

Meeting Report

SECOND BIENNIAL MEETING OF THE INDEPENDENT REVIEW GROUP ON VALIDATION OF EARLY ESSENTIAL NEWBORN CARE PROGRESS



27–29 June 2017
Manila, Philippines



Second Biennial Meeting of the Independent Review Group on Validation of Early Essential Newborn Care Progress
27–29 June 2017
Manila, Philippines

WPR/DNH/MCA(01)/2017

English only

Report Series Number: RS/2017/GE/29(PHL)

REPORT

**SECOND BIENNIAL MEETING OF THE INDEPENDENT REVIEW GROUP
ON VALIDATION OF EARLY ESSENTIAL NEWBORN CARE PROGRESS**

Convened by:

**WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR THE WESTERN PACIFIC**

Manila, Philippines
27–29 June 2017

Not for sale

Printed and distributed by:

World Health Organization
Regional Office for the Western Pacific
Manila, Philippines

September 2017

NOTE

The views expressed in this report are those of the participants in the meeting and do not necessarily reflect the policies of the World Health Organization.

This report has been prepared by the World Health Organization Regional Office in the Western Pacific for those who participated in the Second Biennial Meeting of the Independent Review Group on Validation of Early Essential Newborn Care Progress which was held in Manila, Philippines from 27 to 29 June 2017.

CONTENTS

SUMMARY	1
1. INTRODUCTION	4
1.1 Background	4
1.2 Objectives	4
1.3 Participants and resource persons	4
1.4 Meeting venue, agenda and opening remarks	5
2. PROCEEDINGS	5
2.1 Methods.....	5
2.2 Summary of findings: Review of country data	6
2.3 Summary of findings: Review of AIR methodology and EENC indicators	12
3. CONCLUSIONS AND RECOMMENDATIONS	20
3.1 Recommendations for Member States	22
3.2 Recommendations for WHO.....	22
ANNEXES.....	23
Annex 1. List of participants	
Annex 2. Provisional agenda	
Annex 3. Country reports: Validation of EENC data	

KEYWORDS:

Infant, Newborn / Infant care / Infant welfare / Child health services / Regional health planning

SUMMARY

Introduction

Since endorsement of the *Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020)* in 2013, eight Member States have prioritized introduction of Early Essential Newborn Care (EENC). In 2016, an independent review group (IRG) for EENC was established to review and validate regional and country progress with EENC implementation.

Objectives

The Second Biennial Meeting of the Independent Review Group on Validation of Early Essential Newborn Care Progress was held in Manila, Philippines from 27 to 29 June 2017. The objectives of the meeting were:

- 1) to validate data in the monitoring and evaluation framework on EENC submitted by countries for the period 2016–2017;
- 2) to prioritize and recommend additional indicators on intrapartum care and caesarean section for the monitoring and evaluation framework; and
- 3) to provide recommendations on improving data quality and information use in countries.

Conclusions

The principal conclusions of the meeting were the following:

- 1) All priority countries in the Region (Cambodia, China, Lao People's Democratic Republic, Mongolia, Papua New Guinea, Philippines, Solomon Islands and Viet Nam) have continued widespread scale-up of EENC and all countries have submitted data for review.
- 2) Data on scale-up readiness were available and validated for all countries. Five of eight countries have completed at least 70% of all benchmarks including: developing an EENC action plan, appointing an EENC focal point working in the health ministry, adapting clinical guidelines for EENC and conducting regular implementation reviews. Incorporation of EENC interventions into pre-service training curricula is ongoing in all countries.
- 3) Data on EENC health facility standards were available and validated from all countries. EENC coaching has begun in 9% of health facilities across the eight priority countries. Overall, 3360 facilities have introduced EENC (a 9% increase from 2016) and 30 251 eligible staff have been coached (a 9% increase from 2016). If China is excluded from the analysis, EENC coaching has been conducted in 28% of facilities. Across all countries, EENC hospital teams have been formed in 55% of hospitals, with 19% of hospitals conducting routine quality reviews.
- 4) Variable application of EENC clinical practices for term babies was seen across the Region, with key practices (proportion of babies receiving immediate skin-to-skin (STS) contact (75%), sustained STS contact until the first breastfeed (57%) and exclusive breastfeeding (85%)) showing high coverage and improvements from 2015. Just over a third of babies received uninterrupted STS contact for at least 90 minutes (36%).
- 5) Clinical practice measures for preterm deliveries show that preterm babies are less likely than term babies to receive immediate STS contact (56%), breastfeeding before separation (29%), uninterrupted STS contact for at least 90 minutes (17%) or exclusive breastfeeding (63%), putting these babies at increased risk of hypothermia, infection and death. Any kangaroo mother care

(KMC) was received by 28% of preterm babies reviewed, an increase of 21% from 2015. KMC had been practised for at least 18 of the previous 24 hours in only 18% of cases.

- 6) Application of appropriate care during labour in the Region varies. While 70% of pregnant women were encouraged to eat and drink during the active stage of labour, 51% were encouraged to assume a non-supine position and only 24% had a companion of choice. A partograph was completed correctly for 59% of all deliveries. Detailed assessments of management of complicated deliveries will be included in *Introducing and Sustaining EENC in Hospitals: Managing Childbirth and Postpartum Complications* (EENC Module 5), currently under development.
- 7) Overuse of caesarean section is a problem in many hospitals in the Region, with population-based caesarean section rates well above 10% in three out of eight countries and rates sometimes higher in subpopulations. EENC is performed in only around one in four caesarean section deliveries in the Region (27%).
- 8) Hospital impact measures are reported by seven countries, with most collected by routine information systems. However, as in 2015, only a small fraction of all hospitals in countries are reporting data – and required extensive external support. Data from most countries show numerous gaps and inconsistencies (lack of clear definitions of live births and neonatal deaths, recording of outcomes for newborns transferred or discharged early, and case definitions of asphyxia and sepsis) that need to be addressed to improve the quality of data. Stillbirths should be added to hospital impact measures.
- 9) Data on population coverage and impact measures for newborn health were available and validated for all countries. Indicators of immediate newborn care (STS and immediate drying) have been included in national and subnational population-based surveys in only one country. No country has completed a new population-based survey since 2015.
- 10) Most indicators in the EENC Monitoring and Evaluation Framework are accurate, precise, measurable and programmatically relevant for EENC. Some changes are proposed in EENC facility standard indicators to make them easier to collect and interpret. New indicators on routine practices during delivery and on caesarean section deliveries have been proposed since problems in these areas are common in countries across the Region. Most countries have not yet set targets for many key indicators.
- 11) The *EENC Annual Implementation Review and Planning Guide* (EENC Module 1) is an essential tool for collecting data on quality of care and systems required to support high-quality services. Some edits to the methodology were added to improve the quality of data collected. It was agreed that the implementation review can be conducted annually or biennially depending on programme needs.
- 12) *Improving Kangaroo Mother Care for Preterm and Low Birth Weight Babies* (EENC Module 4), an approach for coaching staff to introduce KMC is an important priority in all countries in the Region.
- 13) Regional support for EENC is acknowledged, with many activities in the Regional Action Plan initiated or completed. Definitions and programmatic relevance of some indicators for tracking progress with EENC in the Region need to be further refined.
- 14) The process of validating EENC monitoring and evaluation data continues to be essential for tracking progress and supporting implementation.

Recommendations

The principal recommendations of the meeting were as follows.

Member States may consider the following:

- 1) update EENC monitoring and evaluation data based on IRG recommendations in preparation for the Second Biennial Meeting on Accelerating Progress in Early Essential Newborn Care to be held from 14 to 17 August 2017 in Da Nang, Viet Nam;
- 2) present final country data at the Member State Meeting in August 2017, and use country data to plan priorities for further scale-up and financing;
- 3) conduct reviews of routine health management information systems to identify gaps in hospital reporting of maternal and newborn indicators and take action to address gaps and improve routine hospital reporting systems;
- 4) continue to conduct at least biennial EENC implementation reviews using the revised and updated indicators for planning and tracking progress (EENC Module 1);
- 5) scale up KMC in national, regional and provincial hospitals using the revised and updated KMC data collection and coaching approach for monitoring practice when it has been finalized (EENC Module 4); and
- 6) review national and hospital policies on evidence-based criteria for caesarean sections and take action to eliminate unnecessary procedures and to ensure that EENC is conducted for all routine caesarean sections.

WHO is requested to do the following:

- 1) send country reports of the validation to national focal points and country offices, to clarify data gaps and inconsistencies;
- 2) revise, remove and update indicators in the Regional EENC Monitoring and Evaluation Framework, and the Regional Action Plan, as proposed by the IRG;
- 3) revise *EENC Annual Implementation Review and Planning* (EENC Module 1) as proposed by the IRG and finalize for publication. Ensure that *Kangaroo Mother Care for Preterm and Low Birth Weight Infants* (EENC Module 4) is reviewed by the IRG as soon as possible, and further develop *Managing Childbirth and Postpartum Complications* (EENC Module 5) for review and discussion at the next biennial IRG meeting;
- 4) continue to support Member States to institutionalize monitoring and evaluation for EENC, including: ensuring that Demographic and Health Surveys and Multiple Indicator Cluster Surveys include measures of immediate newborn care practices; supporting routine annual/biennial implementation reviews for EENC and use of data for monitoring and planning; supporting introduction of KMC using the KMC data collection and review approach; and conducting reviews of hospital data systems and supporting actions to improve collection, analysis and use of data;
- 5) continue to conduct EENC data validations followed by Member State meetings biennially; and
- 6) finalize and widely disseminate findings of the Second Biennial Meeting of the IRG and the Second Biennial Meeting on Accelerating Progress in Early Essential Newborn Care as technical reports and peer-reviewed journal articles to document progress, and encourage wider adoption of the approach.

1. INTRODUCTION

A newborn infant dies every two minutes in the Western Pacific Region. Some 230 000 newborns die each year, representing more than half of all deaths in children under 5 years of age. Newborn deaths are concentrated in the first three days of life and are often preventable. Simple, low-cost practices that can save newborn lives are not reaching the babies that need them.

In response to the challenge of continued high rates of newborn mortality, the WHO Regional Office for the Western Pacific led the development of the *Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020)*.^{1,2} The Regional Action Plan outlines an approach to improve the quality, reach and demand for key childbirth and newborn care services through implementing and scaling up Early Essential Newborn Care (EENC). EENC is a package of simple and low-cost interventions, demonstrated to be effective in preventing newborn deaths from the most common causes. In addition, EENC promotes the cessation of outdated, harmful or ineffective practices that are still widespread. At the 64th session of the Regional Committee for the Western Pacific in October 2013, Member States noted the Regional Action Plan and recognized the need to take steps to change current practices to save newborn lives and prevent illness.³

1.1 Background

Since 2013, eight priority countries – with the highest rates of newborn mortality (Cambodia, China Lao People’s Democratic Republic, Mongolia, Papua New Guinea, Philippines, Solomon Islands and Viet Nam) and the highest number of newborn deaths (China) – have implemented the Regional Action Plan. In August 2015, four technical experts representing the fields of midwifery, obstetrics and gynaecology, neonatology and paediatrics convened to review and validate country data on implementation of the Regional Action Plan. In 2016, the Independent Review Group (IRG) for EENC was formally established comprising six technical experts. This meeting represented the second review of country EENC implementation data since 2015, to validate the quality of these data and to identify how to improve indicators, data collection and information use.

1.2 Objectives

The objectives of the meeting were to:

- 1) validate data in the monitoring and evaluation framework on EENC submitted by countries for the period 2016–2017;
- 2) prioritize and recommend additional indicators on antenatal care and caesarean section for the monitoring and evaluation framework; and
- 3) provide recommendations on improving data quality and information use in countries.

1.3 Participants and resource persons

Six independent experts from China, Japan, the Philippines, the United Kingdom of Great Britain and Northern Ireland, the United States of America and Viet Nam, representing the fields of midwifery, obstetrics and gynaecology, neonatology and paediatrics formed the IRG, responsible for validating

¹ Consultation on the draft regional action plan for healthy newborns in the Western Pacific 2014–2018. Manila, Philippines, 18–20 March 2013 and 15 April 2013. Manila: WHO Regional Office of the Western Pacific; 2013.

² Action plan for healthy newborn infants in the Western Pacific Region (2014–2020). Manila: WHO Regional Office for the Western Pacific; 2014.

³ Early Essential Newborn Care: Clinical practice pocket guide. Manila: WHO Regional Office for the Western Pacific; 2014.

country data. Resource persons included a maternal and child health consultant to WHO and two technical officers from the Reproductive, Maternal, Newborn, Child and Adolescent Health, Division of NCD and Health through the Life-Course at the Regional Office (see Annex 1 for a list of participants).

1.4 Meeting venue, agenda and opening remarks

The meeting was held on 27–29 June 2017 in Manila, Philippines. The meeting agenda is provided in Annex 2.

Dr Howard Sobel, Coordinator of the Reproductive, Maternal, Newborn, Child and Adolescent Health Unit at the Regional Office, welcomed the participants. In his opening presentation, he highlighted the ground-breaking role of the independent validation of EENC progress for maternal and child health programmes. Regular validation of country data is essential to tracking progress and ensuring that data and methods used are valid and reliable. He described the progress that has been made since 2015, including the introduction of EENC at six hospitals in China; publication of the *First Biennial Progress Report Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020)* in 2016; introduction in additional countries and areas beyond the eight priority countries in the WHO Western Pacific Region, including Japan, Kiribati, Vanuatu, Bhutan, Gaza and Tanzania; development of *Kangaroo Mother Care for Preterm and Low Birth Weight Infants* (EENC Module 4) and testing in Viet Nam, Cambodia, the Philippines, Mongolia and China; completion of hospital data assessments in Cambodia and Mongolia; continued development of *Management of Complications of Childbirth* (EENC Module 5); and the potential role for EENC to serve as a platform for triple elimination of syphilis, HIV and hepatitis B.

Following participant introductions, Dr Maria Asuncion Silvestre, neonatologist and public health specialist, was elected to chair the meeting.

2. PROCEEDINGS

2.1 Methods

The meeting was conducted as small-group reviews of country data and EENC indicators.

Reviews of country data

In advance of the meeting, countries independently completed the EENC Monitoring and Evaluation Framework tables. The Framework tracks key inputs, outputs, outcomes and impact measures in five data tables: scale-up readiness benchmarks, health facility standards, hospital impact, population coverage indicators and impact indicators. In addition, each country was asked to provide supporting documentation for all indicators.

For the review, indicators for each country were summarized in Excel spreadsheets, which allowed the reviewers to score each indicator according to whether data were available, the source of the data and whether data could be independently validated using available documentation. The IRG divided into pairs, with two pairs reviewing three countries each and one pair reviewing two countries and indicators to measure WHO support outlined in the Regional Action Plan. Reviewers did not review their own country data. For surveys, data provided in summary reports and tabulations were considered adequate for validation purposes; primary data review and re-calculation of indicators were not done. Pairs reviewed and discussed each indicator until consensus was reached on the current status of data availability and validation. Resource persons provided clarifications on country data and context, when necessary.

A summary of findings for each indicator domain was completed by the review team, along with a summary of main issues, problems or questions. All reviews were completed on the morning of the second day.

Review of EENC indicators and methods

On the afternoon of the second day and morning of the third day, the IRG, in plenary, reviewed indicators in the EENC Monitoring and Evaluation Framework and *Annual Implementation Review and Planning Guide* (EENC Module 1) and discussed improving methods for ensuring that maternal health measures – of appropriate and respectful delivery care and of use of criteria for procedures – could be incorporated in EENC tracking. Indicators were reviewed for accuracy, precision, measurability, timeliness and programme importance, and necessary modifications identified. The methodology of the EENC annual implementation review (AIR) tested in countries was reviewed to assess whether the method and tools were practical and programmatically relevant.

Conclusions and recommendations

At the end of the third day, final conclusions and recommendations were developed and reviewed by the group, and next steps were agreed. Reviewers provided final clarifications on pending issues related to country data in the week following the meeting to develop reports on the validation of EENC data for each country (see Annex 3).

2.2 Summary of findings: Review of country data

The status of EENC indicators are summarized in Table 1 and Annex 3 (country reports).

EENC scale-up readiness benchmarks

Ten benchmarks⁴ are used to track scale-up readiness for EENC. All eight priority countries provided data for at least nine benchmarks, with data available for 95% of benchmarks overall. Eighty-six per cent of available data were validated. Data were least often validated for the benchmarks “EENC stakeholder group formed” and “mechanisms established to ensure that professional associations are supporting implementation of EENC implementation” due to insufficient supporting documentation.

Main findings:

- Four of the eight countries have achieved seven or more benchmarks, with two achieving six, one five and one three benchmarks. Five of the eight countries have all completed a newborn health situation analysis, appointed a newborn health focal person in the Ministry of Health, adapted the EENC clinical pocket guide and conducted AIRs for EENC. The least achieved benchmarks remain “establishment of an EENC stakeholder group” (not achieved or partially achieved by five countries) and “incorporation of EENC interventions into pre-service curricula” (no data available from four countries and no updated data since 2015 for four countries).

⁴ (1) Newborn health situation analysis conducted in the previous 5 years, (2) EENC 5-Year Action Plan developed, costed, and adopted, (3) EENC Annual Implementation Review conducted annually, (4) detailed annual EENC Implementation Plan funded, (5) EENC technical working/coordination group meets regularly, (6) Full-time EENC/newborn health focal person appointed in Ministry of Health, (7) EENC stakeholder group meets regularly, (8) Clinical Intra-Partum and Newborn Care Protocol endorsed, (9) Mechanisms established to ensure professional associations are supporting EENC, and (10) Proportion of EENC interventions included in pre-service training curricula (medical, nursing, midwifery).

- Seven of the eight countries improved the status of benchmarks from 2015, with five countries showing improvements in 2–4 benchmarks, and two countries showing improvements in one benchmark. Only one country showed no improvement in any benchmark since 2015.
- Improvements in benchmark status were most significant for adaptation of the EENC clinical protocol (four countries) and professional associations’ support for EENC (three countries). A decline in benchmark status across the eight countries was noted for development of a funded 12-month EENC action plan, while establishment of an EENC stakeholder group and incorporation of EENC interventions into pre-service curricula showed no change from 2015.
- Four countries did not report any data on incorporation of EENC interventions into pre-service curricula and four did not report new data since 2015. In 2015, reporting countries showed that the proportion of EENC interventions incorporated into pre-service curricula ranged from 62% to 92% for medical curricula, 39–62% for nursing and 39–96% for midwifery. However, it is not clear whether further progress has been made in the last two years.

EENC facility standards

Twenty-three indicators are reported for EENC facility standards. Data were available for 65% of indicators across all countries (a doubling of availability from 2015), partially available for 30% and not available for 4%. A total of 92% of all indicators were validated. Data validation was not possible for a few indicators where supporting data were not provided, or were not adequate for validation.

Main findings:

- Nine per cent of health facilities have conducted EENC coaching, yielding a total of 3360 facilities across the eight priority countries. This is a 9% increase from 2016.⁵ If China is excluded from the analysis (the largest country in the Region which has begun EENC in only six early implementation hospitals), EENC coaching has reached 28% of health facilities in the other seven priority countries.
- Fifty-five per cent of hospitals had established an EENC hospital team, a dramatic increase from 22% in 2016.⁶ However, only 19% of established teams have met standards for conducting a quality improvement approach.⁷
- In Cambodia, Papua New Guinea, Solomon Islands and Viet Nam over 75% of national and regional hospitals have received coaching. More than 80% of first referral hospitals received coaching in Cambodia, Mongolia and Viet Nam, and more than 50% in Papua New Guinea and Solomon Islands. Most progress since 2016 has been made by Papua New Guinea and Solomon Islands, which increased the proportion of hospitals implementing EENC by 13% and 45%, respectively. The Lao People’s Democratic Republic showed greatest progress at the first referral level, with a 19% increase in hospitals at this level implementing EENC. Cambodia, Mongolia, the Philippines, Papua New Guinea and Solomon Islands have begun coaching at first-

⁵ National and regional-level facilities: offer services of first referral level plus advanced neonatal care including continuous positive airway pressure (CPAP); serve as teaching hospitals and provide support to lower-level facilities; first referral level facilities: offer services of first level plus management of preterm labour and common complications of prematurity (e.g., oxygen), complications of delivery including assisted delivery and caesarean sections; first-level facilities where deliveries take place: should have capacity for care of breathing and non-breathing babies.

⁶ Estimated from a random sample of EENC implementing hospitals across the eight countries, N = 153 in 2016 and N = 178 in 2017.

⁷ Quality improvement approach consists of: (1) regular and documented meetings of the EENC team, (2) at least two EENC assessments per year, and (3) developing and updating an EENC hospital action plan at least quarterly.

level facilities, but only Papua New Guinea and Solomon Islands have shown progress at this level since 2016 (Table 2).

- A low proportion of mothers have screening results recorded for syphilis (32%) or HIV (47%). Screening practices for syphilis were generally lower for babies born at subnational hospitals than for those at higher-level facilities.
- Partographs were completed correctly for only 59% of term deliveries, with the remainder incomplete or incorrectly completed.
- Sixty-nine per cent of women delivering term babies were given food and fluids during labour, 50% were offered mobility and a non-supine position during labour, and 24% had a companion of choice continuously during labour and in the delivery room.
- Episiotomy was done for 43% of term deliveries. Episiotomy is generally conducted at all levels and is more common at the national level. The range of episiotomy rates varied from 8% to 77% between countries.
- Oxytocin was given within one minute of birth to 79% of mothers Regionally, a relatively high proportion. However, 21% of mothers are not receiving oxytocin in the early post-delivery period, a gap that needs to be closed.
- Across the Region, a high proportion of term babies received skin-to-skin (STS) contact (87%) within one minute of birth (75%). Fifty-seven per cent had completed the first breastfeed before separation from the mother. More than a third remained in uninterrupted STS contact for at least 90 minutes (36%). Rates of early STS contact are high across all facility levels, with subnational facilities generally having higher rates. Of term babies, 95% received any breastfeeding, 62% were breastfed early, and 85% were exclusively breastfed, with 56% receiving both early and exclusive breastfeeding. Ten per cent of all term babies were bottle-fed. Other harmful or non-effective practices are now much less common, with 90% of all term babies receiving dry cord care and 74% receiving delayed bathing (more than 24 hours after birth).
- Preterm and low birthweight (LBW) babies do not receive the same care as term babies, with a lower proportion receiving any STS contact (67%) within one minute of birth (56%). Twenty-nine per cent received breastfeeding before separation from the mother and 17% remained in uninterrupted STS contact for at least 90 minutes. Of all preterm babies, 72% received any breastfeeding, 22% were breastfed early, 69% were exclusively breastfed, with 17% receiving both early and exclusive breastfeeding. Twenty-four per cent of all preterm babies were bottle-fed.
- Other key management steps for preterm deliveries also require improvement, with 61% of women 24–34 weeks of gestational age receiving corticosteroids and 35% of women less than 32 weeks of gestational age receiving magnesium sulfate.
- Kangaroo mother care (KMC) was reportedly practised for 35% of preterm babies, a significant improvement from 7% in 2016. Of those who received KMC, only 15% received KMC for at least 18 hours in the previous 24 hours.
- EENC was performed with caesarean section by 41 of 83 hospitals sampled (49%) with 99 of 380 (26%) of caesarean births receiving any STS contact. National caesarean section rates in the eight priority countries range from 6% to 34% or about 6.2 million births each year.⁸ If estimated rates

⁸ Estimate calculated by applying national caesarean section and facility delivery rates (sources: Country Demographic and Health Surveys and Multiple Indicator Cluster Surveys, 2006 – 2015, National Health Statistics Annual Report of China, 2016, Mongolia Health Indicators, 2015) to 2015 birth cohorts (The State of the World’s Children, UNICEF, 2016).

of STS contact with caesarean section are applied, around 4.6 million babies each year in the Region are not receiving the benefits of EENC.

Table 1. Summary of the availability of EENC indicator data and validation status by country, June 2017

	KHM	CHN	LAO	MNG	PHL	PNG	SLB	VNM	n/N
Scale-up readiness benchmarks (N=80)									
Data available	9	9	10	10	10	10	9	9	76/80 (95%)
Data partially available	0	0	0	0	0	0	0	0	0/80 (0%)
Data not available	1	1	0	0	0	0	1	1	4/80 (5%)
Validated	7	5	9	6	8	8	9	7	59/66 (89%)
Not validated	1	0	1	2	1	1	0	1	7/66 (11%)
EENC facility standards (N=184)									
Data available	23	23	22	3	3	2	22	22	120/184 (65%)
Data partially available	0	0	0	19	19	18	0	0	56/184 (31%)
Data not available	0	0	1	1	1	3	1	1	8/184 (4%)
Validated	23	22	22	22	20	19	18	22	168/176 (95%)
Not validated	0	1	0	0	2	1	4	0	8/176 (5%)
Hospital impact indicators (N=72)									
Proportion of implementing hospitals reporting	3/105	0/6	17/53	25/25	24/212	3/32	6/10	2/68	80/511 (16%)
Data available	9	0	6	9	9	9	9	0	51/72 (71%)
Data partially available	0	0	0	0	0	0	0	9	9/72 (12%)
Data not available	0	9	3	0	0	0	0	0	12/72 (17%)
Validated	9	0	6	9	9	8	9	9	59/60 (98%)
Not validated	0	0	0	0	0	1	0	0	1/60 (2%)
Summary of EENC Review Table 4: coverage indicators for EENC (N=169)									
Data available	10	7	9	9	11	3	10	11	70/104 (67%)
Data not available	3	6	4	4	2	10	3	2	34/104 (33%)
Validated	10	7	9	9	11	0	10	8	64/70 (91%)
Not validated	0	0	0	0	0	3	0	3	6/70 (9%)
Summary of EENC Review Table 5: impact indicators for EENC (N=40)									
Data available	5	5	4	3	5	3	5	4	34/40 (85%)
Data partially available	0	0	0	1	0	0	0	0	1/40 (2%)
Data not available	0	0	1	1	0	2	0	1	5/40 (13%)
Validated	5	3	4	4	5	3	5	4	33/35 (94%)
Not validated	0	2	0	0	0	0	0	0	1/35 (6%)

KHM = Cambodia, CHN = China, MNG = Mongolia, PHL = Philippines, SLB = Solomon Islands, VNM = Viet Nam

Table 2. Health facilities that have begun coaching and total number of staff coached by country, June 2017

System level	KHM	CHN	LAO	MNG	PNG	PHL	SLB	VNM	Total N
Proportion of health facilities providing delivery services that have begun EENC coaching									
National/Regional	5/6	3/ 1 954 ^a	4/7	4/7	1/1	39/ 110	1/1	10/13	67
First-level referral	99/ 102	3/ 6 850 ^a	49/154	21/21	18/31	175/ 1777	6/9	677/ 771	1 048
Primary health facilities	1 035/ 1 164	0/ 7 009 ^a	0/853	23/ 113	173/ 717	38/ 2 617	138/ 292	ND/ 7 000	1 407
Proportion of staff coached in health facilities that have introduced EENC									
National	254/ ND	692/ 848	194/ 280	258/ 347	135/ 192	890/ 2 133 ^b	122/ 122 ^c	1 187/ 2 125	3 736
First-level referral	877/ 1 099	289/ 319	374/ 489	502/ 600	579/ ND	786/ 1 801 ^b	100/ 242	7 426/ 14 229	10 933
Primary health facilities	2 926/ 4 248	0	0	140/ 546	ND	ND	186/ 346	ND	3 252

^a There are a total of 25 860 health facilities in China, all of which may not provide delivery services. Denominator for first-level referral facilities may include regional facilities; 10 045 facilities in China do not have a classification for level.

^b A total of 14 006 health workers have been coached in the Philippines; however, a breakdown of coaching data by health facility is not available from all facilities. Data shown here by level are only for selected facilities.

^c Staff coached likely to be less than 100% due to staff turnover.

Hospital impact indicators

Nine indicators are reported on hospital impact. As in 2015, reporting of hospital data by implementing hospitals remains limited. Of hospitals that have introduced EENC, only 16% (n = 80) reported hospital impact data. Complete data were available for 71% of indicators and partial data for 12%. Frequently, data were not disaggregated by gestational age or birthweight. Partial reporting also occurred because not all hospital levels reported, with lower-level hospitals less likely to report. Ninety-eight per cent of hospital impact indicators for which data were available, or partially available, were validated.

Main findings:

- Large-scale collection of hospital data has not been possible in any country except Mongolia, which has integrated hospital impact data into the routine maternal and child health (MCH) surveillance system that collects data every two weeks from all facilities using an electronic database.
- In the Lao People's Democratic Republic, data have been collected from 4 national and 13 provincial hospitals, but require manual data collection from registers by designated staff and external support from the national level.
- Hospital health management information system (HMIS) reviews in Cambodia and Mongolia have proved useful for identifying data problems, reasons for these problems and developing solutions.

Population coverage indicators for EENC

Thirteen indicators are reported to track population-based coverage. All eight countries reported on the coverage indicators, with data available for 67% of indicators. Ninety-one per cent of available data were

validated. Coverage data were least often available from countries that have not conducted large-sample population-based surveys regularly. Indicators most frequently reported were skilled birth attendance, facility delivery rates and caesarean section rates, and mothers receiving postnatal care within two days of birth. Indicators least frequently reported were immediate and postnatal newborn care practices.

Main findings:

- Population-based surveys (such as Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS)) often do not include key EENC indicators, especially those on immediate newborn care practices, for which tested survey instruments are available. This will require programme managers and planners to be actively involved in the questionnaire development process.
- Population coverage data show very high caesarean section rates in three priority countries, particularly in urban areas. While data are not available on the proportion of unnecessary caesarean sections in countries with high rates, caesarean section rates higher than 10% are not associated with reductions in maternal and newborn mortality.
- National coverage rates mask important inequities by wealth and education status, urban/rural residence and other factors that remain common in most countries.

Impact indicators for EENC

Five indicators tracking newborn health impact were reported by all eight countries. New data on preterm birth rates using modelled estimates were added where data had not been available in 2015.⁹ China, Mongolia and Viet Nam updated impact data using routine health information statistics and Solomon Islands did so using DHS data. Sources of impact data included United Nations Inter-agency Group for Child Mortality Estimation (IGME) (for neonatal mortality estimates and causes of death), population-based surveys, and routine surveillance data in countries with relatively high system coverage and reporting (China and Mongolia). Eighty-five per cent of impact indicators for newborn health were reported by countries. Data were most frequently unavailable for perinatal mortality. Ninety-four per cent of available data were validated.

Main findings:

- Preterm birth rates should be included in population-based surveys or routine data systems, given the important contribution preterm deliveries make to neonatal mortality.
- Consider including stillbirth rates in routine hospital tracking – because of the overlap between antenatal care practices required to prevent both stillbirths and newborn deaths; and the common classification overlap between these two categories which may produce variation in rates.
- Countries should prioritize improving the collection of newborn data using routine HMIS. Current challenges with routine information systems include under-registration and under-reporting of live births and neonatal deaths (number and causes), no routine reporting of neonatal deaths separate from child deaths and non-application of globally recommended standard case definitions for many indicators. HMIS data are currently used for tracking newborn health impact data in two countries (China and Mongolia), although the accuracy and precision of these data have not been validated.

⁹ Blencowe H, Cousens S, Oestergaard MZ et al. National, regional, and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. *Lancet*. 2012;379:2162–72.

2.3 Summary of findings: Review of AIR methodology and EENC indicators

2.3.1 AIR review

The IRG responded to several questions about the EENC AIR method that have arisen in field tests. Final comments on questions are summarized in Table 3.

The IRG recommended that for facilities with low case numbers, all feasible methods for conducting maternal interviews should be considered – provided the recall period is not too long (preferably no more than 7–10 days). They suggested that weighting of AIR data when reporting summary measures is required, but that it adds complexity, and that reporting data separately by facility level may be preferable. This decision should be made by countries individually.

The current method of determining whether the partograph was completed correctly was believed to be adequate. The IRG confirmed that all sinks in all rooms should meet the criteria for appropriate handwashing, regardless of whether multiple sinks were present. The group advised to apply the standard that rooms should have at least one sink available – while recognizing that in very large rooms this may not be ideal. The IRG also suggested reviewing current standards for bed/sink ratios and considering allowing countries to adopt this standard locally if desired. It was agreed that rooms should have both adequate handwashing facilities and alcohol hand gel available.

Table 3. Questions and responses on EENC AIR method, IRG review, June 2017

Issue	Summary	Decision
General methodology: sampling mothers and babies at lower-level facilities	<p>The AIR methodology involves assessing a sample of facilities that have introduced EENC – at the national and regional, first-level referral, and first care levels (where applicable). The assessment is carried out in each facility over a period of a 0.5–1 days. Interviews/chart reviews are conducted with 10 mothers of term babies and 10 mothers of preterm/LBW babies. In lower-level facilities, few postpartum mothers are available for interviews. In these cases, what strategy should be used to increase the sample size?</p> <ol style="list-style-type: none"> 1) Expand criteria for exit interviews to include mothers coming for postnatal visits who have delivered in the last few months? 2) Conduct phone interviews of mothers who have delivered recently but been discharged. This is possible in many places now since phone numbers are routinely collected. Has been used at the national level in China for contacting mothers of preterm/LBW babies who were admitted to the neonatal intensive care unit (NICU); and at lower levels in both China and Cambodia. 3) Home visits using address details in the postnatal register. This has been done at health centres in Cambodia successfully. 	<p>Provide options 2 and 3. Also calling/visiting is an opportunity for contact (has other benefits). Remove the strict 10-case requirement at the lower level because of logistical difficulties.</p> <p>Do not include mothers who delivered months previously because of recall problems. Try to limit to 7–10-day period.</p>

Issue	Summary	Decision
Page 26 – Instructions on weighting data	If data are to be aggregated for all levels of facility combined they need to be weighted. The guide weights by number of deliveries seen by each level (to account for the fact that in most cases higher-level facilities see a much higher proportion of all deliveries than lower-level facilities). 1) Does this method make sense? 2) Are the instructions correct and clear?	Follow country lead. If there is no need to aggregate, keep data disaggregated by level. If summary statistics are required, then weighting must be done, but technical expertise needed to do this.
Page 14 – Checklist 2.1 Criteria for defining: correct partograph use	Chart review of term babies 1) Question 4. Was a partograph completed correctly. What should a footnote say on how to assess correct completion? If a woman delivers quickly after arrival the response will be “no” – how should this be handled (is it adequate to note this in “reasons”?)	Leave as is with clear explanatory note for surveyors.
Checklist 3c: Environmental hygiene What should be the standard applied for hand hygiene facilities?	Checklist 3c reviews environmental hygiene in maternity wards and the neonatal nursery. There are currently no water, sanitation and hygiene (WASH) standards for maternity and paediatric wards in health facilities. The current defining of “adequate handwashing facilities” is the room having at least one sink for handwashing, and all sinks (one or more) in the room having running water, soap AND single use towels available. Feedback in-country has been that this standard unfairly makes it easier for rooms with one sink to meet the standard. What should be the standard we set for hand hygiene: (a) Rooms have adequate handwashing facilities AND alcohol gel/hand rub available? OR (b) Rooms have adequate handwashing facilities OR alcohol gel/hand rub available?	The further away the one sink is and the more patients, the less likely for handwashing to be completed. It is difficult to measure appropriate sink/bed ratio. It is agreed that all sinks should meet all criteria – water, soap, towels and cleanliness. Add that drying can use single-use towels, automatic dryers or reusable sterile towels. Reference Quality of Care Standards, 2016 (also includes ratios for sinks/beds). Consider adding labour rooms for hygiene assessment. Use AND because both are required for different purposes (complete handwash versus sterilization between cases) but make a footnote for exceptions.

2.3.2 EENC indicators

EENC scale-up readiness benchmarks

The IRG recommended that the EENC AIR be conducted annually or biennially depending on country progress – the benchmark was modified accordingly. It noted that data on incorporation of EENC interventions in pre-service training curricula was either not available or had not been updated since 2015. This remains an important priority for ensuring sustainability of EENC practices, and EENC curriculum reviews should be a priority in all countries.

EENC health facility standards

Several revisions to EENC health facility standards were proposed to make indicators easier to measure and interpret (Table 4). Indicators on immediate STS contact were disaggregated to allow progress to be

better followed and Regional targets proposed based on expected proportions of babies that would require early separation because of instability or a maternal complication.

The review confirmed that the preferred frequency of breastfeeding is eight times per 24-hour period and that babies aged 32 weeks or greater should be offered breastmilk from the breast because the suck-and-swallow reflex is present in a proportion of babies from this age. It was suggested that the KMC indicator be separated into two parts: the proportion of babies receiving any KMC and those receiving uninterrupted KMC. The group recommended that the required duration of uninterrupted STS contact for babies in KMC is 20 hours per day, based on available data.¹⁰

It was noted that calculation of the indicator on proportion of facilities at which mothers had formula company gifts or products was confusing for AIR surveyors, because questions were asked to individual mothers and not reported by facility. However, the group recommended that this should be easily dealt with by appropriate explanations/guidance. In addition, the IRG proposed that questions on formula company products be added to the assessment of mothers of preterm and LBW babies, as is currently done for the mothers of term babies.

Composite indicators of whether procedures (induction of labour, augmentation of labour or caesarean section) had been conducted according to evidence-based criteria were removed. These indicators are difficult to interpret and have proved difficult for staff to complete in field tests. Assessment of whether procedures are conducted using evidence-based criteria can be moved to EENC Module 5, where this will be reviewed in detail. The IRG recommended replacing this indicator with measures of appropriate delivery practice – reflecting respectful delivery care. These include: companion of choice, non-supine position in the second stage of labour, food and fluids, correctly completed partograph and no fundal pressure. In addition, the IRG recommended including a measure of whether women received breastfeeding counselling in the immediate post-partum period as a measure of both quality of care and respectful care.

The indicator “use of antenatal corticosteroids for women 24–34 weeks of gestational age” is currently measured for facilities where appropriate conditions are met (gestational age can be appropriately assessed, adequate childbirth care is available, and preterm newborns care receive adequate care if needed). A valid assessment of “facility conditions” is not possible for those conducting the AIR assessment and is vulnerable to error. In general, ministries of health classify whether facilities are expected to meet criteria. Since the majority of facilities implementing EENC currently are hospitals, all are expected to meet facility conditions. For sub-hospital levels introducing EENC, individual countries will determine whether or not these facilities are expected to meet the criteria for use of antenatal steroids. The IRG proposed that the indicator not be included unless the facility is expected to provide antenatal corticosteroids. This decision will be made in the planning phase and surveyors instructed accordingly. Maternal criteria for use of steroids (24–34 weeks of gestational age at risk of imminent preterm birth and with no clinical evidence of infection) are retained.

The IRG recommended revising the indicator on the proportion of facilities meeting all EENC standards because it is too difficult to attain and does not show country progress over time. It proposed an alternative measure – the proportion of EENC standards met – with a target of at least 70% to make the indicator more feasible.

¹⁰ Conde-Agudelo A, Díaz-Rossello JL. Kangaroo mother care to reduce morbidity and mortality in low birthweight infants. Cochrane Database of Systematic Reviews. 2016, Issue 8. Art. No.: CD002771. DOI:0.1002/14651858.CD002771.pub4.

Table 4. Questions and responses on EENC indicators, IRG review, June 2017

Indicator	Summary	Decision
<p>Benchmarks of EENC scale-up readiness</p> <p>Should indicators be revised or updated?</p>	<p>EENC annual implementation reviews – it will not be practical to expect that countries conduct this annually.</p> <p>Proportion of EENC interventions included in pre-service curricula – not updated. Countries with available data provided the same data as in 2015. No updates have been done. Should this be validated?</p>	<p>Propose to change frequency of the AIR to at least biennially.</p> <p>No need to re-validate data from 2015. If not 100%, then all curricula review updates. No new data for 2017, so this will be an action point for the next phase.</p>
<p>Health facility standards</p> <p>STS contact and early breastfeeding indicators</p>	<p>Review wording of STS contact and early breastfeeding indicators. Consider separating to credit for early STS practice.</p> <p>Country data show that breastfeeding before separation from the mother; or early breastfeeding (15–90 minutes after birth) are often a problem – even when exclusive breastfeeding is reasonable. Therefore, suggest including measures of early and exclusive breastfeeding.</p> <p>Review target for STS indicators. Target – for composite – 80%</p>	<p>Propose the following:</p> <p>Proportion of breathing newborns that receive:</p> <p>Immediate skin-to-skin contact</p> <p>Early and exclusive breastfeeding in the immediate newborn period</p> <p>Immediate and sustained skin-to-skin contact for at least 90 minutes and a complete breastfeed</p> <p>Propose a target of 90% for STS and early breastfeeding measures – accounting for 10–15% of unstable babies and maternal complications. Propose a target of 80% for the composite indicator that includes prolonged STS contact.</p>
<p>Defining: frequency of breastfeeding and expressing breastmilk; age at which breastfeeding should be attempted</p>	<p>Assume that an appropriate frequency of breastfeeding or expressing breastmilk is eight times in 24 hours. Does this standard make sense or should it be revised?</p> <p>Current definition assumes that babies 32 weeks or older should begin to have a suck-and-swallow reflex and therefore should be offered breastmilk. Does this timing cut-off make sense or should it be revised?</p>	<p>Most country standards state at least eight times. Keep this frequency.</p> <p>Keep at 32 weeks since this is a reasonable age to expect the suck-and-swallow reflex. Suggest including a question on breastfeeding support somewhere in the guide.</p>

Indicator	Summary	Decision
<p>Benchmarks of EENC scale-up readiness</p> <p>Should indicators be revised or updated?</p>	<p>EENC annual implementation reviews – it will not be practical to expect that countries conduct this annually.</p> <p>Proportion of EENC interventions included in pre-service curricula – not updated. Countries with available data provided the same data as in 2015. No updates have been done. Should this be validated?</p>	<p>Propose to change frequency of the AIR to at least biennially.</p> <p>No need to re-validate data from 2015. If not 100%, then all curricula review updates. No new data for 2017, so this will be an action point for the next phase.</p>
<p>Average uninterrupted time in KMC in each 24-hour period for full benefit</p>	<p>The current definition is that KMC applied for at least 18 hours or greater to be effective and that separations should not be more than 30 minutes. Does this timing make sense or should it be revised?</p>	<p>Recommend 20 hours uninterrupted contact per 24 hours, based on available data.</p> <p>KMC, split into two indicators – any KMC and continuous (20 hours/24 hours) – must use the term continuous, which reflects that KMC must be provided day and night, with adequate space available.</p> <p>Add a question on baby company products for preterm mothers – as is currently done for mothers of term babies.</p>
<p>Proportion of health facilities where no mother has products or gifts from baby-food companies.</p>	<p>Indicator measures facilities, but the question used to collect the data measures mothers as the unit. This is confusing.</p>	<p>This is a counting issue. Leave as is. Include explanatory notes.</p>
<p>Women receiving induction of labour, augmentation of labour or caesarean section with appropriate indications documented in the mother's record</p>	<p>Composite indicator. Data are not easy to synthesize, which has resulted in confusion in field tests, and data are often not accurate or reliable.</p> <p>No measure yet of delivery care practices that have proved to have gaps.</p> <p>No measure of whether the facility is practicing EENC with caesarean section.</p>	<p>Suggest removing all indicators of whether procedures used “appropriate” criteria; instead review whether any indications are recorded in the chart. This is because of complexity and errors. Instead, whether appropriate criteria are used can be dealt with in detail in EENC Module 5 on management of complications.</p> <p>Consider replacing these indicators with measures of delivery care, reflecting respectful care. Include an indicator on whether mothers receive breastfeeding counselling in the immediate newborn period.</p> <p>Consider a measure of whether or not facilities have introduced EENC with caesarean section – an important priority; and whether or not babies born by caesarean section receive the First Embrace.</p>

Indicator	Summary	Decision
<p>Benchmarks of EENC scale-up readiness</p> <p>Should indicators be revised or updated?</p>	<p>EENC annual implementation reviews – it will not be practical to expect that countries conduct this annually.</p> <p>Proportion of EENC interventions included in pre-service curricula – not updated. Countries with available data provided the same data as in 2015. No updates have been done. Should this be validated?</p>	<p>Propose to change frequency of the AIR to at least biennially.</p> <p>No need to re-validate data from 2015. If not 100%, then all curricula review updates. No new data for 2017, so this will be an action point for the next phase.</p>
<p>For facilities where conditions are met: pregnant women of 24–34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth.</p> <p>For facilities where conditions are not met: pregnant women of 24–34 weeks of gestation at risk of imminent preterm birth administered corticosteroids.</p>	<p>Determination of whether “facility conditions are met” is not possible in practice. Should these indicators be retained as written?</p>	<p>Remove the statement “where conditions are met”. Remove the second indicator. Countries determine whether facilities are expected to meet the criteria for use of steroids. This is generally the case for hospitals. For subnational facilities, each country can determine whether they are expected to meet criteria – and include in the denominator. Therefore the indicator will not be asked unless the facility is expected to administer steroids. Retain maternal criteria for use of steroids.</p>
<p>Proportion of facilities meeting EENC health facility standards</p>	<p>This is a stringent standard. Difficult for facilities to achieve this; in addition, this measure does not show change over time.</p>	<p>Suggest changing this indicator to the proportion of EENC facility standards that are met – to better capture progress. Suggest a Regional target of 70% – to be most feasible.</p>

2.3.3 Review of indicators to measure WHO support for implementation of the Action Plan for Healthy Newborn Infants

Status of indicators to measure WHO support

The Regional Action Plan specifies indicators for tracking how effectively WHO, UNICEF and other partners have supported the five core Strategic Actions in the plan. Indicators for each Operational Objective under each Strategic Action were reviewed as part of the expert validation. Of the 26 Regional indicators for WHO, UNICEF and other partners, data were not available for 3 indicators (12%) and partially available for the same number of indicators. Of the indicators with data, 22 (96%) could be validated – one indicator was not validated because updated data were not available. Data were not available, or could not be easily interpreted, for some indicators because of problems with wording or definition (see below).

Main findings:

WHO tracking indicators with validated data were almost exclusively indicators taken from the EENC country monitoring and evaluation framework and reflect conclusions already reported for countries, including: progress on EENC scale-up readiness benchmarks in several key areas; health facility standards; and progress in increasing intervention coverage in a number of key areas, including skilled birth attendance rates.

Summary of WHO indicators: problems with definition and usefulness

Comments on the EENC indicators measuring WHO, UNICEF and other development partners' support are summarized in Table 5. The IRG recommended that the indicator on availability of financial protection mechanisms be reviewed by the WHO health-care financing team to determine data availability – and the indicator be revised to match this definition. The group acknowledged that the 2015 indicator on EENC standards in supportive supervision had been removed and proposed replacing it with the EENC benchmark “the proportion of countries that have conducted an EENC AIR in the previous 1–2 years”.

The IRG recommended retaining the indicator on availability of centres of excellence, but require that criteria for defining centres of excellence now need to be finalized and reviewed by the IRG.

The indicator assessing support of EENC by Regional professional associations has been modified to match the EENC benchmark “mechanisms established to ensure professional associations are supporting EENC implementation”. The definition of the indicator on monitoring milk-code violations was modified to an assessment of whether mechanisms for monitoring violations are in place – a prerequisite for identifying and taking action to prevent violations.

The IRG noted that national skilled birth attendance rates are high in several countries and that tracking should now include key subgroups including urban/rural or wealth quintiles – to better reflect progress in reaching harder-to-reach groups.

The indicator on improved community demand for EENC (availability of a costed communications strategy) was noted as being non-specific. It may not reflect strategies that have been used in countries including social media promotion and hospital-based promotion of various types of other subnational activities. Nevertheless, these are difficult to measure – and the current measure is reasonable – since planners should include all levels in a communications strategy. The IRG recommended ensuring that the biennial report capture countries' communication activities through case studies.

The IRG recommended that the indicator on improvements in routine HMIS systems and civil registration systems be modified to a proportion of countries with civil registration and vital statistics systems (CRVS) registering at least 90% of all births, to align with the Sustainable Development Goal target.

Finally, the IRG recommended that the indicator on the proportion of facilities implementing core EENC interventions be modified to the proposed summary indicator for tracking the proportion of EENC health facility standards met – now collected using the EENC AIR, which is a better measure of progress over time.

Table 5: Questions and responses on Regional EENC indicators, IRG review, June 2017

Indicator	Summary	Decision
Objective 1.1 3. Proportion of countries with financial protection mechanisms in place for EENC	Definition. Most countries in the Region have a combination of national health insurance-like programmes for sub-populations or supply-and-demand schemes to support mothers and children. All have variable levels of coverage; however, the indicator does not specify what proportion of the mothers/babies should be covered or how financial protection is defined.	Check with health financing team to review data availability. Consider specifying a percentage of women and babies covered by financial protection mechanisms, i.e. proportion of countries with at least 80% of women and children covered.
Objective 1.2 1. Proportion of countries incorporating EENC standards in monitoring and supportive supervision	This indicator has been removed since 2015.	Consider matching this with EENC benchmark on regular EENC AIRs.
Objective 1.4 1. Proportion of countries with at least one centre of excellence established	Definition. Needs clear criteria to be able to determine whether hospitals have established them.	Define centres of excellence. This needs to be done Regionally with expert consultation; then reviewed and approved by the IRG. Guidelines then need to be given to countries.
Objective 2.1 2. Proportion of regional professional associations supporting EENC	Definition. Regional professional associations (denominator) need to be defined to calculate this measure. It is calculated for the Region, not for each country.	Regional professional associations cannot be defined – suggest using EENC benchmark on mechanisms established to ensure that professional associations are supporting implementation of EENC.
Objective 2.2	Definition. Before violations can be reported, countries need to have monitoring mechanisms in place. It is therefore proposed that this indicator be replaced with “number of countries with a monitoring mechanism in place for violations of the Code”. Data available from the Global Report.	This change in definition is supported. Suggest reviewing availability of information on violations with WHO nutrition.
Objective 3.1	Definition. Skilled birth attendant rate – country level rates are now high in many countries and do not reflect population variability.	Suggest that skilled birth attendant rates be presented by subgroups, e.g. urban/rural, or by wealth quintiles, to better capture variability and progress.
Objective 4.1 2. Increase community demand for the First Embrace	Definition. Proportion of countries with a costed EENC communications strategy available.	This measure is non-specific and may not reflect effective communication activities at the local level (social media, hospitals, provinces etc.) to promote EENC; however, these are difficult to measure. Ensure that the biennial report captures “case studies” on communication.

Indicator	Summary	Decision
Objective 5.1 2. Number of countries with improved data quality of routine information systems and civil registration	Not well defined – and difficult to measure.	Remove routine health information system from the definition. Focus only on civil registration and vital statistics systems. Suggest estimated proportion of births registered. Establish a target for civil registration of 90%: “The proportion of countries where 90% of births in children under the age of 5 years are registered with a civil authority”
Objective 5.2 Proportion of facilities where births take place implementing EENC core interventions per country	Not well defined and not clear how it can be collected.	Replace this with the proposed new indicator for tracking facilities that meet EENC health facility standards (EENC Monitoring and Evaluation Framework, Table 2). Percentage of health facility standards met.

3. CONCLUSIONS AND RECOMMENDATIONS

The principal conclusions of the meeting are the following:

- 1) All priority countries in the Region (Cambodia, China, Lao People’s Democratic Republic, Mongolia, Papua New Guinea, Philippines, Solomon Islands and Viet Nam) have continued widespread scale-up of EENC and all countries have submitted data for review.
- 2) Data on scale-up readiness were available and validated for all countries. Five of the eight countries have completed at least 70% of all benchmarks including: developing an EENC action plan, appointing an EENC focal point working in the health ministry, adapting clinical guidelines for EENC and conducting regular implementation reviews. Incorporation of EENC interventions into pre-service training curricula is ongoing in all countries.
- 3) Data on EENC health facility standards were available and validated from all countries. EENC coaching has begun in 9% of health facilities across the eight priority countries. Overall, 3360 facilities have introduced EENC (9% increase from 2016) and 30 251 eligible staff members have been coached (9% increase from 2016). If China is excluded from the analysis, EENC coaching has been conducted in 28% of health facilities. Across all countries, EENC hospital teams have been formed in 55% of hospitals, with 19% of hospitals conducting routine quality reviews.
- 4) Variable application of EENC clinical practices for term babies was seen across the Region, with key practices (proportion of babies receiving immediate STS contact (75%), sustained STS contact until the first breastfeed (57%) and exclusive breastfeeding (85%)) showing high coverage and improvements from 2015. Just over a third of babies received uninterrupted STS contact for at least 90 minutes (36%).
- 5) Clinical practice measures for preterm deliveries show that preterm babies are less likely than term babies to receive immediate STS contact (56%), breastfeeding before separation (29%), uninterrupted STS contact for at least 90 minutes (17%) or exclusive breastfeeding (63%), putting these babies at increased risk of hypothermia, infection and death. Any KMC was received by

28% of preterm babies reviewed, an increase of 21% from 2015. KMC had been practised for at least 18 of the previous 24 hours in only 18% of cases.

- 6) Application of appropriate care during labour in the Region varies. While 70% of pregnant women were encouraged to eat and drink during the active stage of labour, 51% were encouraged to assume a non-supine position and only 24% had a companion of choice. A partograph was completed correctly for 59% of all deliveries. Detailed assessments of management of complicated deliveries will be included in *Introducing and Sustaining EENC in Hospitals: Managing Childbirth and Postpartum Complications* (EENC Module 5), currently under development.
- 7) Overuse of caesarean section is a problem in many hospitals in the Region, with population-based caesarean section rates well above 10% in three out of the eight countries and rates sometimes higher in subpopulations. EENC is performed in only around one in four caesarean section deliveries in the Region (26%).
- 8) Hospital impact measures are reported by seven countries, with most collected by routine information systems. However, as in 2015, only a small fraction of all hospitals in countries are reporting data – and required extensive external support. Data from most countries show numerous gaps and inconsistencies (lack of clear definitions of live births and neonatal deaths, recording of outcomes for newborns transferred or discharged early, and case definitions of asphyxia and sepsis) that need to be addressed to improve the quality of data. Stillbirths should be added to hospital impact measures.
- 9) Data on population coverage and impact measures for newborn health were available and validated for all countries. Indicators of immediate newborn care (STS and immediate drying) have been included in national and subnational population-based surveys in only one country. No country has completed a new population-based survey since 2015.
- 10) Most indicators in the EENC Monitoring and Evaluation Framework are accurate, precise, measurable and programmatically relevant for EENC. Some changes are proposed in EENC facility standard indicators to make them easier to collect and interpret. New indicators on routine practices during delivery and on caesarean section deliveries have been proposed since problems in these areas are common in countries across the Region. Most countries have not yet set targets for many key indicators.
- 11) The *EENC Annual Implementation Review and Planning Guide* (EENC Module 1) is an essential tool for collecting data on quality of care and systems required to support high-quality services. Some edits to the methodology were added to improve the quality of data collected. It was agreed that the implementation review can be conducted annually or biennially depending on programme needs.
- 12) Improving *Kangaroo Mother Care for Preterm and Low Birth Weight Babies* (EENC Module 4), an approach for coaching staff to introduce KMC is an important priority in all countries in the Region.
- 13) Regional support for EENC is acknowledged, with many activities in the *Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020)* initiated or completed. Definitions and programmatic relevance of some indicators for tracking progress with EENC in the Region need to be further refined.
- 14) The process of validating EENC monitoring and evaluation data continues to be essential for tracking progress and supporting implementation.

3.1 Recommendations for Member States

Member States may consider the following:

- 1) update EENC monitoring and evaluation data based on IRG recommendations in preparation for the Second Biennial Meeting on Accelerating Progress in Early Essential Newborn Care to be held from 14 to 17 August 2017 in Da Nang, Viet Nam;
- 2) present final country data at the Member State Meeting in August 2017 and use country data to plan priorities for further scale-up and financing;
- 3) conduct reviews of routine HMIS to identify gaps in hospital reporting of maternal and newborn indicators and take action to address gaps and improve routine hospital reporting systems;
- 4) continue to conduct at least biennial EENC implementation reviews using the revised and updated indicators for planning and tracking progress (EENC Module 1);
- 5) scale up KMC in national, regional and provincial hospitals using the revised and updated KMC data collection and coaching approach for monitoring practice when it has been finalized (EENC Module 4); and
- 6) review national and hospital policies on evidence-based criteria for caesarean sections and take action to eliminate unnecessary procedures and to ensure that EENC is conducted for all routine caesarean sections.

3.2 Recommendations for WHO

WHO is requested to do the following:

- 1) send country reports of the validation to national focal points and country offices, to clarify data gaps and inconsistencies;
- 2) revise, remove and update indicators in the Regional EENC Monitoring and Evaluation Framework and the Regional Action Plan, as proposed by the IRG;
- 3) revise the *EENC Annual Implementation Review and Planning Guide* (EENC Module 1) as proposed by the IRG and finalize for publication. Ensure that *Kangaroo Mother Care for Preterm and Low Birth Weight Infants* (EENC Module 4) is reviewed by the IRG as soon as possible, and further develop *Managing Childbirth and Postpartum Complications* (EENC Module 5) for review and discussion at the next biennial IRG meeting;
- 4) continue to support Member States to institutionalize monitoring and evaluation for EENC, including: ensuring that DHS and MICS include measures of immediate newborn care practices; supporting routine annual/biennial implementation reviews for EENC and use of data for monitoring and planning; supporting introduction of KMC using the KMC data collection and review approach; and conducting reviews of hospital data systems and supporting actions to improve collection, analysis and use of data; and
- 5) continue to conduct EENC data validations followed by Member State meetings biennially; and finalize and widely disseminate findings of the Second Biennial Meeting of the IRG and the Second Biennial Meeting on Accelerating Progress in Early Essential Newborn Care as technical reports and peer-reviewed journal articles to document progress, and encourage wider adoption of the approach.

ANNEX 1

LIST OF PARTICIPANTS

1. Temporary Advisers

Dr Elizabeth Mary Mason, Independent Consultant, Honorary Fellow, Institute for Global Health, University College London, United Kingdom. 23 Sylva Ct., 79 Putney Hill, London, SW15 3NX, United Kingdom, E-mail: masonelizabeth108@gmail.com

Dr Hiromi Obara, JICA Health Policy Advisor, in the Lao People's Democratic Republic c/o Japan International Cooperation Agency, 2nd Floor, Sacombank Building, 044 Haengboun Road, Ban Haisok, Chanthabouly District, Vientiane, The Lao People's Democratic Republic. Tel. No: (856) 20 5503 1552, E-mail: h-obara@it.ncgm.go.jp

Ms Pamela Putney, International Health Consultant, P.O. Box 107, West Tisbury, Massachusetts 02575, United States of America. Tel. No: (1) 508 693 4973, E-mail: pputney@msn.com

Dr Maria Asuncion Silvestre, President, Kalusugan ng Mag-Ina Inc. (Health of Mother and Child, Inc.), 17th Floor, Green Grove Villa, Lantana Road, New Manila, Quezon City, Philippines. Tel. No: (63) 917 535 2438, Email: miannesilvestre@gmail.com

Dr Hoang Thi Tran, Deputy Director, Da Nang Hospital for Women and Children, 208 Le Duan Street, Da Nang, Socialist Republic of Viet Nam. Tel. No: (84) 903 54 3115, Email: hoangtrandn@yahoo.com

Dr Tao Xu, Vice Director, Child Health Care Department, National Centre for Women and Children's Health, Chinese Centre for Disease Control and Prevention, Room 602, No. 12 Dahuisilu, Haidian District, 100081 Beijing, People's Republic of China. Tel. No: (86) 10 62170921, Email: xutao6622@163.com

2. Secretariat

Dr Howard Sobel (Responsible Officer), Coordinator, Reproductive, Maternal, Newborn, Child and Adolescent Health, Division of NCD and Health through the Life-Course, WHO Regional Office for the Western Pacific, P.O. Box 2932, 1000 Manila, Philippines. Tel. No: (63) 2 528 9868, Fax No: (63) 2 526 0279, E-mail: sobelh@who.int

Dr Jun Gao, Coordinator, Health Information and Innovation, Division of Health Systems, WHO Regional Office for the Western Pacific, P.O. Box 2932, 1000 Manila, Philippines. Tel. No: (63) 2 528 9835, Fax No: (63) 2 526 0279, E-mail: gaoj@who.int

Ms Priya Mannava, Junior Professional Officer/Technical Officer, (Information and Accountability), Reproductive, Maternal, Newborn, Child and Adolescent Health, Division of NCD and Health through the Life-Course , WHO Regional Office for the Western Pacific, P.O. Box 2932, 1000 Manila, Philippines. Tel. No: (63) 2 528 9878, Fax No: (63) 2 526 0279, E-mail: mannavap@who.int

Dr John Murray, Consultant, International Health, 1110 E. Court St., Iowa City, Iowa, United States of America, Tel. No: (1) 319 4718052m E-mail: jcsmurray@hotmail.com

ANNEX 2

PROVISIONAL AGENDA

- (1) Opening and introduction; nomination of Chair
- (2) Overview of progress towards implementing the *Regional Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020)*
- (3) Review and validation of eight country Early Essential Newborn Care (EENC) Monitoring and Evaluation Frameworks:
 - (a) Cambodia
 - (b) China
 - (c) Lao People's Democratic Republic
 - (d) Mongolia
 - (e) Papua New Guinea
 - (f) Philippines
 - (g) Solomon Islands
 - (h) Viet Nam
- (4) Review of EENC Module 1: *Annual Implementation Review and Planning Guide*
- (5) Review of EENC Module 4: *Kangaroo Mother Care for Preterm and Low Birth Weight Infants*
- (6) Review of maternal health indicators
- (7) Review of country reports on data validation
- (8) Finalization of conclusions and recommendations for accelerating EENC in the Western Pacific Region; summary of next steps and follow-up
- (9) Closing

ANNEX 3

COUNTRY REPORTS: VALIDATION OF EENC DATA

1. Cambodia
2. China
3. Lao People's Democratic Republic
4. Mongolia
5. Papua New Guinea
6. Philippines
7. Solomon Islands
8. Viet Nam

COUNTRY REPORT: CAMBODIA
THE SECOND BIENNIAL MEETING OF THE INDEPENDENT REVIEW GROUP ON
VALIDATION OF EARLY ESSENTIAL NEWBORN CARE PROGRESS, JUNE 2017
REVISED REPORT FOLLOWING DATA CORRECTIONS (AUGUST 2017)

In Cambodia, newborn deaths now represent 50% of all under-5 child deaths and the neonatal mortality rate currently stands at 18 per 1000 live births¹. Training for health facility staff on Intra-partum and Early Newborn Care (INC), one component of EENC, began in mid-2011. At least two provincial facilitators were trained in INC in 24 provinces, one from the MCH unit of provincial health department (PHD) and one from the provincial hospital. Scaling up of coaching for provincial and district hospitals began in 2012 and then each province expanded the coaching to health centres. Supportive supervisory follow-up visits using observation checklists were conducted in 2013.^{2,3} Subsequently, three provincial hospitals (Battambang, Takeo and Kampong Cham) were selected in early 2015 to introduce the full complement of interventions under early essential newborn care (EENC). Staff from these hospitals were coached, and EENC Hospital Core Teams (HCTs) established to ensure quality improvement of care. The *Five Year Action Plan for Newborn Care in Cambodia (2016 – 2020)* was endorsed in 2015.

The Independent Review Group convened from June 27-29, 2017 to review and validate country data submitted on the regional EENC monitoring and evaluation indicators, for the period 2016-17. The primary objective of data validation was to give feedback to countries on improving indicators, data quality and information use.

SUMMARY OF FINDINGS

- EENC scale-up readiness benchmarks: Data were available for 9/10 (90%) benchmarks. Cambodia has completed 7/10 (70%) and partially completed 1/10 (10%) benchmarks. Completed benchmarks include regular meetings of a technical working group, adaptation of the EENC clinical pocket guide, endorsement of a 5-year Action Plan for EENC and regular EENC annual implementation reviews. An EENC stakeholder group has not been established, and no data were available on incorporation of EENC interventions into medical, nursing and midwifery pre-service curricula. Data for seven benchmarks were validated.
- EENC health facility standards: Data were available for all 23 indicators. INC coaching has been done in all five national and 24 provincial hospitals, 75/76 (99%) first-level referral hospitals, and 1035/1141 (91%) primary level facilities. A high proportion of delivery staff at all levels have been coached, including 80% of provincial staff and close to 70% of district staff. Partial data were available on coaching at the national level. Prolonged STS contact for at least 90 minutes was received by 8% of all newborns; exclusive breastfeeding in the immediate newborn period was received by 71-100% of newborns. Data for the 23 indicators were validated.
- Hospital impact: three provincial hospitals reported data on all 9 hospital impact indicators for 2017. All available data were validated. Data show no change in hospital neonatal mortality rates (NNMR) during this period. Declines in rates of neonatal sepsis and asphyxia are noted in one hospital; in the other two hospitals rates have increased slightly or shown no change.
- Population coverage of newborn interventions: Data were available for 10/13 (77%) indicators from the Cambodia Demographic and Health Survey undertaken in 2014. No data were reported for the indicators newborns dried after birth, skin-to-skin contact, and delayed bathing. Data for the ten indicators were validated.
- Newborn health impact: Data were available for the five population impact indicators, all of which were validated.

¹ Cambodia Demographic and Health Survey 2014: Key Indicators Report. Phnom Penh, Cambodia and Calverton, Maryland USA: National Institute of Statistics, Directorate General for Health and IFC International; February 2015.

² NMCHC, WHO, RACHA. 2013. Immediate Newborn Care: Supportive Supervision in 14 Provincial Hospitals. WHO: Phnom Penh

³ NMCHC, WHO, RACHA. December 2013. Immediate Newborn Care Practices at the National Maternal and Child Health Centre. WHO: Phnom Penh.

SUMMARY OF PRINCIPAL FINDINGS – REVIEW OF EENC MONITORING AND EVALUATION FRAMEWORK

	Number	Percentage of total (%)
Scale-up Readiness Benchmarks (N=10)		
Data available	9	90
Data partially available	0	0
Data not available	1	10
Validated ¹	7	88
Not validated ¹	1	12
EENC health facility standards (N=23)		
Data available	23	100
Data partially available	0	0
Data not available	0	0
Validated ²	23	100
Not validated ²	0	0
Hospital Impact Indicators (N=9)		
Proportion of implementing hospitals reporting (N=105)	3	3
Data available	9	100
Data partially available	0	0
Data not available	0	0
Validated ²	9	100
Not validated ²	0	0
Coverage Indicators for EENC (N=13)		
Data available	10	77
Data not available	3	23
Validated ²	10	100
Not validated ²	0	0
Impact Indicators for EENC (N=5)		
Data available	5	100
Data not available	0	0
Validated ²	5	100
Not validated ²	0	0
Total EENC indicators (N=60)		
Data available	56	93
Data partially available	0	0
Data not available	4	7
Validated ^{1,2}	54	98
Not validated ^{1,2}	1	2

¹ Validation of data applies only to those benchmarks for which data was available, and for benchmarks that had been achieved or partially achieved.

² Validation of data applies only to those indicators for which data was available or partially available.

IRG COMMENTS ON INDICATORS: GENERAL AND COUNTRY SPECIFIC

	Indicator	Issue identified	Suggested actions
Table 1	1.3 Annual implementation reviews every year	Not being done every year. Not practical to expect annual implementation reviews.	Expected frequency will be changed to at least biennially
	1.7 EENC stakeholder group meets regularly.	Meetings not taking place due to time commitment and difficulty arranging. Partners are however, supporting roll-out of EENC in selected provinces. Other methods of coordination may be working more efficiently.	Review whether other methods for stakeholder coordination are being used – these could be counted for this indicator
	1.10 Proportion of EENC interventions incorporated into pre-service	No data collected. Multiple pre-service institutions and curricula. Therefore difficult to review all. Need time and personnel to conduct review.	Begin with most important pre-service curricula this year.
Table 2	2.1 Immediate skin-to-skin (STS) contact for at least 90 minutes 2.2 Proportion of newborns exclusively breastfed in the immediate postnatal period	Current STS indicator is not worded clearly because it should include “completed the first breastfeed”. Wording of the breastfeeding indicator is not clear on referred time period.	Define as: 1. % of babies receiving immediate and uninterrupted STS contact for at least 90 minutes and completing first breastfeed before separation 2. % of babies receiving exclusive breastfeeding in the immediate newborn period.
	2.3 Proportion of newborns with a birthweight ≤ 2000g that receive continuous Kangaroo Mother Care (KMC) ≥ 18 hours	Small errors were made because the age category for low birthweight newborns currently ends at 2000g not 2500g. In addition, current weight threshold in AIR ends at 1999g – it is possible that a very small number of babies are not counted	Check KMC data for birth weight. Modify Checklist 2b in the Annual Implementation Review and Planning Guide to change the weight category cut-off to 2000g to capture babies who equal 2000g.
	2.4 Proportion of staff providing delivery services coached in EENC	Denominator not available for National/Regional facilities.	Need denominator information to be added to allow calculation of national/regional coverage.
	2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with appropriate indications documented in the mother's record	This composite indicator is difficult to interpret. In general AIR surveyors did not apply strict criteria on whether procedures were conducted according to criteria.	This indicator has been removed by the IRG. These measures will be incorporated into Module 5 on pregnancy and childbirth complications.
	2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids	Data not collected because it is difficult to determine whether facilities meet criteria	This indicator has been removed by the IRG.

	Indicator	Issue identified	Suggested actions
	2.11 Proportion of health facilities achieving standards	This measure required all standards to be achieved and did not show country change well.	Change the indicator to “proportion of health facility standards achieved” to show country change.
Table 3	Hospital impact data	Measures only reported from 3 hospitals	Consider expanding data collection to other provincial hospitals in 2017/18
	Quality of routine HMIS data	HMIS review in 2016 showed a number of data recording problems that need to be resolved ¹	Take action to address data collection gaps.
Tables 4 and 5	Population-based coverage and impact data	Last Demographic and Health Survey was in 2014. No data on early newborn indicators was included.	Ensure that next Demographic and Health Survey includes key early newborn care indicators in basic questionnaires – coordinate with organizing committee.
	Targets for impact indicators	Targets available for only the newborn mortality rate	Consider setting targets for all impact measures.

¹ For more information on common problems with coding and recording routine EENC indicators using the HMIS system see: MOH, WHO/WPRO. Assessment of Maternal and Newborn Hospital Management Information System in Cambodia. MOH, Cambodia, WHO/WPRO. December 2016.

DETAILED VALIDATION RESULTS OF EENC MONITORING AND EVALUATION DATA

Table A3.1.1: Implementation indicators - EENC scale-up readiness benchmarks

Benchmark	Status in 2016	Status in 2017	2017 data validated? If no, reasons	Target 2020
1.1 Newborn health situation analysis conducted in the previous five years used for strategic planning	Yes	Yes	Yes	Yes
1.2 EENC 5-Year Action Plan developed based on the Regional Action Plan for Healthy Newborns costed and adopted by the ministry of health	Yes	Yes	Yes	Yes
1.3 EENC Annual Implementation Review conducted annually to inform development of annual implementation plans	Yes	Yes	Yes	Yes
1.4 Detailed annual EENC Implementation Plan funded	Yes	Partial	Yes	Yes
1.5 EENC technical working/coordination group meets regularly	Yes	Yes	Yes	Yes
1.6 Full-time EENC/newborn health focal person appointed in the ministry of health	Yes	Yes	No Full-time person has not been appointed. Should be partial	Yes
1.7 EENC stakeholder group meets regularly	No	No	Not applicable ¹	Yes
1.8 Clinical Intra-Partum and Newborn Care Protocol endorsed	Yes	Yes	Yes	Yes
1.9 Mechanisms established to ensure that professional associations are supporting implementation of EENC	Yes	Yes	Yes	Yes
1.10 Proportion of EENC interventions (normal and high-risk deliveries) included in pre-service training curricula: (a) medical; (b) nursing; (c) midwifery	No data No data No data	No data No data No data	Not applicable ¹	100% 100% 100%

¹ Only benchmarks of status “Yes” or “Partial” are reviewed for validation

Table A3.1.2: Health facility EENC standards

National and regional: N = 3

First-level referral: N = 12

First level: N =5

Indicator	Reported in 2015	Reported in 2017	2017 data validated? If no, reasons	Regional Target		
2.1. Proportion of breathing newborns that receive immediate skin-to-skin contact for at least 90 minutes			Yes	80%		
<ul style="list-style-type: none"> National and regional 						
All	Data not collected	8% (3/38)				
Term		9% (3/34)				
Preterm		0% (0/4)				
<ul style="list-style-type: none"> First-level referral 						
All	Data not collected	8% (8/103)				
Term		8% (8/95)				
Preterm		0% (0/8)				
<ul style="list-style-type: none"> First level 		0% (0/23)				
2.2. Proportion of newborns exclusively breastfed in the immediate postnatal period			Yes	90%		
<ul style="list-style-type: none"> National and regional 						
All	No data	71% (27/38)				
Term		74% (25/34)				
Preterm		50% (2/4)				
<ul style="list-style-type: none"> First-level referral 						
All	27%	92% (95/103)				
Term		94% (89/95)				
Preterm		75% (6/8)				
<ul style="list-style-type: none"> First level 	No data	100% (23/23)				
2.3. Proportion of newborns with a birthweight \leq 2000g that receive continuous Kangaroo Mother Care \geq 18 hours			Yes	70%		
<ul style="list-style-type: none"> National and Regional First-level referral First Level 	Data not collected	0% (0/2) 0% (0/2) No preterms				
2.4. Proportion of staff providing childbirth, newborn or postpartum care services at the health facility that are coached in EENC					Yes	90%
<ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (147/147) 80% (877/1097) 69% (2908/4243)	254/No data 80% (877/1099) 69% (2926/4248)				
2.5. Proportion of facilities using a quality improvement approach to support implementation of EENC			Yes	80%		
<ul style="list-style-type: none"> National and Regional First-level referral First Level 	0% (0/2) 3% (3/100) Not applicable	0% (0/3) 17% (2/12) Not applicable				

Indicator	Reported in 2015	Reported in 2017	2017 data validated? If no, reasons	Regional Target
2.6. Proportion of delivery room(s), recovery room(s), neonatal care units (NCU), and postnatal care room(s) at the facility have adequate hand washing resources <ul style="list-style-type: none"> National and Regional First-level referral First Level 	Data not collected	18% (11/62) 11% (8/73) 8% (1/13)	Yes	100%
2.7. Proportion of health facilities with <u>no</u> stock-outs of key life- saving medicines required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data 50% (1/2) No data	100% (3/3) 50% (6/12) 0% (0/5)	Yes	100%
2.7.1. Magnesium sulfate for severe preeclampsia and eclampsia, and for fetal neuroprotection if <32 weeks of gestational age <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data 50% (1/2) No data	100% (3/3) 100% (12/12) 40% (2/5)	Yes	100%
2.7.2. Oxytocin for the prevention of postpartum haemorrhage for all births <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data 100% (2/2) No data	100% (3/3) 92% (11/12) 80% (4/5)	Yes	100%
2.7.3. Corticosteroids for women of 24 - 34 weeks of gestation at risk of preterm delivery <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data 50% (1/2) No data	100% (3/3) 58% (7/12) 20% (1/5)	Yes	100%
2.7.4. Injectable antibiotics for newborn sepsis <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data 100% (2/2) No data	100% (3/3) 83% (10/12) 20% (1/5)	Yes	100%
2.8. Proportion of health facilities with functional key life-saving commodities required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data 50% (1/2) No data	33% (1/3) 8% (1/12) 0% (0/5)	Yes	100%
2.8.1. Functional ambu bag and mask (sizes 0 and 1) within 2 meters of all delivery beds <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data 100% (2/2) No data	100% (3/3) 100% (12/12) 80% (4/5)	Yes	100%
2.8.2. Continuous supply of oxygen for newborn use (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data 100% (1/1) No data	100% (3/3) 83% (10/12) 40% (2/5)	Yes	100%

Indicator	Reported in 2015	Reported in 2017	2017 data validated? If no, reasons	Regional Target
2.8.3. Continuous Positive Airway Pressure (CPAP) (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data 100% (2/2) No data	33% (1/3) 8% (1/12) Not applicable	Yes	100%
2.9. Proportion of health facilities which have eliminated baby foods industry conflicts of interest <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	Data not collected	0% (0/3) 50% (6/12) 0% (0/5)	Yes	100%
2.9.1. Proportion of health facilities where no mother has products or gifts from baby food companies <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	Data not collected	0% (0/3) 92% (11/12) 80% (4/5)	Yes	100%
2.9.2. Proportion of health facilities with a written policy to prohibit use of infant formula and other baby food company activities <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	Data not collected	0% (0/3) 58% (7/12) 20% (1/5)	Yes	100%
2.9.3. Proportion of health facilities with no promotional baby food materials including posters, brochures, pamphlets, or items with logos on their premises <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	Data not collected	100% (3/3) 92% (11/12) 100% (5/5)	Yes	100%
2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with an appropriate indication documented in the mother's record <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	Data not collected	36% (5/14) 100% (1/1) 0/0	Yes	Indicator to be removed
2.10.2 For facilities where conditions ¹ are met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	Data not collected	33% (1/3) 33% (1/3) Not applicable	Yes	90%

Indicator	Reported in 2015	Reported in 2017	2017 data validated? If no, reasons	Regional Target
2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	Not applicable Not applicable 0% (0/0)	Yes	Indicator to be removed
2.11 Proportion of health facility standards achieved ² <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	Not measured	38% (8/21) ³ 10% (2/21) ⁴ 10% (2/21) ⁵	Yes	80%

¹ Facility conditions: gestational age assessment can be accurately undertaken, adequate childbirth care is available, and the preterm newborn can receive adequate care if needed. (WHO recommendations on interventions to improve preterm birth outcomes, 2015)

² Total number of standards is 21 and not 23 because standards 2.10.1 and 2.10.3 are not included. The IRG has advised to remove these indicators from the regional EENC Monitoring and Evaluation Framework

³ Health facility standards achieved at the national level: no stock-outs of: (1) key life-saving medicines required for EENC, (2) magnesium sulfate, (3) oxytocin, (4) corticosteroids, (5) antibiotics for sepsis, (6) functional ambu bag and mask, (7) oxygen; (8) no promotional baby food materials.

⁴ Health facility standards achieved at the first-level referral: (1) proportion of newborns exclusively breastfed and (2) no stock outs of functional ambu bag and mask.

⁵ Health facility standards achieved at the first level: (1) proportion of newborns exclusively breastfed and (2) no promotional baby food materials.

Table A3.1.3: Hospital Impact Indicators

First-level referral: N = 21

Indicator	2016 (data from 2015) % (n/N)	2017 (data from 2016) % (n/N)	2017 data validated? If no, reasons	Country Target 2020
3.1. Neonatal care unit/nursery admission rate <ul style="list-style-type: none"> National and Regional First-level referral (N=3) 	No data 10% (1009/9832)	No data 11.2% (1119/9948)	Yes	
3.2. Proportion of newborns by weight (g):				
<ul style="list-style-type: none"> National and Regional 				
<1000				
1000 – 1499				
1500 – 1999				
2000 – 2499				
2500 – 3499				
>3500				
<ul style="list-style-type: none"> First-level referral (N=3) 				
<1000				
1000 – 1499	0.8% (76/9832)	1.1% (106/9948)		
1500 – 1999				
2000-2499	6.7% (656/9832)	8.2% (820/9948)		
2500-3499				
>3500	92.5% (9100/9832)	90.7% (9027/9948)	Yes	
3.3. Proportion of newborns born at the facility classified with newborn sepsis ¹ <ul style="list-style-type: none"> National and Regional First-level referral 	No data 3.5% (341/9832)	No data 3.5% (344/9948)	Yes	< 2.5%
3.4. Proportion of newborns born at the facility classified with birth asphyxia ² <ul style="list-style-type: none"> National and Regional First-level referral 	No data 3.6% (351/9832)	No data 3.8% (376/9948)	Yes	< 3%
3.5. Newborn mortality rate stratified by weight (g):				
<ul style="list-style-type: none"> National and Regional 				
<1000				
1000 – 1499				
1500 – 1999				
2000 – 2499				
2500 – 3499				
>3500				
<ul style="list-style-type: none"> First-level referral 				
<1000				
1000 – 1499	513.2 (39/76)	518.9 (55/106)		
1500 – 1999				
2000 – 2499	51.8 (34/656)	8.8 (40/820)		
2500-3499				
>3500	3.2 (29/9100)	3.3 (30/9027)	Yes	
3.6 Case-fatality rate (% registered cases dying):				

Indicator	2016 (data from 2015) % (n/N)	2017 (data from 2016) % (n/N)	2017 data validated? If no, reasons	Country Target 2020
3.6.1. Preterm newborns (deaths/cases) <ul style="list-style-type: none"> • National and Regional • First-level referral 	No data 13.7 (71/519)	No data 10.3 (76/741)	Yes	
3.6.2 Low birth weight newborns (deaths/cases) <ul style="list-style-type: none"> • National and Regional • First-level referral 	No data 10.2 (75/732)	No data 10.3 (95/926)	Yes	
3.6.3 Newborn sepsis (deaths/cases) <ul style="list-style-type: none"> • National and Regional • First-level referral 	No data 3.2 (11/341)	No data 7.6 (26/344)	Yes	
3.6.4 Newborn asphyxia (deaths/cases) <ul style="list-style-type: none"> • National and Regional • First-level referral 	No data 9.7 (34/351)	No data 12.0 (45/376)	Yes	

¹ Bacterial sepsis of the newborn: ICD-10 P36 (including codes P36.0 – P36.9 bacterial sepsis of known cause or sepsis of unknown cause).

² Birth asphyxia: ICD-10 P21: baby is not breathing or gasping at birth (including severe birth asphyxia (pulse less than 100 per minute at birth and falling or steady, respiration absent or gasping, colour poor, tone absent, with 1-minute Apgar score 0-3) and mild or moderate birth asphyxia (normal respiration established within one to two minutes, heart rate 100 or above, some muscle tone present, some response to stimulation, with 1-minute Apgar score 4-7)).

Table A3.1.4: Coverage indicators for EENC interventions

Coverage measure	Reported in 2015 ¹	Reported in 2017 ¹	Validated? If No, reasons	Country Target 2020
4.1. % of live births attended by skilled health personnel	89.0%	89.0%	Yes	>90%
4.2. % of live births that take place at health facilities	83.2%	83.2%	Yes	90%
4.3. % of live births delivered by caesarean section	6.3%	6.3%	Yes	≤10%
4.4. % of live rural births delivered by caesarean section	4.9%	4.9%	Yes	
4.5. % of newborns dried after birth	No data	No data	Not applicable	50%
4.6. % of newborns with delayed bath after birth ²	No data	No data	Not applicable	50%
4.7. % of newborns placed on the mother's bare abdomen or chest immediately after delivery (skin-to-skin)	No data	No data	Not applicable	50%
4.8. % of newborns breastfed within one hour of birth ³	62.6%	62.6%	Yes	70%
4.9. % of newborns receiving a prelacteal feed	27.7%	27.7%	Yes	20%
4.10 % of live births with a reported birth weight	90.8%	90.8%	Yes	>90%
4.11 % of women receiving postnatal care within two days of birth ⁴	90.3%	90.3%	Yes	>90%
4.12 % of newborns receiving postnatal care within two days of birth	78.8%	76.5% ⁵ <i>Data correction</i>	Yes	>80%
4.13 % of newborns 0-1 month who are exclusively breastfed	79.9%	79.9%	Yes	>80%

¹ All data from the Cambodian Demographic and Health Survey, 2014

² Delayed bathing: at least 24 hours after birth.

³ The standard population-based survey indicator currently measures breastfeeding within 1 hour of birth and not the wider 90-minute window during which breastfeeding can occur.

⁴ Postnatal care 0-72 hours or 0-2 days after birth.

⁵ Figure based on final DHS 2014 report. Figure reported in 2015 was based on preliminary DHS 2014 report.

Table A3.1.5: Impact indicators for newborn health

Data required	Measurement	Reported in 2015	Reported in 2017	Validated? If no, reasons	Country Target 2020
Neonatal deaths	5.1 Neonatal mortality rate (per 1000 live births)	18 ¹	18 ¹	Yes	14
	5.2 Perinatal mortality rate ² (per 1000 LB)	20 ¹	20 ¹	Yes	
	5.3 Proportional causes of NN death:			Yes	
	5.3.1 Sepsis	17% ³	17% ³		
	5.3.2 Tetanus	0.3% ³	0.3% ³		
5.3.3 Birth asphyxia	24% ³	24% ³			
5.3.4 Pre-term birth	29% ³	29% ³			
5.3.5 Congenital anomalies	17% ³	17% ³			
Prematurity/ Low birth weight	6.1 Low birth weight rate (<2500g)	7.9 ¹	7.9 ¹	Yes	
	7.1 Pre-term birth rate (< 37 weeks)	No data	10.5 ⁴	Yes	

¹ Cambodia Demographic and Health Survey, 2014

² Perinatal mortality rate: The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1000.

³ WHO/Maternal Child Epidemiology Estimation group estimates, 2015

⁴ Blencowe H, Cousens S, Oestergaard MZ et al. National, regional, and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. *Lancet* 2012; 379: 2162-72.

COUNTRY REPORT: CHINA
SECOND BIENNIAL MEETING OF THE INDEPENDENT REVIEW GROUP ON
VALIDATION OF EARLY ESSENTIAL NEWBORN CARE PROGRESS, JUNE 2017
REVISED REPORT FOLLOWING DATA CORRECTIONS (AUGUST 2017)

In China, newborn deaths represent 50% of all under-5 child deaths and the neonatal mortality rate currently stands at 5.4 per 1000 live births.⁴ Observations of childbirth and newborn care practices in hospitals in Guangzhou, Wuhan and Nanning revealed that many incorrect and potentially harmful practices persist.⁵ *Implementation of EENC in China began in six early implementation hospitals in March 2016 when 97 staff were coached in EENC in one national, two provincial and two city hospitals, including nine national facilitators, 21 provincial facilitators and 67 other staff. Following coaching, hospitals formed EENC hospital teams and modified hospital organization and equipment to support EENC practices and began coaching staff.* In June 2016, the second phase of EENC introduction was conducted – introduction of the facility assessment and planning approach for EENC using EENC hospital teams.⁶ An EENC Annual implementation Review (AIR) was conducted in October 2016 after 8 months of implementation.

A group of independent experts reviewed and validated country EENC data on June 27-29, 2017 using the WHO Regional Monitoring and Evaluation Framework, as part of a regional review of progress with EENC implementation. The primary objective of data validation was to give feedback to countries on improving indicators, data quality and information use.

SUMMARY OF FINDINGS

- EENC scale-up readiness benchmarks: Data were available for 9/10 (90%) benchmarks. China has completed 3/10, partially completed 2/10 and not completed 4/10 benchmarks. Completed benchmarks include a newborn health situational analysis, regular meetings of a technical working group and completion of an EENC AIR. Work on development of an EENC annual implementation plan, and finalization of clinical practice guidelines is underway. No data were available on incorporation of EENC interventions into medical, nursing and midwifery curricula. All completed and partially completed benchmarks were validated.
- EENC health facility standards: Data were available for all 23 indicators. EENC coaching has begun in three national hospitals, and three first-level referral hospitals. A high proportion of delivery staff at all six hospitals have been coached, including 82% of national staff and 91% of provincial staff. Between 41-77% of all babies (term and preterm) receive immediate and prolonged skin-to-skin contact, and complete the first breastfeed whilst in contact. Two of three national hospitals use a quality improvement approach to support EENC. Data for 22/23 indicators were validated.
- Hospital impact: 2016 data were not available from any of the 6 hospitals that have introduced EENC.
- Population coverage of newborn interventions: Population data were available for 7/13 indicators (54%). Data were not available on proportion of newborns dried after birth, receiving skin-to-skin contact, receiving delayed bathing, and on breastfeeding practices. Data for the seven indicators were validated. High rates of coverage for facility deliveries, births with a birth weight, and postnatal care contacts are noted. Caesarean section rates are above 30%.
- Newborn health impact: Data were available for all five population impact indicators. Data reported for the perinatal mortality was not consistent with the source documents and therefore not validated; data on the preterm birth rate were not consistent with international estimates.

⁴National Maternal and Child Health Surveillance Annual Report, 2016

⁵National Health and Family Planning Commission of China. The situation analysis of childbirth and newborn care practice in China. Beijing, February 2016.

⁶ Mission report: EENC quality assurance coaching in China, 20 June–1 July 2016. Manila: WHO Regional Office for the Western Pacific; July 2016.

SUMMARY OF PRINCIPAL FINDINGS – REVIEW OF EENC MONITORING AND EVALUATION FRAMEWORK

	Number	Proportion of total (%)
Scale-up Readiness Benchmarks (N=10)		
Data available	9	90
Data partially available	0	0
Data not available	1	10
Validated ¹	5	100
Not validated ¹	0	0
EENC health facility standards (N=23)		
Data available	23	100
Data partially available	0	0
Data not available	0	0
Validated ²	22	96
Not validated ²	1	4
Hospital Impact Indicators (N=9)		
Proportion of implementing hospitals reporting (N=6)	0	0
Data available	0	0
Data partially available	0	0
Data not available	9	100
Validated ²	Not applicable	Not applicable
Not validated ²	Not applicable	Not applicable
Coverage Indicators for EENC (N=13)		
Data available	7	54
Data not available	6	46
Validated ²	7	100
Not validated ²	0	0
Impact Indicators for EENC (N=5)		
Data available	5	100
Data not available	0	0
Validated ²	4	80
Not validated ²	1	20
Total EENC Indicators (N=60)		
Data available	42	70
Data partially available	2	3
Data not available	16	27
Validated ^{1,2}	38	95
Not validated ^{1,2}	2	5

¹ Validation of data applies only to those benchmarks for which data was available, and for benchmarks that had been achieved or partially achieved.

² Validation of data applies only to those indicators for which data was available or partially available.

IRG COMMENTS ON INDICATORS: GENERAL AND COUNTRY-SPECIFIC

	Indicator	Issue identified	Suggested actions
Table 1	1.3 Annual implementation reviews every year	Not practical to expect annual implementation reviews.	Expected frequency will be changed to at least biennially
	1.4. Annual EENC plan funded	Partially funded but required for further expansion of EENC beyond the initial six hospitals	Review barriers to complete funding of EENC scale-up plan and begin scale-up
	1.7 EENC clinical pocket guide adapted for local use	Has been reviewed for content and adapted for Chinese context – now needs to be finalized and produced	Identify status of final approval of the EENC clinical pocket guide and move to final approval and production.
	1.10 Proportion of EENC interventions incorporated into pre-service	No data collected. Multiple pre-service institutions and curricula. Therefore difficult to review all. Need time and personnel to conduct review.	Begin with most important pre-service curricula this year.
Table 2	2.1 Immediate skin-to-skin (STS) contact for at least 90 minutes 2.2 Proportion of newborns exclusively breastfed in the immediate postnatal period	Current STS indicator is not worded clearly because it should include “completed the first breastfeed”. Wording of the breastfeeding indicator is not clear on referred time period.	Define as: 3. % of babies receiving immediate and uninterrupted STS contact for at least 90 minutes and completing first breastfeed before separation. 4. % of babies receiving exclusive breastfeeding in the immediate newborn period.
	2.3 Proportion of newborns with a birthweight ≤ 2000g that receive continuous Kangaroo Mother Care (KMC) ≥ 18 hours	Small errors were made because the age category for LBW newborns currently ends at 2000g not 2500g. In addition, current weight threshold in AIR ends at 1999g – it is possible that a very small number of babies are not counted	Check KMC data for birth weight. Modify Checklist 2b in the Annual Implementation Review and Planning Guide to change the weight category cut-off to 2000g to capture babies who equal 2000g.
	2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with appropriate indications documented in the mother's record	This composite indicator is difficult to interpret. In general AIR surveyors may not have applied strict criteria on whether procedures were conducted according to criteria.	This indicator has been removed by the IRG. These measures will be incorporated into Module 5 on pregnancy and childbirth complications.
	2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids	Data not collected because it is difficult to determine whether facilities meet criteria	This indicator has been removed by the IRG.

	Indicator	Issue identified	Suggested actions
	2.11 Proportion of health facilities achieving standards	This measure required all standards to be achieved and did not show country change well.	Change the indicator to “proportion of health facility standards achieved” to show country change.
Table 3	Hospital impact data	No impact measures reported by any of the six early implementation hospitals	Consider beginning data collection in the six early implementation hospitals in 2017/18. See EENC quality reviews from the six hospitals in June 2016 for common gaps/data collection problems.
Table 4	Population-based coverage and impact data	No data on early newborn indicators available.	Identify mechanism for collecting early newborn indicators – consider incorporation in population-based surveys; 1 or 2 could be incorporated into routine HMIS
Table 5	Perinatal mortality rate	According to the National Health Statistics Annual Report (2016), the rate is 4.99	Check definition used for perinatal mortality rate – ensure that it is consistent with international standard. Revise if necessary.
	Targets for impact indicators	Targets not available for impact indicators	Consider setting targets for all impact measures.

DETAILED VALIDATION RESULTS OF EENC MONITORING AND EVALUATION DATA

Table A3.2.1: Implementation indicators - EENC scale-up readiness benchmarks

Benchmark	Status in 2015	Status in 2017	Validated? If no, reasons	Target 2020
1.10 Newborn health situation analysis conducted in the previous five years used for strategic planning	Yes	Yes	Yes	Yes
1.11 EENC 5-Year Action Plan developed based on the Regional Action Plan for Healthy Newborns costed and adopted by the ministry of health	No	No	Not applicable ¹	Yes
1.12 EENC Annual Implementation Review conducted annually to inform development of annual implementation plans	No	Yes	Yes	Yes
1.13 Detailed annual EENC Implementation Plan funded	No	Partial	Yes	Yes
1.14 EENC technical working/coordination group meets regularly ¹	No	Yes	Yes	Yes
1.15 Full-time EENC/newborn health focal person appointed in the ministry of health	No	No	Not applicable ¹	Yes
1.16 EENC stakeholder group meets regularly ²	No	No	Not applicable ¹	Yes
1.17 Clinical Intra-Partum and Newborn Care Protocol endorsed	No	Partial	Yes	Yes
1.18 Mechanisms established to ensure that professional associations are supporting implementation of EENC	No	No	Not applicable ¹	Yes
1.10 Proportion of EENC interventions (normal and high-risk deliveries) included in pre-service training curricula: ³ (a) medical; (b) nursing; (c) midwifery	No data No data No data	No data No data No data	Not applicable ¹	100% 100% 100%

¹ Only benchmarks of status “Yes” or “Partial” are reviewed for validation

Table A3.2.2: Health facility EENC standards

National and regional: N = 3

First-level referral: N = 3

Indicator	2017	Validated? If No, reasons	Regional Target 2020
2.10. Proportion of breathing newborns that receive immediate skin-to-skin contact for at least 90 minutes			
• National and regional			
All	41% (16/39)	Yes	80%
Term	58% (15/26)		
Preterm	8% (1/13)		
• First-level referral			
All	58% (18/31)		
Term	64% (18/28)		
Preterm	0% (0/3)		
• First level	Not applicable		
2.11. Proportion of newborns exclusively breastfed in the immediate postnatal period			
• National and regional		No Indicator for exclusive breastfeeding among preterms at the national level should be 31% (4/13)	90%
All	77% (30/39)		
Term	77% (20/26)		
Preterm	77% (10/13)		
• First-level referral			
All	71% (22/31)		
Term	79% (22/28)		
Preterm	0% (0/3)		
• First level	Not applicable		
2.12. Proportion of newborns with a birthweight \leq 2000g that receive continuous Kangaroo Mother Care \geq 18 hours			
• National and Regional	8% (1/13)	Yes	70%
• First-level referral	0% (0/3)		
• First Level	Not applicable		
2.13. Proportion of staff providing childbirth, newborn or postpartum care services at the health facility that are coached in EENC			
• National and Regional	82% (692/848)	Yes	90%
• First-level referral	91% (289/319)		
• First Level	Not applicable		
2.14. Proportion of facilities using a quality improvement approach to support implementation of EENC			
• National and Regional	67% (2/3)	Yes	80%
• First-level referral	33% (1/3)		
• First Level	Not applicable		

Indicator	2017	Validated? If No, reasons	Regional Target 2020
2.15. Proportion of delivery room(s), recovery room(s), neonatal care units (NCU), and postnatal care room(s) at the facility have adequate hand washing resources <ul style="list-style-type: none"> National and Regional First-level referral First Level 	71% (230/326) 46% (52/112) Not applicable	Yes	100%
2.16. Proportion of health facilities with <u>no</u> stock-outs of key life- saving medicines required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (3/3) 100% (3/3) Not applicable	Yes	100%
2.16.1. Magnesium sulfate for severe preeclampsia and eclampsia, and for fetal neuroprotection if <32 weeks of gestational age <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (3/3) 100% (3/3) Not applicable	Yes	100%
2.16.2. Oxytocin for the prevention of postpartum haemorrhage for all births <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (3/3) 100% (3/3) Not applicable	Yes	100%
2.16.3. Corticosteroids for women of 24 - 34 weeks of gestation at risk of preterm delivery <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (3/3) 100% (3/3) Not applicable	Yes	100%
2.16.4. Injectable antibiotics for newborn sepsis <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (3/3) 100% (3/3) Not applicable	Yes	100%
2.17. Proportion of health facilities with functional key life-saving commodities required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (3/3) 100% (3/3) Not applicable	Yes	100%
2.17.1. Functional ambu bag and mask (sizes 0 and 1) within 2 meters of all delivery beds <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (3/3) 100% (3/3) Not applicable	Yes	100%
2.17.2. Continuous supply of oxygen for newborn use (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (3/3) 100% (3/3) Not applicable	Yes	100%

Indicator	2017	Validated? If No, reasons	Regional Target 2020
2.17.3. Continuous Positive Airway Pressure (CPAP) (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	100% (3/3) 100% (3/3) Not applicable	Yes	100%
2.18. Proportion of health facilities which have eliminated baby foods industry conflicts of interest <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	0% (0/3) 0% (0/3) Not applicable	Yes	100%
2.18.1. Proportion of health facilities where no mother has products or gifts from baby food companies <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	100% (3/3) 67% (2/3) Not applicable	Yes	100%
2.18.2. Proportion of health facilities with a written policy to prohibit use of infant formula and other baby food company activities <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	0% (0/3) 0% (0/3) Not applicable	Yes	100%
2.18.3. Proportion of health facilities with no promotional baby food materials including posters, brochures, pamphlets, or items with logos on their premises <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	100% (3/3) 100% (3/3) Not applicable	Yes	100%
2.10 Proportion of complications during childbirths are properly managed and recorded			
2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with an appropriate indication documented in the mother's record <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	62% (13/21) 100% (10/10) Not applicable	Yes	Indicator to be removed
2.10.2 For facilities where conditions ¹ are met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	100% (8/8) 100% (5/5) Not applicable	Yes	100%

Indicator	2017	Validated? If No, reasons	Regional Target 2020
2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	Not applicable Not applicable Not applicable	Yes	Indicator to be removed
2.11 Proportion of health facility standards achieved ² <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	57% (12/21) ³ 57% (12/21) ⁴ Not applicable	Yes	80%

¹ Facility conditions: gestational age assessment can be accurately undertaken, adequate childbirth care is available, and the preterm newborn can receive adequate care if needed. (WHO recommendations on interventions to improve preterm birth outcomes, 2015)

² Total number of standards is 21 and not 23 because standards 2.10.1 and 2.10.3 are not included. The IRG has advised to remove these indicators from the regional EENC Monitoring and Evaluation Framework.

³ Health facility standards achieved at the national level: no stock-outs of: (1) key life-saving medicines required for EENC, (2) magnesium sulfate, (3) oxytocin, (4) corticosteroids, (5) antibiotics for sepsis, (6) key commodities, (7) functional ambu bag and mask, (8) oxygen; (9) CPAP; (10) no mother has products or gifts from baby food companies, (11) no promotional baby food materials, and (12) pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth.

⁴ Health facility standards achieved at the first-level referral: (1) proportion of staff coached in EENC; no stock-outs of: (2) key life-saving medicines required for EENC, (3) magnesium sulfate, (4) oxytocin, (5) corticosteroids, (6) antibiotics for sepsis, (7) key commodities, (8) functional ambu bag and mask, (9) oxygen, and (10) CPAP; (11) no promotional baby food materials, and (12) pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth.

Table A3.2.3: Hospital impact indicators

No data

Table A3.2.4: Coverage indicators for EENC interventions

Coverage measure	2016 ¹	2017 ²	Validated? If No, reasons	Country Target 2020
4.10. % of live births attended by skilled health personnel	99.8%	99.9%	Yes	
4.11. % of live births that take place at health facilities	99.6%	99.7%	Yes	
4.12. % of live births delivered by caesarean section	35%	34.3%	Yes	
4.13. % of live rural births delivered by caesarean section	30.2%	30.1%	Yes	
4.14. % of newborns dried after birth	No data	No data	Not applicable	
4.15. % of newborns with delayed bath after birth ²	No data	No data	Not applicable	
4.16. % of newborns placed on the mother's bare abdomen or chest immediately after delivery (skin-to-skin)	No data	No data	Not applicable	
4.17. % of newborns breastfed within one hour of birth	No data	No data	Not applicable	
4.18. % of newborns receiving a prelacteal feed	No data	No data	Not applicable	
4.10 % of live births with a reported birth weight	No data	100%	Yes	
4.11 % of women receiving postnatal care within two days of birth ³	93.9%	94.5%	Yes	
4.12 % of newborns receiving postnatal care within two days of birth	93.6%	94.3%	Yes	
4.13 % of newborns 0-1 month who are exclusively breastfed	No data	No data	Not applicable	

¹ Chinese Health Statistical Year Book 2015² Chinese Health Statistical Year Book 2016, National MCH Surveillance and Annual Report 2016³ Delayed bathing: at least 24 hours after birth.⁴ Postnatal care 0-72 hours or 0-2 days after birth.

Table A3.2.5: Impact indicators for newborn health

Data required	Measurement	2016¹	2017²	2017 data validated? If no, reasons	Country Target 2020
Neonatal deaths	5.4 Neonatal mortality rate (per 1000 live births)	5.9	5.4	Yes	
	5.5 Perinatal mortality rate ³ (per 1000 LB)	8.9	8.1	No According to the National Health Statistics Annual Report (2016), the rate is 4.99	
	5.6 Proportional causes of neonatal death: 5.3.1 Sepsis 5.3.2 Tetanus 5.3.3 Birth asphyxia 5.3.4 Pre-term birth 5.3.5 Congenital anomalies	2.5% 0.1% 24.2% 29.1% 17.4%	2.6% 0% 25.5% 30.8% 15.2%	Yes	
Prematurity/ Low birth weight	5.7 Low birth weight rate (<2500g)	2.6	2.6	Yes	
	5.8 Pre-term birth rate (< 37 weeks)	2.1	7.8 <i>Data correction</i>	Yes	

¹ Chinese Health Statistical Year Book 2015

² Maternal and Child Mortality Surveillance Report 2016

³ Perinatal mortality rate: The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1000.

**COUNTRY REPORT: LAO PEOPLE’S DEMOCRATIC REPUBLIC
SECOND BIENNIAL MEETING OF THE INDEPENDENT REVIEW GROUP ON
VALIDATION OF EARLY ESSENTIAL NEWBORN CARE PROGRESS, JUNE 2017**

In the Lao People’s Democratic Republic, newborn deaths now represent 42% of all under-5 child deaths and the neonatal mortality rate is estimated at 30 per 1000 live births⁷. EENC implementation began in four national hospitals (MCH, Mahosot, Mittaphab and Sethathirat) in 2014. In 2015, EENC implementation was scaled up to four provincial hospitals (Xiengkhouang, Huaphan, Luang Prabang, and Sayabouly) and in 2016 scale-up expanded to all provincial hospitals and district hospitals within select provinces. A cadre of national facilitators has been established to conduct EENC coaching. EENC teams have been formed in hospitals and use data to improve practices using the EENC quality improvement approach. EENC annual implementation reviews (AIRs) have been conducted since 2014, and findings used to inform national planning and programming.

A group of independent experts reviewed and validated country EENC data on June 27-29, 2017 using the WHO Regional Monitoring and Evaluation Framework, as part of a regional review of progress with EENC implementation. The primary objective of data validation was to give feedback to countries on improving indicators, data quality and information use.

SUMMARY OF FINDINGS

- EENC scale-up readiness benchmarks: Data were available for all ten benchmarks. The Lao People’s Democratic Republic has completed 8/10 and partially completed 2/10 benchmarks. Completed benchmarks include a newborn situational analysis, adoption of a 5-year EENC action plan, annual implementation reviews, regular meetings of a national EENC technical working group and adaptation of the EENC clinical pocket guide. No new data were available on incorporation of EENC into pre-service curricula since 2015. Data from 9 benchmarks were validated.
- EENC health facility standards: Data were available for 22/23 (96%) indicators. EENC has been introduced in 4/7 national hospitals, 17/17 provincial hospitals (first-level referral), and 32/137 district, military and police hospitals. A high proportion of delivery staff at all levels have been coached, including 69% of national staff and 76% of provincial staff. Only one hospital routinely uses a quality improvement approach to support EENC. All available data were validated.
- Hospital impact: Four national and 13 provincial hospitals reported 2016 data for 6/9 (67%) indicators. Data were not available for proportion of newborns by birth weight, newborn mortality stratified by birth weight, and case fatality for low-birth-weight newborns. Hospital data for the six indicators with data were validated.
- Population coverage of newborn interventions: Data from the 2011-12 Lao Social Indicator Survey (LSIS) were available for 9/13 indicators (69%). Data were not available for newborns dried after birth, skin-to-skin contact, delayed bathing, and newborns 0-1 month who were exclusively breastfed. All available data were validated.
- Newborn health impact: Data were available for 4/5 indicators (80%). Data were not available on the perinatal mortality rate. A country target has only been set for neonatal mortality. Data from the 4 indicators were validated.

⁷ Level & Trends in Child Mortality: Report 2015. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation. UNICEF; 2015.

SUMMARY OF PRINCIPAL FINDINGS – REVIEW OF EENC MONITORING AND EVALUATION FRAMEWORK

	Number	Proportion of total (%)
Scale-up Readiness Benchmarks (N=10)		
Data available	10	100
Data partially available	0	0
Data not available	0	0
Validated¹	9	90
Not validated¹	1	10
EENC health facility standards (N=23)		
Data available	22	96
Data partially available	0	0
Data not available	1	4
Validated²	22	100
Not validated²	0	0
Hospital Impact Indicators (N=9)		
Proportion of implementing hospitals reporting (N=53)	17	32
Data available	6	67
Data partially available	0	0
Data not available	3	33
Validated²	6	100
Not validated²	0	0
Coverage Indicators for EENC (N=13)		
Data available	9	69
Data not available	4	31
Validated²	9	100
Not validated²	0	0
Impact Indicators for EENC (N=5)		
Data available	4	80
Data not available	1	20
Validated²	4	100
Not validated²	0	0
Total EENC indicators (N=60)		
Data available	51	85
Data not available	9	15
Validated	50	98
Not validated	1	2

¹ Validation of data applies only to those benchmarks for which data was available, and for benchmarks that had been achieved or partially achieved.

² Validation of data applies only to those indicators for which data was available or partially available.

IRG COMMENTS ON INDICATORS: GENERAL AND COUNTRY-SPECIFIC

	Indicator	Issue identified	Suggested actions
Table 1	1.3 Annual implementation reviews every year	Not practical to expect annual implementation reviews.	Expected frequency will be changed to at least biennially
	1.10 Proportion of EENC interventions incorporated into pre-service	Data were not updated from 2015.	Repeat curricula review and update data for 2017.
Table 2	2.1 Immediate skin-to-skin (STS) contact for at least 90 minutes 2.2 Proportion of newborns exclusively breastfed in the immediate postnatal period	Current STS indicator is not worded clearly because it should include “completed the first breastfeed”. Wording of the breastfeeding indicator is not clear on referred time period.	Define as: 5. % of babies receiving immediate and uninterrupted STS contact for at least 90 minutes and completing first breastfeed before separation 6. % of babies receiving exclusive breastfeeding in the immediate newborn period.
	2.3 Proportion of newborns with a birthweight \leq 2000g that receive continuous Kangaroo Mother Care (KMC) \geq 18 hours	Small errors were made because the age category for low birth weight newborns currently ends at 2000g not 2500g. In addition, current weight threshold in AIR ends at 1999g – it is possible that a very small number of babies are not counted	Check KMC data for birth weight. Modify Checklist 2b in the Annual Implementation Review and Planning Guide to change the weight category cut-off to 2000g to capture babies who equal 2000g.
	2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with appropriate indications documented in the mother's record	Not calculated. This composite indicator is difficult to interpret. In general AIR surveyors did not apply strict criteria on whether procedures were conducted according to criteria.	This indicator has been removed by the IRG. These measures will be incorporated into Module 5 on pregnancy and childbirth complications.
	2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids	Data not collected because it is difficult to determine whether facilities meet criteria	This indicator has been removed by the IRG.
	2.11 Proportion of health facilities achieving standards	This measure required all standards to be achieved and did not show country change well.	Change the indicator to “proportion of health facility standards achieved” to show country change.
	Table 3	Hospital impact data	Data reported on 6 of 9 indicators due to limitations of routine reporting system.

	Indicator	Issue identified	Suggested actions
		Intensive support from CICH/WHO to collect hospital data not practical or sustainable in the long term.	Phase in DHIS-2 for routine reporting with EENC indicators included. Interim action: implementing hospitals will collect EENC data 6 monthly using retrospective review of records.
Table 4	Population-based coverage data	Last LSIS was in 2011/12. No data on early newborn indicators was included.	Ensure that next round of LSIS includes key early newborn care indicators in basic questionnaires – coordinate with organizing committee.
Table 5	Population-based impact measures	Perinatal mortality rate not available	Consider collecting in the next national population-based survey
	Targets for impact indicators	Targets available for only the newborn mortality rate	Consider setting targets for all impact measures.

DETAILED VALIDATION RESULTS OF EENC MONITORING AND EVALUATION DATA

Table A3.3.1: Implementation indicators - EENC scale-up readiness benchmarks

Benchmark	2015	2017	2017 data validated? If no, reasons	Target 2020
1.19 Newborn health situation analysis conducted in the previous five years used for strategic planning	Yes	Yes	Yes	Yes
1.20 EENC 5-Year Action Plan developed based on the Regional Action Plan for Healthy Newborns costed and adopted by the ministry of health	Yes	Yes	Yes	Yes
1.21 EENC Annual Implementation Review conducted annually to inform development of annual implementation plans	Yes	Yes	Yes	Yes
1.22 Detailed annual EENC Implementation Plan funded	Yes	Partial	Yes	Yes
1.23 EENC technical working/coordination group meets regularly	Yes	Yes	Yes	Yes
1.24 Full-time EENC/newborn health focal person appointed in the ministry of health	Partial	Yes	Yes	Yes
1.25 EENC stakeholder group meets regularly ²	Yes	Yes	Yes	Yes
1.26 Clinical Intra-Partum and Newborn Care Protocol endorsed	Yes	Yes	Yes	Yes
1.27 Mechanisms established to ensure that professional associations are supporting implementation of EENC	Yes	Yes	Yes	Yes
1.10 Proportion of EENC interventions (normal and high-risk deliveries) included in pre-service training curricula: ² (a) medical; (b) nursing; (c) midwifery	88% 54% 65%	88% 54% 65%	No Not validated as updated data has not been provided since 2015. Same data submitted as in 2015.	100% 100% 100%

Table A3.3.2: Health facility EENC standards

National and regional: N = 4

First-level referral: N = 14

Indicator	2015 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Regional Target 2020
2.19. Proportion of breathing newborns that receive immediate skin-to-skin contact for at least 90 minutes				
<ul style="list-style-type: none"> National and regional 			Yes	80%
All	No data	44% (22/50)		
Term		52% (21/42)		
Preterm		13% (1/8)		
<ul style="list-style-type: none"> First-level referral 				
All	No data	38% (59/156)		
Term		39% (57/147)		
Preterm		22% (2/9)		
<ul style="list-style-type: none"> First level 		Not applicable		
2.20. Proportion of newborns exclusively breastfed in the immediate postnatal period				
<ul style="list-style-type: none"> National and regional 			Yes	90%
All	55% (64/116)	66% (33/50)		
Term		62% (26/42)		
Preterm		88% (7/8)		
<ul style="list-style-type: none"> First-level referral 				
All	69% (50/72)	74% (115/156)		
Term		76% (111/147)		
Preterm		44% (4/9)		
<ul style="list-style-type: none"> First level 	Not applicable	Not applicable		
2.21. Proportion of newborns with a birthweight \leq 2000g that receive continuous Kangaroo Mother Care \geq 18 hours				
<ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	0% (0/6) 0% (0/6) Not applicable	Yes	70%
2.22. Proportion of staff providing childbirth, newborn or postpartum care services at the health facility that are coached in EENC				
<ul style="list-style-type: none"> National and Regional First-level referral First Level 	81% (197/244) 72% (329/454) Not applicable	69% (194/280) 76% (374/489) Not applicable	Yes	90%
2.23. Proportion of facilities using a quality improvement approach to support implementation of EENC				
<ul style="list-style-type: none"> National and Regional First-level referral 	No data	0% (0/4) 7% (1/14) Not applicable	Yes	80%
2.24. Proportion of delivery room(s), recovery room(s), neonatal care units (NCU), and postnatal care room(s) at the facility have adequate hand washing resources				
<ul style="list-style-type: none"> National and Regional 	No data	54% (21/39)	Yes	100%

Indicator	2015 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Regional Target 2020
<ul style="list-style-type: none"> • First-level referral • First Level 		18% (18/101) Not applicable		
2.25. Proportion of health facilities with <u>no</u> stock-outs of key life- saving medicines required to provide EENC <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	75% (3/4) 100% (14/14) Not applicable	Yes	100%
2.25.1. Magnesium sulfate for severe preeclampsia and eclampsia, and for fetal neuroprotection if <32 weeks of gestational age <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (4/4) 100% (14/14) Not applicable	Yes	100%
2.25.2. Oxytocin for the prevention of postpartum haemorrhage for all births <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (4/4) 100% (14/14) Not applicable	Yes	100%
2.25.3. Corticosteroids for women of 24 - 34 weeks of gestation at risk of preterm delivery <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (4/4) 100% (14/14) Not applicable	Yes	100%
2.25.4. Injectable antibiotics for newborn sepsis <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	75% (3/4) 100% (14/14) Not applicable	Yes	100%
2.26. Proportion of health facilities with functional key life-saving commodities required to provide EENC <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	75% (3/4) 86% (12/14) Not applicable	Yes	100%
2.26.1. Functional ambu bag and mask (sizes 0 and 1) within 2 meters of all delivery beds <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (4/4) 93% (13/14) Not applicable	Yes	100%
2.26.2. Continuous supply of oxygen for newborn use (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (4/4) 100% (14/14) Not applicable	Yes	100%

Indicator	2015 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Regional Target 2020
2.26.3. Continuous Positive Airway Pressure (CPAP) (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	75% (3/4) 86% (12/14) Not applicable	Yes	100%
2.27. Proportion of health facilities which have eliminated baby foods industry conflicts of interest <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	0% (0/4) 0% (0/14) Not applicable	Yes	100%
2.27.1. Proportion of health facilities where no mother has products or gifts from baby food companies <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (4/4) 100% (14/14) Not applicable	Yes	100%
2.27.2. Proportion of health facilities with a written policy to prohibit use of infant formula and other baby food company activities <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	0% (0/4) 0% (0/14) Not applicable	Yes	100%
2.27.3. Proportion of health facilities with no promotional baby food materials including posters, brochures, pamphlets, or items with logos on their premises <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (4/4) 100% (14/14) Not applicable	Yes	100%
2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with an appropriate indication documented in the mother's record <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	No data No data Not applicable	Yes	Indicator to be removed

Indicator	2015 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Regional Target 2020
2.10.2 For facilities where conditions ¹ are met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	88% (7/8) 33% (3/9) Not applicable	Yes	90%
2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	Not applicable Not applicable Not applicable	Yes	Indicator to be removed
2.11 Proportion EENC health facility standards achieved ² <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	33% (7/21) ³ 43% (9/21) ⁴ Not applicable	Yes	

¹ Facility conditions: gestational age assessment can be accurately undertaken, adequate childbirth care is available, and the preterm newborn can receive adequate care if needed. (WHO recommendations on interventions to improve preterm birth outcomes, 2015)

² Total number of standards is 21 and not 23 because standards 2.10.1 and 2.10.3 are not included. The IRG has advised to remove these indicators from the regional EENC Monitoring and Evaluation Framework

³ Health facility standards achieved at the national level: no stock-outs of: (1) magnesium sulfate, (2) oxytocin, (3) corticosteroids, (4) functional ambu bag and mask, (5) oxygen; (6) no mother has products or gifts from baby food companies, and (7) no promotional baby food materials.

⁴ Health facility standards achieved at the first-level referral: no stock-outs of (1) key life-saving medicines, (2) magnesium sulfate, (3) oxytocin, (4) corticosteroids, (5) antibiotics for sepsis, (6) ambu bag and mask, (7) oxygen; (8) no mother has products or gifts from baby food companies, and (9) no promotional baby food materials.

Table A3.3.3: Hospital impact indicators

National and regional: N = 4

First-level referral: N = 13

Indicator	Data by year		Validated? If no, reasons	Country target 2020
	2015	2016		
Neonatal care unit/nursery admission rate <ul style="list-style-type: none"> National First-level referral 	8.3 (851/10244) 11 (686/6335)	8.1 (841/10323) 10.9 (2165/19883)	Yes	
Proportion of newborns by weight (g):				
<ul style="list-style-type: none"> National 	No data	No data	Not applicable	
<1000				
1000 –1499				
1500-1999g				
2000-2499g				
2500-3500g				
>3500g				
<ul style="list-style-type: none"> First-level referral 	No data	No data		
<1000				
1000 –1499				
1500-1999g				
2000-2499g				
2500-3500g				
>3500g				
Proportion of newborns born at the facility classified with newborn sepsis ¹ <ul style="list-style-type: none"> National First-level referral 	2.9 (299/10244) 5.7 (360/6335)	1.9 (197/10323) 4.3 (860/19883)	Yes	
Proportion of newborns born at the facility classified with birth asphyxia ² <ul style="list-style-type: none"> National First-level referral 	1.1 (116/10244) 2.3 (147/6335)	1.2 (120/10323) 3.2 (635/19883)	Yes	
Weighted newborn mortality rate stratified by weight (g) (per 1000 live births):				
<ul style="list-style-type: none"> National 	No data	No data	Not applicable	
<1000				
1000 –1499				
1500-1999g				
2000-2499g				
2500-3500g				
>3500g				
<ul style="list-style-type: none"> First-level referral 	No data	No data		
<1000				
1000 –1499				
1500-1999g				
2000-2499g				
2500-3500g				
>3500g				

Indicator	Data by year		Validated? If no, reasons	Country target 2020
	2015	2016		
>3500g				
Case-fatality rate (% registered cases dying):				
Preterm newborns (deaths/cases) <ul style="list-style-type: none"> National First-level referral 	13.5 (53/394) 11.9 (37/310)	13.4 (68/506) 22.1 (188/850)	Yes	
Low birth weight newborns (deaths/cases) <ul style="list-style-type: none"> National First-level referral 	No data	No data	Not applicable	
Newborn sepsis (deaths/cases) <ul style="list-style-type: none"> National First-level referral 	7.7 (23/299) 6.1 (22/360)	4.6 (9/197) 7.8 (67/860)	Yes	
Newborn asphyxia (deaths/cases) <ul style="list-style-type: none"> National First-level referral 	19.0 (22/116) 15.6 (23/147)	5.8 (7/120) 11.0 (70/635)	Yes	

¹ Bacterial sepsis of the newborn: ICD-10 P36 (including codes P36.0 – P36.9 bacterial sepsis of known cause or sepsis of unknown cause).

² Birth asphyxia: ICD-10 P21; baby is not breathing or gasping at birth (including severe birth asphyxia (pulse less than 100 per minute at birth and falling or steady, respiration absent or gasping, colour poor, tone absent, with 1-minute Apgar score 0-3) and mild or moderate birth asphyxia (normal respiration established within one to two minutes, heart rate 100 or above, some muscle tone present, some response to stimulation, with 1-minute Apgar score 4-7).

Table A3.3.4: Coverage indicators for EENC interventions

Coverage measure	2015 ¹	2017 ¹	Validated? If No, reasons	Country Target 2020
4.19. % of live births attended by skilled health personnel	41.5%	41.5%	Yes	60%
4.20. % of live births that take place at health facilities	37.5%	37.5%	Yes	60%
4.21. % of live births delivered by caesarean section	3.7%	3.7%	Yes	5-15%
4.22. % of live rural births delivered by caesarean section	1.9%	1.9%	Yes	5-15%
4.23. % of newborns dried after birth	No data	No data	Not applicable	
4.24. % of newborns with delayed bath after birth ²	No data	No data	Not applicable	
4.25. % of newborns placed on the mother's bare abdomen or chest immediately after delivery (skin-to-skin)	No data	No data	Not applicable	
4.26. % of newborns breastfed within one hour of birth ³	39.1%	39.1%	Yes	60%
4.27. % of newborns receiving a prelacteal feed	33.6%	33.6%	Yes	15%
4.10 % of live births with a reported birth weight	42.5%	42.5%	Yes	60%
4.11 % of women receiving postnatal care within two days of birth ⁴	39.5%	39.5%	Yes	60%
4.12 % of newborns receiving postnatal care within two days of birth	40.6%	40.6%	Yes	60%
4.13 % of newborns 0-1 month who are exclusively breastfed	No data	No data	Not applicable	

¹ Lao Social Indicator Survey 2011-12

² Delayed bathing: at least 24 hours after birth.

³ The standard population-based survey indicator currently measures breastfeeding within 1 hour of birth and not the wider 90-minute window during which breastfeeding can occur.

⁴ Postnatal care 0-72 hours or 0-2 days after birth.

Table A3.3.5: Impact indicators for newborn health

Data required	Measurement	2015	2017	Validated? If no, reasons	Country Target 2020
Neonatal deaths	5.9 Neonatal mortality rate (per 1000 live births)	30 ¹	30 ¹	Yes	20
	5.10 Perinatal mortality rate ² (per 1000 LB)	No data	No data	Not applicable	
	5.11 Proportional causes of NN death: ³			Yes	
	5.3.1 Sepsis	18.0%	18.0%		
	5.3.2 Tetanus	1.4%	1.4%		
	5.3.3 Birth asphyxia	29%	29%		
5.3.4 Pre-term birth	26.0%	26.0%			
	5.3.5 Congenital anomalies	10.0%	10.0%		
Prematurity/ Low birth weight	5.12 Low birth weight rate (<2500g)	14.8 ⁴	14.8 ⁴	Yes	10
	5.13 Pre-term birth rate (< 37 weeks)	No data	10.8 ⁵	Yes	

¹ Level & Trends in Child Mortality: Report 2015. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation. UNICEF; 2015.

² Perinatal mortality rate: The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1000.

³ WHO/Maternal Child Epidemiology Estimation group estimates, 2015

⁴ Lao Social Indicator Survey 2011-12

⁵ Blencowe H, Cousens S, Oestergaard MZ et al. National, regional, and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. *Lancet* 2012; 379: 2162-72.

COUNTRY REPORT: MONGOLIA
THE SECOND BIENNIAL MEETING OF THE INDEPENDENT REVIEW GROUP ON
VALIDATION OF EARLY ESSENTIAL NEWBORN CARE PROGRESS, JUNE 2017
REVISED REPORT FOLLOWING DATA CORRECTIONS (AUGUST 2017)

In Mongolia, newborn deaths now represent 50% of all under-5 child deaths and the neonatal mortality rate is estimated at 10 per 1000 live births⁸. In 2014, Mongolia adopted its *Five-year Action Plan for Healthy Newborns* which aims to improve the quality of childbirth and immediate newborn care through introducing early essential newborn care (EENC) in health facilities. In the same year, EENC was introduced in the National Center for Maternal and Child Health (NCMCH), the three Maternity Homes in Ulaanbaatar, one provincial and one district hospital, and twenty-two first-level facilities. The Ministry of Health conducted its first EENC annual implementation review (AIR) in April 2015. Following the review, EENC was introduced in 20 additional provincial hospitals. A second AIR was conducted from October - December 2016.

A group of independent experts reviewed and validated country EENC data on June 27-29, 2017 using the WHO Regional Monitoring and Evaluation Framework, as part of a regional review of progress with EENC implementation. The primary objective of data validation was to give feedback to countries on improving indicators, data quality and information use.

SUMMARY OF FINDINGS

- EENC scale-up readiness benchmarks: Data were available for 10/10 (100%) of benchmarks. Mongolia has completed 7/10, partially completed 2/10, and not initiated 1/10 benchmarks. Completed benchmarks include a newborn situational analysis, adoption of a 5-year EENC action plan, EENC annual implementation plans, and adaptation of the EENC clinical pocket guide. A stakeholder group have not yet been formed. No new data were available since 2015 on integration of EENC into pre-service curricula. Data for six benchmarks were validated.
- EENC health facility standards: Data were completely available for 3/23 (13%) and partially available for 19/23 (83%) indicators, as no data were available from first-level facilities that have introduced EENC. Coaching has been done in 1/1 national, 3/7 Maternity Homes and private hospitals in Ulaanbaatar (regional), 21/21 provincial and district hospitals (first-level referral), and 23/113 rural general and inter-*soum* hospitals and *soum* health centres (first level). A high proportion of delivery staff at all levels have been coached, including 74% of national hospital staff and 84% of provincial and district hospital staff. All data were validated.
- Hospital impact: All 25 hospitals that have introduced EENC reported data for 2015 and 2016. Data were available for all nine indicators, though different birth weight categories were reported for the indicators on proportion of newborns by birth weight and neonatal mortality by birth weight. Hospital targets have not yet been set. All data were validated.
- Population coverage of newborn interventions: Data were available for 9/13 (69%) indicators, from the national health information system as well as the Social Indicator Sample Survey conducted in 2013. Data were not available on drying after birth, skin-to-skin contact, delayed bathing, and exclusive breastfeeding in the first month of life. All nine indicators with available data were validated.
- Newborn health impact: Data were available for 3/5 (60%) and partially available for 1/5 (20%) indicators. National maternal and child health surveillance data were used for all indicators except for preterm birth rate, source of which was modelled estimates by Blencowe et al.⁹ Targets were not reported for any indicators except neonatal mortality rate (set at 5 per 1000 live births; EENC Newborn Action Plan, 2014-2020). All data were validated.

⁸Level & Trends in Child Mortality: Report 2015. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation. UNICEF; 2015.

⁹Blencowe H, Cousens S, Oestergaard MZ et al. National, regional, and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. *Lancet* 2012; 379: 2162-72.

SUMMARY OF PRINCIPAL FINDINGS – REVIEW OF EENC MONITORING AND EVALUATION FRAMEWORK

	Number	Proportion of total (%)
Scale-up Readiness Benchmarks (N=10)		
Data available	10	100
Data partially available	0	0
Data not available	0	0
Validated ¹	7	78
Not validated ¹	2	22
EENC health facility standards (N=23)		
Data available	3	13
Data partially available	19	83
Data not available	1	4
Validated ²	22	100
Not validated ²	0	0
Hospital Impact Indicators (N=9)		
Proportion of implementing hospitals reporting (N=25)	25	100
Data available	9	100
Data partially available	0	0
Data not available	0	0
Validated ²	9	100
Not validated ²	0	0
Coverage Indicators for EENC (N=13)		
Data available	9	69
Data not available	4	31
Validated ²	9	100
Not validated ²	0	0
Impact Indicators for EENC (N=5)		
Data available	3	60
Data partially available	1	20
Data not available	1	20
Validated ²	4	100
Not validated ²	0	0
Total EENC indicators (N=60)		
Data available	34	57
Data partially available	20	33
Data not available	6	10
Validated	51	96
Not validated	2	4

¹ Validation of data applies only to those benchmarks for which data was available, and for benchmarks that had been achieved or partially achieved.

² Validation of data applies only to those indicators for which data was available or partially available.

IRG COMMENTS ON INDICATORS: GENERAL AND COUNTRY-SPECIFIC

	Indicator	Issue identified	Suggested actions
Table 1	1.1 Newborn health situation analysis	No date on one report; and no national data	Review reports and confirm date conducted; and whether they represent national analysis.
	1.3 Annual implementation reviews every year	Not practical to expect annual implementation reviews.	Expected frequency will be changed to at least biennially
	1.4. Annual EENC plan funded	Plan is available, but not clear whether it has been funded for current year.	Review and confirm that funding for continued scale-up of EENC has been received.
	1.6 EENC focal person appointed in MOH	Current staff-person responsible has multiple responsibilities – not clear whether they have adequate time to support EENC	Review and advise whether current staff-person has time to adequately support EENC.
	1.9 Professional associations supporting EENC	Not clear whether professional associations are actively supporting EENC and if so what they are doing and how	Provide information on role professional associations play in EENC and what they have done to support.
	1.10 Proportion of EENC interventions incorporated into pre-service	No new data from 2015 are reported	Review and provide updated data if available. If no change from 2015, confirm this.
Table 2	All indicators	No data were collected from first-level facilities that have begun EENC implementation. Therefore data were called “partial”. The exceptions were indicators 2.5,2.8.3 and 2.10.2 which apply only to higher level facilities – for which data were complete.	Consider including first-level facilities in the sample for the next AIR
	2.1 Immediate skin-to-skin (STS) contact for at least 90 minutes 2.2 Proportion of newborns exclusively breastfed in the immediate postnatal period	Current STS indicator is not worded clearly because it should include “completed the first breastfeed”. Wording of the breastfeeding indicator is not clear on referred time period.	Define as: 7. % of babies receiving immediate and uninterrupted STS contact for at least 90 minutes and completing first breastfeed before separation 8. % of babies receiving exclusive breastfeeding in the immediate newborn period.
	2.3 Proportion of newborns with a birthweight ≤ 2000g that receive continuous Kangaroo Mother Care (KMC) ≥ 18 hours	Small errors were made because the age category for low birth weight newborns currently ends at 2000g not 2500g. In addition, current weight threshold in AIR ends at 1999g – it is possible that a very small number of babies are not counted	Check KMC data for birth weight. Modify Checklist 2b in the Annual Implementation Review and Planning Guide to change the weight category cut-off to 2000g to capture babies who equal 2000g.
	2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with appropriate indications	This composite indicator is difficult to interpret. In general AIR surveyors may not have applied strict criteria on whether procedures were conducted according to criteria.	This indicator has been removed by the IRG. These measures will be incorporated into Module 5 on pregnancy and childbirth complications.

	Indicator	Issue identified	Suggested actions
	documented in the mother's record		
	2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids	Data not collected because it is difficult to determine whether facilities meet criteria	This indicator has been removed by the IRG.
	2.11 Proportion of health facilities achieving standards	This measure required all standards to be achieved and did not show country change well.	Change the indicator to “proportion of health facility standards achieved” to show country change.
Table 4	Population-based coverage and impact data	No data on early newborn indicators available.	Consider incorporation of newborn indicators in the next Mongolia Social Indicator Sample Survey.
Table 5	Low birth weight rate (<2500g)	No routine data reported for 2016	Review whether the routine data are available for this indicator. Consider adding to the next Social Indicator Sample Survey.
	Preterm birth rate	Rate is from modelled data (Blencowe et al.)	Consider incorporating an estimate of preterm birth rate into the routine information system. Also consider adding to the next Social Indicator Sample Survey.
	Targets for impact indicators	Targets available for only the newborn mortality rate	Consider setting targets for all impact measures.

DETAILED VALIDATION RESULTS OF EENC MONITORING AND EVALUATION DATA

Table A3.4.1: Implementation indicators - EENC scale-up readiness benchmarks

Benchmark	2016	2017	Validated? If no, reasons	Target 2020
1.28 Newborn health situation analysis conducted in the previous five years used for strategic planning	Yes	Yes	Yes However, no date indicated on one situational analysis report. Also, analyses were done of sub-regions and not nation-wide.	Yes
1.29 EENC 5-Year Action Plan developed based on the Regional Action Plan for Healthy Newborns costed and adopted by the ministry of health	Yes	Yes	Yes	Yes
1.30 EENC Annual Implementation Review conducted at least biennially to inform development of annual implementation plans	Yes	Yes	Yes	Yes
1.31 Detailed annual EENC Implementation Plan funded	Yes	Yes	Yes Detailed 12-month plan has been developed and budgeted. Not clear if it has been funded.	Yes
1.32 EENC technical working/coordination group meets regularly	Partial	Partial <i>Data correction</i>	Yes	Yes
1.33 Full-time EENC/newborn health focal person appointed in the ministry of health	No	Yes	Yes However, noted that the focal person also covers other areas (maternal health, child health). Partial data available from supporting documentation to determine if focal person's responsibilities cover EENC.	Yes
1.34 EENC stakeholder group meets regularly	No	No	Not applicable ¹	Yes
1.35 Clinical Intra-Partum and Newborn Care Protocol endorsed	Yes	Yes	Yes	Yes
1.36 Mechanisms established to ensure that professional associations are supporting implementation of EENC	Partial	Yes	No Not clear that the associations are specifically supporting EENC	Yes
1.10 Proportion of EENC interventions (normal and high-risk deliveries) included in pre-service training curricula: ² (a) medical; (b) nursing; (c) midwifery	61.5% 38.5% 38.5%	61.5% 38.5% 38.5%	No Not validated because no updated review of pre-service curricula has been done since 2015. Same data submitted as in 2015.	100% 100% 100%

¹Only benchmarks of status "Yes" or "Partial" are reviewed for validation

Table A3.4.2: Health facility EENC standards

National and regional: N = 4

First-level referral: N = 21

Indicator	2015	2017	Validated? If No, reasons	Regional Target 2020
2.28. Proportion of breathing newborns that receive immediate skin-to-skin contact for at least 90 minutes				
<ul style="list-style-type: none"> National and regional 			Yes	80%
All	No data	33% (22/67)		
Term		55% (22/40)		
Preterm		0% (0/27)		
<ul style="list-style-type: none"> First-level referral 				
All	No data	38% (81/215)		
Term		42% (72/173)		
Preterm		21% (9/42)		
<ul style="list-style-type: none"> First level 	No data	No data		
2.29. Proportion of newborns exclusively breastfed in the immediate postnatal period				
<ul style="list-style-type: none"> National and regional 			Yes	90%
All	71% (22/31)	80% (53/66)		
Term		92% (36/39)		
Preterm		63% (17/27)		
<ul style="list-style-type: none"> First-level referral 				
All	70% (7/10)	88% (186/212)		
Term		92% (159/173)		
Preterm		69% (27/39)		
<ul style="list-style-type: none"> First level 	No data	No data		
2.30. Proportion of newborns with a birthweight \leq 2000g that receive continuous Kangaroo Mother Care \geq 18 hours				
<ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	0% (0/27) 0% (0/38) No data	Yes	70%
2.31. Proportion of staff providing childbirth, newborn or postpartum care services at the health facility that are coached in EENC			Yes However, no updated data provided for first-level since 2015	90%
<ul style="list-style-type: none"> National and Regional First-level referral First Level 	42% (277/656) 96% (49/51) 26% (140/546)	74% (258/347) 84% (502/600) 26% (140/546)		
2.32. Proportion of facilities using a quality improvement approach to support implementation of EENC				
<ul style="list-style-type: none"> National and Regional First-level referral 	75% (3/4) 100% (2/2)	75% (3/4) 29% (6/21)	Yes	80%
2.33. Proportion of delivery room(s), recovery room(s), neonatal care units (NCU), and postnatal care			Yes	100%

Indicator	2015	2017	Validated? If No, reasons	Regional Target 2020
room(s) at the facility have adequate hand washing resources <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	31% (43/137) 32% (67/208) No data		
2.34. Proportion of health facilities with <u>no</u> stock-outs of key life- saving medicines required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (4/4) 100% (2/2) 22% (2/9)	75% (3/4) 90% (18/20) No data	Yes	100%
2.34.1. Magnesium sulfate for severe preeclampsia and eclampsia, and for fetal neuroprotection if <32 weeks of gestational age <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (4/4) 100% (2/2) 100% (9/9)	75% (3/4) 100% (20/20) No data	Yes	100%
2.34.2. Oxytocin for the prevention of postpartum haemorrhage for all births <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (4/4) 100% (2/2) 100% (9/9)	100% (4/4) 95% (19/20) No data	Yes	100%
2.34.3. Corticosteroids for women of 24 - 34 weeks of gestation at risk of preterm delivery <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (4/4) 100% (2/2) 22% (2/9)	100% (4/4) 100% (20/20) No data	Yes	100%
2.34.4. Injectable antibiotics for newborn sepsis <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (4/4) 100% (2/2) 22% (2/9)	100% (4/4) 90% (18/20) No data	Yes	100%
2.35. Proportion of health facilities with functional key life-saving commodities required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (4/4) 100% (2/2) 11% (1/9)	100% (4/4) 60% (12/20) No data	Yes	100%
2.35.1. Functional ambu bag and mask (sizes 0 and 1) within 2 meters of all delivery beds <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (4/4) 100% (2/2) 11% (1/9)	100% (4/4) 100% (20/20) No data	Yes	100%
2.35.2. Continuous supply of oxygen for newborn use (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (4/4) 100% (2/2) 100% (9/9)	100% (4/4) 100% (20/20) No data	Yes	100%

Indicator	2015	2017	Validated? If No, reasons	Regional Target 2020
2.35.3. Continuous Positive Airway Pressure (CPAP) (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (4/4) 100% (2/2) Not applicable	100% (4/4) 60% (12/20) Not applicable	Yes	100%
2.36. Proportion of health facilities which have eliminated baby foods industry conflicts of interest <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	0% (0/4) 0% (0/21) No data	Yes	100%
2.36.1. Proportion of health facilities where no mother has products or gifts from baby food companies <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	100% (4/4) 100% (21/21) No data	Yes	100%
2.36.2. Proportion of health facilities with a written policy to prohibit use of infant formula and other baby food company activities <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	0% (0/4) 0% (0/21) No data	Yes	100%
2.36.3. Proportion of health facilities with no promotional baby food materials including posters, brochures, pamphlets, or items with logos on their premises <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	100% (4/4) 100% (21/21) No data	Yes	100%
2.10 Proportion of complications during childbirths are properly managed and recorded				Indicator to be removed
2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with an appropriate indication documented in the mother's record <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	60% (18/30) 63% (81/135) No data	Yes	90%
2.10.2 For facilities where conditions ¹ are met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	60% (3/5) 88% (21/24) Not applicable	Yes	Indicator to be removed

Indicator	2015	2017	Validated? If No, reasons	Regional Target 2020
2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	Not applicable Not applicable No data	No	80%
2.11 Proportion EENC health facility standards achieved ² <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	43% (9/21) ³ 29% (6/21) ⁴ No data	Yes Most standards have reasonably good coverage, but written policies to prohibit infant formula should be promoted more	

¹Facility conditions: gestational age assessment can be accurately undertaken, adequate childbirth care is available, and the preterm newborn can receive adequate care if needed. (WHO recommendations on interventions to improve preterm birth outcomes, 2015)

² Total number of standards is 21 and not 23 because standards 2.10.1 and 2.10.3 are not included. The IRG has advised to remove these indicators from the regional EENC Monitoring and Evaluation Framework

³ Health facility standards achieved at the national level: no stock-outs of: (1) oxytocin, (2) corticosteroids, (3) antibiotics for sepsis, (4) key commodities, (5) functional ambu bag and mask, (6) oxygen, and (7) CPAP; (8) no mother has products or gifts from baby food companies, and (9) no promotional baby food materials.

⁴ Health facility standards achieved at first-level referral: (1) magnesium sulfate, (2) corticosteroids, (3) functional ambu bag and mask, (4) oxygen, (5) no mother has products or gifts from baby food companies, and (6) no promotional baby food materials.

Table A3.4.3: Hospital impact indicators

National and regional: N = 4

First-level referral: N = 21

Indicator	Data by year		Validated? If no, reasons	Country target 2020
	2015	2016		
Neonatal care unit/nursery admission rate <ul style="list-style-type: none"> National First-level referral 	6.1% (2350/38543) 7.5% (2591/34673)	6.3% (2368/37553) 6.2% (2075/33322)	Yes	
Proportion of newborns by weight (g):				
<1000 <ul style="list-style-type: none"> National First-level referral 	0.3% (134/38543) 0.1% (21/34673)	0.4% (161/37553) 0.1% (31/33322)	Yes	
1000 – 1499 <ul style="list-style-type: none"> National First-level referral 	0.6% (236/38543) 0.3% (101/34673)	0.6% (209/37553) 0.3% (97/33322)		
1500 – 1999 <ul style="list-style-type: none"> National First-level referral 	1.2% (450/38543) 0.8% (277/34673)	1.0% (369/37553) 0.7% (243/33322)		
≥ 2000 <ul style="list-style-type: none"> National First-level referral 	97.9% (37723/38543) 98.8% (34274/34673)	98.0% (36814/37553) 98.9% (32951/33322)		
Proportion of newborns born at the facility classified with newborn sepsis ¹ <ul style="list-style-type: none"> National First-level referral 	0.0% (0/38543) 0.04% (14/34673)	0.02% (8/37553) 0.02% (5/33322)	Yes	
Proportion of newborns born at the facility classified with birth asphyxia ² <ul style="list-style-type: none"> National First-level referral 	0.8% (293/38543) 3.6% (1247/34673)	0.7% (248/37553) 3.3% (1099/33322)	Yes	
Weighted newborn mortality rate stratified by weight (g) (per 1000 live births):				
<1000 (deaths/births) <ul style="list-style-type: none"> National First-level referral 	850.7 (114/134) 857.1 (19/21)	745.3 (120/161) 871.0 (28/31)	Yes	
1000 – 1499 <ul style="list-style-type: none"> National First-level referral 	411.0 (97/236) 584.2 (62/101)	325.4 (68/209) 649.5 (64/97)		
1500 – 2499 <ul style="list-style-type: none"> National First-level referral 	64.4 (102/1135) 112.7 (141/1251)	47.2 (66/1397) 96.0 (114/1188)		
≥ 2500 <ul style="list-style-type: none"> National First-level referral 	2.6 (94/36588) 4.9 (164/33300)	2.7 (95/35786) 4.2 (136/32006)		
Case-fatality rate (% registered cases dying):				
Preterm newborns <ul style="list-style-type: none"> National 	22.7% (313/1380)	16.3% (268/1645)	Yes	

Indicator	Data by year		Validated? If no, reasons	Country target 2020
	2015	2016		
• First-level referral	18.9% (237/1254)	15.6% (221/1413)		
Low birth weight newborns				
• National	8.8% (313/3540)	8.0% (254/3164)	Yes	
• First-level referral	8.5% (222/2624)	8.2% (206/2504)		
Newborn sepsis				
• National	0% (0/0)	12.5% (1/8)	Yes	
• First-level referral	35.7% (5/14)	20.0% (1/5)		
Newborn asphyxia				
• National	16.0% (47/293)	6.9% (17/248)	Yes	
• First-level referral	2.1% (26/1247)	2.0% (22/1099)		

¹Bacterial sepsis of the newborn: ICD-10 P36 (including codes P36.0 – P36.9 bacterial sepsis of known cause or sepsis of unknown cause).

²Birth asphyxia: ICD-10 P21: baby is not breathing or gasping at birth (including severe birth asphyxia (pulse less than 100 per minute at birth and falling or steady, respiration absent or gasping, colour poor, tone absent, with 1-minute Apgar score 0-3) and mild or moderate birth asphyxia (normal respiration established within one to two minutes, heart rate 100 or above, some muscle tone present, some response to stimulation, with 1-minute Apgar score 4-7).

Table A3.4.4: Coverage indicators for EENC interventions, 2014-2020

Coverage measure	2015 ¹	2017 ²	Validated? If No, reasons	Country Target 2020
4.28. % of live births attended by skilled health personnel	98.9%	99.6%	Yes	100%
4.29. % of live births that take place at health facilities	98.4%	99.6%	Yes	100%
4.30. % of live births delivered by caesarean section	23.4%	24.8%	Yes	5-15%
4.31. % of live rural births delivered by caesarean section	18.0%	22.8%	Yes	5-15%
4.32. % of newborns dried after birth	No data	No data	Not applicable	
4.33. % of newborns with delayed bath after birth ³	No data	No data	Not applicable	
4.34. % of newborns placed on the mother's bare abdomen or chest immediately after delivery (skin-to-skin)	No data	No data	Not applicable	
4.35. % of newborns breastfed within one hour of birth ⁴	93.0%	94.8%	Yes	100%
4.36. % of newborns receiving a prelacteal feed	No data	26.0%	Yes	0%
4.10 % of live births with a reported birth weight	99.3%	99.3%	Yes	
4.11 % of women receiving postnatal care within two days of birth ⁵	95.4%	95.4%	Yes	
4.12 % of newborns receiving postnatal care within two days of birth	98.6%	98.4%	Yes	
4.13 % of newborns 0-1 month who are exclusively breastfed	No data	No data	Not applicable	85%

¹ Mongolia Health Indicators 2014, Mongolia MICS-SISS 2013 Preliminary Findings

² Mongolia Health Indicators 2015, Mongolia MICS-SISS 2013

³ Delayed bathing: at least 24 hours after birth.

⁴ The standard indicator currently measures breastfeeding within 1 hour of birth and not the wider 90-minute window during which breastfeeding can occur.

⁵ Postnatal care 0-72 hours or 0-2 days after birth.

Table A3.4.5: Impact indicators for newborn health, 2014-2020

Data required	Measurement	2015 ¹	2017 ²	Validated? If no, reasons	Country Target 2020
Neonatal deaths	5.1 Neonatal mortality rate (per 1000 live births)	10	10.2	Yes	5
	5.2 Perinatal mortality rate ³ (per 1000 live births)	14.5	14.6	Yes	
	5.3 Proportional causes of NN death:			Yes	
	5.3.1 Sepsis	3.8%	2.8%		
	5.3.2 Tetanus	0%	0.0%		
	5.3.3 Birth asphyxia	12.5%	7.5%		
5.3.4 Pre-term birth	34.0%	No data			
5.3.5 Congenital anomalies	9.9%	9.6%			
Prematurity/ Low birth weight	5.4 Low birth weight rate (<2500g)	4.4	No data	Not applicable	
	5.5 Pre-term birth rate (< 37 weeks)	No data	13.5	Yes	

¹ Mongolia Health Indicators 2014, National Maternal and Child Health Surveillance Data 2014

² National Maternal and Child Health Surveillance Data 2015, Blencowe et al 2013 (preterm birth rate data)

³ Perinatal mortality rate: The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1000.

COUNTRY REPORT: PAPUA NEW GUINEA
THE SECOND BIENNIAL MEETING OF THE INDEPENDENT REVIEW GROUP ON
VALIDATION OF EARLY ESSENTIAL NEWBORN CARE PROGRESS, JUNE 2017

In Papua New Guinea (PNG), newborn deaths now represent 42% of all under-5 child deaths and the neonatal mortality rate is estimated at 25 per 1000 live births¹⁰. PNG began EENC coaching in early 2015 and introduced quality improvement for EENC in the national hospital and two provincial hospitals in mid-2015. Since, EENC has been scaled to 192 health facilities (26% of all health facilities in the country) in eight provinces, including the National Capital District. An EENC hospital team has been formed at the national hospital and regular assessments of care are conducted to inform quality improvement.

A group of independent experts reviewed and validated country EENC data on June 27-29, 2017 using the WHO Regional Monitoring and Evaluation Framework, as part of a regional review of progress with EENC implementation. The primary objective of data validation was to give feedback to countries on improving indicators, data quality and information use.

SUMMARY OF FINDINGS

- EENC scale-up readiness benchmarks: Data were available for 10/10 (100%) of benchmarks. PNG has completed 7/10 (70%) benchmarks, partially completed 1/10 (10%) benchmarks and not begun work on two benchmarks. Completed benchmarks include a newborn health situation analysis, development of a 5-year action plan and a funded 1-year EENC implementation plan, and appointment of a full time newborn health coordinator in the National Department of Health. Over 60% of EENC interventions have been incorporated into pre-service curricula. However, no new data on pre-service curricula are available since 2015. Data for six benchmarks were validated.
- EENC health facility standards: Data were available for 2/23 (9%) indicators, partially available for 18/23 (78%), and not available for 3/23 (13%) indicators. EENC coaching has begun in 1/1 national hospital, 7/20 (35%) provincial hospitals, 11/11 (100%) district hospitals and 173/717 first level facilities. Details on coaching coverage are only available for the national hospital, where 70% of maternity and paediatric staff have been coached. Nineteen indicators (95%) with complete or partial data were validated.
- Hospital impact: 2016 data were reported from the national and two provincial hospitals. Data were available for all nine hospital indicators. A number of measures had missing data. Data inconsistencies were noted for newborn mortality by birth weight category. Hospital targets have not yet been set. Eight of nine (89%) indicators were validated.
- Population coverage of newborn interventions: Population data were available for 3/13 (23%) indicators (skilled birth attendance, facility births, and exclusive breastfeeding 0-1 month) and not available for 10/13 indicators. However the data is from the last Demographic and Health Survey (DHS) in 2006 and therefore outdated; many indicators in the areas of immediate newborn and postnatal care were not included. Data were not validated as data were more than 10 years outdated.
- Newborn health impact: Data were available for 3/5 (60%) indicators, from the 2006 DHS, the WHO/Maternal Child Epidemiology Estimation Group, and Blencowe et al.'s modelling estimates of preterm birth. Data were not available on the perinatal mortality and low birth weight rates. All three indicators were validated.

¹⁰ Level & Trends in Child Mortality: Report 2015. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation. UNICEF; 2015.

SUMMARY OF PRINCIPAL FINDINGS – REVIEW OF EENC MONITORING AND EVALUATION FRAMEWORK

	Number	Proportion of total (%)
Scale-up Readiness Benchmarks (N=10)		
Data available	10	100
Data partially available	0	0
Data not available	0	0
Validated ¹	6	66
Not validated ¹	3	33
EENC health facility standards (N=23)		
Data available	2	9
Data partially available	18	78
Data not available	3	13
Validated ²	19	95
Not validated ²	1	5
Hospital Impact Indicators (N=9)		
Proportion of implementing hospitals reporting (N=32)	3	9
Data available	9	100
Data partially available	0	0
Data not available	0	0
Validated ²	8	89
Not validated ²	1	11
Coverage Indicators for EENC (N=13)		
Data available	3	23
Data not available	10	76
Validated ²	0	0
Not validated ²	3	100
Impact Indicators for EENC (N=5)		
Data available	3	60
Data not available	2	40
Validated ²	3	100
Not validated ²	0	0
Total EENC indicators (N=60)		
Data available	27	45
Data partially available	18	30
Data not available	15	25
Validated	36	82
Not validated	8	18

¹ Validation of data applies only to those benchmarks for which data was available, and for benchmarks that had been achieved or partially achieved.

² Validation of data applies only to those indicators for which data was available or partially available.

IRG COMMENTS ON INDICATORS: GENERAL AND COUNTRY-SPECIFIC

	Indicator	Issue identified	Suggested actions
Table 1	1.3 Annual implementation reviews (AIRs) every year	An AIR has not been formally conducted, although data for planning have been collected as part of routine data quality collection.	Consider changing to 'partial' as data are available. Expected frequency for AIRs will be changed to at least biennially to be more practical
	1.5. EENC technical working group meeting regularly	Last meeting minutes provided are from March 2016, it does not seem like the working group is meeting regularly.	Status should be changed to 'partial' – or provide more information that meeting are taking place
	1.10 Proportion of EENC interventions incorporated into pre-service	No new data from 2015 are reported	Review and provide updated data if available. If no change from 2015, confirm this.
Table 2	All indicators	No data were collected from first-level facilities that have begun EENC implementation. Therefore, data were called "partial". The exceptions were indicators 2.6 and 2.8.3 which apply only to higher level facilities – for which data were complete.	Consider including first-level facilities in the sample for an AIR
	2.1 Immediate skin-to-skin (STS) contact for at least 90 minutes 2.2 Proportion of newborns exclusively breastfed in the immediate postnatal period	Current STS indicator is not worded clearly because it should include "completed the first breastfeed". Wording of the breastfeeding indicator is not clear on referred time period.	Define as: 9. % of babies receiving immediate and uninterrupted STS contact for at least 90 minutes and completing first breastfeed before separation 10. % of babies receiving exclusive breastfeeding in the immediate newborn period.
	Indicators 2.3 (Kangaroo Mother Care), 2.6 (hand washing), 2.10.2 (steroids for mothers 24-34 weeks) and 2.10.3 (use of steroids when not appropriate)	These indicators were not included in the EENC quality assurance checklists used to collect data. Therefore no data were available.	Consider using the AIR Checklists and AIR method for collecting the next round of facility data
	2.4 Proportion of staff providing childbirth, newborn or postpartum care services at the health facility that are coached in EENC	No denominators are available for lower level facilities for calculating coverage	Add denominators to allow coaching coverage to be calculated.

	Indicator	Issue identified	Suggested actions
	2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with appropriate indications documented in the mother's record	This composite indicator is difficult to interpret. In general surveyors may not have applied strict criteria on whether procedures were conducted according to criteria.	This indicator has been removed by the IRG. These measures will be incorporated into Module 5 on pregnancy and childbirth complications.
	2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids	Data not collected because it is difficult to determine whether facilities meet criteria	This indicator has been removed by the IRG.
	2.11 Proportion of health facilities achieving standards	This measure required all standards to be achieved and did not show country change well.	Change the indicator to "proportion of health facility standards achieved" to show country change. Check the new calculation
Table 3	Hospital impact data	Inconsistencies were found in reported data on: 1) live births by birthweight category; 2) some months were missing data; 3) newborn mortality by birth weight category (did not match total deaths)	Review recording and reporting of mortality in areas with data problems identified. Ensure that all hospitals apply the same criteria
Table 4	Population-based coverage and impact data	No data on 10 key indicators. No population-based survey since 2006.	Consider a repeat population-based survey. Ensure newborn health indicators are included.
Table 5	All impact data	No new data are reported since the 2006 population-based survey. Data have not been collected on the perinatal mortality rate; or on the LBW rate.	Ensure that all impact measures are included in the next Demographic and Health Survey.
	Preterm birth rate	Rate is from modelled data (Blencowe et al)	Consider incorporating an estimate of preterm birth rate into the next population-based survey.
	Targets for impact indicators	Targets available for only the newborn mortality rate	Consider setting targets for all impact measures.

DETAILED VALIDATION RESULTS OF EENC MONITORING AND EVALUATION DATA

Table A3.5.1: Implementation indicators - EENC scale-up readiness benchmarks

Benchmark	2016	2017	2017 data validated? If no, reasons	Target 2020
1.37 Newborn health situation analysis conducted in the previous five years used for strategic planning	Yes	Yes	Yes	Yes
1.38 EENC 5-Year Action Plan developed based on the Regional Action Plan for Healthy Newborns costed and adopted by the ministry of health	Partial	Yes	Yes	Yes
1.39 EENC Annual Implementation Review conducted annually to inform development of annual implementation plans	No	No	No Status should be changed to partial, as data has been collected. Only the meeting has not yet been conducted.	Yes
1.40 Detailed annual EENC Implementation Plan funded	Yes	Yes	Yes	Yes
1.41 EENC technical working/coordination group meets regularly	Partial	Yes	No Last meeting minutes provided are from March 2016, it does not seem like the working group is meeting regularly. Status should be changed to partial	Yes
1.42 Full-time EENC/newborn health focal person appointed in the ministry of health	Yes	Yes	Yes	Yes
1.43 EENC stakeholder group meets regularly	No	No	Not applicable	Yes
1.44 Clinical Intra-Partum and Newborn Care Protocol endorsed	Partial	Yes	Yes	Yes
1.45 Mechanisms established to ensure that professional associations are supporting implementation of EENC	Yes	Yes	Yes	Yes
1.46 Proportion of EENC interventions (normal and high-risk deliveries) included in pre-service training curricula:			No No new data have been submitted since 2015. Pre-service curricula need to be reviewed again for incorporation of EENC interventions.	
(a) medical;	65%	65%		100%
(b) nursing;	65%	65%		100%
(c) midwifery	69%	69%		100%

Table A3.5.2: Health facility EENC standards

National and regional: N = 1

First-level referral: N = 5

Indicator	2015	2017	2017 data validated? If No, reasons	Regional Target 2020
2.1 Proportion of breathing newborns that receive immediate skin-to-skin contact for at least 90 minutes				
• National and Regional				
All		0% (0/10)	Yes	80%
Term	0% (0/31)	Disaggregated data not available		
Preterm				
• First-level referral				
All		0% (0/39)	Yes	80%
Term	0% (0/5)	Disaggregated data not available		
Preterm				
• First Level	No data	No data		
2.2 Proportion of newborns exclusively breastfed in the immediate postnatal period				
• National and Regional				
All		100% (10/10)	Yes	90%
Term	94% (31/33)	Disaggregated data not available		
Preterm				
• First-level referral				
All		90% (35/29)	Yes	90%
Term	93% (13/14)	Disaggregated data not available		
Preterm				
• First Level	No data	No data		
2.3 Proportion of newborns with a birthweight \leq 2000g that receive continuous Kangaroo Mother Care \geq 18 hours				
• National and Regional	No data	No data	Not applicable	70%
• First-level referral	No data	No data		
• First Level	No data	No data		
2.4 Proportion of staff providing childbirth, newborn or postpartum care services at the health facility that are coached in EENC			Yes	
• National and Regional	39% (97/248)	70% (135/192)	However, denominator needs to be provided for lower level facilities to calculate proportion	90%
• First-level referral	39% (76/194)	579		
• First Level	21% (85/297)			

Indicator	2015	2017	2017 data validated? If No, reasons	Regional Target 2020
2.5 Proportion of facilities using a quality improvement approach to support implementation of EENC <ul style="list-style-type: none"> National and Regional First-level referral 	No data	100% (1/1) 0% (0/31) 0% (0/157)	Yes	80%
2.6 Proportion of delivery room(s), recovery room(s), neonatal care units (NCU), and postnatal care room(s) at the facility have adequate hand washing resources <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	No data No data No data	No Partial data are available from quality improvement assessments, but these are difficult to interpret due to incomplete data.	100%
2.7 Proportion of health facilities with <u>no</u> stock-outs of key life- saving medicines required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	0% (0/1) 50% (1/2) No data	0% (0/1) 60% (3/5) No data	Yes	100%
2.7.1 Magnesium sulfate for severe preeclampsia and eclampsia, and for fetal neuroprotection if <32 weeks of gestational age <ul style="list-style-type: none"> National and Regional First-level referral First Level 	0% (0/1) 100% (2/2) No data	100% (1/1) 80% (4/5) No data	Yes	100%
2.7.2 Oxytocin for the prevention of postpartum haemorrhage for all births <ul style="list-style-type: none"> National and Regional First-level referral First Level 	0% (0/1) 100% (2/2) No data	100% (1/1) 100% (5/5) No data	Yes	100%
2.7.3 Corticosteroids for women of 24 - 34 weeks of gestation at risk of preterm delivery <ul style="list-style-type: none"> National and Regional First-level referral First Level 	0% (0/1) 50% (1/2) No data	0% (0/1) 80% (4/5) No data	Yes	100%
2.7.4 Injectable antibiotics for newborn sepsis <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (1/1) 100% (2/2) No data	100% (1/1) 100% (5/5) No data	Yes	100%
2.8 Proportion of health facilities with functional key life-saving commodities required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	0% (0/1) 50% (1/2) No data	0% (0/1) 0% (0/5) No data	Yes	100%

Indicator	2015	2017	2017 data validated? If No, reasons	Regional Target 2020
2.8.1 Functional ambu bag and mask (sizes 0 and 1) within 2 meters of all delivery beds <ul style="list-style-type: none"> • National and Regional ⁵ • First-level referral • First Level 	0% (0/1) 50% (1/2) No data	0% (0/1) 60% (3/5) No data	Yes	100%
2.8.2 Continuous supply of oxygen for newborn use (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	100% (1/1) 100% (2/2) No data	100% (1/1) 100% (5/5) No data	Yes	100%
2.8.3 Continuous Positive Airway Pressure (CPAP) (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	0% (0/1) 50% (1/2) No data	100% (1/1) 20% (1/5) Not applicable	Yes	100%
2.9 Proportion of health facilities which have eliminated baby foods industry conflicts of interest <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	0% (0/1) 20% (1/5) No data	Yes	100%
2.9.1 Proportion of health facilities where no mother has products or gifts from baby food companies <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (1/1) 100% (5/5) No data	Yes	100%
2.9.2 Proportion of health facilities with a written policy to prohibit use of infant formula and other baby food company activities <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	0% (0/1) 0% (0/5) No data	Yes	100%
2.9.3 Proportion of health facilities with no promotional baby food materials including posters, brochures, pamphlets, or items with logos on their premises <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (1/1) 100% (5/5) No data	Yes	100%

Indicator	2015	2017	2017 data validated? If No, reasons	Regional Target 2020
2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with an appropriate indication documented in the mother's record <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	0% (0/1) 36% (5/14) No data	Yes	Indicator to be removed
2.10.2 For facilities where conditions ¹ are met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	No data No data Not applicable	Not applicable	90%
2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	Not applicable Not applicable No data	Not applicable	Indicator to be removed
2.11 Proportion of EENC health facility standards achieved ² <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	43% (9/21) ³ 29% (6/21) ⁴ No data	Yes	

¹ Facility conditions: gestational age assessment can be accurately undertaken, adequate childbirth care is available, and the preterm newborn can receive adequate care if needed. (WHO recommendations on interventions to improve preterm birth outcomes, 2015).

² Total number of standards is 21 and not 23 because standards 2.10.1 and 2.10.3 are not included. The IRG has advised to remove these indicators from the regional EENC Monitoring and Evaluation Framework.

³ Health facility standards achieved at the national level: (1) exclusive breastfeeding, (2) quality improvement, no stock-outs of: (3) magnesium sulfate, (4) oxytocin, (5) injectable antibiotics for sepsis, (6) oxygen, and (7) CPAP; (8) no mother has products or gifts from baby food companies, and (9) no promotional baby food materials.

⁴ Health facility standards achieved at the first-level referral: (1) exclusive breastfeeding, no stock-outs of (2) oxytocin, (3) injectable antibiotics for sepsis, and (4) oxygen; (5) no mother has products or gifts from baby food companies, and (6) no promotional baby food materials.

Table A3.5.3: Hospital impact indicators

National and regional: N = 1

First-level referral: N = 2

Indicator	2014	2016	2016 data validated? If no,	Country Target
Neonatal care unit/nursery admission rate			Yes	
<ul style="list-style-type: none"> National First-level referral 	10.0% (1547/15034) 21.0% (1201/5804)	12.4% (1563/12613) 14.5% (692/4781)		
Proportion of newborns by weight (g):				
<ul style="list-style-type: none"> National 			Yes	However, data inconsistencies noted with total from breakdown by birth weight not corresponding to total live births
<1000	No data	0.8% (103/12613)		
1000 –1499		0.9% (117/12613)		
1500-1999g		1.8% (227/12613)		
2000-2499g		5.1% (648/12613)		
2500-3500g		56.9% (7183/12613)		
>3500g		24% (3044/12613)		
<ul style="list-style-type: none"> First-level referral 				
<1000	0.7% (34/5804)	0.5% (24/4781)		
1000 –1499		0.8% (38/4781)		
1500-1999g	2.1% (101/5804)	1.5% (73/4781)		
2000-2499g		5.1% (242/4781)		
2500-3500g	8.4% (395/5804)	67% (3217/4781)		
>3500g		21% (1024/4781)		
Proportion of newborns born at the facility classified with newborn sepsis ¹			Yes	
<ul style="list-style-type: none"> National First-level referral 	1.8% (265/15034) 13% (767/5804)	3.6% (459/12613) 6.9% (332/4781)	However, data missing for one month for national hospital and for one month for provincial hospitals	
Proportion of newborns born at the facility classified with birth asphyxia ²			Yes	
<ul style="list-style-type: none"> National First-level referral 	1.3% (200/15034) 3.8% (218/5804)	1.4% (177/12613) 2.8% (136/4781)	However, data missing for one month for national hospital and for one month for provincial hospitals	
Weighted newborn mortality rate stratified by weight (g) (per 1000 live births):				
<ul style="list-style-type: none"> National 				
<1000	No data	456.3 (47/103)	No	Number of deaths in
1000 –1499		384.6 (45/117)		

Indicator	2014	2016	2016 data validated? If no,	Country Target
1500-1999g		136.6 (31/227)	the <1000g and 1000 – 1499g categories exceed the number of births at the first-level referral. Could be due to birth in one month and death next month, or due to miscounting.	
2000-2499g		29.3 (19/648)		
2500-3500g		6.1 (44/7183)		
>3500g		2.6 (8/3044)		
• First-level referral				
<1000	418.0 (23/55)	1666.7 (5/3)		
1000 –1499		1289 (49/38)		
1500-1999g	37.0 (16/504)	547.9 (40/73)		
2000-2499g		74.4 (18/242)		
2500-3500g	27.0 (59/5345)	27.0 (87/3217)		
>3500g		24.4 (25/1024)		
Case-fatality rate (% registered cases dying):				
Preterm newborns (deaths/cases)			Yes	
• National	No data	10.5 (137/1301)	However, noted that data for one month is missing	
• First-level referral	6.9 (37/529)	34.2 (127/371)		
Low birth weight newborns (deaths/cases)			Yes	
• National	No data	13.0 (142/1095)	However, noted that data for one month is missing	
• First-level referral		36.3 (137/377)		
Newborn sepsis (deaths/cases)			Yes	
• National	No data	8.3 (38/459)	However, noted that data for one month is missing	
• First-level referral	2.3 (18/767)	5.4 (18/332)		
Newborn asphyxia (deaths/cases)			Yes	
• National	No data	22.6 (40/177)	However, noted that data for one month is missing	
• First-level referral	17.0 (37/218)	26.5 (36/136)		

¹ Bacterial sepsis of the newborn: ICD-10 P36 (including codes P36.0 – P36.9 bacterial sepsis of known cause or sepsis of unknown cause).

² Birth asphyxia: ICD-10 P21: baby is not breathing or gasping at birth (including severe birth asphyxia (pulse less than 100 per minute at birth and falling or steady, respiration absent or gasping, colour poor, tone absent, with 1-minute Apgar score 0-3) and mild or moderate birth asphyxia (normal respiration established within one to two minutes, heart rate 100 or above, some muscle tone present, some response to stimulation, with 1-minute Apgar score 4-7).

Table A3.5.4: Coverage indicators for EENC interventions

Coverage measure	2015 ¹	2017 ¹	2017 data validated? If No, reasons	Country Target 2020
4.37. % of live births attended by skilled health personnel	53%	53%	No Data too old to be considered. New population survey needs to be conducted	
4.38. % of live births that take place at health facilities	52%	52%	No	60%
4.39. % of live births delivered by caesarean section	No data	No data	Not applicable	
4.40. % of live rural births delivered by caesarean section	No data	No data	Not applicable	
4.41. % of newborns dried after birth	No data	No data	Not applicable	
4.42. % of newborns with delayed bath after birth ²	No data	No data	Not applicable	
4.43. % of newborns placed on the mother's bare abdomen or chest immediately after delivery (skin-to-skin)	No data	No data	Not applicable	
4.44. % of newborns breastfed within one hour of birth ³	No data	No data	Not applicable	
4.45. % of newborns receiving a prelacteal feed	No data	No data	Not applicable	
4.10 % of live births with a reported birth weight	No data	No data	Not applicable	
4.11 % of women receiving postnatal care within two days of birth ⁴	No data	No data	Not applicable	
4.12 % of newborns receiving postnatal care within two days of birth	No data	No data	Not applicable	
4.13 % of newborns 0-1 month who are exclusively breastfed	80%	80%	No	

¹ Papua New Guinea Demographic and Health Survey, 2006.

² Delayed bathing: at least 24 hours after birth.

³ The standard population-based survey indicator currently measures breastfeeding within 1 hour of birth and not the wider 90-minute window during which breastfeeding can occur.

⁴ Postnatal care 0-72 hours or 0-2 days after birth.

Table A3.5.5: Impact indicators for newborn health

Data required	Measurement	2015	2017	2017 data validated? If no, reasons	Country Target 2020
Neonatal deaths	5.14 Neonatal mortality rate ¹ (per 1000 live births)	25	25	Yes	
	5.15 Perinatal mortality rate ² (per 1000 LB)	No data	No data	Not applicable	
	5.16 Proportional causes of NN death: ³			Yes	
	5.3.1 Sepsis	15.0%	15.0%		
	5.3.2 Tetanus	1.1%	1.1%		
5.3.3 Birth asphyxia	27.0%	27.0%			
5.3.4 Pre-term birth	31.0%	31.0%			
5.3.5 Congenital anomalies	11.0%	11.0%			
Prematurity/ Low birth weight	5.17 Low birth weight rate (<2500g)	No data	No data	Not applicable	
	5.18 Pre-term birth rate ⁴ (< 37 weeks)	No data	6.5	Yes	

¹ Level & Trends in Child Mortality: Report 2015. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation. UNICEF; 2015.

² Perinatal mortality rate: The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1000.

³ WHO/Maternal Child Epidemiology Estimation group estimates, 2015

⁴ Blencowe H, Cousens S, Oestergaard MZ et al. National, regional, and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. *Lancet* 2012; 379: 2162-72.

COUNTRY REPORT: PHILIPPINES
THE SECOND BIENNIAL MEETING OF THE INDEPENDENT REVIEW GROUP ON
VALIDATION OF EARLY ESSENTIAL NEWBORN CARE PROGRESS, JUNE 2017

In the Philippines newborn deaths now represent 45% of all under-5 child deaths and the neonatal mortality rate is estimated at 13 per 1000 live births¹¹. Philippines began implementing Essential Intrapartum and Newborn Care in 2010 which included the management of normal deliveries. In 2014, using 2012 WHO Guidelines, EINC coaching was enhanced with modules on basic newborn resuscitation and postnatal care of mother and newborn. EINC has been scaled widely across the country with at least 14,000 health facility staff coached.

A group of independent experts reviewed and validated country EENC data on June 27-29, 2017 using the WHO Regional Monitoring and Evaluation Framework, as part of a regional review of progress with EENC implementation. The primary objective of data validation was to give feedback to countries on improving indicators, data quality and information use.

SUMMARY OF FINDINGS

- EENC scale-up readiness benchmarks: Data were available for 10/10 (100%) of benchmarks. The Philippines has completed 6/10 (60%), partially completed 3/10 (30%) and not completed 1/10 (10%) benchmarks. Completed benchmarks include a newborn health situational analysis, adoption and dissemination of the EENC clinical pocket guide, appointment of a full-time focal person for newborn health in the Department of Health and formation of newborn technical working and stakeholders groups. Over 90% of EENC interventions were incorporated into pre-service curricula in 2015. An updated review of pre-service curricula has not been done since 2015. A funded annual implementation plan for EINC has not been developed but planned for later in 2017. Data for 8/9 (89%) completed or partially completed benchmarks were validated.
- EENC health facility standards: Data were available for 3 indicators and partially available for 19. No data were available for first level facilities which have begun EENC implementation. EINC training has been done in 39/110 national and regional hospitals (35%), 175/1,777 (9.8%) first-level referral hospitals, and 38/2617 (1.5%) first level facilities. Close to half of health facility staff providing maternal and newborn care services have been coached in higher level facilities, including 42% of staff in national and regional hospitals and 44% of staff in first-level referral hospitals. A third of 28 hospitals assessed use a quality self-improvement approach to support EENC. Twenty indicators (91%) were validated.
- Hospital impact: Data were reported from ten national and regional hospitals and 14 first-level referral hospitals. Data were available for all nine hospital impact indicators. Inconsistencies and gaps were noted for data reported on neonatal mortality rates disaggregated by birth weight. Hospital targets have not yet been set. Data for all indicators were validated.
- Population coverage of newborn interventions: Data were available for 11/13 (85%) indicators on population coverage, from the Philippines Demographic and Health Survey conducted in 2013. Data were not available on newborns dried after birth and bathing practices. All available data were validated.
- Newborn health impact: Data were available for all five population impact indicators, as for 2015. Targets were not recorded for any indicators except for neonatal mortality rate. Data were validated for all indicators.

¹¹ Level & Trends in Child Mortality: Report 2015. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation. UNICEF; 2015.

SUMMARY OF PRINCIPAL FINDINGS – REVIEW OF EENC MONITORING AND EVALUATION FRAMEWORK

	Number	Proportion of total (%)
Scale-up Readiness Benchmarks (N=10)		
Data available	10	100
Data partially available	0	0
Data not available	0	0
Validated¹	8	89
Not validated¹	1	11
EENC health facility standards (N=23)		
Data available	3	13
Data partially available	19	83
Data not available	1	4
Validated²	20	91
Not validated²	2	9
Hospital Impact Indicators (N=9)		
Proportion of implementing hospitals reporting (N=212)	24	11
Data available	9	100
Data partially available	0	0
Data not available	0	0
Validated²	9	100
Not validated²	0	0
Coverage Indicators for EENC (N=13)		
Data available	11	85
Data not available	2	15
Validated²	11	100
Not validated²	0	0
Impact Indicators for EENC (N=5)		
Data available	5	100
Data not available	0	0
Validated²	5	100
Not validated²	0	0
Total EENC indicators (N=60)		
Data available	38	63
Data partially available	19	32
Data not available	3	5
Validated	53	95
Not validated	3	5

¹ Validation of data applies only to those benchmarks for which data was available, and for benchmarks that had been achieved or partially achieved.

² Validation of data applies only to those indicators for which data was available or partially available.

IRG COMMENTS ON INDICATORS: GENERAL AND COUNTRY-SPECIFIC

	Indicator	Issue identified	Suggested actions
Table 1	1.3 Annual implementation reviews every year	Not practical to expect annual implementation reviews.	Expected frequency will be changed to at least biennially
	1.4. Annual EENC plan funded	Plan is not currently available or funded.	Review and status of planning and funding for continued EINC scale-up and support
	1.10 Proportion of EENC interventions incorporated into pre-service	No new data from 2015 are reported	Review and provide updated data if available. If no change from 2015, confirm this.
Table 2	All indicators	No data were collected from first-level facilities that have begun EENC implementation. Therefore data were called “partial”. The exception were indicators 2.5,2.8.3 and 2.10.2 which apply only to higher level facilities – for which data were complete.	Consider including first-level facilities in the sample for the next AIR
	2.1 Immediate skin-to-skin (STS) contact for at least 90 minutes 2.2 Proportion of newborns exclusively breastfed in the immediate postnatal period	Current STS indicator is not worded clearly because it should include “completed the first breastfeed”. Wording of the breastfeeding indicator is not clear on referred time period.	Define as: 11. % of babies receiving immediate and uninterrupted STS contact for at least 90 minutes and completing first breastfeed before separation 12. % of babies receiving exclusive breastfeeding in the immediate newborn period.
	2.3 Proportion of newborns with a birthweight ≤ 2000g that receive continuous Kangaroo Mother Care (KMC) ≥ 18 hours	Small errors were made because the age category for low birthweight newborns currently ends at 2000g not 2500g. In addition, current weight threshold in AIR ends at 1999g – it is possible that a very small number of babies are not counted	Check KMC data for birth weight. Modify Checklist 2b in the Annual Implementation Review and Planning Guide to change the weight category cut-off to 2000g to capture babies who equal 2000g.
	2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with appropriate indications documented in the mother's record	This composite indicator is difficult to interpret. In general AIR surveyors may not have applied strict criteria on whether procedures were conducted according to criteria.	This indicator has been removed by the IRG. These measures will be incorporated into Module 5 on pregnancy and childbirth complications.
	2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids	Data not collected because it is difficult to determine whether facilities meet criteria	This indicator has been removed by the IRG.

	Indicator	Issue identified	Suggested actions
	2.11 Proportion of health facilities achieving standards	This measure required all standards to be achieved and did not show country change well.	Change the indicator to “proportion of health facility standards achieved” to show country change. Check the new calculation
Table 3	Hospital impact data	Inconsistencies were found in reported data on neonatal mortality by birth weight category	Review recording and reporting of mortality by birth weight category. Ensure that all hospitals apply the same criteria
Table 4	Population-based coverage and impact data	No data on 2 early newborn indicators available – drying and delayed bathing.	Consider incorporation of newborn indicators in the next Philippines Demographic and Health Survey
Table 5	All impact data	No new data are reported since the 2013 Demographic and Health Survey	Ensure that all impact measures are included in the next Demographic and Health Survey
	Preterm birth rate	Rate is from modelled data (Blencowe et al)	Consider incorporating an estimate of preterm birth rate into the routine information system. Also consider adding to the next Demographic and Health Survey.
	Targets for impact indicators	Targets available for only the newborn mortality rate	Consider setting targets for all impact measures.

DETAILED VALIDATION RESULTS OF EENC MONITORING AND EVALUATION DATA

Table A3.6.1: Implementation indicators - EENC scale-up readiness benchmarks

Benchmark	2015	2017	2017 data validated? If no, reasons	Target 2020
1.47 Newborn health situation analysis conducted in the previous five years used for strategic planning	Yes	Yes	Yes	Yes
1.48 EENC 5-Year Action Plan developed based on the Regional Action Plan for Healthy Newborns costed and adopted by the ministry of health	Partial	Partial	Yes	Yes
1.49 EENC Annual Implementation Review conducted annually to inform development of annual implementation plans	Yes	Partial	Yes	Yes
1.50 Detailed annual EENC Implementation Plan funded	Yes	No	Not applicable	Yes
1.51 EENC technical working/coordination group meets regularly	Partial	Yes	Yes	Yes
1.52 Full-time EENC/newborn health focal person appointed in the ministry of health	Yes	Yes	Yes	Yes
1.53 EENC stakeholder group meets regularly	Yes	Yes	Yes	Yes
1.54 Clinical Intra-Partum and Newborn Care Protocol endorsed	Yes	Yes	Yes	Yes
1.55 Mechanisms established to ensure that professional associations are supporting implementation of EENC	Yes	Yes	Yes	Yes
1.10 Proportion of EENC interventions (normal and high-risk deliveries) included in pre-service training curricula: (a) medical; (b) nursing; (c) midwifery	92% 96% 96%	92% 96% 96%	No Not validated as same data submitted as in 2015. No new data provided.	100% 100% 100%

Table A3.6.2: Health facility EENC standards

National and regional: N = 13

First-level referral: N = 15

Indicator	2015 % (n/N)	2017 % (n/N)	Validated? If no, reasons	Regional Target 2020
2.37. Proportion of breathing newborns that receive immediate skin-to-skin contact for at least 90 minutes				
• National and regional			Yes	80%
All	10% (13/131)	16% (37/233)		
Term		25% (35/131)		
Preterm		2% (2/102)		
• First-level referral				
All	12% (4/33)	19% (34/183)		
Term		20% (28/141)		
Preterm		14% (6/42)		
• First level		No Data		
2.38. Proportion of newborns exclusively breastfed in the immediate postnatal period				
• National and regional			Yes	90%
All	42% (60/143)	87% (202/233)		
Term		96% (126/131)		
Preterm		75% (76/102)		
• First-level referral				
All	45% (15/33)	94% (172/183)		
Term		98% (138/141)		
Preterm		81% (34/42)		
• First level	No data	No Data		
2.39. Proportion of newborns with a birthweight ≤ 2000g that receive continuous Kangaroo Mother Care ≥ 18 hours			No National and Regional 23/68 = 34%	70%
• National and Regional	No data	62% (42/68)	First-level 3/17 = 18%	
• First-level referral		59% (10/17)		
• First Level		No Data		
2.40. Proportion of staff providing childbirth, newborn or postpartum care services at the health facility that are coached in EENC				
• National and Regional		42% (890/2133)	Yes	90%
• First-level referral		44% (786/1801)		
• First Level		No Data		
2.41. Proportion of facilities using a quality improvement approach to support implementation of EENC				
• National and Regional	50% (3/6)	36% (5/14)	Yes	80%
• First-level referral	No data	29% (4/14)		
• First Level	Not applicable	Not applicable		
2.42. Proportion of delivery room(s), recovery room(s), neonatal care units (NCU), and postnatal care room(s) at the facility have adequate hand washing resources			Yes	100%

Indicator	2015 % (n/N)	2017 % (n/N)	Validated? If no, reasons	Regional Target 2020
<ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	9% (13/151) 3% (3/113) No Data		
2.43. Proportion of health facilities with <u>no</u> stock-outs of key life- saving medicines required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	79% (11/14) 100% (3/3) No data	85% (11/13) 60% (9/15) No Data	Yes	100%
2.43.1. Magnesium sulfate for severe preeclampsia and eclampsia, and for fetal neuroprotection if <32 weeks of gestational age <ul style="list-style-type: none"> National and Regional First-level referral First Level 	86% (12/14) 100% (3/3) No data	85% (11/13) 87% (13/15) No Data	Yes	100%
2.43.2. Oxytocin for the prevention of postpartum haemorrhage for all births <ul style="list-style-type: none"> National and Regional First-level referral First Level 	93% (13/14) 100% (3/3) No data	92% (12/13) 87% (13/15) No Data	Yes	100%
2.43.3. Corticosteroids for women of 24 - 34 weeks of gestation at risk of preterm delivery <ul style="list-style-type: none"> National and Regional First-level referral First Level 	79% (11/14) 100% (3/3) No data	100% (13/13) 80% (12/15) No Data	Yes	100%
2.43.4. Injectable antibiotics for newborn sepsis <ul style="list-style-type: none"> National and Regional First-level referral First Level 	79% (11/14) 100% (3/3) No data	100% (13/13) 93% (14/15) No Data	Yes	100%
2.44. Proportion of health facilities with functional key life-saving commodities required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	38% (5/13) 13% (2/15) No Data	Yes	100%
2.44.1. Functional ambu bag and mask (sizes 0 and 1) within 2 meters of all delivery beds <ul style="list-style-type: none"> National and Regional First-level referral First Level 	86% (12/14) 33% (1/3) No data	46% (6/13) 53% (8/15) No Data	Yes	100%
2.44.2. Continuous supply of oxygen for newborn use (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> National and Regional First-level referral First Level 	93% (13/14) 100% (3/3) No data	100% (13/13) 93% (14/15) No Data	Yes	100%

Indicator	2015 % (n/N)	2017 % (n/N)	Validated? If no, reasons	Regional Target 2020
2.44.3. Continuous Positive Airway Pressure (CPAP) (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> National and Regional First-level referral First Level 	46% (6/13) 0% (0/2) No data	69% (9/13) 33% (5/15) Not applicable	Yes	100%
2.45. Proportion of health facilities which have eliminated baby foods industry conflicts of interest <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	23% (3/13) 60% (9/15) No Data	Yes	100%
2.45.1. Proportion of health facilities where no mother has products or gifts from baby food companies <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	85% (11/13) 93% (14/15) No Data	Yes	100%
2.45.2. Proportion of health facilities with a written policy to prohibit use of infant formula and other baby food company activities <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	31% (4/13) 60% (9/15) No Data	Yes	100%
2.45.3. Proportion of health facilities with no promotional baby food materials including posters, brochures, pamphlets, or items with logos on their premises <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	100% (13/13) 100% (15/15) No Data	Yes	100%
2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with an appropriate indication documented in the mother's record <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	88% (43/49) 79% (27/34) No Data	No National and Regional 46/103 = 45% First level 32/58 = 55%	Indicator to be removed

Indicator	2015 % (n/N)	2017 % (n/N)	Validated? If no, reasons	Regional Target 2020
2.10.2 For facilities where conditions ¹ are met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	69% (51/74) 56% (14/25) Not applicable	Yes	90%
2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	Not applicable Not applicable No data	Not applicable	Indicator to be removed
2.11 Proportion of facilities meeting all EENC health facility standards ² (1-10) <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	24% (5/21) ³ 10% (2/21) ⁴ No data	Yes	

¹ Facility conditions: gestational age assessment can be accurately undertaken, adequate childbirth care is available, and the preterm newborn can receive adequate care if needed. (WHO recommendations on interventions to improve preterm birth outcomes, 2015)

² Total number of standards is 21 and not 23 because standards 2.10.1 and 2.10.3 are not included. The IRG has advised to remove these indicators from the regional EENC Monitoring and Evaluation Framework.

³ Health facility standards achieved at the national level: (1) exclusive breastfeeding; no stock-outs of: (2) corticosteroids, (3) injectable antibiotics for sepsis, (4) oxygen; and (5) no promotional baby food materials. Exclusive breastfeeding has been validated as a standard met as term babies meet the target.

⁴ Health facility standards achieved at the first-level referral: (1) exclusive breastfeeding and (2) no promotional baby food materials.

Table A3.6.3: Hospital impact indicators

National and regional: N = 10

First-level referral: N = 14

Indicator	Data by year		Validated? If no, reasons	Country target 2020
	2015	2016		
Neonatal care unit/nursery admission rate ¹ <ul style="list-style-type: none"> National (N=9) First-level referral (N=10) 	15.3% (10852/70753) No data	12.6% (5317/42083) 10.0% (2823/28268)	Yes Data inconsistencies have been noted	
Proportion of newborns by weight ² (g): <ul style="list-style-type: none"> National (N=6) 				
<1000	2.2% (1261/57493)	0.5% (116/20054)	Yes	
1000 –1499		1.5% (301/20054)		
1500-1999g	14% (8255/57493)	3.8% (758/20054)		
2000-2499g		16.4% (3282/20054)		
2500-3500g	79% (45354/57493)	73.3% (14696/20054)		
>3500g		4.4% (885/20054)		
• First-level referral (N=8)				
<1000	No data	0.4% (86/24043)		
1000 –1499		0.8% (191/24043)		
1500-1999g		2.1% (516/24043)		
2000-2499g		9.5% (2294/24043)		
2500-3500g		79.5% (19126/24043)		
>3500g		9.8% (2349/24043)		
Proportion of newborns born at the facility classified with newborn sepsis ³ <ul style="list-style-type: none"> National First-level referral 	7.2% (5118/70753) No data	3.3% (1402/42083) 8.0% (3701/46086)		
Proportion of newborns born at the facility classified with birth asphyxia ⁴ <ul style="list-style-type: none"> National First-level referral 	0.9% (610/70753) No data	0.9% (374/42083) 0.4% (162/46086)	Yes	
Weighted newborn mortality rate stratified by weight ² (g) (per 1000 live births): <ul style="list-style-type: none"> National (N=6) 				
<1000	385.0 (486/1261)	655.2 (76/116)	Yes	
1000 –1499		345.5 (104/301)		
1500-1999g	59.0 (484/8255)	102.9 (78/758)		
2000-2499g		27.1 (89/3282)		
2500-3500g	4.0 (197/45354)	4.2 (61/14696)		
>3500g		11.3 (10/885)		
• First-level referral (N=8)				
<1000	No data	907 (78/86)		

Indicator	Data by year		Validated? If no, reasons	Country target 2020
	2015	2016		
1000 –1499		408.4 (78/191)		
1500-1999g		116.3 (60/516)		
2000-2499g		15.7 (36/2294)		
2500-3500g		2.8 (54/19126)		
>3500g		4.7 (11/2349)		
Case-fatality rate (% registered cases dying):				
Preterm newborns (deaths/cases) <ul style="list-style-type: none"> National First-level referral 	No data	18.0 (627/3489) 23.4 (285/1217)	Yes	
Low birth weight newborns (deaths/cases) <ul style="list-style-type: none"> National First-level referral 	No data	7.8 (347/4457) 8.2 (252/3087)	Yes	
Newborn sepsis (deaths/cases) <ul style="list-style-type: none"> National First-level referral 	11.4 (583/5118) No data	13.8 (194/1402) 5.2 (193/3701)	Yes	
Newborn asphyxia (deaths/cases) <ul style="list-style-type: none"> National First-level referral 	38.7 (236/610) No data	29.9 (112/374) 50.6 (82/162)	Yes	

¹ Four first-level referral hospitals either did not report data on NICU admissions or do not have a NICU. Data from one regional hospital was not included as the rate was reported as 50%. Data collected for 2015 showed the rate was around 20%, suggesting data inconsistencies.

² Though data were collected from 10 national/regional hospitals and 14 first-level referral hospitals, 4 national/regional and 6 first-level referral hospitals were excluded due to inconsistent data on birth weights.

³ Bacterial sepsis of the newborn: ICD-10 P36 (including codes P36.0 – P36.9 bacterial sepsis of known cause or sepsis of unknown cause).

⁴ Birth asphyxia: ICD-10 P21: baby is not breathing or gasping at birth (including severe birth asphyxia (pulse less than 100 per minute at birth and falling or steady, respiration absent or gasping, colour poor, tone absent, with 1-minute Apgar score 0-3) and mild or moderate birth asphyxia (normal respiration established within one to two minutes, heart rate 100 or above, some muscle tone present, some response to stimulation, with 1-minute Apgar score 4-7).

Table A3.6.4: Coverage indicators for EENC interventions

Coverage measure	2015 ¹	2017 ¹	Validated? If No, reasons	Regional Target 2020
4.46. % of live births attended by skilled health personnel	72.8%	72.8%	Yes Note there is no updated data since 2013. No new population survey conducted (comment applies to all indicators in this table with data)	90%
4.47. % of live births that take place at health facilities	61%	61%	Yes	90%
4.48. % of live births delivered by caesarean section	9.3%	9.3%	Yes	≤10%
4.49. % of live rural births delivered by caesarean section	7.6%	7.6%	Yes	
4.50. % of newborns dried after birth	No data	No data	Not applicable	100%
4.51. % of newborns with delayed bath after birth ²	No data	No data	Not applicable	100%
4.52. % of newborns placed on the mother's bare abdomen or chest immediately after delivery (skin-to-skin)	64% ²	64% ²	Yes	100%
4.53. % of newborns breastfed within one hour of birth ³	49.7%	49.7%	Yes	100%
4.54. % of newborns receiving a prelacteal feed	36.3	36.3	Yes	0%
4.10 % of live births with a reported birth weight	80.1%	80.1%	Yes	100%
4.11 % of women receiving postnatal care within two days of birth ⁴	70.1%	70.1%	Yes	100%
4.12 % of newborns receiving postnatal care within two days of birth	52.6%	52.6%	Yes	100%
4.13 % of newborns 0-1 month who are exclusively breastfed	90.4% ⁴	90.4% ⁴	Yes	100%

¹ Source: National Demographic and Health Survey, 2013

² Delayed bathing: at least 24 hours after birth.

³ The standard population-based survey indicator currently measures breastfeeding within 1 hour of birth and not the wider 90-minute window during which breastfeeding can occur.

⁴ Postnatal care 0-72 hours or 0-2 days after birth.

Table A3.6.5: Impact indicators for newborn health

Data required	Measurement	2015	2017	Data validated? If no, reasons	Country Target 2020
Neonatal deaths	5.1 Neonatal mortality rate ¹ (per 1000 live births)	13	13	Yes No new data available since 2013.	10
	5.2 Perinatal mortality rate ^{1,2} (per 1000 LB)	22	22	Yes	
	5.3 Proportional causes of NN death ³ :				
	5.3.1 Sepsis	13.0%	13.0%	Yes	
	5.3.2 Tetanus	0.4%	0.4%		
	5.3.3 Birth asphyxia	23.0%	23.0%		
5.3.4 Pre-term birth	33.0%	33.0%			
5.3.5 Congenital anomalies	17.0%	17.0%			
Prematurity/ Low birth weight	5.4 Low birth weight rate ¹ (<2500g)	21.4	21.4	Yes	
	5.5 Preterm birth rate ⁴ (< 37 weeks)	14.9	14.9	Yes	

¹ National Demographic and Health Survey, 2013.

² Perinatal mortality rate: The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1000.

³ WHO/Maternal Child Epidemiology Estimation group estimates, 2015

⁴ Blencowe H, Cousens S, Oestergaard MZ et al. National, regional, and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. *Lancet* 2012; 379: 2162-72.

COUNTRY REPORT: SOLOMON ISLANDS
SECOND BIENNIAL MEETING OF THE INDEPENDENT REVIEW GROUP ON
VALIDATION OF EARLY ESSENTIAL NEWBORN CARE PROGRESS, JUNE 2017

In Solomon Islands, newborn deaths represented 43% of all under-5 child deaths in 2015 and the neonatal mortality rate was estimated at 9 per 1000 live births¹². Solomon Islands first introduced EENC in the National Referral Hospital (NRH) in Honiara in 2015 through coaching of 17 doctors, midwives and nurses. An EENC team was established at NRH and quality improvement for EENC introduced. Later in 2015, EENC coaching was conducted in Malaita, Guadalcanal, and Western Provinces. In 2016, coaching was done in Central, Isabel, and Renbel provinces, followed by Choiseul in 2017. By May 2017, EENC coaching had been conducted for staff from 145 health facilities: 1 national hospital, 6 provincial hospitals (first-level referral), 24 area health centres (primary level), 56 rural health clinics (primary level) and 58 nurse aide posts (primary level).

A group of independent experts reviewed and validated country EENC data on June 27-29, 2017 using the WHO Regional Monitoring and Evaluation Framework, as part of a regional review of progress with EENC implementation. The primary objective of data validation was to give feedback to countries on improving indicators, data quality and information use.

SUMMARY OF FINDINGS

- EENC scale-up readiness benchmarks: Data were available for 9/10 (90%) benchmarks. Solomon Islands has completed 7/10 (70%) benchmarks and partially completed 2/10 (20%) benchmarks. Completed benchmarks are a newborn health situational analysis, appointment of a full time newborn health coordinator in the Ministry of Health and Medical Sciences, adoption of the EENC clinical practice guide, and meetings of newborn health coordination groups. Data on integration of EENC into pre-service curricula are not available. Benchmarks that are completed or partially completed were all validated.
- EENC health facility standards: Data were available for 22/23 (96%) indicators. EENC coaching has begun in the national hospital, 6/9 (67%) provincial hospitals, and 138/292 (47%) first level centres. All national level staff have been coached, 41% of staff at first-level referral hospitals and over half of staff in primary level facilities have been coached. A quality self-improvement approach to support EENC is not yet routinely used by any hospital. Eighteen indicators were validated.
- Hospital impact: Data were reported from one national hospital and 5 provincial hospitals for 2016. Data for all nine indicators were available from provincial hospitals. However, data were not available from the national hospital on newborn mortality by weight category or case fatality for preterm or low birth weight newborns. Hospital targets have not yet been set. Hospital data for all indicators were validated.
- Population coverage of newborn interventions: Data were available for 10/13 (77%) indicators. The last Demographic and Health Survey was in 2015; early newborn practice indicators were not included. Targets are not reported for all indicators. Available survey data (10/13) were validated.
- Newborn health impact: Data were available for all five population impact indicators. Modelled data were used for the proportional causes of newborn death and preterm birth rate. Targets are reported for the newborn mortality rate only. All indicators were validated.

¹² Level & Trends in Child Mortality: Report 2015. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation. UNICEF; 2015. Newborn mortality estimate is from unpublished data of the 2015 Solomon Islands Demographic and Health Survey.

SUMMARY OF PRINCIPAL FINDINGS – REVIEW OF EENC MONITORING AND EVALUATION FRAMEWORK

	Number	Proportion of total (%)
Scale-up Readiness Benchmarks (N=10)		
Data available	9	90
Data partially available	0	0
Data not available	1	10
Validated ¹	9	100
Not validated ¹	0	0
EENC health facility standards (N=23)		
Data available	22	96
Data partially available	0	0
Data not available	1	4
Validated ²	18	82
Not validated ²	4	18
Hospital Impact Indicators (N=9)		
Proportion of implementing hospitals reporting (N=10)	6	60
Data available	9	100
Data partially available	0	0
Data not available	0	0
Validated ²	9	100
Not validated ²	0	0
Coverage Indicators for EENC (N=13)		
Data available	10	77
Data not available	3	23
Validated ²	10	100
Not validated ²	0	0
Impact Indicators for EENC (N=5)		
Data available	5	100
Data not available	0	0
Validated ²	5	100
Not validated ²	0	0
Total EENC indicators (N=60)		
Data available	55	92
Data not available	5	8
Validated	51	93
Not validated	4	7

¹ Validation of data applies only to those benchmarks for which data was available, and for benchmarks that had been achieved or partially achieved.

² Validation of data applies only to those indicators for which data was available or partially available.

IRG COMMENTS ON INDICATORS: GENERAL AND COUNTRY-SPECIFIC

	Indicator	Issue identified	Suggested actions
Table 1	2.1 EENC Action plan	Though EENC is incorporated in the national RCH&N Corporate Plan 2016-2020, this plan is very high level. Further details need to be added to make it an “Action Plan”.	Develop more detailed 5-year EENC scale-up plan as part of annual EENC planning.
	1.3 Annual implementation reviews every year	Not practical to expect annual implementation reviews.	Expected frequency will be changed to at least biennially
	1.5 Regular meetings of the EENC TWG.	Meeting minutes only available from 2015 and 2017.	Confirm that meetings are taking place regularly – is possible provide minutes from 2016.
	1.7 EENC stakeholder group meets regularly.	National Family Health Committee covers many topics, not clear if EENC is discussed in detail.	Review whether this group is taking action on EENC scale-up. If possible provide evidence of their role in supporting EENC.
	1.9 Professional associations support scale-up	Although EENC facilitators are members of professional associations – it is not clear what role is being played by the associations to support adoption/policy change for EENC.	Review and clarify role played by professional associations in supporting EENC and policy/practice change. Clarify what role has been so far.
	1.10 Proportion of EENC interventions incorporated into pre-service	No data collected. Need time and personnel to conduct review.	Plan to conduct a curricula review this year.
Table 2	2.1 Immediate skin-to-skin (STS) contact for at least 90 minutes 2.2 Proportion of newborns exclusively breastfed in the immediate postnatal period	Current STS indicator is not worded clearly because it should include “completed the first breastfeed”. Wording of the breastfeeding indicator is not clear on referred time period.	Define as: 13. % of babies receiving immediate and uninterrupted STS contact for at least 90 minutes and completing first breastfeed before separation 14. % of babies receiving exclusive breastfeeding in the immediate newborn period.
	2.4 Proportion of staff providing delivery services coached in EENC	Denominator for the National facility has changed and results coverage > 100%.	Check national denominator – confirm that number of staff has changed over time.
	Indicators 2.6, 2.7, 2.9.2. 2.10.1	Calculation errors in numerators and denominators	Check calculation for numerator and denominator errors.
	2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with appropriate indications documented in the mother's record	This composite indicator is difficult to interpret. In general AIR surveyors did not apply strict criteria on whether procedures were conducted according to criteria.	This indicator has been removed by the IRG. These measures will be incorporated into Module 5 on pregnancy and childbirth complications.

	Indicator	Issue identified	Suggested actions
	2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids	Data not collected because it is difficult to determine whether facilities meet criteria	This indicator has been removed by the IRG.
	2.11 Proportion of health facilities achieving standards	This measure required all standards to be achieved and did not show country change well.	Change the indicator to “proportion of health facility standards achieved” to show country change. Check the new calculation
Table 3	Hospital impact data	No data collected from national level on mortality by birth weight category; or case-facility by birth weight or preterm status.	Review reasons for recording or reporting gaps; take action to address gaps in 2017.
Tables 4 and 5	Population-based coverage and impact data	Last Demographic and Health Survey was 2015. No data on early newborn indicators was included.	Ensure that the Demographic and Health Survey includes key early newborn care indicators in basic questionnaires – coordinate with organizing committee.
	Targets for impact indicators	Targets not available for most coverage indicators. For impact measures, target is available for only the newborn mortality rate	Consider setting targets for all coverage and impact measures.

DETAILED VALIDATION RESULTS OF EENC MONITORING AND EVALUATION DATA

Table A3.7.1: Implementation Indicators - EENC scale-up readiness benchmarks

Benchmark	2016	2017	2017 data validated? If no, reasons	Target 2020
1.56 Newborn health situation analysis conducted in the previous five years used for strategic planning	No	Yes	Yes	Yes
1.57 EENC 5-Year Action Plan developed based on the Regional Action Plan for Healthy Newborns costed and adopted by the ministry of health	No	Partial	Yes Though EENC is incorporated in the national RCH&N Corporate Plan 2016-2020, this plan is very high level. Further details need to be added to make it an "Action Plan".	Yes
1.58 EENC Annual Implementation Review conducted biennially to inform development of annual implementation plans	No	Yes	Yes	Yes
1.59 Detailed annual EENC Implementation Plan funded	Yes	Partial	Yes Plan developed but not costed/funded	Yes
1.60 EENC technical working/coordination group meets regularly	Yes	Yes	Yes However, meeting minutes only available from 2015 and 2017.	Yes
1.61 Full-time EENC/newborn health focal person appointed in the ministry of health	Yes	Yes	Yes	Yes
1.62 EENC stakeholder group meets regularly	Yes	Yes	Yes National Family Health Committee covers many topics, not clear if EENC is discussed in detail.	Yes
1.63 Clinical Intra-Partum and Newborn Care Protocol endorsed	No	Yes	Yes	Yes
1.64 Mechanisms established to ensure that professional associations are supporting implementation of EENC	No	Yes	Yes Members of professional associations are national EENC facilitators. However, engagement in EENC is not in the capacity of their professional association membership. Mechanisms need to be further developed.	Yes
1.10 Proportion of EENC interventions (normal and high-risk deliveries) included in pre-service training curricula: ² (a) medical; (b) nursing; (c) midwifery	No data	No data	Not applicable	100% 100% 100%

Table A3.7.2: Health facility standards

National & regional: N = 1 (NRH)

First-level referral hospitals (provincial hospitals): N = 6

First-level (area health centres, rural health clinics): N = 3

Indicator	2015 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Country Target		
2.1 Proportion of breathing newborns that receive immediate skin-to-skin contact for at least 90 minutes						
• National		41% (7/17)	Yes	80%		
Term	33% (3/9)	70% (7/10)				
Preterm		0% (0/7)				
• First-level referral		No data			55% (16/29)	
Term	52% (14/27)					
Preterm	100% (2/2)					
• First-level	No data	17% (1/6)				
Term		17% (1/6)				
Preterm		0% (0/0)				
2.2 Proportion of newborns exclusively breastfed in the immediate postnatal period						
• National		82% (14/17)			Yes	90%
Term	100% (9/9)	90% (9/10)				
Preterm		71% (5/7)				
• First-level referral		No data	93% (27/29)			
Term	93% (25/27)					
Preterm	100% (2/2)					
• First-level	No data	100% (6/6)				
Term		100% (6/6)				
Preterm		0% (0/0)				
2.3 Proportion of newborns with a birthweight ≤2000g receiving Kangaroo Mother Care						
• National	No data	0% (0/7)	Yes	70%		
• First-level referral		0% (0/2)				
• First-level		0% (0/0)				
2.4 Proportion of staff providing childbirth, newborn or postpartum care services that are coached in EENC			Yes			
• National	31% (86/274) 8/ND 7/ND	103% (126/122)	Inconsistencies in coaching data at the national level noted. This may reflect staff-rotation over time.	90%		
• First-level referral		41% (100/242)				
• First-level		54% (186/346)				

Indicator	2015 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Country Target
2.5 Proportion of facilities using a quality improvement approach to support implementation of EENC <ul style="list-style-type: none"> • National • First-level referral • First-level 	0% (0/2) 0% (0/2) 0% (0/7)	0% (0/1) 0% (0/6) Not applicable	Yes	80%
2.6 Proportion of delivery room(s), recovery room(s), neonatal care units (NCU), and postnatal care room(s) that have adequate handwashing resources (sinks with running water, soap, and single-use towels and alcohol hand gel) <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	0% (0/7) 13% (2/16) 0% (0/138)	No Proportion at first-level correct, but denominator should be corrected to 6.	100%
2.7 Proportion of health facilities with <u>no</u> stock-outs of key life- saving medicines required to provide EENC <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	100% (1/1) 83% (5/6) 0% (0/3)	No Data for first-level referral should be 1/6 = 17%. Five hospitals had stock-outs of the key medicines	100%
2.7.1 Magnesium sulfate for severe preeclampsia and eclampsia, and for fetal neuroprotection if <32 weeks of gestational age <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	100% (1/1) 100% (6/6) 0% (0/3)	Yes	100%
2.7.2 Oxytocin for the prevention of postpartum haemorrhage for all births <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	100% (1/1) 33% (2/6) 67% (2/3)	Yes	100%
2.7.3 Corticosteroids for women of 24-34 weeks of gestation at risk of preterm delivery <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	100% (1/1) 67% (4/6) 0% (0/3)	Yes	100%
2.7.4 Injectable antibiotics for newborn sepsis <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	100% (1/1) 83% (5/6) 67% (2/3)	Yes	100%
2.8 Proportion of health facilities with functional key life-saving commodities required to provide EENC <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	0% (0/1) 0% (0/6) 33% (1/3)	Yes	100%

Indicator	2015 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Country Target
2.8.1 Functional ambu bag and mask (sizes 0 and 1) within two meters of all delivery beds <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	0% (0/1) 67% (4/6) 100% (3/3)	Yes	100%
2.8.2 Continuous supply of oxygen for newborn use (national, regional and first-level referral hospitals) <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	100% (1/1) 67% (4/6) 33% (1/3)	Yes	100%
2.8.3 Continuous Positive Airway Pressure (CPAP) (national, regional and first-level referral hospitals) <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	100% (1/1) 0% (0/6) Not applicable	Yes	100%
2.9 Proportion of health facilities which have eliminated baby foods industry conflicts of interest <ul style="list-style-type: none"> • National • First-level referral 	No data	0% (0/1) 33% (2/6) 0% (0/3)	Yes	100%
2.9.1 Proportion of health facilities where no mother has products or gifts from baby food companies <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	100% (1/1) 100% (6/6) 100% (3/3)	Yes	100%
2.9.2 Proportion of health facilities with a written policy to prohibit use of infant formula and other baby food company activities <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	0% (0/1) 33% (2/6) 0% (0/3)	No Data for first level should be 33% (1/3)	100%
2.9.3 Proportion of health facilities with no promotional baby food materials, including posters, brochures, pamphlets, or items with logos on their premises <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	100% (1/1) 100% (6/6) 100% (3/3)	Yes	100%
2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with appropriate indications documented in the mother's record <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	100% (1/1) 75% (3/4) 0% (0/0)	No National level should be 3/3. First-level referral should be 86% (6/7)	Indicator to be removed

Indicator	2015 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Country Target
2.10.2 For facilities where conditions are met: pregnant women of 24–34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth ¹ <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	0% (0/1) 0% (0/4) Not applicable	Yes	90%
2.10.3 For facilities where conditions are not met: pregnant women of 24–34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth ¹ <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	Not applicable Not applicable No relevant sample	Not applicable	Indicator to be removed
2.11 Proportion of EENC health facility standards achieved ² <ul style="list-style-type: none"> • National • First-level referral • First-level 	No data	48% (10/21) ³ 19% (4/21) ⁴ 19% (4/21) ⁵	Yes	

¹ Facility conditions: gestational age assessment can be accurately undertaken, adequate childbirth care is available, and the preterm newborn can receive adequate care if needed. (WHO recommendations on interventions to improve preterm birth outcomes, 2015).

² Total number of standards is 21 and not 23 because standards 2.10.1 and 2.10.3 are not included. The IRG has advised to remove these indicators from the regional EENC Monitoring and Evaluation Framework.

³ Health facility standards achieved at the national level: (1) EENC coaching; no stock-outs of: (2) key medicines, (3) magnesium sulfate, (4) oxytocin, (5) corticosteroids, (6) injectable antibiotics for sepsis, (7) oxygen, and (8) CPAP; (9) no mother has products or gifts from baby food companies, and (10) no promotional baby food materials.

⁴ Health facility standards achieved at the first-level referral: (1) exclusive breastfeeding, (2) no stock-outs of magnesium sulfate, (3) no mother has products or gifts from baby food companies, and (4) no promotional baby food materials.

⁵ Health facility standards achieved at the first-level: (1) exclusive breastfeeding, (2) no stock-outs of ambu bag and mask, (3) no mother has products or gifts from baby food companies, and (4) no promotional baby food materials.

Table A3.7.3: Hospital impact indicators

National & regional: N = 1 (NRH)

First-level referral hospitals (provincial hospitals): N = 5

Indicator	2015	2017	2017 data validated? If no, reasons	Country target
3.1 Neonatal care unit/nursery admission rate <ul style="list-style-type: none"> National & regional First-level referral 	11% (593/5412) No data	16.6% (962/5809) 9.1% (90/985) ¹	Yes	
3.2 Proportion of newborns by weight (g):				
3.2.1 <1000 <ul style="list-style-type: none"> National & regional First-level referral 	No data	0.9% (52/5809) 0.04% (1/2749)	Yes	
3.2.2 1000 – 1499 <ul style="list-style-type: none"> National & regional First-level referral 		0.7% (45/5809) 0.6% (16/2749)		
3.2.3 1500 – 1999 <ul style="list-style-type: none"> National & regional First-level referral 		9.9% (574/5809) ² 2.1% (58/2749)		
3.2.4 2000 - 2499 <ul style="list-style-type: none"> National & regional First-level referral 		(see above) 8.2% (225/2749)		
3.2.5 2500 - 3500 <ul style="list-style-type: none"> National & regional First-level referral 		84.9% (4930/5809) 73.3%(2014/2749)		
3.2.6 >3500 <ul style="list-style-type: none"> National & regional First-level referral 		3.6% (208/5809) 15.5% (426/2749)		
3.3 Proportion of newborns born at the facility classified with newborn sepsis ³ <ul style="list-style-type: none"> National & regional First-level referral 	4.8% (259/5412) No data	14.7% (856/5809) 2.5% (68/2749) ⁴	Yes	
3.4 Proportion of newborns born at the facility classified with birth asphyxia ⁵ <ul style="list-style-type: none"> National & regional First-level referral 	0.6% (33/5412) No data	1.7% (100/5809) 0.8% (21/2749) ⁶	Yes	
3.5 Weighted newborn mortality rate stratified by weight (g) (per 1000 live births):				
3.5.1 <1000 (deaths/births) <ul style="list-style-type: none"> National & regional First-level referral 	No data	No data 0.0 (0/1)	Yes	
3.5.2 1000 – 1499 (deaths/births) <ul style="list-style-type: none"> National & regional First-level referral 		356 (16/45) 563 (9/16)		
3.5.3 1500 – 1999 (deaths/births) <ul style="list-style-type: none"> National & regional First-level referral 		No data 51.7 (3/58)		
3.5.4 2000 – 2499 (deaths/births) <ul style="list-style-type: none"> National & regional First-level referral 		No data 26.7 (6/225)		

Indicator	2015	2017	2017 data validated? If no, reasons	Country target
3.5.5 2500 – 3500 (deaths/births) <ul style="list-style-type: none"> National & regional First-level referral 	No data	No data 6.5 (13/2014)	Yes (as above)	
3.5.6 > 3500 (deaths/births) <ul style="list-style-type: none"> National & regional First-level referral 		No data 4.7 (2/426)		
3.6 Case-fatality rate (% registered cases dying):				
3.6.1 Preterm newborns (deaths/cases) <ul style="list-style-type: none"> National & regional First-level referral 	No data	No data 5.7 (13/227)	Yes	
3.6.2 Low birth weight newborns (deaths/cases) <ul style="list-style-type: none"> National & regional First-level referral 	No data	No data 6.0 (18/300)	Yes	
3.6.3 Newborn sepsis (deaths/cases) <ul style="list-style-type: none"> National & regional First-level referral 	1.5 (4/259) No data	3.6 (31/856) 7.4 (5/68) ³	Yes	
3.6.4 Newborn asphyxia (deaths/cases) <ul style="list-style-type: none"> National & regional First-level referral 	12.1 (4/33) No data	27.0 (27/100) 14.3 (3/21) ⁴	Yes	

¹ Data from Kiluufi Hospital only, as the remaining provincial hospitals do not have neonatal care units

² Data is provided for birth weight category 1500 – 2499g

³ Bacterial sepsis of the newborn: ICD-10 P36 (including codes P36.0 – P36.9 bacterial sepsis of known cause or sepsis of unknown cause).

⁴ Data from four provincial hospitals

⁵ Birth asphyxia: ICD-10 P21: baby is not breathing or gasping at birth (including severe birth asphyxia (pulse less than 100 per minute at birth and falling or steady, respiration absent or gasping, colour poor, tone absent, with 1-minute Apgar score 0-3) and mild or moderate birth asphyxia (normal respiration established within one to two minutes, heart rate 100 or above, some muscle tone present, some response to stimulation, with 1-minute Apgar score 4-7).

⁶ Data from three provincial hospitals

Table A3.7.4: Coverage indicators for EENC interventions

Coverage measure	2015 ¹	2017 ²	2017 data validated? If no, reasons	Country Target 2020
4.1 % of live births attended by skilled health personnel	85.5%	86.2%	Yes	
4.2 % of live births that take place at health facilities	84.5%	84.5%	Yes	
4.3 % of live births delivered by caesarean section	6.2%	5.9%	Yes	
4.4 % of live rural births delivered by caesarean section	5.9%	5.4%	Yes	
4.5 % of newborns dried after birth	No data	No data	Not applicable	
4.6 % of newborns with delayed bath after birth ³	No data	No data	Not applicable	
4.7 % of newborns placed on the mother's bare abdomen or chest immediately after (skin-to-skin)	No data	No data	Not applicable	
4.8 % of newborns breastfed within one hour of birth	75.0%	78.9%	Yes	
4.9 % of newborns receiving a prelacteal feed	6.5%	3.5%	Yes	
4.10% of live births with a reported birth weight	81.3%	85.8%	Yes	
4.11% of women who received postnatal care within two days of birth following discharge from the facility ⁴	50.9%	68.5%	Yes	
4.12% of newborns receiving postnatal care within two days of birth following discharge from the facility ⁴	No data	15.6%	Yes	
4.13% of newborns 0-28 days who are exclusively breastfed	90.0%	86.8%	Yes	

¹ Source: Demographic and Health Survey, Solomon Islands, 2007.

² Source: Demographic and Health Survey, Solomon Islands, 2015.

³ Delayed bathing: at least 24 hours after birth.

⁴ Postnatal care 0-71 hours or 0-2 days after birth.

Table A3.7.5: Impact indicators for newborn health

Data required	Measurement	2015	2017	2017 data validated? If no, reasons	Country Target 2020
Neonatal deaths	5.1 Neonatal mortality rate (per 1000 live births)	12 ¹	9 ²	Yes	10
	5.2 Perinatal mortality rate ³ (per 1000 LB)	14 ¹	14 ²	Yes	
	5.3 Proportional causes of NN death: ⁴				
	5.3.1 Sepsis	15%	15%	Yes	
	5.3.2 Tetanus	0.4%	0.4%		
	5.3.3 Birth asphyxia	25%	25%		
5.3.4 Pre-term birth	29%	29%			
5.3.5 Congenital anomalies	19%	19%			
Prematurity/Low birth weight	5.4 Low birth weight rate (<2500g)	12.5% ¹	10.2% ²	Yes	
	5.5 Preterm birth rate (< 37 weeks)	No data	12.4 ⁵	Yes	

¹ Solomon Islands Demographic and Health Survey, 2006

² Solomon Islands Demographic and Health Survey, 2015

³ Perinatal mortality rate: The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1000.

⁴ WHO/Maternal Child Epidemiology Estimation Group estimates, 2015

⁵ Blencowe et al, National, regional and worldwide estimates of preterm birth rates. Lancet, 2012.

COUNTRY REPORT: VIET NAM
THE SECOND BIENNIAL MEETING OF THE INDEPENDENT REVIEW GROUP ON
VALIDATION OF EARLY ESSENTIAL NEWBORN CARE PROGRESS, JUNE 2017
REVISED REPORT FOLLOWING DATA CORRECTIONS (AUGUST 2017)

In Viet Nam, newborn deaths now represent 52% of all under-5 child deaths and the neonatal mortality rate is estimated at 12 per 1000 live births.¹³ Viet Nam developed a 5-year EENC Action Plan for EENC in 2014 and began scaling up EENC coaching in the second half of 2014. Since then, considerable progress has been made. EENC coaching had been done in 5/8 national and regional hospitals (National Gynaecology and Obstetrics Hospital, Da Nang Hospital for Women and Children, and Tu Du Hospital) and all provincial hospitals. Since 2014, hospital facilitators have supported EENC coaching for provincial and district hospitals. By December 2015, close to 8,000 staff providing childbirth, newborn and postpartum care had been coached in Vietnam across 63 provinces and municipalities.

A group of independent experts reviewed and validated country EENC data on June 27-29, 2017 using the WHO Regional Monitoring and Evaluation Framework, as part of a regional review of progress with EENC implementation. The primary objective of data validation was to give feedback to countries on improving indicators, data quality and information use.

SUMMARY OF FINDINGS

- EENC scale-up readiness benchmarks: Data were available for 9/10 (90%) of benchmarks. Viet Nam has completed 6/10 (60%) benchmarks and partially completed 2/10 (20%) benchmarks. Mechanisms for professional associations to support EENC have not been established. No data were available on incorporation of EENC interventions into pre-service curricula. Completed benchmarks include a newborn health situational analysis (September 2013), appointment of an EENC focal person in the Ministry of Health and local adaptation of the EENC clinical pocket guide. Data for 7/8 completed or partially completed benchmarks were validated.
- EENC health facility standards: Data were available for 22/23 indicators. A high proportion of delivery staff at all levels have been coached, including 56% of staff at national and regional hospitals, and 67% at provincial hospitals and district hospitals. Thirteen percent of national, provincial and district hospitals use a quality improvement approach to support EENC. Rates of exclusive breastfeeding are between 67-80%; rates of prolonged STS contact are 67% at national and regional facilities and 14% at lower level facilities. All indicators with data available were validated.
- Hospital impact: 2016 data were reported from one national and one regional hospital for all nine indicators. Raw data for percentages were not available from the national hospital. Data for the indicators were validated, with the recommendation that raw data be provided for future reporting. Hospital targets have not been set for any indicator.
- Population coverage of newborn interventions: Population data were available for 11/13 (85%) indicators. Data were not available for the indicators on newborns dried after birth and delayed bathing practices. Ten of eleven (91%) indicators were validated.
- Newborn health impact: Data were available for 4/5 population impact measures. No data were available on the perinatal mortality rate. The four indicators with available data were validated.

¹³Level & Trends in Child Mortality: Report 2015. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation. UNICEF; 2015.

SUMMARY OF PRINCIPAL FINDINGS – REVIEW OF EENC MONITORING AND EVALUATION FRAMEWORK

	Number	Proportion of total (%)
Scale-up Readiness Benchmarks (N=10)		
Data available	9	90
Data partially available	0	0
Data not available	1	10
Validated ¹	7	78
Not validated ¹	1	11
EENC health facility standards (N=23)		
Data available	22	96
Data partially available	0	0
Data not available	1	4
Validated ²	22	100
Not validated ²	0	0
Hospital Impact Indicators (N=9)		
Proportion of implementing hospitals reporting (N=68)	2	3%
Data available	0	0
Data partially available	9	100
Data not available	0	0
Validated ²	9	100
Not validated ²	0	0
Coverage Indicators for EENC (N=13)		
Data available	11	85
Data not available	2	15
Validated ²	10	91
Not validated ²	1	9
Impact Indicators for EENC (N=5)		
Data available	4	80
Data not available	1	20
Validated ²	4	100
Not validated ²	0	0
Total EENC indicators (N=60)		
Data available	46	78
Data partially available	9	15
Data not available	5	7
Validated	52	96
Not validated	2	4

¹ Validation of data applies only to those benchmarks for which data was available, and for benchmarks that had been achieved or partially achieved.

² Validation of data applies only to those indicators for which data was available or partially available.

IRG COMMENTS ON INDICATORS: GENERAL AND COUNTRY-SPECIFIC

	Indicator	Issue identified	Suggested actions
Table 1	2.1 EENC Action plan	Though EENC is incorporated in the national MCH plan no costing data is included.	Consider costing EENC annual plans and estimates for required costs for longer term scale-up
	1.3 Annual implementation reviews every year	Not practical to expect annual implementation reviews.	Expected frequency will be changed to at least biennially
	1.4 EENC funded 12-month plan available	Targets set but detailed 12-month plan not yet developed	Provide evidence of EENC 12 month plan and funding status of plan
	1.5 Regular meetings of the EENC TWG.	Meeting minutes only available from one meeting. Not clear that meetings are regular	Confirm that meetings are taking place regularly - if not describe alternate mechanisms that are being used for coordination that that could be considered as counting towards this indicator
	1.7 EENC stakeholder group meets regularly.	As above.	As above
	1.10 Proportion of EENC interventions incorporated into pre-service	No data collected. Multiple pre-service institutions and curricula. Therefore difficult to review all. Need time and personnel to conduct review.	Begin with most important pre-service curricula this year.
Table 2	Indicators 2.1, 2.2, 2.3, 2.4,2.6, 2.7.3, 2.10.1	Calculation errors in numerators and denominators	Check calculation for numerator and denominator errors.
	2.1 Immediate skin-to-skin (STS) contact for at least 90 minutes 2.2 Proportion of newborns exclusively breastfed in the immediate postnatal period	Current STS indicator is not worded clearly because it should include “completed the first breastfeed”. Wording of the breastfeeding indicator is not clear on referred time period.	Define as: 15. % of babies receiving immediate and uninterrupted STS contact for at least 90 minutes and completing first breastfeed before separation 16. % of babies receiving exclusive breastfeeding in the immediate newborn period.
	2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with appropriate indications documented in the mother's record	This composite indicator is difficult to interpret. In general AIR surveyors did not apply strict criteria on whether procedures were conducted according to criteria.	This indicator has been removed by the IRG. These measures will be incorporated into Module 5 on pregnancy and childbirth complications.
	2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth	Data not collected because it is difficult to determine whether facilities meet criteria	This indicator has been removed by the IRG.

	Indicator	Issue identified	Suggested actions
	administered corticosteroids		
	2.11 Proportion of health facilities achieving standards	This measure required all standards to be achieved and did not show country change well.	Change the indicator to “proportion of health facility standards achieved” to show country change. Check the new calculation
Table 3	Number of hospitals included	Indicators only reported from 2 hospitals	Consider expanding to all 3 Centres of Excellence and provincial hospitals in 2017/18
	Raw data for indicators from 1 hospital	Raw data not provided for 1 hospital means that it is not possible to validate findings	Provide raw data from both hospitals to allow validation of findings.
Table 4	Population-based coverage data	Last Multiple Indicator Cluster Survey (MICS) was in 2014. No data on early newborn indicators was included.	Ensure that next round MICS survey includes key early newborn care indicators in basic questionnaires – coordinate with organizing committee.
	Routine data on STS contact, early breastfeeding and birthweight	Validation not possible for available data	Make data source for these indicators available.
	Newborns receiving postnatal care (PNC) within 2 days	Definition used for this indicator not clear – for PNC and timing of PNC	Clarify definitions used in national reporting system.
	Targets for coverage indicators	Targets not available for most coverage indicators.	Consider setting targets for all coverage measures.
Table 5	Perinatal mortality rate	No data available	Consider adding to the next MICS.
	Low birth weight rate (<2500g)	Data reported from routine reporting system – but not supporting documents provided to allow validation.	Provide supporting documents for the low birth weight rate
	Preterm birth rate	Rate is from modelled data (Blencowe et al)	Consider incorporating an estimate of preterm birth rate into the routine information system. Also consider adding to the next MICS.
	Targets for impact indicators	Targets available for only the newborn mortality rate	Consider setting targets for all impact measures.

DETAILED VALIDATION RESULTS OF EENC MONITORING AND EVALUATION DATA

Table A3.8.1: Implementation Indicators - EENC scale-up readiness benchmarks

Benchmark	Status in 2016	Status in 2017	2017 data validated? If no, reasons	Target 2020
1. Newborn health situation analysis conducted in the previous 5 years and used for strategic planning	Yes	Yes	Yes	Yes
2. EENC 5-Year Action Plan developed based on Regional Action Plan for Healthy Newborns, costed and adopted by the Ministry of Health	Partial	Yes	Yes The EENC 5-year plan is included in the national MCH plan. However, the national plan is not costed.	Yes
3. Annual implementation review conducted annually	Yes	Yes	Yes	Yes
4. Detailed 12-month EENC Implementation Plan developed and funded	Yes	Yes	No Targets set but detailed 12-month plan not yet developed.	Yes
5. EENC technical working/coordination group formed and meeting regularly	Partial	Partial	Yes Supporting documents partially available to validate the indicator. Meetings not regular, only one meeting document provided.	Yes
6. Full-time EENC/newborn health focal person appointed in Ministry of Health	Yes	Yes	Yes	Yes
7. EENC stakeholder group formed to engage key political leaders and champions and meeting regularly	Yes	Partial	Yes Supporting documents partially available to validate the indicator. Meetings not regular, only one meeting document provided.	Yes
8. Clinical Intra-Partum and Newborn Care Protocol adapted, reviewed and endorsed by key stakeholders – and available for local use	Partial	Yes	Yes	Yes
9. Mechanisms established to ensure that professional associations are supporting implementation of EENC – policy statements supporting EENC, conventions, guidelines, training for members of the association	No	No	Not applicable	Yes
10. Proportion of EENC interventions (normal and high risk delivery) included in pre-service training curricula: a) Medical; b) Nursing; c) Midwifery	No data No data No data	No data No data No data	Not applicable	100% 100% 100%

Table A3.8.2: Health facility EENC standards¹

National and regional: N =3

First-level referral: N = 15

First-level: N = 30

Indicator	2015/2016 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Regional Target 2020
2.46. Proportion of breathing newborns that receive immediate skin-to-skin contact for at least 90 minutes				
• National and regional			Yes	80%
All	No data	67% (45/67)		
Term		76% (29/38)		
Preterm		55% (16/29)		
• First-level referral				
All	No data	14% (28/198)		
Term		18% (28/159)		
Preterm		0% (0/38)		
• First level	No data	14% (33/230)		
2.47. Proportion of newborns exclusively breastfed in the immediate postnatal period				
• National and regional			Yes	90%
All		67% (45/67)		
Term		68% (26/38)		
Preterm		66% (19/29)		
• First-level referral				
All	79% (309/389)	68% (136/198)		
Term		79% (124/159)		
Preterm		33% (13/39)		
• First level		81% (187/230)		
2.48. Proportion of newborns with a birthweight ≤ 2000g that receive continuous Kangaroo Mother Care ≥ 18 hours				
• National and Regional	No data	40% (4/10)	Yes	70%
• First-level referral		47% (8/17)		
• First Level		0% (0/0)		
2.49. Proportion of staff providing childbirth, newborn or postpartum care services at the health facility that are coached in EENC				
• National and Regional	481/No data	56% (1187/2125)	Yes	90%
• First-level referral	52% (7462/14229)	67% (897/1333)		
• First Level		67% (400/596)		
2.50. Proportion of facilities using a quality improvement approach to support implementation of EENC				
• National and Regional	100 (3/3)	67% (2/3)	Yes	80%
• First-level referral	No data	20% (3/15)		
• First Level		3% (1/30)		

Indicator	2015/2016 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Regional Target 2020
2.51. Proportion of delivery room(s), recovery room(s), neonatal care units (NCU), and postnatal care room(s) at the facility have adequate hand washing resources <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	26% (73/280) 22% (76/349) 18% (64/348)	Yes	100%
2.52. Proportion of health facilities with <u>no</u> stock-outs of key life- saving medicines required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	100% (3/3) 100% (15/15) 30% (9/30)	Yes	100%
2.52.1. Magnesium sulfate for severe preeclampsia and eclampsia, and for fetal neuroprotection if <32 weeks of gestational age <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (46/46)	100% (3/3) 100% (15/15) 100% (30/30)	Yes	100%
2.52.2. Oxytocin for the prevention of postpartum haemorrhage for all births <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (46/46)	100% (3/3) 100% (15/15) 100% (30/30)	Yes	100%
2.52.3. Corticosteroids for women of 24 - 34 weeks of gestation at risk of preterm delivery <ul style="list-style-type: none"> National and Regional First-level referral First Level 	80% (37/46)	100% (3/3) 100% (15/15) 40% (12/30)	Yes	100%
2.52.4. Injectable antibiotics for newborn sepsis <ul style="list-style-type: none"> National and Regional First-level referral First Level 	100% (46/46)	100% (3/3) 100% (15/15) 87% (26/30)	Yes	100%
2.53. Proportion of health facilities with functional key life-saving commodities required to provide EENC <ul style="list-style-type: none"> National and Regional First-level referral First Level 	No data	100% (3/3) 60% (9/15) 20% (6/30)	Yes	100%
2.53.1. Functional ambu bag and mask (sizes 0 and 1) within 2 meters of all delivery beds <ul style="list-style-type: none"> National and Regional First-level referral First Level 	94% (43/46)	100% (3/3) 87% (13/15) 73% (22/30)	Yes	100%

Indicator	2015/2016 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Regional Target 2020
2.53.2. Continuous supply of oxygen for newborn use (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	100% (46/46)	100% (3/3) 100% (15/15) 100% (30/30)	Yes	100%
2.53.3. Continuous Positive Airway Pressure (CPAP) (National, regional and first-level referral hospitals) <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	40% (17/46)	100% (3/3) 67% (10/15) 23% (7/30)	Yes	100%
2.54. Proportion of health facilities which have eliminated baby foods industry conflicts of interest <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (3/3) 47% (7/15) 45% (12/30)	Yes	100%
2.54.1. Proportion of health facilities where no mother has products or gifts from baby food companies <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (3/3) 100% (15/15) 100% (30/30)	Yes	100%
2.54.2. Proportion of health facilities with a written policy to prohibit use of infant formula and other baby food company activities <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (3/3) 47% (7/15) 45% (12/30)	Yes	100%
2.54.3. Proportion of health facilities with no promotional baby food materials including posters, brochures, pamphlets, or items with logos on their premises <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (3/3) 87% (13/15) 97% (29/30)	Yes	100%
2.10.1 Women receiving induction of labour, augmentation of labour or caesarean section (CS) with an appropriate indication documented in the mother's record <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	100% (24/24) 81% (52/64) 84% (38/45)	Yes	Indicator to be removed

Indicator	2015/2016 % (n/N)	2017 % (n/N)	2017 data validated? If no, reasons	Regional Target 2020
2.10.2 For facilities where conditions ¹ are met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth and with no clinical evidence of infection administered the full course of intramuscular dexamethasone or betamethasone prior to childbirth <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	38% (11/29) 41% (12/29) 20% (1/5)	Yes	90%
2.10.3 For facilities where conditions ¹ are not met: pregnant women of 24-34 weeks of gestation at risk of imminent preterm birth administered corticosteroids <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	Not applicable Not applicable Not applicable	Not applicable	Indicator to be removed
2.11 Proportion health facility standards achieved ² <ul style="list-style-type: none"> • National and Regional • First-level referral • First Level 	No data	62% (13/21) ³ 33% (7/21) ⁴ 19% (4/21) ⁵	Yes	

¹Facility conditions: gestational age assessment can be accurately undertaken, adequate childbirth care is available, and the preterm newborn can receive adequate care if needed. (WHO recommendations on interventions to improve preterm birth outcomes, 2015).

²Total number of standards is 21 and not 23 because standards 2.10.1 and 2.10.3 are not included. The IRG has advised to remove these indicators from the regional EENC Monitoring and Evaluation Framework.

³Health facility standards achieved at the national level: no stock-outs of: (1) key life-saving medicines, (2) magnesium sulfate, (3) oxytocin, (4) corticosteroids, (5) antibiotics, (6) key commodities, (7) functional ambu bag and mask, (8) oxygen, and (9) CPAP; (10) elimination of baby foods industry conflicts of interest, (11) no mother has products or gifts from baby food companies, (12) written policies to prohibit use of formula and other baby food company activities, and (13) no promotional baby food materials.

⁴Health facility standards achieved at the first-level referral: no stock-outs of (1) key life-saving medicines, (2) magnesium sulfate, (3) oxytocin, (4) corticosteroids, (5) antibiotics for sepsis, (6) oxygen; and (7) no mother has products or gifts from baby food companies.

⁵Health facility standards achieved at the first-level: no stock-outs of (1) magnesium sulfate, (2) oxytocin, and (3) oxygen; and (4) no mother has products or gifts from baby food companies.

Table A3.8.3: Hospital impact indicators

National and regional: N = 2

Indicator	Data for 2014	Data for 2016	2017 data validated? If no, reasons	Country Target
Neonatal care unit/nursery admission rate <ul style="list-style-type: none"> National First-level referral 	9.8% (9701/98600) No data	17.8% No data	Yes However, raw data not provided by one hospital to validate indicators. Currently average of indicators taken for two hospitals. This is not as accurate. Raw data should be provided in future reporting. Same comment for all indicators.	
Proportion of newborns by weight (g):				
<ul style="list-style-type: none"> National 	No data	1.3%	Yes	
<1000		3.4%		
1000 –1499		6.7%		
1500-1999g		14.8%		
2000-2499g		75.2%		
2500-3500g		0.0%		
>3500g		3.4%		
<ul style="list-style-type: none"> First-level referral 				
<1000	No data	No data		
1000 –1499				
1500-1999g				
2000-2499g				
2500-3500g				
>3500g				
Proportion of newborns born at the facility classified with newborn sepsis ¹ <ul style="list-style-type: none"> National First-level referral 	1.1% (1119/98600) No data	0.6% No data	Yes	<2.5%
Proportion of newborns born at the facility classified with birth asphyxia ² <ul style="list-style-type: none"> National First-level referral 	4.1% (4045/98600) No data	1.5% No data	Yes	<3%
Weighted newborn mortality rate stratified by weight (g) (per 1000 live births):				
<ul style="list-style-type: none"> National 	310 (706/2276)	626.1	Yes	
<1000				
1000 –1499				
1500-1999g				
2000-2499g				
	20 (178/8940)	28.4		

Indicator	Data for 2014	Data for 2016	2017 data validated? If no, reasons	Country Target
2500-3500g	2.9 (93/32519)	37.7		
>3500g		0.0		
• First-level referral				
<1000	No data	No data		
1000 –1499				
1500-1999g				
2000-2499g				
2500-3500g				
>3500g				
Case-fatality rate (% registered cases dying):				
Preterm newborns (deaths/cases)				
• National	8.2 (947/98600)	7.1	Yes	
• First-level referral	No data	No data		
Low birth weight newborns (deaths/cases)				
• National	No data	5.7	Yes	
• First-level referral		No data		
Newborn sepsis (deaths/cases)				
• National	11 (122/1119)	60.4	Yes	
• First-level referral	No data	No data		
Newborn asphyxia (deaths/cases)				
• National	13 (509/4045)	2.3	Yes	
• First-level referral	No data	No data		

¹Bacterial sepsis of the newborn: ICD-10 P36 (including codes P36.0 – P36.9 bacterial sepsis of known cause or sepsis of unknown cause).

²Birth asphyxia: ICD-10 P21: baby is not breathing or gasping at birth (including severe birth asphyxia (pulse less than 100 per minute at birth and falling or steady, respiration absent or gasping, colour poor, tone absent, with 1-minute Apgar score 0-3) and mild or moderate birth asphyxia (normal respiration established within one to two minutes, heart rate 100 or above, some muscle tone present, some response to stimulation, with 1-minute Apgar score 4-7).

Table A3.8.4: Coverage indicators for EENC interventions

Coverage measure	Data reported in 2015 ¹	Date reported in 2017 ¹	2017 data validated? If no, reasons	Country Target 2020
4.55. % of live births attended by skilled health personnel	93%	98.2% ²	Yes	100%
4.56. % of live births that take place at health facilities	93.6%	96.7% ²	Yes	100%
4.57. % of live births delivered by caesarean section	27.5%	27.5%	Yes	5-20%
4.58. % of live rural births delivered by caesarean section	21.0%	21.0%	Yes	5-20%
4.59. % of newborns dried after birth	No data	No data	Not applicable	100%
4.60. % of newborns with delayed bath after birth ³	No data	No data	Not applicable	100%
4.61. % of newborns placed on the mother's bare abdomen or chest immediately after delivery (skin-to-skin)	No data	59.0% ²	Yes However, not clear whether denominator is total deliveries or live births <i>Validation status changed</i>	100%
4.62. % of newborns breastfed within one hour of birth ⁴	40%	72.5% ² <i>Corrected data</i>	Yes However, not clear whether denominator is total deliveries or live births	100%
4.63. % of newborns receiving a prelacteal feed	72.2% ²	72.2% ²	Yes	0%
4.10 % of live births with a reported birth weight	94.3%	94.9% ²	No No supporting documentation available to validate data	
4.11 % of women receiving postnatal care within two days of birth ⁵	89.8%	94.1% ²	Yes	100%
4.12 % of newborns receiving postnatal care within two days of birth	89.8%	94.1% ²	Yes However, no clear definition provided on postnatal care for the mother and no newborn	100%
4.13 % of newborns 0-1 month who are exclusively breastfed	27.0% ⁶	27.0% ⁶	Yes	70%

¹Vietnam Multiple Indicator Cluster Survey 2014 unless otherwise specified

²National Reproductive Health Annual Report, 2016

³Delayed bathing: at least 24 hours after birth.

⁴The standard population-based survey indicator currently measures breastfeeding within 1 hour of birth and not the wider 90-minute window during which breastfeeding can occur.

⁵Postnatal care 0-72 hours or 0-2 days after birth.

⁶Vietnam Multiple Indicator Cluster Survey 2011

Table A3.8.5: Impact indicators for newborn health

Data required	Measurement	Data reported in 2015	Data reported in 2017	2017 data validated? If no, reasons	Country Target 2020
Neonatal deaths	5.19 Neonatal mortality rate (per 1000 live births)	12 ¹	12 ¹	Yes	6
	5.20 Perinatal mortality rate ² (per 1000 LB)	No data	No data	Not applicable	
	5.21 Proportional causes of NN death ³ :			Yes	
	5.3.1 Sepsis	7.6%	7.6%		
	5.3.2 Tetanus	0.6%	0.6%		
5.3.3 Birth asphyxia	13.5%	13.5%			
5.3.4 Pre-term birth	40.5%	40.5%			
5.3.5 Congenital anomalies	22.2%	22.2%			
Prematurity/ Low birth weight	6.2 Low birth weight rate (<2500g)	5.7 ¹	6.8 ⁴	No Supporting documentation not provided to validate data	<4
	7.2 Pre-term birth rate (< 37 weeks)	No data	9.4 ⁵	Yes	

¹ Vietnam Multiple Indicator Cluster Survey, 2014

² Perinatal mortality rate: The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1000.

³ WHO/Maternal Child Epidemiology Estimation group estimates, 2015

⁴ National Reproductive Health Annual Report, 2016

⁵ Blencowe H, Cousens S, Oestergaard MZ et al. National, regional, and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. *Lancet* 2012; 379: 2162-72.

www.wpro.who.int