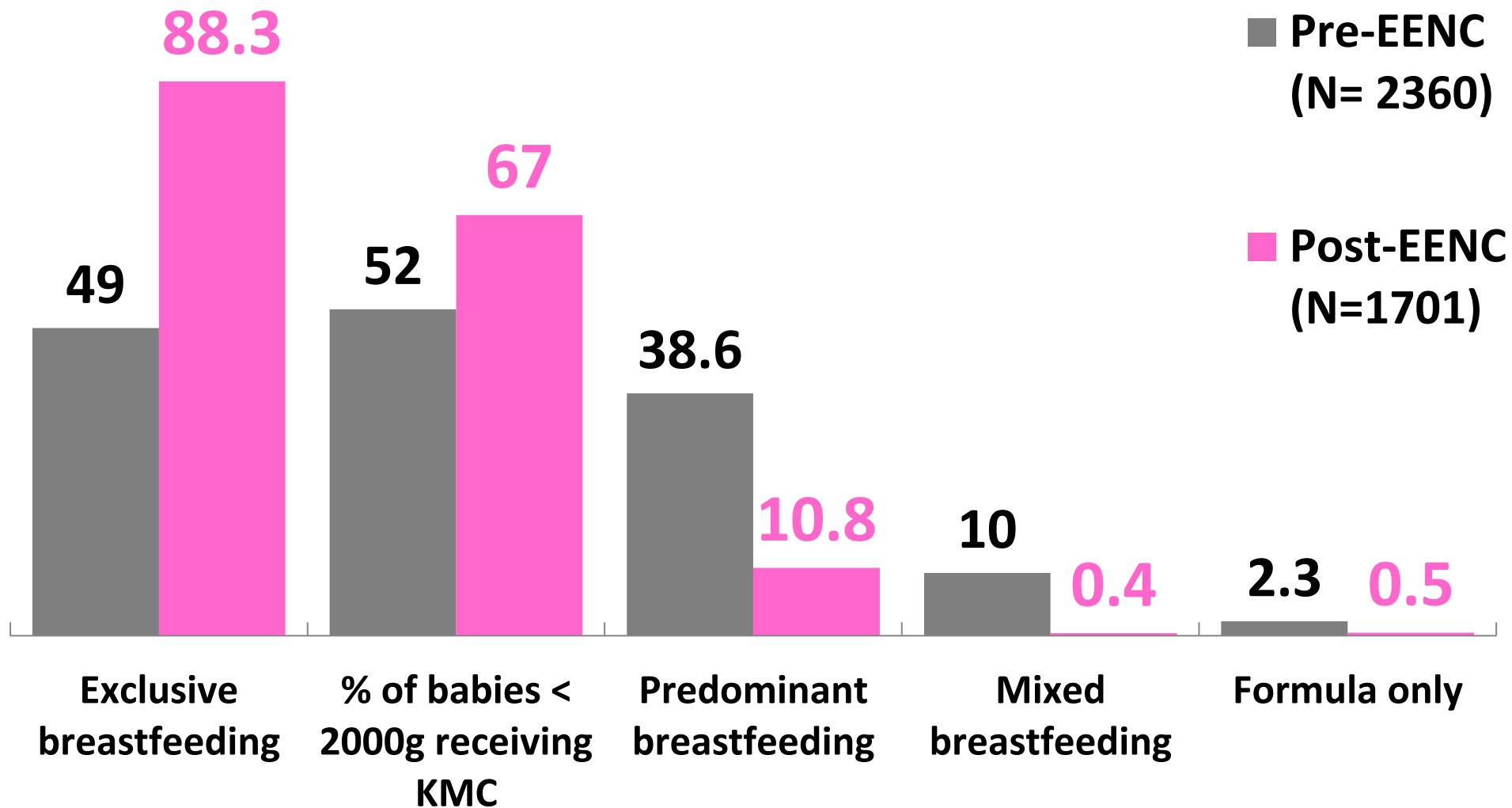
Hospitals sampled from northern, central and southern zones of the country: CoE: $N = 3$; Provincial: $N = 15$, District: $N = 30$; *Available at time of review + stored correctly + no stock-outs in previous 12 months.

Effectiveness

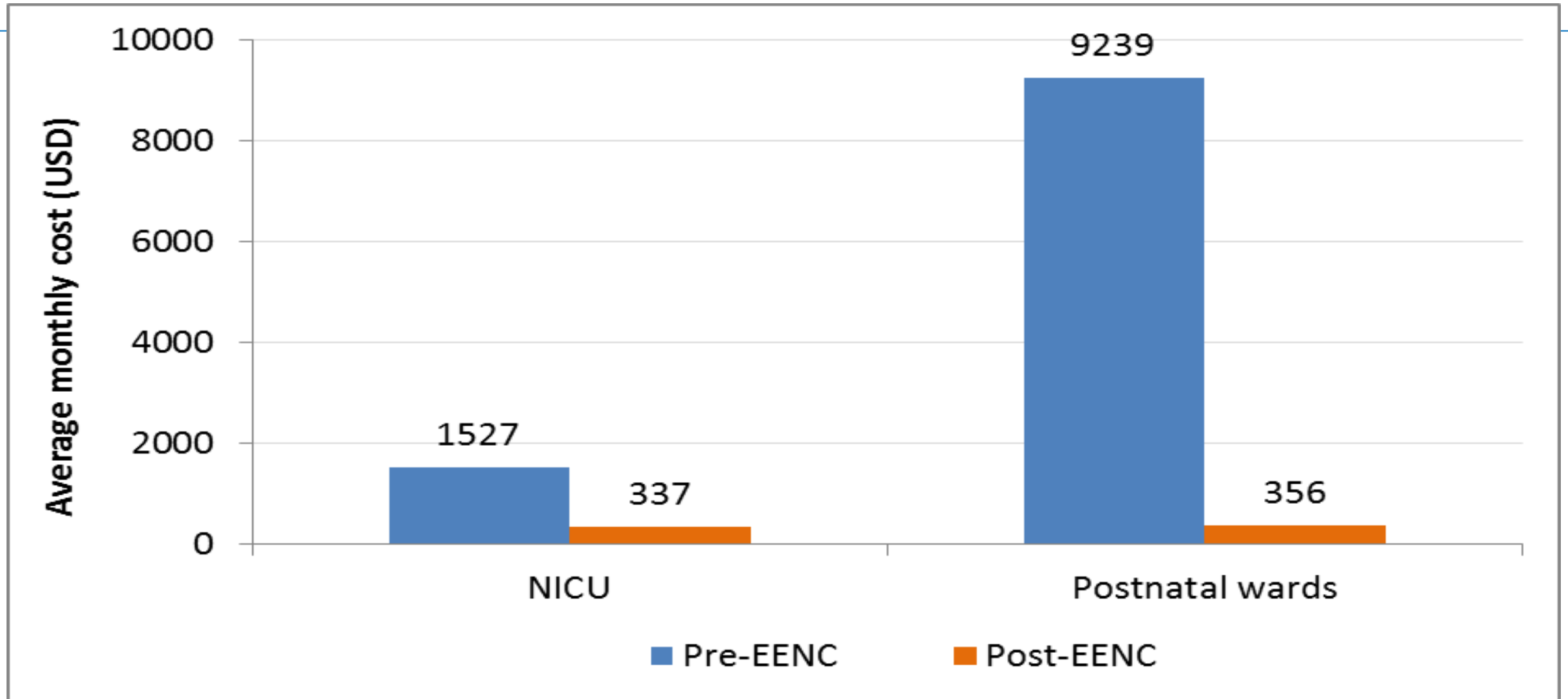
NICU admissions and adverse events, Da Nang Hospital for Women and Children, 2013-2015



Feeding practices in NICU (all admissions), Da Nang Hospital for Women and Children, 2013-2015

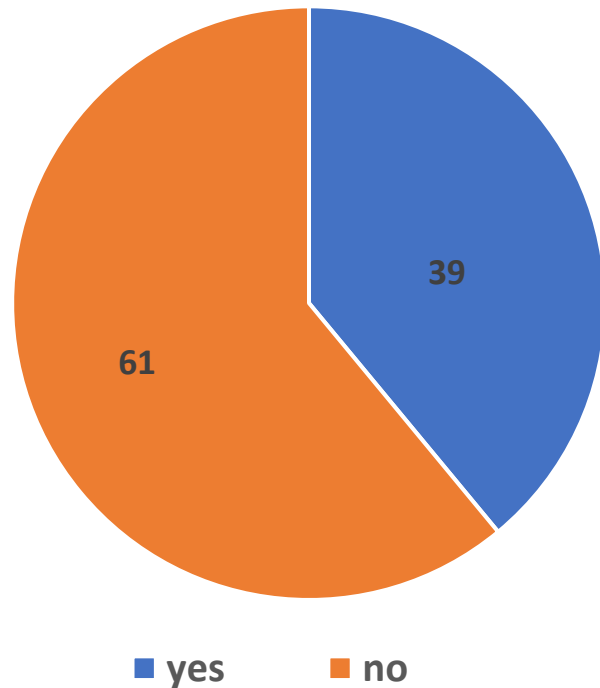


Average monthly cost of infant formula, Da Nang Hospital for Women and Children, 2013-2015

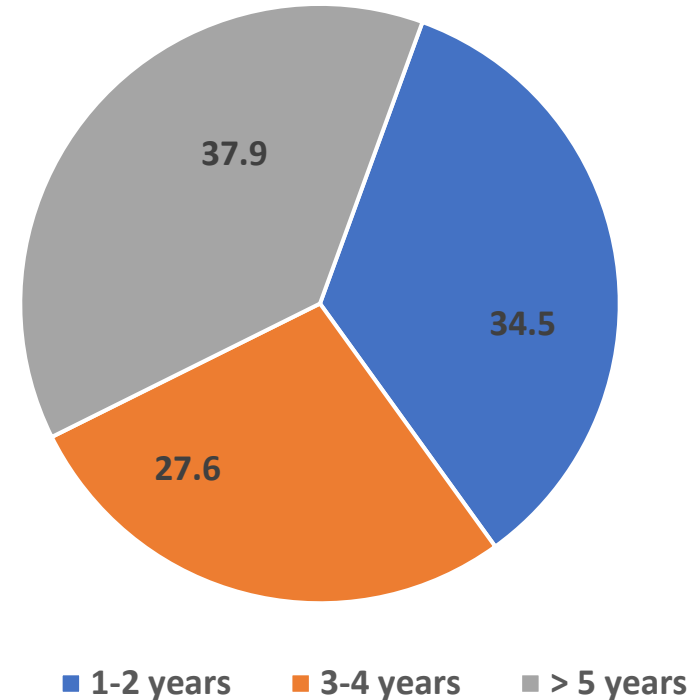


KMC implementation- 2018

Hospitals implementation prevalence

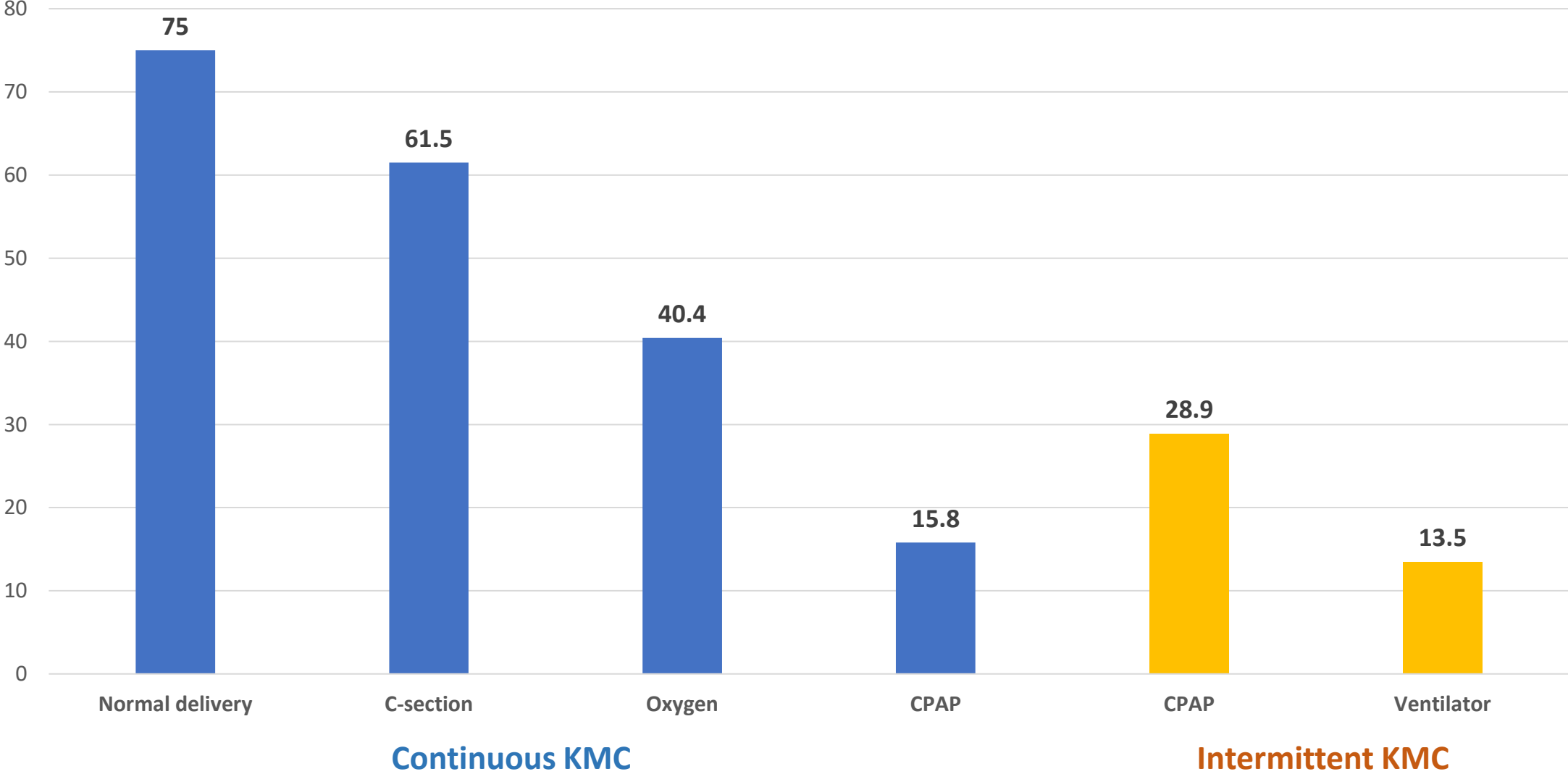


Implementation duration



Self-administrative questionnaires assessment by MCH in 95 hospitals of central (10 hospitals) and provincial levels and equivalent -2018

KMC in provincial hospitals – 2018 (n=52)



KMC implementation



Delivery



Recovery



KMC

KMC implementation



KMC for very small babies from mothers with COVID-19



Care for small or sick newborns in Vietnam

Levels	Staff	Capacity
National/regional hospitals (6)	Neonatal specialists Neonatal, pediatric nurses	Level 3 NICU: Medical and surgical NICU, HFO, ventilator, surfactant
Provincial hospitals (63)	Pediatricians General, pediatric nurses	Level 2-3 NICU: Ventilator, surfactant, parenteral nutrition
District hospitals	Pediatric/Obstetric/General staff	Around 10% districts have level 2 Neonatal Units Majority have no CPAP Able to manage jaundice and common infections Manage babies >1500-2000 grams depending on capacity

Newborn Referral



Challenges

- Big gaps between remote/mountainous areas and nationwide
- Infrastructure, equipment, human resources and health staff skills in the disadvantage areas are limited
- Lack of monitoring and technical support especially for the disadvantage areas
- Reporting system lack of qualitative services data
- Lack of equipment and medical products for small or sick newborns care

Directions

- Technical and financial support for implementation of new NAP on MCH and Child mortality reduction, with priorities given to the disadvantage
- Strengthen capacity building and M&E
- Update quality improvement measures:
 - Establish hospital EENC team
 - Develop criteria for excellent center of EENC
 - Revised hospital quality criteria and update RH reporting system to include quality indicators of EENC/KMC
- Enhancing collecting and reporting system on newborn and MCH data
- Evaluation and sharing experiences

Directions

- Scaling up KMC and enhancement of EENC
- Update guidelines for inpatient small or sick newborn care based on levels of health facilities
- Improve neonatal transport
- Establish functional neonatal network from national/regional to district hospitals





Session 2 (continued)

Learning from Country experiences: Core elements of the model of care

ETHIOPIA, MALAWI, SIERRA LEONE & UGANDA

MODERATOR: DR TESHOME DESTA, WHO

ENDING PREVENTABLE
NEWBORN DEATHS and STILLBIRTHS
by 2030



SMALL AND SICK NEWBORN CARE COUNTRY STATUS REPORT

MNCAYH-N DIRECTORATE
NOVEMBER 2021

ጤና ሚኒስቴር - ኢትዮጵያ
MINISTRY OF HEALTH-ETHIOPIA

የዜጎች ጤና ለሃገር ብልጽግና!
HEALTH FOR ALL FOR PROSPEROUS ETHIOPIA

12/13/2021



Background and Country context (1/2)

Total Population	102,859,598
Number of zones with approximate size in terms of population	80 zones; 1.1-1.3m
Number of districts/ weredas with approximate size in terms of population	800 weredas;
Total Live Births in a year	3.3m (3.2%)
Current trends of NMR both rates and numbers.	33/1,000 LB; 114,053/year



Background and Country context (2/2)

	Primary (HP, HC, primary hospital)	Secondary (General hospital)	Tertiary (specialized referral)
Routine MNCH Services	iCMNCI, ENC, IMNCI, ANC, BeMONC, PNC	Pediatric hospital care, ENC, ANC, CEmONC, PNC	Pediatric hospital care, ENC, ANC, CEmONC, PNC
Care for small and sick newborns	Level I NICU	Level II NICU (Special Care NB Unit)	Level III NICU (Advanced neonatal care)

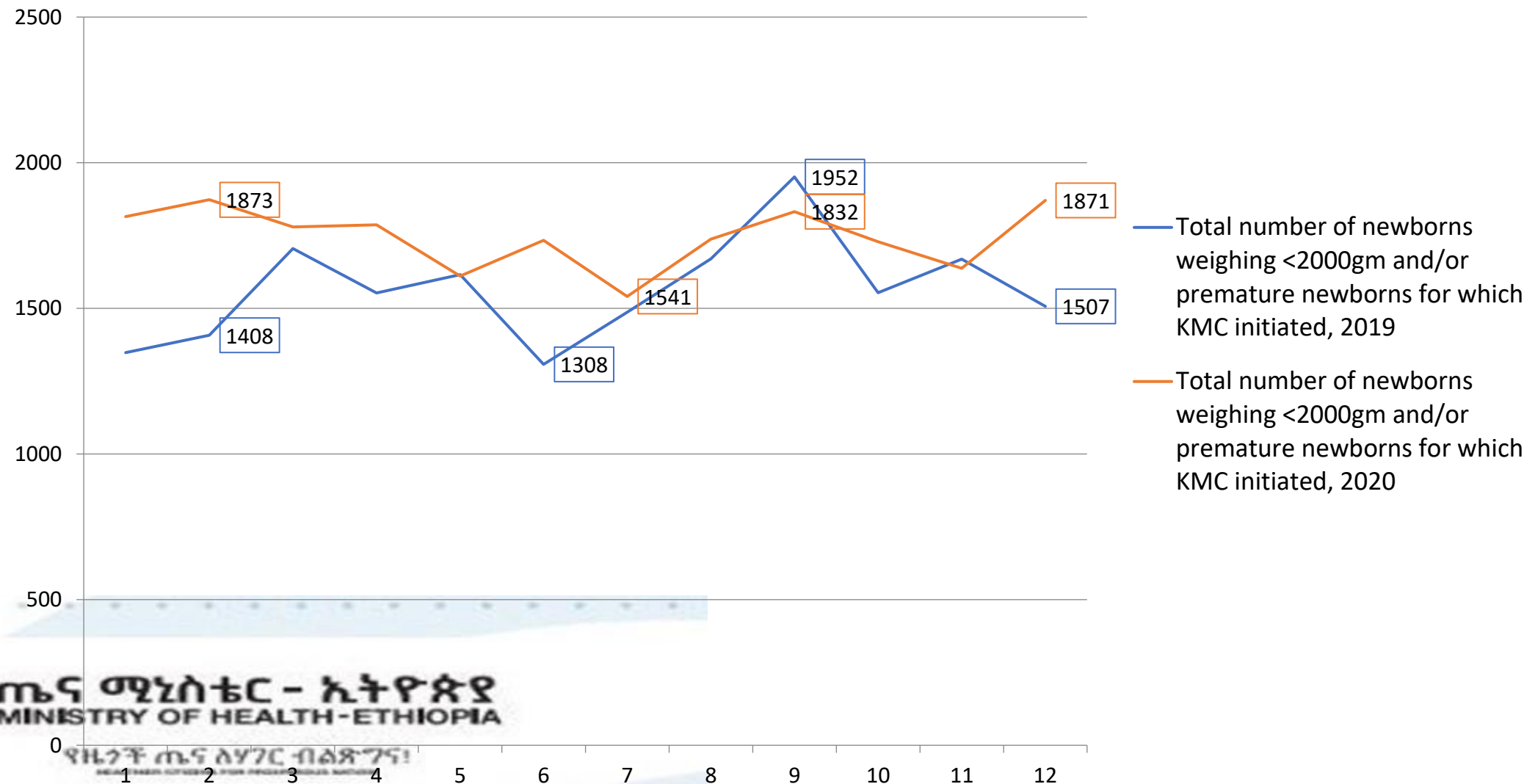


Current situation of Facility based newborn care (1/1)

Current coverage of care for small and sick newborn including KMC	62.4% (20,949 in 2020)
Total number of newborns weighing <2000gm for which KMC initiated, 2019 and 2020	18,778 (2019); 20,949 (2020)
Number of levels 2 (or level 3) units in the country as defined in WHO levels of care	Hospitals with NICU(#196), Level 3 NICUs(80), hospitals Level 1 & 2 NICUs (116)
% of zones with at least one functional level 2 inpatient care unit with respiratory support including CPAP against ENAP target of 80%	80 zones (100%)
Number of beds available in the country for small and sick newborn care	No Data
Total small or sick newborn admissions annually 2019 and 2020	125,293(2019); 123,528 (2020)



KMC admission pattern in 2019&2020



Unpacking the critical components of small and sick newborn care(1/2)

- National plan for scale up of facility based newborn care: Key components, timelines-
 - Scale-up plan based on recommendations following health facilities assessment on new born care service availability and functionality;2021-2025,
 - Key intervention components are: iCMNCI at HP and community level; establishing New born care corner(ENC and EENC) at health facilities and establishing Neonatal Intensive Care Units at tertiary referral, General and primary hospitals.
- NICU scale up plan is to increase from the current 196 hospitals to 367 by the end of 2025
- Newborn care corner from the current 2796 (74%) to 3777 by 2025



Unpacking the critical components Cont. (2/2)

- Budgeting for different components of small and sick newborn care under national/ provincial and district plans-:
 - Budgeting is channelled through Gov., UN & NGO (ear marked), SDG pool fund; Implementation through implementing partners
- What is the standard unit cost budgeted for establishment of level 1 and 2 units in the country - not costed.
- Is there any provisioning of maintenance and operational cost in the budgets - Yes, it is an ongoing investment both from national & local budget allocation (internal revenue of hospitals).
- Mechanism of fund flow from national to facility level - Based on the annual national plan(based on woreda based plan) (MoFED, MoH and UN agencies at national level to RHBs to Woreda)



Ensuring availability of the needed infrastructure (1/3)

- Planning of bed capacity at different levels, size of units in terms of number of beds:
 - **Newborn corner:** One newborn corner for every delivery room and every Operation Room; It should be 2 – 3 m² in size where the radiant warmer is kept.
 - **Neonatal Intensive Care Unit (NICU) Level I:** Each newborn space shall contain a minimum 8 - 12 m² of clear floor space, excluding hand washing stations and columns; recommended 12 newborn beds .
 - **Special Care Newborn Units (Level II):** Each newborn space shall contain a minimum 8 - 12 m² of clear floor space, excluding hand washing stations and columns; recommended 24 newborn beds.
 - **Advanced Neonatal care (NICU Level III):** Each newborn space shall contain a minimum 8 - 12 m² of clear floor space, excluding hand washing stations and columns. recommended 64 newborn beds.



Ensuring availability of the needed infrastructure (2/3)

- What are critical services and service provisioning areas that are included in the design?
 - NICU level III service provision area: stepdown room with the mother, Isolation room, room for KMC at least 8 beds for mothers with shower and toilet facility, Triage room, room where mothers can stay while the newborn is under treatment, 5-10 Maternal bed with stable newborn.
- Provisioning of ancillary services:
 - Offices, meeting rooms, library, Parents facility, Counselling rooms, Equipment storage, Preparation room for medication & Parenteral nutrition, Laundry, Laboratory, Pharmacy, Liaison office, Procedure room, Duty Rooms (Separate for male and female staff), Milk expressing room Counseling room, Staff dining room, Staff dressing room with lockers, Staff bathroom, Nurse station with visibility to all directions.
- Linkages with labor room and Operation theatre including resuscitation and transfer -
 - Yes, for some facilities this is an ongoing effort during renovations.



Ensuring availability of the needed infrastructure

Cont. (3/3)

- What are critical services and service provisioning areas that are included in the design?
 - NICU level II service provision area: stepdown room with the mother, Isolation room, room for KMC at least 6 beds for mothers with shower and toilet facility.
- Provisioning of ancillary services:
 - Gowning area at the entrance, Main Hand washing stations outside of the NICU, Small Hand washing area after procedure in the procedure room, Examination area, Clean area for mixing intravenous fluids and medications, Mother's area for expression of breast milk, breastfeeding and learning mother crafts, Side laboratory (selected investigations), Boiling and autoclaving, General support area, Procedure room
- Linkages with labor room and Operation theatre including resuscitation and transfer - Yes, for some facilities this is an ongoing effort during renovations.



Mechanism of procurement and distribution of equipment including maintenance: (1/1)

- Standardizing essential equipment list and specifications – lists are available.
- Is CPAP part of essential equipment list for level 2 care - Yes
- Current procurement mechanism in the country (partner support, government rate contract with domestic procurement mechanism).
- Major procurement conducted by Ethiopian Pharmaceuticals Supply Agency (EPSA).
- National government establishing 80 level III NICUs through a 27 million USD project funded by MoH/partners. UNICEF handling on a turnkey basis – procurement, transport, installation and training, as well as preventative and corrective maintenance.
- System for repairs and maintenance (AMC, local capacity at district, Bio Medical engineers etc.).
- System initiated not well established, limited local capacity for maintenance and shortage of Bio Medical technicians and engineers.



HR needs for small and sick newborn including capacity building and supportive supervision (1/2)

- How did the country address the HR needs for small and sick newborn including capacity building and supportive supervision:
 - HR norms for the newborn units (neonatologists, paediatricians, GPs, neonatal nurses, clinical nurses, data clerks, biomedical engineers/ technicians, support staff for housekeeping)
 - In-service trainings including: NICU basic training; CPAP skills and coaching; EENC training; HBB; BEMONC and CEmONC; NICU equipment use and preventive maintenance; mentorship by neonatologists, paediatricians and neonatal nurses but not consistently implemented
 - 15 learning hospitals' capacity being built to serve as center of excellence and support the catchment hospitals
 - In collaboration with UNICEF/Vermont oxford network (VON) pool of CPAP trainer from 15 learning hospitals trained as national super coaches following which periodic coaching visit conducted to check and strengthen the skill of visited NICU staff at other facilities.
 - Pre-service (Neonatal Nurse training, neonatologist)



HR needs for small and sick newborn Cont. (2/2)

- HR plan with dedicated budget line in national and district plans? No Data
- Redeployment of existing hospital staff versus new contractual cadre: Transfer of experienced staff to higher centers based on identified gap.
- HR incentives/ innovations undertaken to attract and retain staff - hardship allowances, in some cases providing houses, transport services, further education opportunities, etc., as any health professional in the country.
- Policy or steps taken to avoid rotation out of newborn care units – yes; at least one year agreement with the HR after NICU training and neonatal nurse production and assignment is the sustainable plan).
- Capacity building both in-service and preservice to ensure all staff working in neonatal units of a health facility.
- Advanced NICU clinical reference manual, ENC training package, BEmONC training, Basic NICU training manual, management protocol for NICU, NICU level and standard document, EENC training manual.



QI systems (1/1)

- Quality management systems that have been put in place and has standard process been put for continuous learning.
- Basic NICU training manual inclusive of a QI section with monitoring standards and linked with MNQoC led by the health service Quality directorate with functional structure available from federal to facility level; MNH quality networks; quality improvement projects; quality focused coaching; etc.
- Mechanism for supportive supervision (mentors, engagement with professional bodies) and any linkages with Quality-of-care networks.
- Technical mentoring visit on the utilization of NICU facilities/ equipment's on selected facilities followed by coaching visit with Neonatologist and neonatal nurses, SS visits by NB&CH program experts at RHBs in all NICU facilities; SLL & USAID projects mentorship activities in this area; the ENN with VoN focusing on QI (use of Gantt charts to monitor data and act accordingly).



Data systems and mechanism for monitoring performance and feedback (1/2)

- What is the current mechanism of data capturing in the units and reporting up (paper based or digital records, standardization of case formats across all units)-
 - Through DHIS2. Vermont Oxford, Ethiopian neonatal network... introduction of standards of NICU formats (admission, referral, follow up progress, nursing care....); 80 hospitals review of regular quarter NICU treatment outcome assessment and Zoom meeting with CEOs & NICU heads of hospitals and progress report from implementing partners.
- Who is responsible for data recording and reporting, provisioning of dedicated data clerks? —Head nurses, HIT at districts, zones and hospitals to national.
- Key indicators that are being tracked for monitoring performance-
 - Early institutional neonatal death, NICU treatment outcome, Proportion of LBW for whom KMC is initiated, proportion of NBs with asphyxia resuscitated and Survived, proportion of NBs with sepsis treated with antibiotics.



Data systems and mechanism Cont. (2/2)

- What is the mechanism of review of data at unit level and at state and national level with feedback and supportive supervision for Quality improvement to poor performing units?
 - See above the 80 - NICU facilities regular quarter review, Also RMNCH score cards, dashboards, etc.
- Linkages with HMIS – do some of the indicators for small and sick newborn feed into HMIS or any plans to do so.
 - Yes, it is included in the HMIS.



Investment in a functional referral system (1/1)

- Every health facility that provides care for small and sick newborns has been designated according to a standard level of care and is part of an integrated newborn network with clear referral pathways, a coordinating referral center that provides clinical management support, protocols, and guidelines.
- The NICU levels & standards document is drafted; regarding catchment referral networks Emergency and critical care directorate is leading the task.
- Does a newborn transfer services provide safe, efficient transfer to and from referral neonatal care by experienced, qualified personnel, preferably specialist transport teams, in specialist transport vehicles?
- NO. There is ambulance service to & b/n facilities but not from the facility to home. It is also not well equipped.



Mechanism for post discharge follow-up and care (1/1)

- Current policy on screening at discharge including ROP screening for at risk babies including treatment of those with ROP- No policy.
- Policy and structuring of post discharge follow up: Community/ Facility, Number of visits to be done, components of follow up care including monitoring of growth and development. Yes- reflected in NICU training package at hospitals; IMNCI & iCMNCI training packages for HCs & HPs.
- Mechanism for reminders to family and tracking follow-ups - Not available except for HIV, TB programs.
- Developmental follow up of high-risk babies and Linkages with Early intervention - ---Yes, in its early phase of implementation.



Incorporated family centered care as part of small and sick newborn care (1/1)

- Policy on engagement of families in care of small and sick babies – Inadequate effort...indicated in the current draft strategy.
- Is there a policy of zero separation of mothers and baby? Training packages recommend bed-in of mother-baby pair which is the practice.
- Is there a provision of free food and stay for mother - Yes
- Nurturing care for every newborn and family engagement in practice - Yes
- Is there any provision of psychosocial support to parents – Not Adequate
- Support for bereavement and counselling - limited
- Any financial protection mechanism being put in place by country for wage loss to families during stay of baby in the hospital. No. But for government employees they get their salary.



Efforts put in place to promote effective communication & meaningful participation of care givers (1/1)

- Carers of small and sick newborns and staff understand the importance of nurturing interaction with the newborn, recognize and respect the newborn's behavior and cues and include them in care decisions.
- ECD in its early stage-integrated into all child health guideline at all levels.
- All carers receive appropriate counselling and health education about the current illness of the newborn, transition to Kangaroo Mother Care follow-up, community care and continuous care, including early intervention and developmental follow-up. It has always been there although not uniform and strong.



Key Enablers for scale-up and learnings that can help other countries (1/1)

- Identify 4-5 most critical things that helped the country in scale up that might be of help to other countries to have a head start:
 - Government commitment and leadership;
 - Strong CSTWG/NICU;
 - Partnership with multi-stakeholders (societies, academia),USAID, UN agencies and universities,
 - Innovation and evidence generations (scale up KMC-SLN; RMNCAH/RAC);
 - Clinical mentorship activities



Key challenges and priority actions moving forward (1/2)

- What is still unresolved and how the country plans to expand/adapt moving forward
 - Lack of (financial and HR) resource and inadequate infrastructure NICU facilities,
 - Lack of local supplier and spare parts for medical devices and corrective maintenance is not in place ;
 - Gap in access and quality of healthcare during the perinatal period;
 - Lack of policy and unavailability of life saving medicines, parenteral nutrition and supplies ;
 - Inadequate infection prevention practice at the health facilities.
 - Low newborn health care seeking behaviour of communities,
 - Low performing MPDSR , Weak vital registration system



Key challenges and priority actions moving forward (2/2)

- How the country plans to expand/adapt moving forward
 - Domestic resource mobilization,
 - Standards for infrastructure designs,
 - Capacity building effort through coaching and Mentorship support to high case load facilities;
 - NICU Equipment preventive maintenance being conducted through 'NICU project'.
 - Capacity building and Qis on infection prevention practice.



Sharing of resources developed by country for global learning and repository (1/1)

- Insert links to key policy and budget documents, country road map, training material, data recording formats, case studies, annual reports etc.
- Advanced NICU reference manual, Basic NICU training manual, NICU formats: NICU standards documents (draft), ENC training package.

ጤና ሚኒስቴር - ኢትዮጵያ
MINISTRY OF HEALTH-ETHIOPIA

12/13/2021 የጤና ለሃገር ብልጽግና!
HEALTH FOR PROSPEROUS NATION



THANK YOU!

ጤና ሚኒስቴር - ኢትዮጵያ
MINISTRY OF HEALTH-ETHIOPIA

12/13/2021 የጤና ለሃገር ብልጽግና!
HEALTHIER CITIZENS FOR PROSPEROUS NATION





MALAWI PRESENTATION ON SMALL AND SICK NEWBORN IN MALAWI

DR MSANDENI CHIUME-KAYUNI
Kamuzu Central Hospital



PRESENTATION OUTLINE

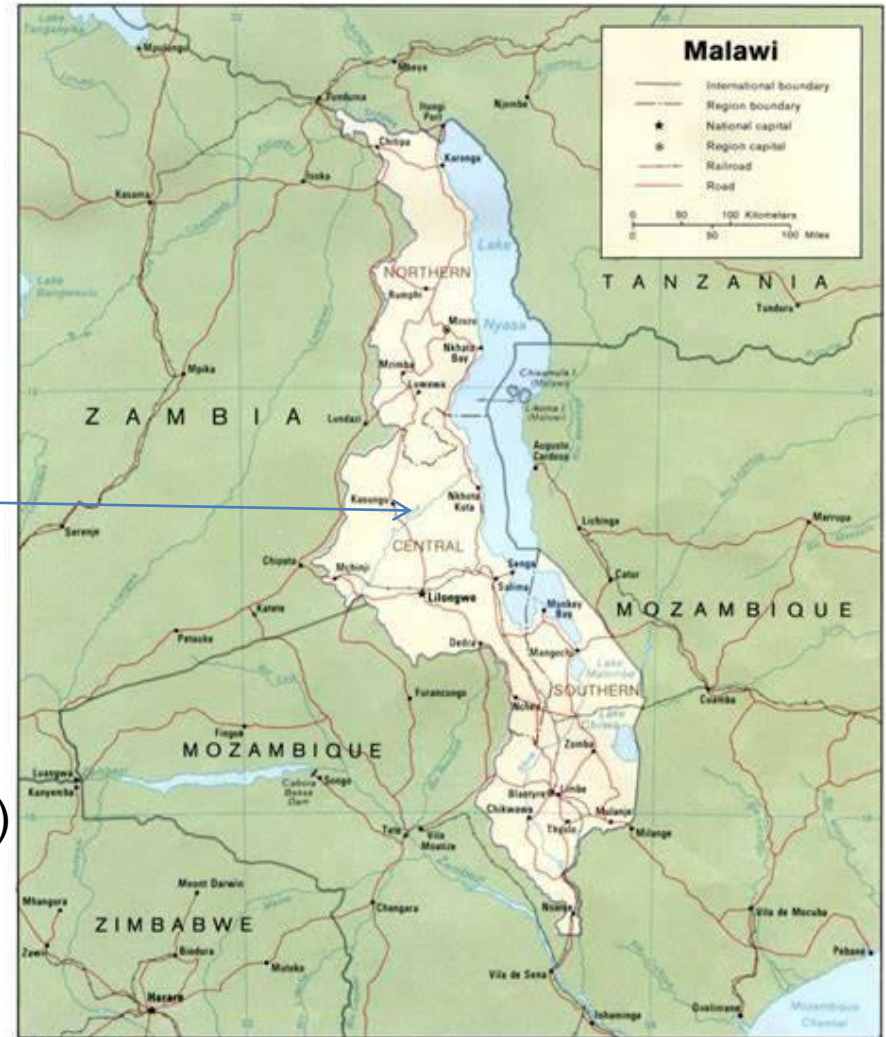
- Background and country context
- Country Statistics
- Critical components of small and sick newborn
- Human Resources, Skills and Competences
- Infrastructure for small and sick newborns
- Procurement and deployment of equipment including their maintenance
- Data systems and mechanisms for monitoring performance

OUTLINE CONT'D

- Referral systems
- Discharge follow up
- Family Centred care
- Communication
- Key challenges
- Sharing of resources developed for global learning



MALAWI



Administratively there are 28 districts and 3 Regions (North Central and South)

5 Zonal offices



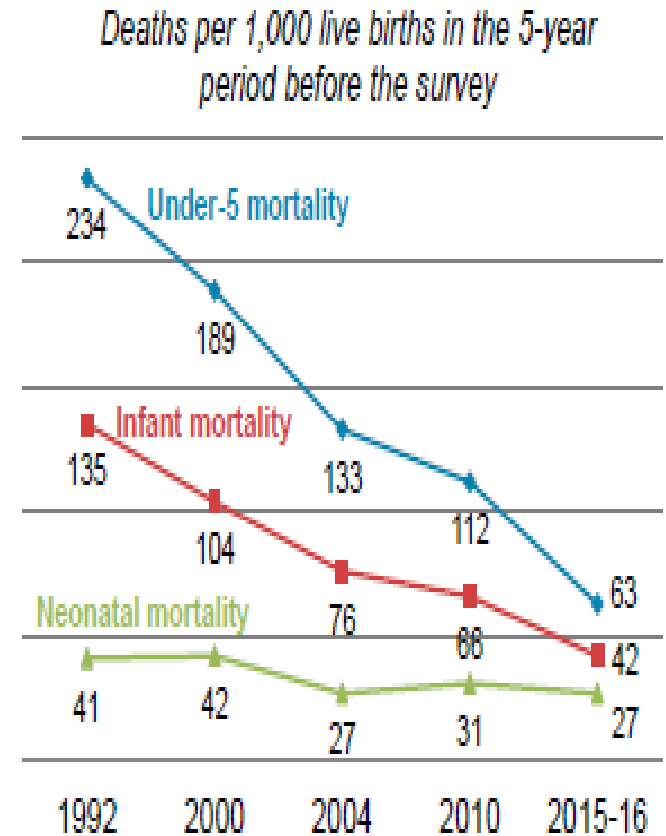
The Malawi Health Care System

- Provision is by public, private for profit (PFP) and private not for profit (PNFP) sectors-
CHAM hospitals
- Government is primary provider of public facilities followed by CHAM
- 4 (Four) levels of care namely community, primary, secondary and tertiary.
- The DHO is the head of the district health care system and reports to the District Commissioner (DC).



Statistics

- Population - 19,860,761
- Annual growth rate at 2.7%
- Birth rate -33.4 births per 1000
- Adolescent fertility rate 134 per 1000 births
- Maternal mortality rate at 439 per 100,000 live births
- Skilled birth attendant-90%
- 18% preterm deliveries
- Neonatal mortality rate of 36.6/1000 live births
- Estimated deliveries in 2020 were 641,610



Critical situation of facility based newborn care

- Malawi – the journey to improving neonatal care





Facility based newborn care in Malawi

- Neonatal care in 2013
 - KMC units
 - Sick newborn units- mainly in central and private hospitals
 - Other sites – neonates nursed with Mum in Postnatal wards, no patient notes, no data
- Currently 54 newborn units
 - Level 2 almost 80% of secondary levels HFs
 - Level 3-only Tertiary HFs





Human resource skills & competencies

- A 2013 new-born bottleneck analysis in Malawi revealed deficiencies in the health workforce affecting quality of care of the sick neonates
 - No dedicated staff for management of sick newborn
 - Health workers lacked knowledge and confidence in the care of neonates
 - Protocols on neonates did not address needs of a sick newborn or infant
- **ENAP Strategy - Strengthen and invest in quality care during labour, delivery and neonatal period**
 - Deploying staff to new established sick newborn units
 - Focus on building capacity of both in-service and pre-service health workers



Human resource skills & competencies

- Malawi developed the Care of the Infant and newborn (COIN) course in 2015, updated and includes NEST 360 equipment
 - Developed in collaboration with professional bodies
 - Evidence based, locally relevant course for inpatient care of small and sick newborns, in-cooperates QI guidelines
 - Audience and trainers: nurses, clinicians, engineers
 - Approved by regulatory authorities and targets in pre-service and in-service
 - Trainer of trainers course/Generic Instructors course
- Strengthen pre-service training for health and technical training institutions in the country
 - Training and support for lecturers
 - Equipping of skills labs with neonatal tools





Human resource skills & competencies

- Mentorship - component of in-service capacity building
 - Standardised neonatal mentorship course developed
 - Mentorship implemented and includes physical and virtual mentorship involves professional bodies
 - Facility based mentors/champions trained to counteract the effect of staff rotation
- Supportive supervision and QI visits
 - Standardised tools for QI visits (clinical, administrative, technical and data) developed
 - Integrated approach linking mentorship and supervision
 - Quarterly visits for in-service and training institutions

HR needs

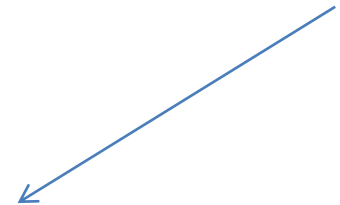


- Committed Health care workers in newborn care units
- Need for capacity building in Newborn care skills through mentorship in COIN, HBB, Early Essential Newborn Care (EENC) including KMC
- PPEs for COVID-19 Preventive measures
- Good working environment with adequate resources; drugs, equipment and medical supplies
- Specialization in newborn care

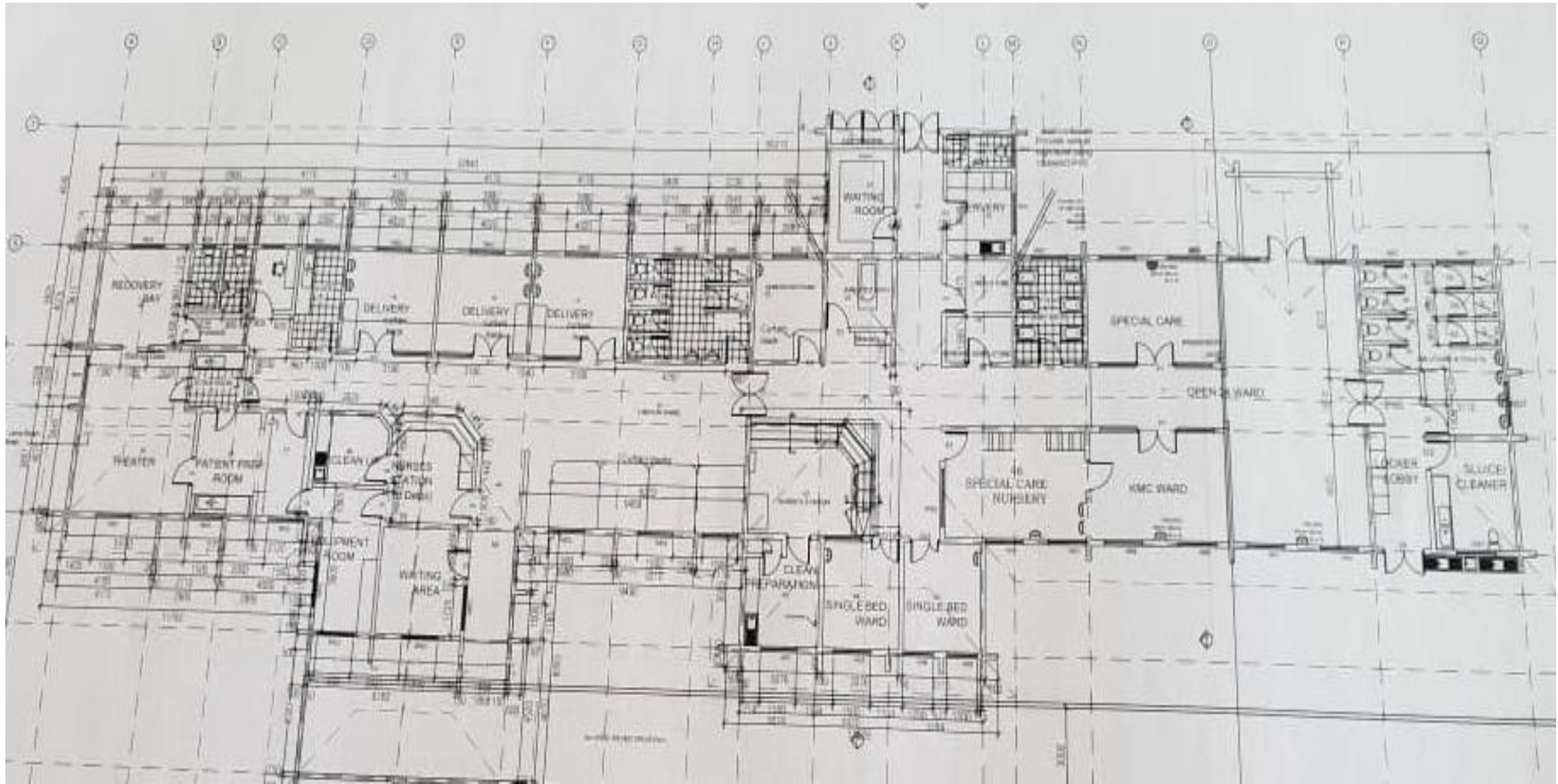


Infrastructure

- Hospitals not designed with newborn unit
- Hospitals identified space/room to manage neonates
- Facilities now designed with sick newborn unit



Design new maternity hospital- Floor Plan



Procurement and deployment of equipment & maintenance



- Equipment is procured and distributed by Government and Partners such as UNFPA, WHO, UNICEF, NEST, USAID etc
- Maintenance being done by Physical Asset Management (PAM) department at MoH.
- Medical engineers located at National, Regional and district levels and some are trained to repair all equipment for newborn care



Referral system

- Malawi has established referral system that links the Community, Primary and Secondary level care which falls under district councils.
- Majority of Ambulances are designated at District hospital
- Some Ambulances are located in clusters of 4 or 5 Basic Emergency and Newborn Care (BEmONC) facilities. 1 ambulances per 50,000 population
- Transport managed is done at District hospital.



Communication

- Personal cell phones are used to call for ambulances from the district or a designated BEmONC facility
- Airtime is sometimes provided by the DHO but not adequate. HCWs use theirs or ask guardians to provide airtime to call for ambulances
- Standardized Referral forms are used by some HFs
- Feedback given through WhatsApp groups for some

Family centred care



- Active participation of care givers in the care of small and sick newborns is encouraged.
- Care givers provide appropriate amount of feeds at scheduled feeding time, monitor danger signs on their babies and report immediately to HCWs.
- KMC babies are always with their care givers who also check weight under supervision of HCWs



Discharge-KMC

- Small newborns discharge criteria from KMC ward at sec or tertiary levels;
 - Baby has regained birth weight and has a minimum weight of 1500g
 - Baby has gained 15g/kg/day for three consecutive days Skin-to-skin contact is well tolerated by baby and mother
 - Condition of the baby is stable

At HC-Baby has at least regained birth weight and has a minimum weight of 1800g



Discharge -Sick Newborn

- Sick newborns are discharged upon completion of prescribed treatment, no danger signs, normal vital signs and able to breastfeed.
- Counseling on basic care of baby, follow up care, hygiene, routine immunizations, exclusive breastfeeding and rooming in is done.



Follow up care

- At community level families are linked to community health care worker (HSAs) in their catchment areas and community care groups
- Follow ups are done from Day 1 after discharge, day 3, day 5, day 8 for small babies. Referrals and counseling are done accordingly

Data systems and mechanisms for monitoring performance



- Mostly Paper-based
- HIMS system
- DHIS2
 - Mainly had NMR, KMC and CBMNC
 - 2020 Increased Indicators to include the Sick Newborn
- Digital systems are under trial- yet to expand (Nest, Neotree)

What has helped us get here?

Enablers



- Newborn steering committee and neonatal focal person – coordinating unit
- Neonate in national agenda (HSSP, ENAP, Sexual Reproductive Health and Rights Strategy, Child Health Strategy)
- ENAP **developed** and **implemented** in collaborative and coordinated approach
 - MOH, development and implementing partners, training institutions, professional associations, NEST 360 – *optimise the strength of each institution*



Challenges and priority areas

Inadequate trained health care workers to ensure 24/7 coverage

- Weekend and night is under staffed

Limited space for newborn care

- congestion in wards

Low community engagement

- limited follow up of LBW or preterm babies

Poor referral system for sick and preterm babies



Challenges Continued...

- **Inadequate health** financing-Funding below 15% Abuja Declaration
- Erratic availability of drugs and supplies-antibiotics, oxygen concentrators, CPAP machines
- Inadequate staffing levels due to limited recruitment
- Limited supportive supervision by Managers/leaders from National, Zonal and district level



Priority areas

- Capacity building of health care workers
 - Reinforcing COIN trainings at pre-service and in-service levels, Strengthening mentorship programs at all levels of care
- Improving newborn care infrastructure through construction and refurbishment of hospitals
- Strengthening monitoring and evaluation systems-digitalizing data systems
- Strengthening Maternal and Perinatal deaths (MPDSR) and Neonatal death audits

Priority contd..

- Procurement and distribution of ambulances and equipment to the district HFs and central hospitals
- Strengthening 8 ANC contacts
- Strengthening MPDSR including NND audits


Sharing of resources developed for global learning

- Health facility Assessment checklist
- Equipment target product profile (ETPP)
- Implementation tool kit for Small and sick newborn



- THANK YOU





Sierra Leone's experiences: Core elements of the model of care.

Dr Sartie Kenneh
Chief Medical Officer
Ministry of Health and Sanitation
(MOHS)
Sierra Leone





Total Provinces	5
Total Districts	16 (2017)
Total Population	7,092,113 (Census 2015)
2021 estimated Population	8,297,881
Total Live births (estimated for 2021)	310,341
Total Neonatal Mortality rate	31/1000 live births (DHS 2019)
Total number of Tertiary, Regional and District Hospitals providing maternal and newborn health services (CEMONC)	22
Primary Health Units (BEMONC)	228
Primary Health Units (maternal health and level 1 neonatal services)	1,300

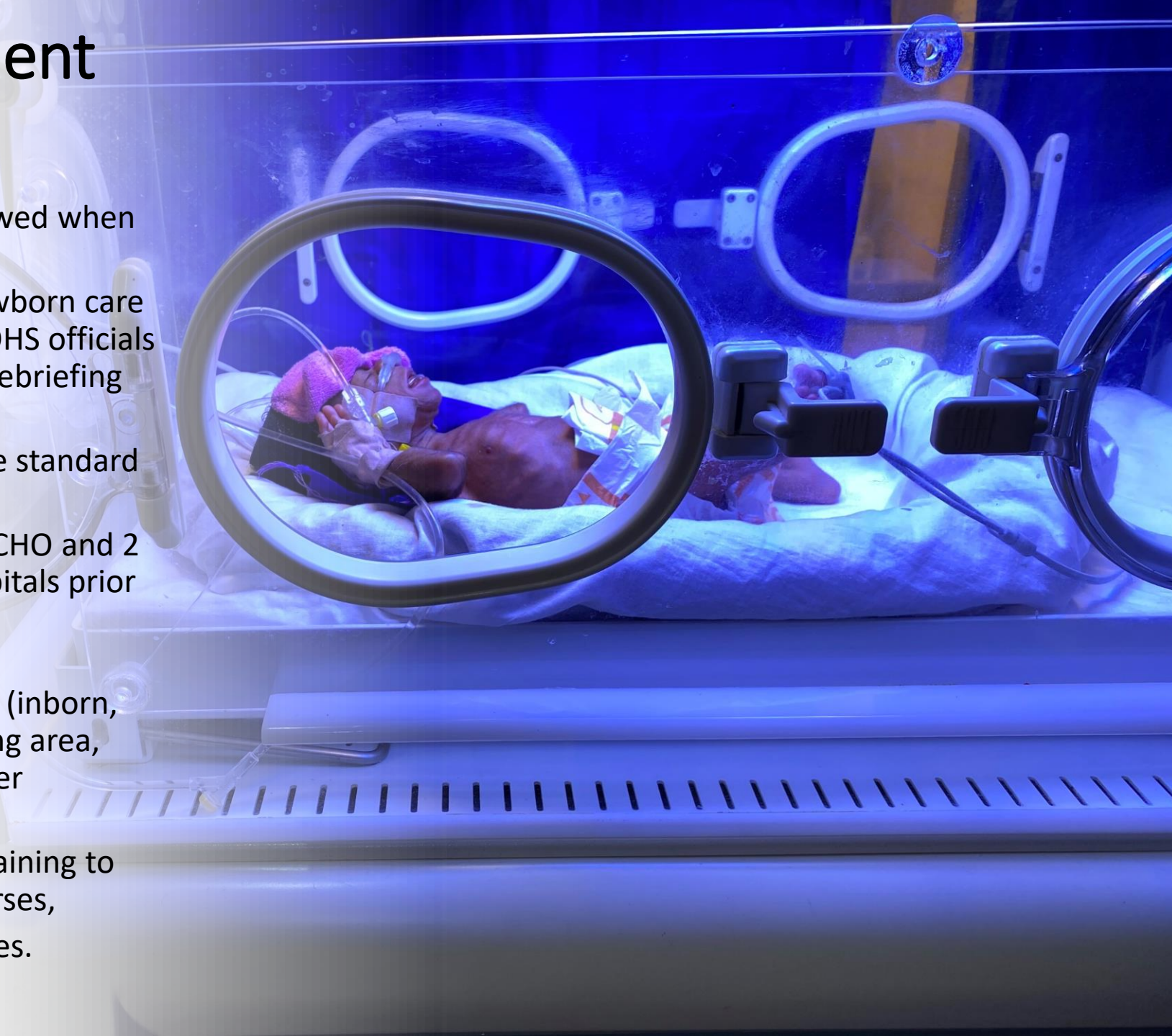


Indicators	2019	2020	2021
Number of Districts with Special Care Baby Units (SCBUs)	4/16	8/16	14/16
Total number of SCBUs	4	9	16



Process of Establishment and Scaling of SCBUs

- Established a system which is strictly followed when establishing a SCBU:
 - Needs assessment (maternal and newborn care services) using a standard tool by MOHS officials and partners (briefing, assessment, debriefing to the hospital team on the findings)
 - Procurement of equipment as per the standard list of the level II Newborn care
 - Training of a team of providers (MO/CHO and 2 nurses) at the Tertiary/ Regional hospitals prior to the establishment of the SCBU
 - Renovation of the available rooms to accommodate the SCBU components (inborn, outborn and KMC units, breast feeding area, mothers waiting room etc.) and proper electrical wiring of the units.
 - Installation of equipment and user training to the Pediatricians, MOs, CHOs and nurses,
 - Inauguration and initiating the services.



Establishment of Level II (SCBUs) till Date

2017	2020	2021	Total
4 SCBUs	5 SCBUs	7 SCBUs	16
Ola During Children Hospital (Tertiary), Kenema, Bo and Makeni Hospitals (Regional)	King Herman (Tertiary), Kono, Moyamba, Pujehun, Kailahun Hospitals (District)	Magburaka, Kabala, UBC, Bonthe Island, Kambia, Jui hospitals (District) Port Loko Hospital (Regional)	14 fully functional, 2 ready to initiate the services.

- Bo SCBU visited by the President of Sierra Leone His Excellency Dr Julius Maada Bio and the First Lady Fatima Maada Bio in 2019



Infrastructure Available at the 14 SCBUs

Infrastructure	ODCH	Make ni	Kenema	Bo	Kono	Moyamba	Pujehun	Kailahun	King Herman	Kabala	Magbura ka	UBC	BGH	Kambia	Total
Number of Beds	35	25	30	25	21	10	12	18	20	12	12	11	10	12	218
Separate Inborn and Outborn units	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14/14
Breast Feeding Area	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14/14
Kangaroo Mother Care Unit	Yes	Yes	Yes	Yes	Yes	No	NO	No	No	Yes	Yes	No	Yes	No	8/14
Mother's waiting room	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	13/14

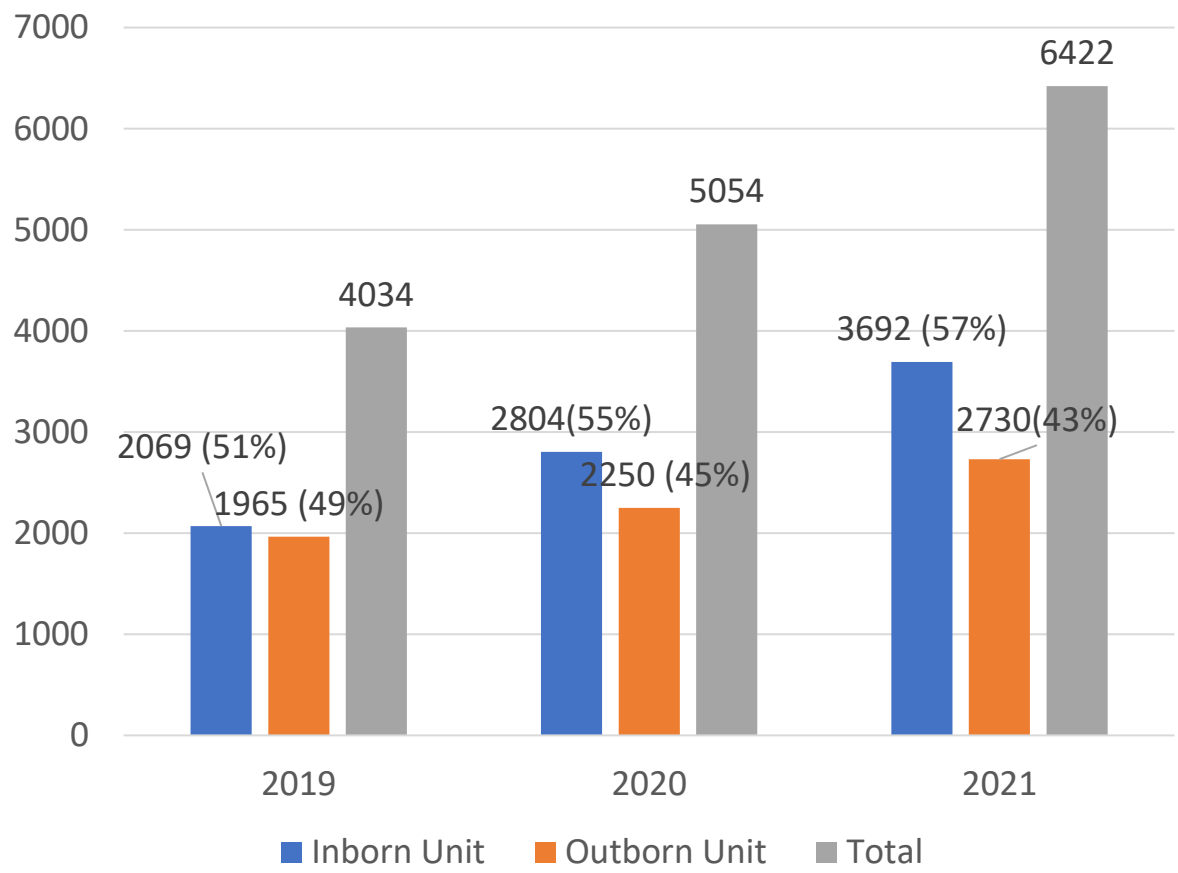
Infrastructure Available at the 14 SCBUs

Infrastructure	ODCH	Make ni	Kene ma	Bo	Kono	Moya mba	Pujehu n	Kailah un	King Herman	Kabala	Magbu raka	UBC	BGH	Kambia	Total
Availability of 24 hours water (running or veronica bucket)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14/14
Availability of 24 hours electricity	EDSR/generator	EDSR/generator	EDSR/generator	EDSR/generator	EDSR/generator	Generator	generator	generator	EDSR/generator	generator	EDSR/generator	EDSR/generator	generator	generator	14/14
Side lab inside the SCBU (Hb, Glucose)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14/14
Comprehensive Functional Lab	No	NO	No	NO	No	No	NO	No	No	No	NO	No	NO	No	0/14

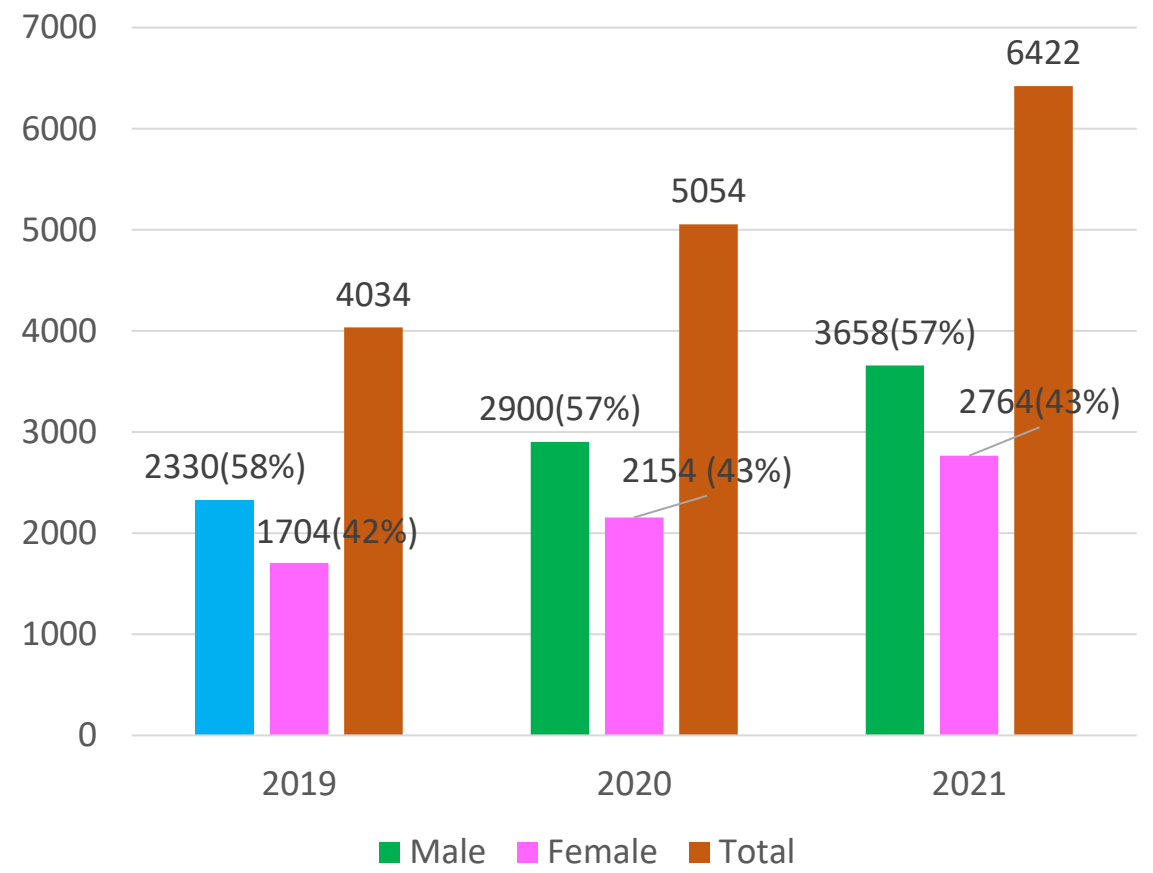


Glimpse of New SCBUs

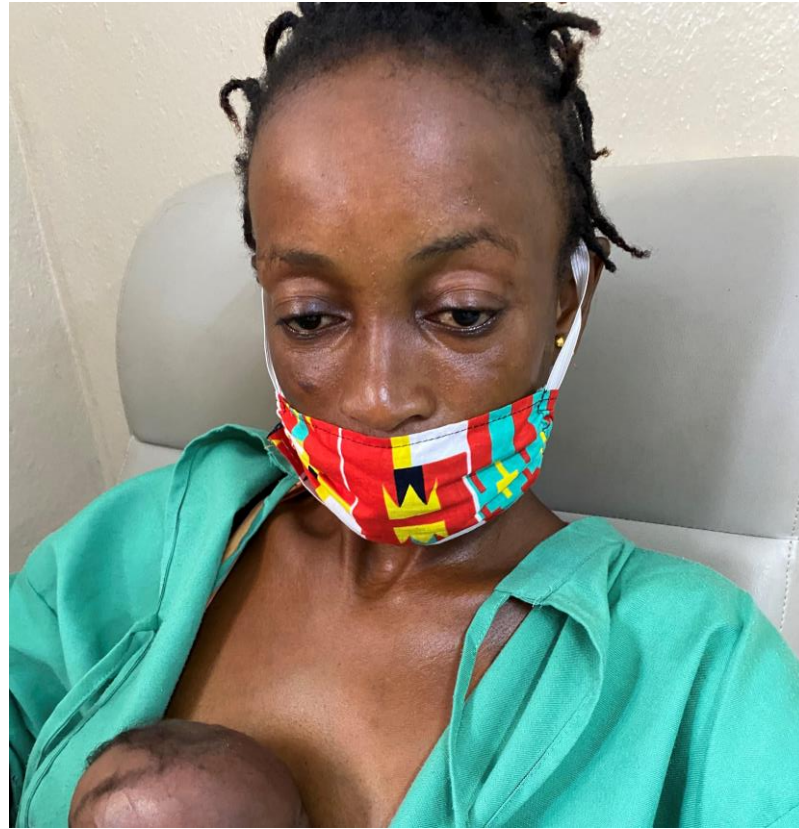
Admission of Small and Sick Newborns in SCBUs (2019-2022)



Comparison of Male and Female Newborns Admitted in the SCBUs (2019-2021)



Outcome of SCBUs	2019	2020	2021
Total Survival Rate	79%	82%	85%



Mothers Practising KMC in the SCBUs

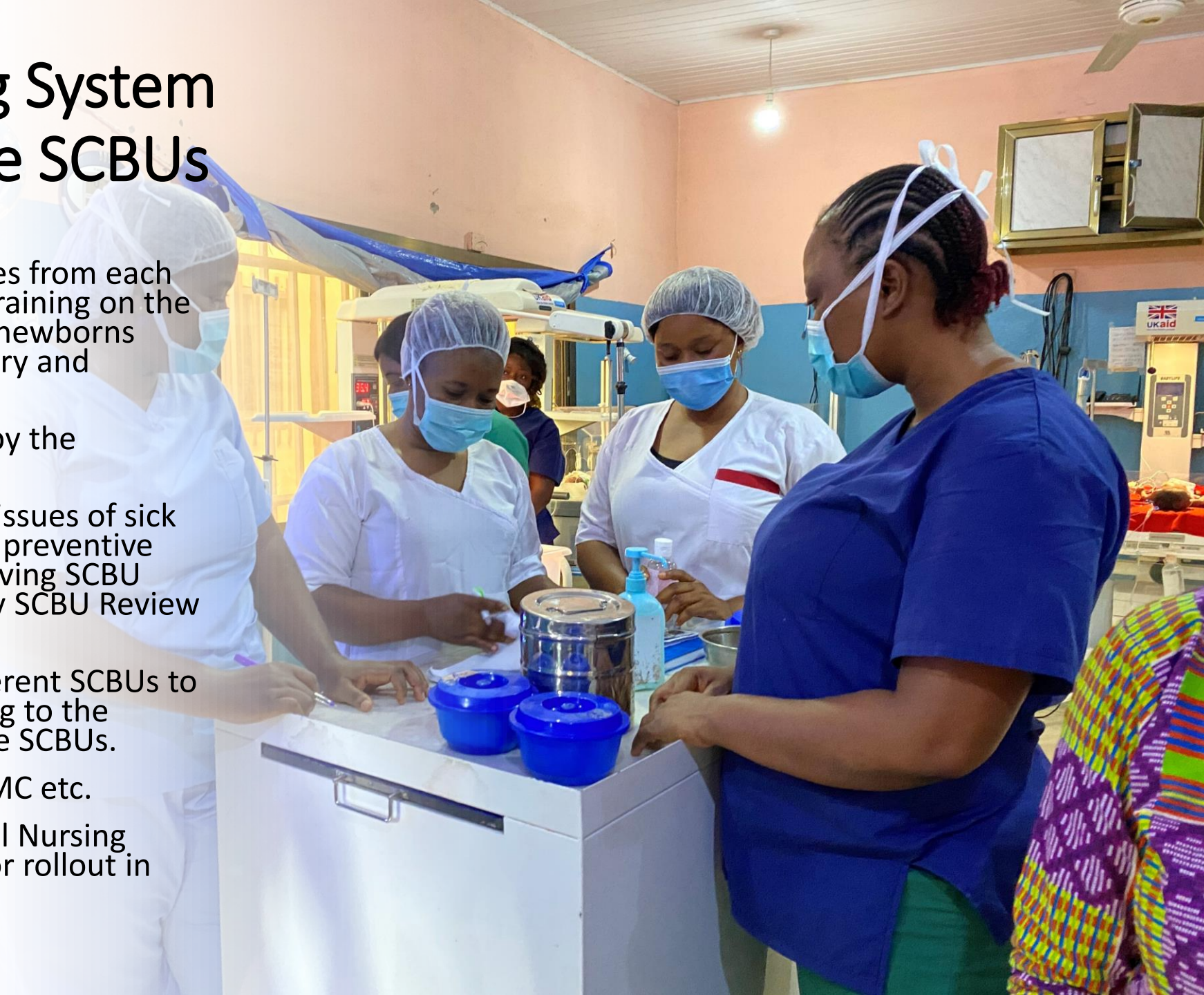
Human Resources Available at 14 SCBUs

Information	2019 (4 sites)	2020 (9 sites)	2021 (14 Sites)
Pediatricians	3 International Pediatricians 1 National Pediatrician	6 International Pediatricians 2 National Pediatricians	6 International Pediatricians 2 National Pediatricians
Medical officers	3	5	6
CHOs	0	5	11
Total Nurses	104	180	222
Biomedical Technicians	0	9	14
Cleaners	8	21	29

- 4 International pediatricians and 1 national pediatrician are supported by UNICEF (UK FCDO and China funds).
- 50-80% of the nurses are on payroll, and others are volunteers. Majority of Community Health Officers (CHOs), biomedical technicians and cleaners working in the SCBUs are also volunteers.
- Those not on payroll receive incentives from partners such as UNICEF (UK FCDO and China funds), MSF, PIH.
- The Hospital Management has agreed not to rotate nurses working in the SCBUs as they consider it as specialized care.

Capacity Building System Established in the SCBUs

- A team of MO/CHO and 2 nurses from each SCBU (new) received 8 weeks training on the management of small and sick newborns using national SOP at the Tertiary and Regional hospitals.
- On-the-job training for nurses by the Pediatricians, MOs and CHOs.
- Technical sessions on different issues of sick newborns, sessions on use and preventive maintenance of different life saving SCBU equipment during the quarterly SCBU Review meetings
- Mobilizing Pediatricians to different SCBUs to provide mentoring and coaching to the service providers working at the SCBUs.
- Group based training- PDSR, KMC etc.
- A one year “Post Basic Neonatal Nursing Training” package developed for rollout in 2022.



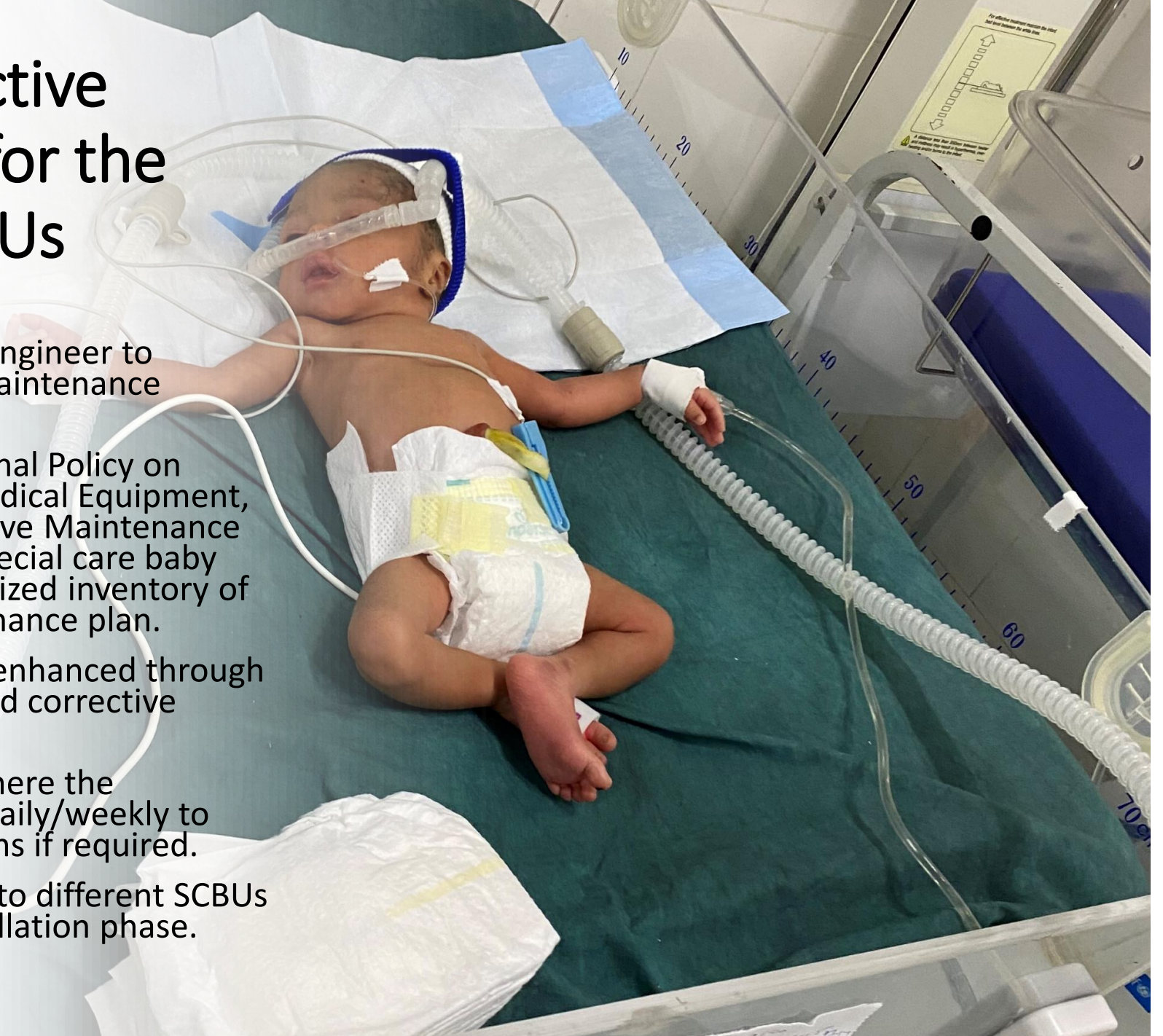
Mechanism of Procurement and Deployment of equipment for the SCBUs

- A national package for different level of newborn services (I, II and III) is developed and implemented.
- All the 16 SCBUs are established with the support from UNICEF with the financial support of UNICEF internal fund, FCDO and China fund.
- Each SCBU is equipped as per the national package and CPAP is among the equipment list



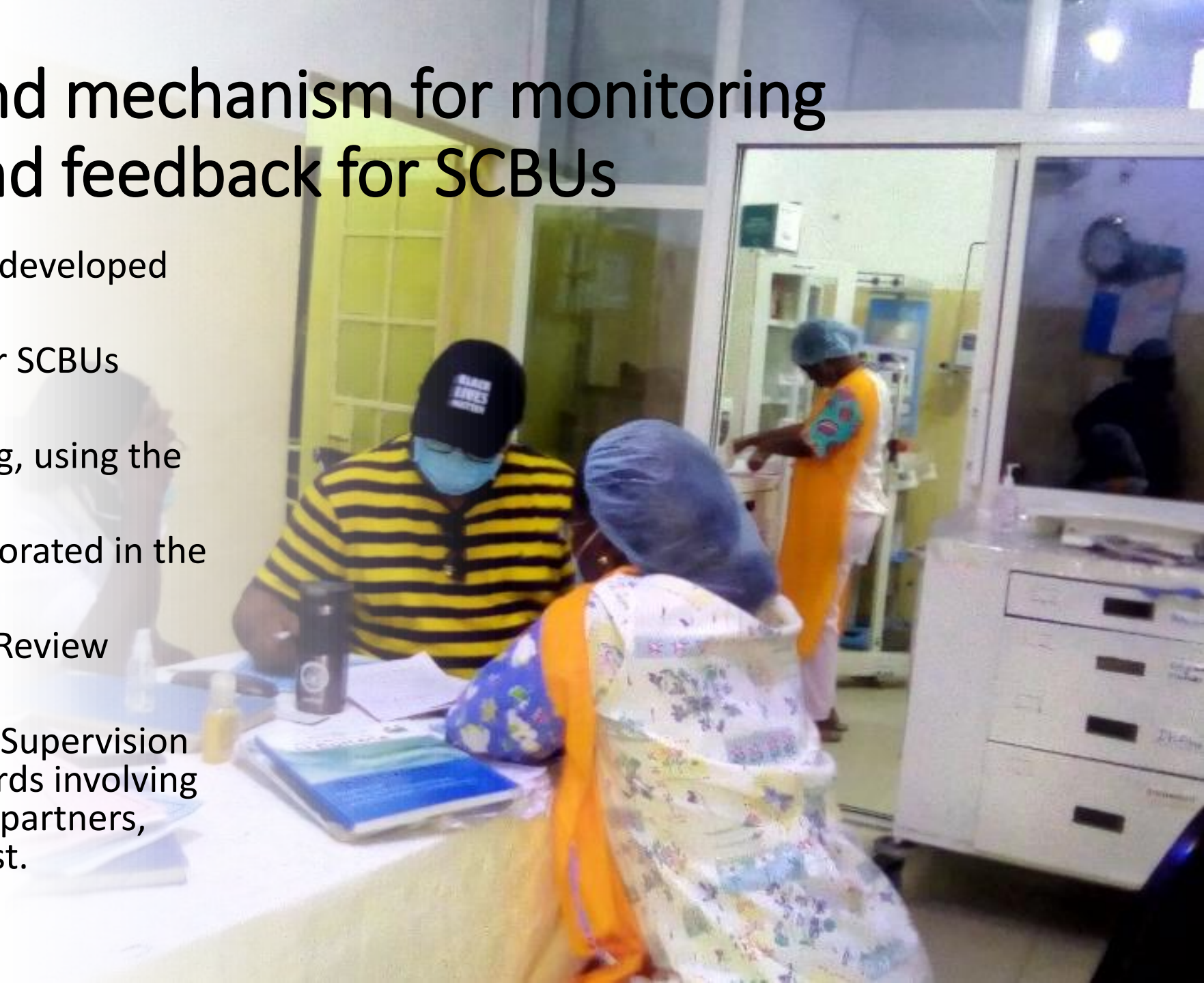
Preventive and Corrective maintenance system for the Equipment in the SCBUs

- TA from an International biomedical Engineer to establish Preventive and corrective maintenance system in the country.
- Developed and launched the 1) National Policy on Management and maintenance of medical Equipment, 2) Manual for Inspection and Preventive Maintenance (IPM) and basic troubleshooting of special care baby unit medical equipment, 3) Computerized inventory of all equipment and preventive maintenance plan.
- The biomedical technicians' capacity enhanced through periodic training on the preventive and corrective maintenance
- All SCBUs has established a system where the biomedical technician visits the unit daily/weekly to inspect all equipment and takes actions if required.
- Biomedical technicians are mobilized to different SCBUs for hands-on-training during the installation phase.



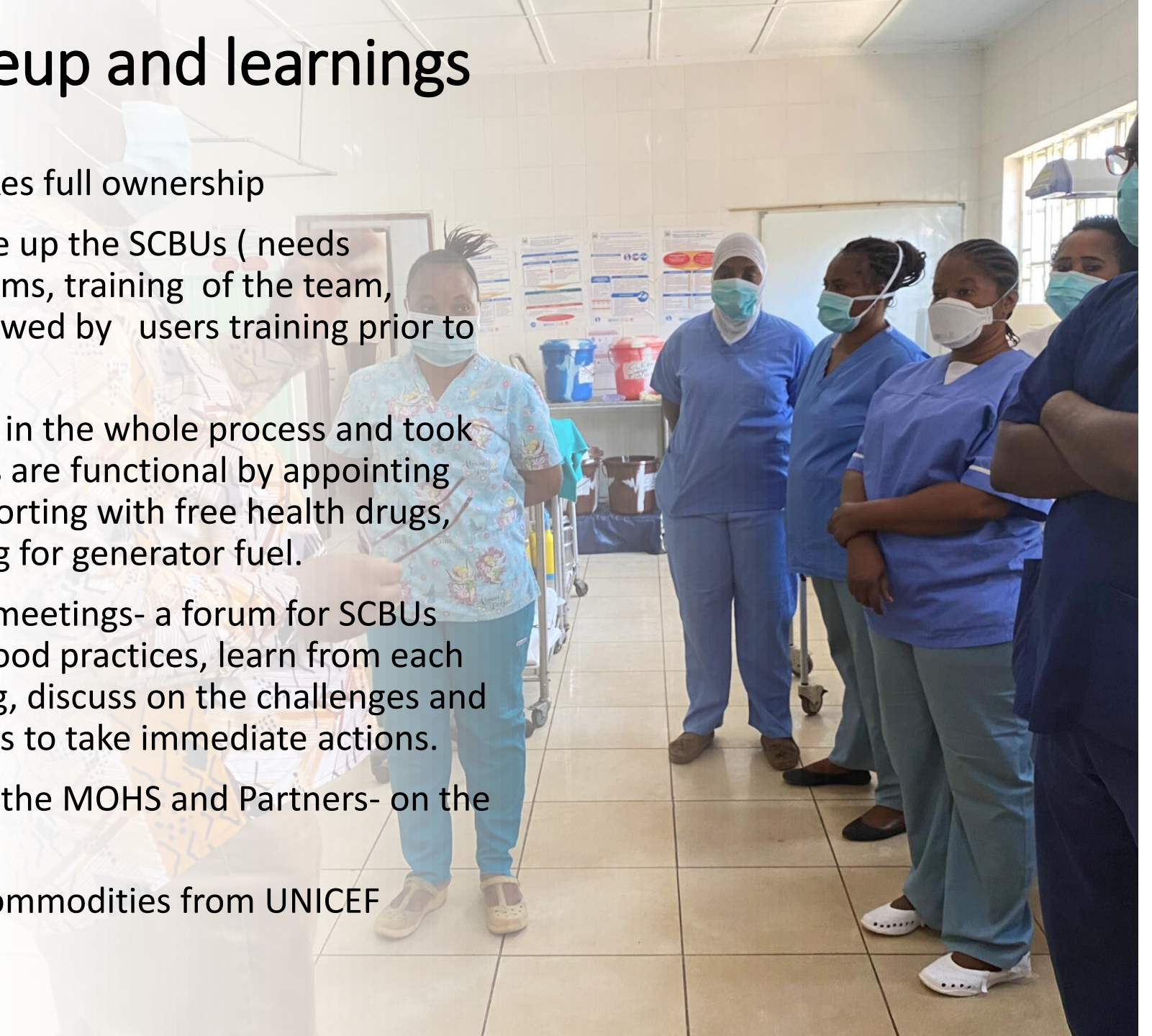
Data systems and mechanism for monitoring performance and feedback for SCBUs

- Special Register for SCBUs developed and in use
- Special in-patient forms for SCBUs developed and in use
- Monthly progress reporting, using the standard format
- Newborn indicators incorporated in the DHIS2
- Quarterly SCBU and PDSR Review meetings
- Joint Quarterly supportive Supervision of SCBU and Maternity wards involving senior MOHS Officials and partners, using standardized checklist.



Key Enablers for scaleup and learnings

- MOHS on the driver's seat and takes full ownership
- National standard package to scale up the SCBUs (needs assessment, renovation of the rooms, training of the team, installation of the equipment followed by users training prior to initiating the services).
- The hospital team is fully involved in the whole process and took responsibility to ensure the SCBUs are functional by appointing adequate number of nurses, supporting with free health drugs, supportive supervision, supporting for generator fuel.
- Quarterly SCBU and PDSR review meetings- a forum for SCBUs team to present and share their good practices, learn from each other, strengthen their networking, discuss on the challenges and way forward. A forum which allows to take immediate actions.
- Joint Supportive supervision from the MOHS and Partners- on the spot corrective feedback
- Continuous supply of drugs and commodities from UNICEF



Challenges

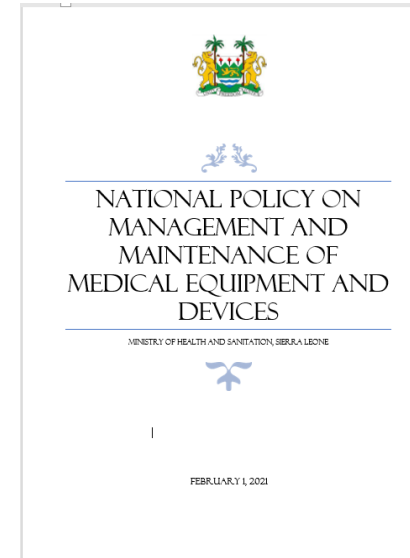
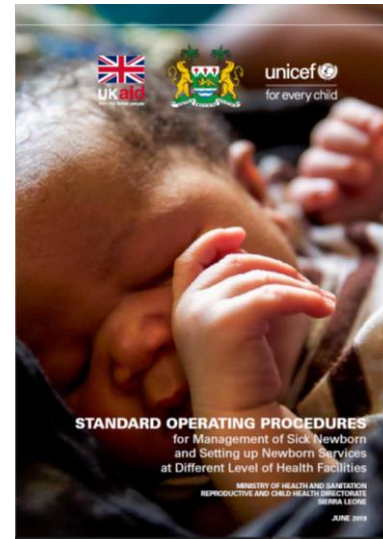
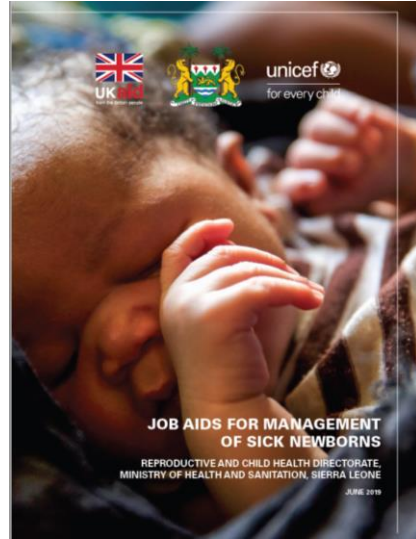
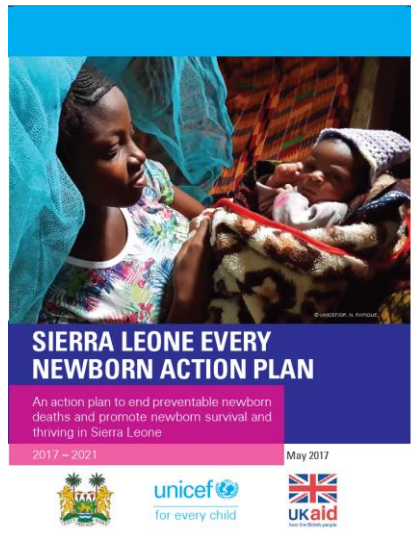
- Making availability of 24 hours electricity
- Availability of Specialized Human resources (Pediatricians, MOs, Nurses, Biomedical engineers)
- Proper maintenance of the equipment at the SCBUs
- Sustainability of the SCBUs as it is very resources intensive, including uninterrupted supply of drugs and commodities



Way Forward

- Improve the attitude of the service providers through the blended approach of Appreciative Inquiry with technical sessions
- Emphasis on the quality of care in the SCBUs using Plan-Do-Study-Act (PDSA) approach
- Strengthen client centered care
- Improve the Maternal Health care especially during the labour and delivery phase for better outcome for mother and baby
- Strengthen and establish PDSR system in the Hospital
- Establish electronic recording and reporting system in the SCBUs
- Strengthen the Preventive and corrective maintenance system
- Strengthen supply chain system for SCBU and hospital in general
- Enhance continuum of care by linking SCBU and maternal and newborn care at PHUs

Resources



- Sierra Leone Every Newborn Action Plan
- National Standard Operation Procedures for management of small and sick newborn in the SCBU
- Job Aids for management of small and sick newborn in the SCBU
- Post Basic Neonatal Nursing Training package (facilitator's manual, participant's handbook, logbook)
- PDSR training manuals (facilitator's manual, participant's handbook,)
- PDSR's reporting forms.
- National Policy on Management and maintenance of medical Equipment.
- Manual for Inspection and Preventive Maintenance (IPM) and basic troubleshooting of special care baby unit medical equipment.
- Computerized inventory of all equipment and preventive maintenance plan

A newborn baby is lying in a clear plastic hospital bed, wrapped in a patterned blanket. The baby is surrounded by various medical devices, including a monitor displaying vital signs, a 'BABYLIFE' device, and an IV stand with a drip chamber. The scene is set in a hospital room with blue walls and a window in the background.

THANK YOU



GLOBAL CONSULTATION ON MODEL OF CARE FOR SMALL AND SICK NEWBORNS

Date; 1st Dec 2021



No	Outline of the presentation
1.	Background/ country context
2.	Organization of Maternal Newborn Health care at different levels
2.	<p>Current situation of Facility based newborn care in the country</p> <ul style="list-style-type: none"> • Percent of newborn admissions who died for the period 2020 & 2021 • CPAP Availability and staff Knowledge
3.	<p>Unpacking the critical components of small and sick newborn care</p> <ul style="list-style-type: none"> • Policy formulation, planning and budgeting of Facility based newborn care • Planning for infrastructure for newborn care • Procurement, deployment & maintenance of equipment • Human resource needs for small and sick newborn • Data systems and mechanisms for monitoring performance and feedback • Functional referral systems • Mechanisms for post discharge follow up and care • Incorporated family centered care as part of small and sick newborn care • Efforts to promote effective communication & meaningful participation
4.	Key Enablers for scaleup and learnings
5.	Key challenges and priority actions moving forward
6	Sharing of resources developed by country for global learning and repository
7	Acknowledgement

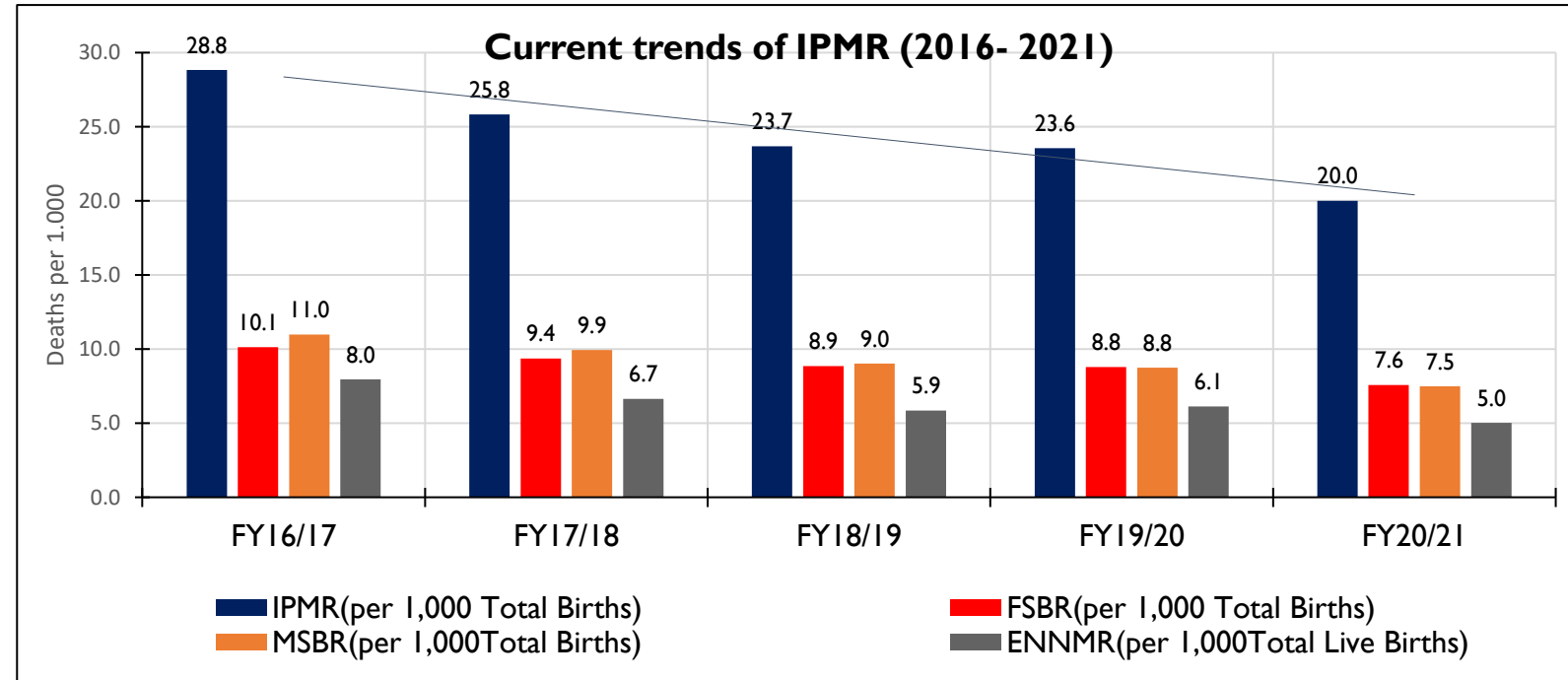
Background and Country context

Population Estimates

- Total population = 43,065,701 (2021)
- Expected Live births= 2,079,966
- Number of districts = 146

FY20/21 Perinatal Mortality Summary

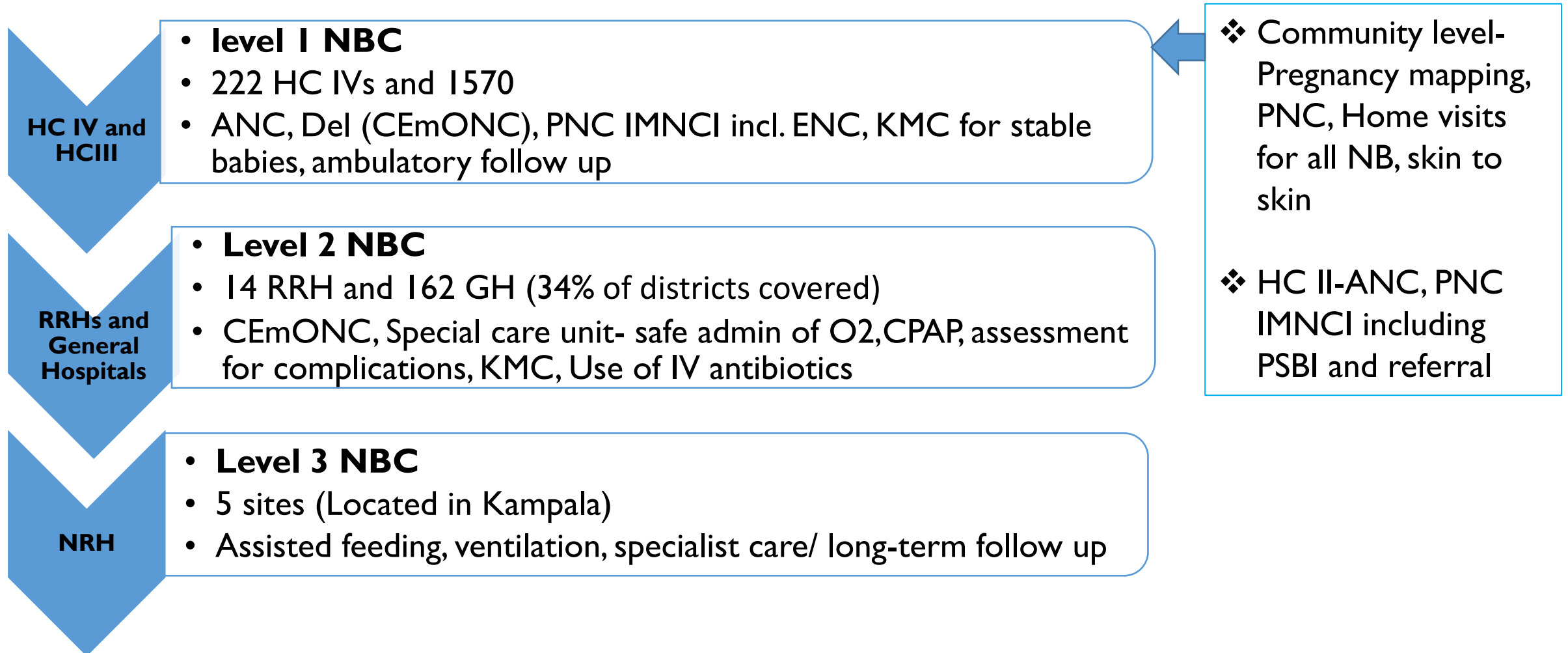
- Institutional Deliveries Increased by 28.9% since FY16/17
- Perinatal Deaths reduced by 10.5% (FY16/17=29788; FY20/21=26650)
- IPMR = 20.0 a reduction of 30% from FY16/17
- FBSR = 7.6 (25%↓), MSBR = 7.5 (32%↓) & ENNMR = 5.0 (38%↓)
- Number of ENND reduced by 17.5%. (FY16/17=7,972 FY20/21=6,566)



Institutional Deliveries and Perinatal Deaths by Financial Year

Financial Year	Deliveries in unit	Live births	FSB	MSB	ENND
FY16/17	1,033,117	999,918	10,467	11,349	7,972
FY17/18	1,085,169	1,060,845	10,179	10,785	7,061
FY18/19	1,180,404	1,164,627	10,452	10,661	6,836
FY19/20	1,186,501	1,162,860	10,443	10,383	7,136
FY20/21	1,331,388	1,308,050	10,097	99,87	6,566
5Year Total	5,816,579	5,696,300	51,638	53,165	35,571

Organization of Maternal Newborn Health care at different levels



Percent of newborn admissions who died for the period 2020 & 2021

Neonatal Condition	2020			2021		
	Cases	Deaths	CFR	Cases	Deaths	CFR
Neonatal Jaundice	3247	91	2.8%	28,48	137	4.8%
Neonatal Meningitis	588	35	6.0%	447	44	9.8%
Neonatal Pneumonia	2,384	154	6.5%	23,43	166	7.1%
Neonatal Sepsis 0-7days	16,200	708	4.4%	14,943	674	4.5%
Neonatal Sepsis 8-28days	5,127	145	2.8%	5,351	178	3.3%
Other Neonatal Conditions	23,491	2,278	9.7%	20,474	2,057	10.0%
Premature baby - as condition that requires mgt	14,339	1,479	10.3%	13,054	1,231	9.4%
Total	65,376	4,890	7.5%	59,460	4,487	7.5%

Birth asphyxia reported **38,869** cases in 2020 and **35,689** in 2021. No reported deaths in the National HMIS

Number of beds available for SSNB care have not been assessed; to be prioritized in the next assessment

CPAP Availability and staff Knowledge at 12 RRHs

Hospital	Available	No. functional	staff No	No. trained
Gulu	0	0	10	0
Masaka	7	5	9	5
Naguru	0	0	9	9
Mbale	9	9	10	10
Mubende	1	0	7	0
Jinja	1	1	9	8
Hoima	0	0	13	0
Kabarole	0	0	0	0
Lira	3	2	5	3
Soroti	0	0	4	0
Moroto	0	0	0	0
Arua	7	7	9	5
Total	28	24	75	40

50% of the assessed RRHs have CPAP services available; majority are improvised

Policy formulation, planning and budgeting of Facility based newborn care

Item	Comments
National plan for scale up of facility NBC	<ul style="list-style-type: none">- NB implementation framework- RMNCAH sharpened plan and investment case (under going revisions)- ICCM investment case 2021-2025 (included home visits)
Budgeting for the different components of SSNB	<ul style="list-style-type: none">- Home visits for NB integrated and costed in iCCM investment case. Budgeting ongoing for NB special care and NICU in the sharpened plan
Standard Unit cost for establishing (Level 1 and 2 units)	<ul style="list-style-type: none">- Not established, needs to be developed
Maintenance and operational costs	<ul style="list-style-type: none">- Yes; regional structures with biomedical engineers in place.- Inadequate budget allocated to support their work
Mechanisms of fund flow from National to facility level	<ul style="list-style-type: none">- The budgeting is done at RRH or district level. Budgeting is not specific for newborn care; part of child health care.- PHC, RBF, Funds through partners

Planning for infrastructure for newborn care

Infrastructure considerations	Comments
Bed capacity at different levels, size of units	<ul style="list-style-type: none">• Bed space reserved for newborn care is not clearly defined
Floor plans (upgrading existing or creating a new structure) with adequate space for KMC and Family centered care	<ul style="list-style-type: none">• Existing infrastructural plans for HC II, III and IV are clearly defined by MOH but no specific component for newborn care• Draft revised designs for HC III and HCIV to include newborn care spaces for all new upgrades.
Critical services and service provisioning areas that are included in the design	<ul style="list-style-type: none">• Newborn resuscitation, KMC, Special NB units at HC IV
Ancillary services included	<ul style="list-style-type: none">• Wash, IPC, Triage and receiving area, Mother's ward, Breast feeding support and counselling room are readily available across all levels of care• Lab Support, Paed Surgery, Radiology and Follow up OPD are available at specified but not all levels of care
Newborn care linkage to Maternity	Yes

Procurement, deployment & maintenance of equipment

Item	Comments
Standardizing essential equipment list and specifications	<ul style="list-style-type: none">- Specifications developed and available for different levels of care. More work is needed for Level 3 care.
CPAP part of essential equipment list for level 2 care	<ul style="list-style-type: none">- Not part of standard equipment list
Current procurement mechanism	<ul style="list-style-type: none">- Centralized system and government led- Major procurements done
System of repair and maintenance	<ul style="list-style-type: none">- Available at regional level (RRH maintenance workshops) through bio medical engineers- Provision of minimal budget for maintenance cost in the PHC budget<ul style="list-style-type: none">- Inadequate funding & personnel to conduct outreach services to repair equipment at lower level H/Fs. Skills upgrade also required.
Inventory management and replenishment	<ul style="list-style-type: none">- Available at all levels (HFs are required to conduct annual inventory of equipment; this is assessed under RBF)

Human resource needs for small and sick newborn

Item	Comments
Staffing norms	- Available and have recently been revised.
HR wage bill	- Separate from other cost centers in national and district plans
Upgrading and redeployment of the existing staff	- There is a drive to increase numbers of specialized staff (Neonatal nurses, Neonatologists)
HR incentives	- Not in place
Training package	- Standardized training package for level I care; however not standardized for levels 2-3 - Need for updating preservice training curriculum
QOC for newborn	- Ongoing work to finalize the adaptation of the SSNB care
Mechanism for supportive supervision	- Draft National mentorship framework includes engagement of professional bodies and current RMNCAH mentorship program

Data systems and mechanisms for monitoring performance and feedback

- Paper based data capture and digital systems utilized report at H/F level
- Records assistants summarize and generate reports; supervised by biostatiticians
- Small and sick newborn indicators feed into the national HMIS
- Mechanism to review of data at unit, district and national level

Facility	District	National
MPDRS committee meetings		MPDRS TWG
QI committee meetings		QOC subcommittee meetings
Facility performance reviews meetings	District performance reviews meetings	Quarterly review meetings
H/F staff meetings	District health staff meetings	Departmental staff meetings
	QI collaboratives	QI collaboratives

Data systems and mechanisms for monitoring performance and feedback

Key indicators that are being tracked for monitoring performance

- Neonatal Mortality Rate – 27/1000 Live birth (UDHS 2016)
- Infant Mortality Rate -43/1000 Live births (UDHS 2016)
- Stillbirth rate (FSB and MSB) - ?
- Preterm birth rate -?
- Number of babies with birth asphyxia-?
- Number of babies not breathing spontaneously at birth who are successfully resuscitated -?
- Incidence of low birth weight among newborns- 10% (UDHS 2016)
- Percent of low birth babies initiated on Kangaroo Mother Care (KMC) -?
- Percentage of babies who were breastfed within one hour of delivery – 66% (UDHS 2016)
- Number of newborns who received postnatal care within two days of childbirth – 56% (UDHS 2016)

Functional referral system

- VHTs are trained to assess for danger signs and refer babies- transfer to facilities is done by individual care givers
- First referral level is from HC IIs to HC IIIs and above
- Care givers are advised to transfer babies in KMC position
- There is no established newborn referral transport systems for critically ill babies requiring advanced care; no designated ambulance for referral

Mechanisms for post discharge follow up and care

Item	Comments
Current policy for screening at discharge	Not available
Policy and structure of post discharge follow up	Available, specifies the number of visits to be done, components of follow up care including monitoring of growth VHTS; Day 1, 3 and 5
Mechanism for reminders to family and tracking follow-ups	Yes; through VHTS
Developmental follow up of high risk babies and Linkages with Early intervention	Follow up clinics exist at tertiary centers but not at lower levels

Incorporated family centered care as part of small and sick newborn care

Item	Comments
Policy on engagement of families in care of small and sick babies	Nurturing care framework in place
Is there a policy of zero separation of mothers and baby	Yes; Baby Friend Health Facility Initiative. Practices across the country
Provision of free food and stay for mother	Free food not provided
Nurturing care for every newborn and family engagement in practice	Despite present of a supporting frameworks; implementation is weak
Provision of psychosocial support to parents	Yes, counselors are available and are part of the discharge package
Support for bereavement and counselling	Yes
Financial protection mechanism being put in place for wage loss to families during stay of baby in the hospital.	No

Efforts to promote effective communication & meaningful participation

Items	Comments
<p>Carers of small and sick newborns and staff understand the importance of nurturing interaction with the newborn, recognize and respect the newborn's behavior and cues and include them in care decisions.</p>	<ul style="list-style-type: none">• This is included in the revised IMNCI and KMC training packages, and adapted QOC standards; need to strengthen roll out efforts across the country.
<p>All carers receive appropriate counselling and health education about the current illness of the newborn, transition to Kangaroo Mother Care follow-up, community care and continuous care, including early intervention and developmental follow-up.</p>	<ul style="list-style-type: none">• This is included in the revised IMNCI and KMC training packages; need to strengthen roll out efforts across the country.

Key Enablers for scaleup and learnings

- Strong leadership, partnerships and coordination at national and regional level
- Leveraged existing Community structures (VHTs) to support newborn care
- Government led innovative programs including RBF, Integrated clinical mentorship program etc
- Availability of policies, guidelines, protocols, frameworks and standards on different newborn care components
- Capacity building efforts for cadres to care for newborns (Bursaries provided to neonatal nurses and neonatologists under URMCHIP, rolled out various newborn packages across regions)

Key challenges and priority actions moving forward

Key challenges

- Inadequate human resource (numbers and capacity)
- Lack of defined specialized staffing requirements for newborn care
- Inadequate funding for the newborn component
- Inadequate mechanism to track the coverage of the comprehensive newborn care package by level of care
- Inadequate equipment and commodities
- Inadequate monitoring of quality of newborn care services
- Limited infrastructure for providing newborn care

Priority actions

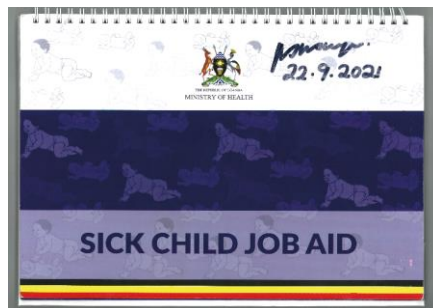
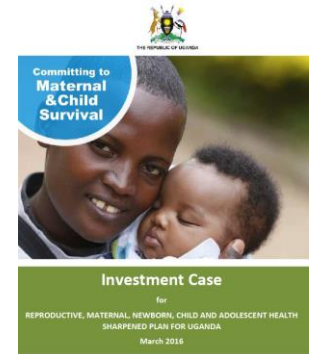
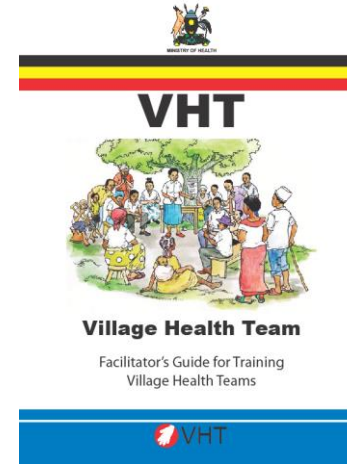
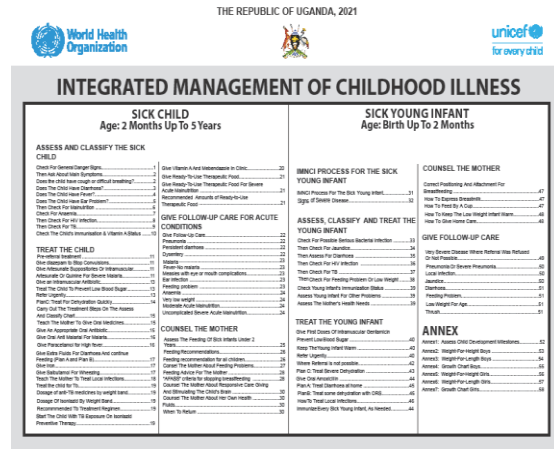
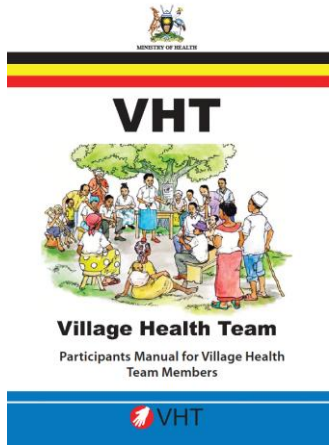
- Task shifting to address inadequate staffing numbers
- Strengthen in-service training to build capacity for NB care
- Define staffing norms for specialized cadres of staff at level 2 & 3
- Engage training institutions to build capacity of specialized cadres
- Leveraging partnerships and advocacy for prioritizing of funding allocation for newborn care
- Develop an M&E framework to track implementation of services for the newborn across the country
- Support annual inventory update to identify gaps and procurement
- Finalize adaptation of standards for SSNB; support roll out across the country
- Remodeling existing space and define the minimum infrastructural requirement for newborn care at level 3 units

Sharing of resources developed by country for global learning and repository

(Links to be updated)

- Nurturing care framework
- RMNCAH sharpened plan 2015- 2020
- Newborn care guidelines
- Revised IMNCI chart booklet
- IMNCI training package
- Revised ICCM Sick Young Job Aid
- Revised ICCM guidelines
- ICCM investment case
- BFHI

Sharing of resources developed by country for global learning and repository



Acknowledgment

- WHO
- UNICEF
- USAID
- NSAMBYA HOSPITAL
- PLAN INTERNATIONAL
- ADARA

THANK YOU





END OF DAY 1 THANK YOU



**ENDING PREVENTABLE
NEWBORN DEATHS and STILLBIRTHS**
by 2030

