First Embrace

Coaching for the First Embrace

FACILITATOR'S GUIDE

World Health Organization
Western Pacific Region

EARLY ESSENTIAL NEWBORN CARE (EENC) **MODULE 2**

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Foreword

WHO, Member States and stakeholders in the Western Pacific Region share a vision for mother and child health in which every newborn infant has the right to a healthy start in life. Sadly, every two minutes death comes too quickly — and often needlessly — to a newborn infant in the Region.

Together, we have taken bold steps to address this sad statistic, with Member States endorsing the *Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020).* The plan aims to improve the quality of care for mothers and babies in health facilities where the vast majority of children in the Region are born.

We have prepared five teaching modules of Early Essential Newborn Care, or EENC, starting with the *Early Essential Newborn Care Clinical Practice Pocket Guide.* Since its release, reviews and research have shown impressive reductions in deaths, infections and intensive care unit admissions in facilities practicing EENC.

Now this volume, the *Facilitator's Guide to Coaching for the First Embrace,* becomes the second module to introduce and accelerate EENC health provider practices in facilities across the Region.

These modules are a critical part of the regional plan of sustained action and strong policies utilizing methods proven effective at saving lives and money. Governments, health-care facilities and families are already saving precious resources, making health systems more accountable and quality care more attainable.

Together, we must push beyond the era of the Millennium Development Goals and meet the even loftier targets for the Sustainable Development Goals: a global maternal mortality ratio (MMR) of less than 70 per 100 000 live births with no country above 140; and neonatal mortality rates of less than 12 per 1000 births in countries.

To reach these ambitious goals, we must work together with Member States and partners to bring improved high-quality EENC to all mothers and newborn infants in every stretch of the Region.

Shin Young-soo, MD, Ph.D.
Regional Director

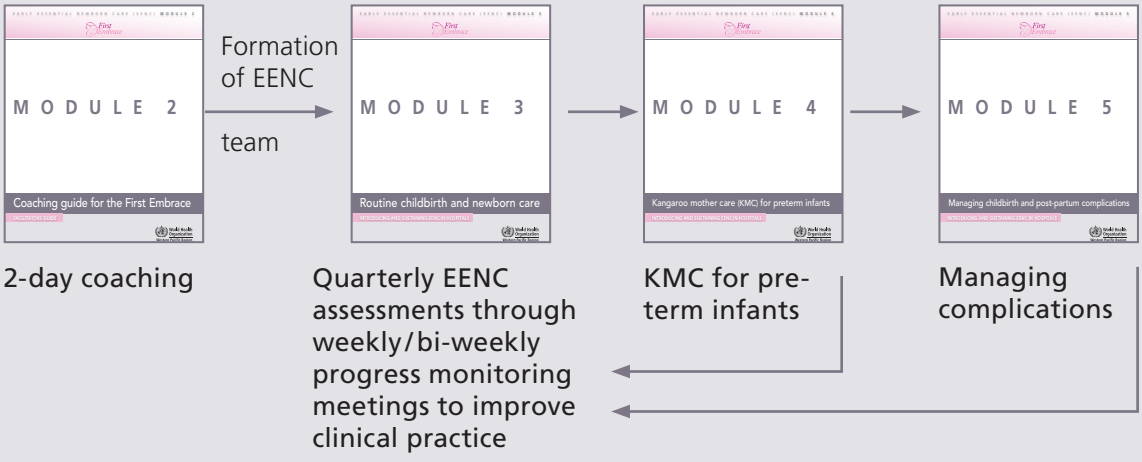
ABOUT THE EARLY ESSENTIAL NEWBORN CARE MODULES

The five Early Essential Newborn Care (EENC) modules support planning, implementation, improvement, and monitoring and evaluation of EENC.

Module	Title	Primary user level
1	Annual implementation reviews and planning	National and subnational
▲ 2	Coaching for the First Embrace – Facilitator's Guide	National and sub-national facilitators
3	Introducing and sustaining EENC in hospitals: Routine childbirth and newborn care	Hospital with national support for scale up
4	Introducing and sustaining EENC in hospitals: Kangaroo Mother Care (KMC) for preterm infants	
5	Introducing and sustaining EENC in hospitals: Managing childbirth and postpartum complications	

Module 1 is used at the national and sub-national levels to collect data for development of annual and 5-year national strategic plans.

National and sub-national facilitators use **Module 2** to upgrade skills of health workers providing routine childbirth and newborn care nationwide. In hospitals, EENC teams are formed to regularly assess and improve quality of care using **Module 3.** Once excellent routine childbirth and newborn care are well-established, coaching and quality of improvement for Kangaroo Mother Care (KMC) for preterm infants is done with **Module 4.** Lastly, management of childbirth and post-partum complications is added using **Module 5** (see below).



1. BACKGROUND

Early Essential Newborn Care (EENC) is care given to a baby during delivery and the first days after birth.

There are three principal components to EENC

- First Embrace
  For all mothers and newborns – which includes immediate skin-to-skin contact.
- Prevention and management of prematurity
  For preterm and low-birth-weight babies (5–7% of all newborns).
- Care for sick newborns
  For babies with birth asphyxia, neonatal sepsis and complications of delivery (10–15% of all newborns).

  In addition, EENC promotes the cessation of outdated, harmful or ineffective practices that are still widespread.

This guide provides instructions for coaching health workers in two key elements of EENC

1. The management of routine deliveries
2. The management of non-breathing babies

The guide uses a clinical coaching approach that focuses on the practice of skills. Clinical coaching in a real-life setting is more likely to change health worker behaviours in the long term.

To be accredited as a facilitator of EENC, staff should successfully:

- Complete a two-day coaching session on the care of the breathing and non-breathing baby, and a half-day orientation on how to facilitate training;
- Attend several deliveries using EENC at their facility; and
- Serve as a facilitator for at least one supervised EENC coaching session.

2. OBJECTIVES AND METHODOLOGY OF THE FACILITATOR'S GUIDE

▲ **Provide an overview of how facilitators conduct coaching sessions.**

▲ **Provide instructions and activities for each session.**

▲ **Track the progress of participants during coaching and through subsequent monitoring.**

The methodology for this on-site coaching differs from training in the following ways

On-site coaching establishes health workers' normal everyday practice of newborn care. The first role-play of normal delivery is always done by trainees unassisted by facilitators. One local participant records key steps of the first delivery role-play. Then, through re-enactment, the facilitator elicits all participants' comments on whether practices were correct or incorrect and the explanation of their rationale. The facilitator should aim to elicit the reasoning behind each practice. The purpose is to bring to the surface errors in practices and to guide understanding. After the participants have commented and discussed each point, the facilitator confirms the correct answers and the evidence base of the correct practices. The *Clinical Practice Pocket Guide* is an important reference that the facilitator should use for unclear points.

1. On-site coaching takes place in a delivery room similar to that the participant would use in his or her practice. For example, primary midwives should participate in a delivery room at a local health centre. Where delivery rooms are not available, the coaching takes place in a room set up as a local delivery room, with a similar set of equipment and supplies as those in a delivery room.
2. On-site coaching is done in smaller groups to ensure that all actively participate. A facilitator-to-participant ratio of 1:6 is recommended. All participants must be able to demonstrate proficiency at the end of the two-day coaching.
3. There are no lectures – summary handouts are given at the end of each coaching session. Facilitators must make their points using questions.
4. On-site coaching is free flowing, interactive and participatory.

3. SUMMARIZED AGENDA FOR STRENGTHENING CARE OF THE BREATHING AND NON-BREATHING NEWBORN

Time	Activity	Responsible facilitator
DAY 1		
	1. Review of objectives	
	2. Brief introduction of participants and facilitators	
	3. Pre-coaching assessment	
	4. Role-play: delivery of a breathing newborn without coaching	
	5. Re-enactment based on current practices and sequence of events	
	6. Role-play with coaching for incremental correcting of gaps and inappropriate practices	
	7. Supervised role-play practice with involvement of all participants	
	8. Discussion followed by dissemination of handouts to participants	
DAY 2		
	9. Facilitated brief Q&A on Day 1 activities (10 minutes)	
	10. Role-play: delivery of a non-breathing newborn without coaching	
	11. Re-enactment based on current practices and sequence of events	
	12. Supervised practice of getting chest rise	
	13. Role-play with coaching	
	14. Supervised practice of delivery of a non-breathing baby	
	15. In plenary, discuss with the participants different scenarios for the management of a non-breathing baby	
	16. Post-coaching assessment	
	17. Discuss and agree with participants on how they will implement these correct practices at their health facilities	
	18. Closing	

4. ANNOTATED FACILITATOR'S GUIDE

DAY 1 – ACTIVITIES

1. Review of objectives

Read the following objectives aloud.

a. To give health workers a clinical venue to practise until they master sequential steps to provide newborn care to both breathing and non-breathing babies.

b. To help health workers value these skills so that they will practise them at every delivery.

2. Brief introduction of participants and facilitators

Briefly ask each of the participants to introduce themselves, where they are from, their primary responsibility, training (i.e. doctor, primary or secondary nurse, primary or secondary midwife), previous courses taken in newborn care, and number of deliveries attended in the previous month. One designated facilitator will record the information and enter it into the *Participant Attendance Form* (and obtain missing information, if any, during the break). The facilitators introduce themselves and, lastly, the organizers introduce themselves.

Distribute the agenda and briefly discuss it.

3. Pre-coaching assessment

a. *Written assessment.* Participants write their names and participant numbers at the top of the page and are given 15 minutes to complete the written pre-coaching assessment. Facilitators will collect the forms after 15 minutes, grade the assessments and enter the results into the *Participant Recording Form.*

b. *Handwashing exercise with fluorescent lotion.* Participants are grouped in pairs. Each pair will use an A4 graphing paper, write their names and participant numbers at the top, and draw an outline of their hands (left, right, front, back) including their wrists. All participants will have a small amount of fluorescent

lotion put on their hands, which they rub over their hands, fingers and wrists. After the fluorescent lotion dries, they will wash their hands using whatever techniques they were taught or that they practised. The facilitator will shine UV light on their hands in a darkened room or dark box. With input from the other participants, the facilitator will mark general areas where the fluorescent lotion still remains and estimate the total proportion of the hand that is contaminated: None – N, Little – L (< 10%), A lot – A. The facilitator will record the proportion covered on the *Participant Recording Form.*

Notes

- After all have washed once, the sink should not be available for further use.
- For efficiency, consider having the participants split into two groups: those taking the written assessment and those doing the handwashing exercise, then switch.

c. Return *Pre-coaching assessment for participants* to quickly review. Do not forget to retrieve the assessments, as they will be needed for further analysis.

4. Role-play: delivery of a breathing newborn without coaching

Health-care providers doing their usual practice (to be done in a large group); the facilitators use the *Skills checklist* to assess every step of the action by the demonstrator including the exact time (to the second) where relevant. This will be used as a baseline performance score of the demonstration.

a. Ask for three participants, one participant each to play: (1) the woman delivering the baby; (2) the attending health worker; and (3) the recorder.

b. Ask the "mother" to wear the Mamanatalie™ and sit on the delivery bed. A facilitator will do the set-up of the "baby" to appear to be in the mother's womb.

c. Explain to the attending health worker: "You will deliver a baby and provide newborn care. The woman is fully dilated. You have already weighed her, taken her blood pressure, and listened for fetal heart tones. There is no more time, she will deliver in about a minute. Please do exactly as you would during and immediately following the delivery from the first step immediately before delivery until the last step in the immediate postpartum care period. Please do not explain what you are doing. However, please do request the mother or other health workers to perform actions as needed." Ask if there is anything that needs further clarification.

d. Explain to the note taker: "You will write down the exact actions/interventions you observe before, during and immediately after delivery. Please record the time of each activity: to the second for events occurring within three minutes of delivery, and to the minute for events occurring thereafter."

e. Ask the other participants to pay close attention to what the attendant is doing, and take key notes, as they will be asked to comment later. During the demonstration, they should not tell the demonstrator what to do or how to do it.

f. Ask the attendant to start the role-play. When the baby is "born", a facilitator will make the baby's crying sound and make the cord pulsate. The facilitator should record – and time – exactly what is happening: to the second for events occurring within the first three minutes after delivery, and to the minute, at other times.

Notes

- Most participants doing the role-play will describe what they do in their practice instead of actually doing it. In this case, ask them to do what they are describing.
- Many participants will not do exactly what they do in their practice during delivery (e.g. wash hands, put on gloves and gowns, organize delivery space). You can say, "Most people… [wear gloves, for instance]. Would you like to start over and do it exactly as you would normally do where you work?"

5. Re-enactment based on current practices and sequence of events

Facilitators generate participatory agreement or disagreement with every stage of practice and encourage discussion on the evidence base for the correct practice (done in a large group).

a. Give the attendant a chance to discuss her/his thoughts on the delivery, then ask the participants to give their thoughts. If there are interesting points raised that will be covered during re-enactment, take note of them and state: "We will come back to this point shortly."

b. Ask the note taker to read aloud his record of only the first action that the attendant(s) had performed. Ask the attendant to do the action again; ask the participants if this is correct or needs improvement. Facilitate a discussion around the: (1) order of actions; (2) quality of the action; and (3) the evidence base for the recommendation (see *Facilitator's Notes* on page 15).

c. At the appropriate time during step b, have each of the participants demonstrate their proficiency in the following areas:

- setting up the newborn resuscitation area,
- checking bag and mask for functionality,
- immediate, thorough and sequential drying,
- checking cord pulsations, and
- measuring distance for cord clamping.

d. Repeat steps b and c until all actions have been practised.

6. Role-play with coaching for incremental correction of gaps and inappropriate practices

Done in a large group.

Repeat role-play several times until at least a few get it perfect.

7. Supervised role-play practice with involvement of all participants

Done in small groups, maximum of six participants per station.

Break into groups according to the number of delivery beds/practice stations. Each group should have one facilitator. Each of the participants should repeat the practice until all demonstrate it perfectly. Remind participants that there is a demonstration assessment on Day 2 where they will need to perform perfect care of the breathing baby.

8. Discussion followed by dissemination of handouts to participants

Explain that they provide information as reminder of what they learnt on Day 1. Agree on the starting time for the following morning, give any instructions needed and then distribute the handouts.

DAY 2 – ACTIVITIES

9. Facilitated brief Q&A on Day 1 activities (10 minutes)

Facilitators ask questions to participants to recall the steps for newborn care of breathing babies.

10. Role-play: delivery of a non-breathing newborn without coaching

Health-care providers doing their usual practice (done in a large group). A participant (and the facilitators) takes note of every step of the procedure including the exact time (to the second) where relevant. (Repeat steps as outlined in Activity 4 above – *Role-play: delivery of a breathing newborn without coaching*.)

11. Re-enactment based on current practices and sequence of events

Facilitators generate participatory agreement or disagreement with every stage of practice and encourage discussion on the evidence base for the correct practice (done in a large group). (Repeat steps as outlined in Activity 5 above – *Re-enactment based on current practices and sequence of events*.)

Note: All steps should be demonstrated – including handwashing, checking functionality of equipment, use of gloves, thorough drying, cord clamping/cutting, transfer to hard surface, and bag-and-mask ventilation.

12. Supervised practice of getting chest rise Demonstrate good bag-and-mask ventilation

Have every participant again check the bag and mask for functionality.

- Ask – *How to get a good seal?*
  Ask a participant to demonstrate putting the middle finger on the chin, index finger and thumb in a "C position" on either side of the stem of the mask, extending the neck until the airway is open, mask covering nose but not eyes.
- Ask – *What can happen if pressure is applied to eyes?*
  Low heart rate or bradycardia.
- Ask – *What to do if one cannot get good chest rise?*
  Reposition head. Lift chin. Reposition mask to get a better seal. Check airway for blockage. Squeeze bag harder. Check if bag is functioning.

- Ask – *What is the target rate of ventilation?*

  40 breaths per minute.

- Form several lines of participants and perform bag-and-mask ventilation – one line to each resuscitation station. Coach the participants who are having difficulty. Ask those who did well to take over the facilitator's role.

13. Role-play with coaching

With incremental correcting of gaps and inappropriate practices (done in a large group). Repeat several times until at least a few get it perfect.

14. Supervised practice of delivery of a non-breathing baby

Done in a small group.

Break into groups according to the number of delivery beds/practice stations. Each group should have one facilitator. Each participant should repeat practice until all demonstrate it perfectly. Remind participants that there is a demonstration assessment later in the day where they will need to perform perfect newborn care of a non-breathing baby.

15. In plenary, discuss with the participants different scenarios for the management of a non-breathing baby (15 minutes maximum)*

- *What do you do when the baby starts breathing well?*
  Return the baby to the mother in skin-to-skin contact. Explain to the mother that the baby had difficulty breathing but is doing better now and that she should let the health worker know if the baby has problems with breathing again. Counsel her on the baby's feeding cues, etc. Monitor the baby every 15 minutes for breathing and warmth.

- *If baby is not breathing, what do you do?*

  Check heart rate after one minute of bag-and-mask ventilation.

- *How do we quickly check heart rate?*

  First, without pausing the ventilation, look at the cord. If there are no visible cord pulsations, either put fingers on umbilical stump near abdomen, or use a stethoscope:

* For additional information refer to the EENC Pocket Guide, Page 51. Algorithm 3: Newborn Resuscitation.

count the number of beats in six seconds, then multiply by 10 to get the beats per minute. This is accurate enough to indicate if the heart rate is < 100 or > 100 beats per minute (bpm).

- *If heart rate is < 100 bpm, what do you do?*
  - If heart rate is between 60 and 100 bpm, do ventilation corrective steps, then resume ventilation and check heart rate again at 3 minutes; continue effective ventilation if heart rate is < 100 bpm.
  - If heart rate is <60 bpm, do ventilation corrective steps, resume ventilation.
- *If heart rate is > 100 bpm and the baby is not breathing well, what do you do? (Ventilate more slowly.) Why?*

  We ventilated too quickly and did not give the baby a chance to breathe.
- *If after 10 minutes of ventilation the baby has a heart rate but is still not breathing (or is having difficulty breathing; has severe chest in-drawing, for example), what do we do?*

  Continue bag-and-mask ventilation, refer, ensure warm transport, and accompany the baby, preferably with the mother, to hospital.
- *If after 10 minutes of effective ventilation, the baby has no heart rate and is not breathing, what do you do?*

  The baby is dead. Stop ventilation, provide emotional support to the mother, and record the event.
- *If after 20 minutes of effective ventilation, the baby is still not breathing and the heart rate is < 60 bpm, what do you do?*

  Stop ventilation. Explain to the mother that the baby still has not started to breathe and the baby's weak heart beat was not enough to give oxygen to the brain. Babies' hearts that are as weak as your baby's usually stop beating soon.

Summary questions

- *When do you start bag-and mask-ventilation?*
  Within one minute of birth if the baby is not breathing.
- *When do you stop bag-and-mask ventilation?*

  When the baby is breathing well or after 10 minutes of effective ventilation and the baby is not breathing and has no heart rate, or after 20 minutes of effective ventilation and the baby is still not breathing and heart rate is < 60 bpm.

16. Post-coaching assessment

a. *Written assessment.* Participants write their names and participant numbers at the top of the form and are given 15 minutes to complete the written post-coaching assessment. Facilitators will collect the forms at the end of the 15 minutes, grade the assessments, and enter the results into the *Participant Recording form.*

b. Handwashing exercise with fluorescent lotion. Each participant will use A4 paper, write her/his name and participant number at the top and (with help) draw an outline of her/his hands (left, right, front, back) including the wrist. Participants will have a small amount of fluorescent lotion put on their hands, which they rub all over. They wash their hands using techniques they were taught or that they practised. Facilitator(s) shine UV light onto their hands.

c. With input from the other participants, the facilitator(s) will mark general areas where the fluorescent lotion, still remains and estimates proportion of the hand with contamination: None – N, Little – L (<10%), A lot – A. Facilitator(s) record proportion covered on the *Participant Recording Form.*

Notes

- When all have washed once, the sink should not be available for further use.
- For efficiency, consider having the participants split into two groups: those taking the written assessment and those doing the handwashing exercise, then switch.

d. **Skills assessment: two scenarios**, and self-assessment and group assessment of performance. Each participant needs to demonstrate management of a breathing and a non-breathing baby to a high degree of proficiency (at least 90% of tasks completed correctly). The group observes and notes gaps. Anyone needing to re-do the demonstration goes to the end of the queue for the next round. Facilitators complete a *Skills checklist* for each participant and assign a total score based on tasks completed.

Scenario 1: **Breathing baby**

The woman is fully dilated. Participants have already weighed her, taken her blood pressure, listened for fetal heart tones and recorded information on a partograph. There is no more time, she will deliver in about one minute.

Please demonstrate perfect immediate routine care of the newborn, including setting up of equipment.

A minimum of 19 out of 21 tasks must be performed accurately to meet the post-coaching assessment standard.

Scenario 2: **Non-breathing baby**

The baby is born and needs drying. On assessment, the baby is not breathing. Participants have the first minute to ventilate the baby. Upon getting good chest rise, participants have to demonstrate 30–50 breaths per minute.
If achieved after 30 seconds of ventilation, the facilitator should simulate umbilical pulsations of > 100 per minute and chest rises of 40 per minute. A minimum of 27 out of 30 skills must be performed to meet the standard.

17. Discuss and agree with participants about how they will implement these correct practices at their health facilities

- List problems noted during the coaching sessions. Agree how to solve the problems one-by-one. Make note of responsible person and timeline for completion.
- Complete the **EENC Coaching summary form.**
  - List the cadres of health professionals involved in childbirth and newborn care in the EENC Coaching summary form.
  - Identify the total number of staff in each cadre of staff.
  - Identify persons responsible and timeline for competing coaching.
  - Identify resources needed to complete coaching such as manikins, essential supplies or other materials.

EENC Coaching summary form

Type of health professional	Total #	Total coached	Still to coach	Coaching responsible person	Timeline	Other resources needed

18. Closing

Closings can be locally adapted; there is no prescribed closing suggested here. Presentation of findings and notes of congratulations are often done in the presence of senior-level management prior to closing words of this person.

5. LIST OF MATERIALS AND HANDOUTS

TO BE PREPARED BY FACILITATOR(S) AND TRAINING VENUE

Establish in advance the number of facilitators attending. The ideal facilitator-to-participant ratio is 1:6 to ensure adequate supervised practice. Each facilitator requires a delivery room set-up consisting of an adjustable delivery table (if available), a trolley with a delivery kit, gloves, a table with solid top or a resuscitation area (for ventilation), a wall clock with a second hand (digital clock is preferable), a manikin, cloths and hat, bag and mask, and an alarm clock. In a large venue, it may be possible to have 18 participants working with three facilitators at three practice stations.

WRITTEN MATERIALS AND FORMS (see ANNEXES)

- Agenda for *Strengthening care of the breathing and non-breathing newborn* **(Annex 1)**
- Facilitator's guide *(for facilitators only)*
- *Participant Attendance form*
- *Participant Recording form* for written assessment, hand hygiene and demonstration pre-coaching and post-coaching assessments **(Annex 2)**
- Written pre-coaching and post-coaching assessments **(Annex 3)** and answer sheet for facilitators only
- A4 paper for drawing hands in fluorescent lotion, e.g. Glo Germ™, exercise
- Skills checklists for the breathing and non-breathing baby **(Annex 4)**
- *EENC Frequently Asked Questions* summary sheet **(Annex 5)**
- National or regional *Early Essential Newborn Care Clinical Practice Pocket Guide*

Ensure enough copies for all participants.

More Skills checklists *will be required – allow 4 sets of both checklists for each participant.*

SUPPLIES (1 set of each of the following per group of six participants)

- Fluorescent lotion, e.g. Glo Germ™, and UV (or black) light
- Manikins (Neonatalies™ and Mamanatalies™, if feasible) with 2 L bottle for water to fill manikins
- Suction device, preferably "penguin" type
- Newborn bag and mask (0 and 1 size) – if available
- Delivery kits including – forceps, ties, clamps, sterile scissors, clean gloves, syringe and oxytocin (box of extra gloves)
- Four large cloths – 1 for drying and 1 for covering the baby, 2 for newborn resuscitation area
- Baby hats
- Spray bottles to wet manikins (optional)

Note: It is expected that the hosting site will provide a training room facility with delivery beds, a sink, soap, paper towels, room thermometers, wall clocks and tissue paper.

TO BE GIVEN TO EACH PARTICIPANT

At the beginning of Day 1

- Agenda of coaching sessions
- Folder with notebook and pen

At the end of Day 1

- EENC Frequently Asked Questions (FAQ)

At the end of Day 2

- Facilitator's Guide (for those who will be coached to be EENC facilitators)
- Observation checklists for five deliveries

6. FACILITATOR'S NOTES

First, facilitators should have read the relevant section of the *Early essential newborn care: clinical practice pocket guide.* They should also have become familiar with the facilitator's possible questions to participants and discussion points below.

Use these notes to support answers only when they arise during re-enactment.

Before providing your answer, repeatedly ask participants to try to answer.

Note: the facilitator's notes are not designed for Q&A; they provide typical questions and answers that help the facilitator guide the questions.

Possible questions to ask to participants during Activity 6

Causes of newborn death	
What are the major causes of newborn death?	Asphyxia, sepsis and prematurity.
What are underlying causes of death?	Not breathing, hypothermia, not breastfeeding.
Why is hypothermia dangerous to newborns?	Hypothermia can cause newborns to have infection, coagulation defects, acidosis, delayed fetal-to-newborn circulatory adjustment, hyaline membrane disease (respiratory distress syndrome) and brain haemorrhage. It is dangerous.
What are major causes of hypothermia?	Cold room with draft (convection), being wet (evaporation), touching cold surfaces (conduction), being exposed (radiation).
What actions can health workers perform to prevent hypothermia?	Ensure room temperature of 25–28° C. Close all windows, turn off fan and air-conditioning to ensure there is no draught (i.e. airflow) in the room. Dry baby thoroughly and then cover; put in skin-to-skin contact with the mother. For the rare resuscitation that would be needed, turn on the radiant warmer (if available) before delivery or cover the resuscitation area surface with a cloth.

Preparing the delivery space

Can we predict which babies will not be breathing?

Even babies born of mothers with no risk factors may not breathe.

Is it important to prepare the newborn resuscitation area?

Even though rare, we cannot predict which babies will not breathe at birth. Thus, we need the newborn resuscitation area set up for all deliveries.

How do we prepare the delivery space?

Ensure that all delivery equipment and supplies are available, clean, and ready for use. Lay out in sequence: gloves*, gauze, povidone-iodine, 2 cloths, oxytocin, needle and syringe, 2 cord clamps** and sterile scissors.
Aside from cloth, ventilation bag and mask, ensure that suction device, hat and clock/timer are in easy reach/view of the newborn resuscitation area. All equipment should be tested before the delivery.

* If only one provider handles the mother's and the newborn's cord sections, 2 pairs of gloves should be worn. The outer pair should be removed prior to handling the cord.

** Where clamps are not available, use ties.

Drying

Why is drying important?

1. It stimulates breathing. Most babies who are not breathing at birth will start to breathe after thorough drying.
2. It prevents hypothermia.

How do we dry well?

Before delivery, place a clean cloth over the mother's bare abdomen. Deliver the baby and place on the clean cloth. Drying should be immediate (within a few seconds of delivery), thorough and systematic. Wipe the eyes, mouth/nose, face, head, front, back, arms and legs. Thorough drying takes around 30 seconds. It should be by rubbing, not patting, but should not remove the vernix. Assess the baby for breathing during drying.

Direct skin-to-skin contact

Why is skin-to-skin contact good?

It keeps a baby warm, promotes bonding, contributes to overall success of breastfeeding/colostrum feeding, stimulates the immune system (mucosa-associated lymphoid tissue), protects from hypoglycaemia, and helps colonization with maternal skin flora (friendly family bacteria).

Direct skin-to-skin contact (continued)

How do we maintain direct skin-to-skin contact?

You have just finished drying the baby. Remove the wet cloth so that the baby is in direct skin-to-skin contact with the mother's bare abdomen. Cover, but do not wrap, the baby with another clean dry cloth. This keeps the skin of the baby's abdomen directly in contact with the skin of the mother's abdomen. Cover the newborn's head with a hat.

Cord clamping

Why should we delay cord clamping until after the cord stops pulsating?

Delaying cord-clamping protects against anaemia, intraventricular haemorrhage and necrotizing enterocolitis.

How do we know the cord is pulsating?

Demonstrate with the manikin. Ask every participant to look and to feel the cord.

Why should we stop our usual practice of clamping the cord far from the umbilical base for later trimming?

Unnecessary handling of the cord gives opportunity for bacteria to get into the cord. Cutting at 2 cm (between the clamps/ties) eliminates the need to "trim" the cord later.

Should we apply disinfectant to the cord?

No. If allowed to air dry, the cord will dry more quickly. Remind participants that they need to tell caretakers: "Do not use a binder or apply any substance to the cord."

Breastfeeding

Why is breastfeeding beneficial?

Breastfeeding is one of the most life-saving interventions we have. Delays in initiation of breastfeeding are associated with dramatic increase in death and illness. Babies who are fed formula have 4–6 times the risk of dying compared with exclusively breastfed babies. Formula is more dangerous to a newborn than is smoking to an adult.

When is a typical baby ready to breastfeed?

Never immediately after birth. Leave the baby between the mother's breasts in continuous skin-to-skin contact. The baby may want to rest for 20–30 minutes or even longer before showing signs of readiness to breastfeed (i.e. feeding cues). Just under half of all babies initiate breastfeeding naturally after one hour from birth.

Note: Please explain to the participants that babies should not be forced onto the breast or have the nipple forced into the mouth. Wait for the feeding cues.

What are the feeding cues that a baby is ready to breastfeed?

The earliest sign is drooling, followed by mouth opening, tonguing, licking, rooting and biting of fingers or hand. Eventually, the baby will locate the breast and open his/her mouth widely to attach to the breast.

Breastfeeding (continued)

Do some mothers not have enough milk?

Studies in very poor countries (Ecuador, Nigeria) showed that all mothers (many of whom were severely malnourished) were able physiologically to breastfeed. A newborn's stomach is only the size of your thumbnail. It may not be perceived that the baby has gotten enough milk.

If the baby appears to be fussy or dissatisfied at the mother's breast, first ensure that no other liquids are being given, i.e. formula, sugar water or other fluids.

Counsel the mother on offering her breasts 8–12 times over the day and night upon her baby's early feeding cues.

Stimulation of the breast by the baby's sucking results in messages being sent to the mother's brain and back to the breast to produce more milk. Thus, milk production will increase if the mother's breast is stimulated more frequently through offering the breast more often.

What are signs of good feeding position?

The baby's head and body are in a straight line (neck is not twisted or flexed), the baby is facing the breast, with nose opposite nipple, the mother is holding the baby's body close to her body and supporting the baby's whole body (not just neck and shoulders).

What are signs of good attachment?

More areola is visible above the baby's mouth than below; the mouth is wide open with the lower lip turned outward, the baby's chin touching breast; sucking is slow and deep with occasional pauses.

Note: Signs of ineffective attachment include in-drawing of newborn's cheeks, lip-smacking sounds or mother's nipple pain

How can we improve attachment?

By touching the baby's lips with her nipple, waiting until the mouth is opened wide, moving baby quickly onto breast, aiming baby's lower lip well below nipple; also, by trying different positions, e.g. sitting upright or laying on her side

SUMMARY OF CORRECT SEQUENCE OF EVENTS

Let us summarize. What should be the correct order of actions?

Prepare the delivery and newborn resuscitation areas.

Immediate and thorough drying (assess breathing during drying), direct skin-to-skin contact, cord clamping after cord stops pulsating, breastfeeding on baby's feeding cues.

After completion of the first breastfeed, health worker does hand hygiene then eye prophylaxis, weighing/examination, injections; and supports exclusive breastfeeding on demand.

Call out time of delivery precise to the second

Why should we call out the time of delivery precise to the second?

Actions in the first minute especially need timing to the second. Thorough drying takes around 30 seconds. A baby not breathing after 30 seconds needs to be helped to breathe/or have lungs aerated within 60 seconds. The cord should be clamped after cord stops pulsating at 1–3 minutes.

Unnecessary handling

Why is unnecessary handling bad?

Each time a health worker handles a baby, the baby is at risk for infection and cold.

When should a health worker handle the baby?

Only when there is a medical need.

When should a health worker perform hand hygiene (handwashing or alcohol hand rub)?

Immediately before and immediately after handling a baby/mother or their surroundings, after exposure to body fluids, and before and after an aseptic procedure.

Suctioning

When should a baby be suctioned?

Only when the airway is blocked and baby is completely not breathing, for example, a non-vigorous, meconium-stained baby.

Does a baby with thick meconium staining but who is breathing well need suctioning?

No. The baby is breathing well and suctioning does not prevent meconium aspiration.

Why is suctioning a baby dangerous? (Ask for as many answers as possible.)

Hold the bulb up. Pretend to suction a participant, then move to the next and ask if it is OK to suction them with this. Ask why. Do the same for five participants. Bulbs are dirty even when cleaning has been attempted. You cannot get rid of all the bacteria. Suction bulbs spread infection. Ask if they would feel comfortable if you suctioned them. Ask why. Gagging a baby is dangerous. It can cause the baby to stop breathing and get sick. It can cause trauma to the mouth and nose.

Newborn resuscitation

How many babies will need bag-and-mask ventilation?

If we dry babies well, only a few out of a hundred newborns.

How do we position the mask?

Ask participants to demonstrate by: placing the mask over the baby's chin, mouth and nose; do not cover the eyes with the mask. Form a firm seal between the mask and the face (use mask size 1 for normal-birth-weight newborn and size 0 for low-birth-weight newborn). Squeeze the bag a few times to observe the rise of the chest.

Newborn resuscitation (continued)
How do we know if the ventilation is adequate? Chest is rising, baby's heart rate rises, and baby gradually becomes pink.
What do we do if the chest is not rising sufficiently? Reposition head so neither flexed nor hyperextended, and lift chin. Should these fail, reposition mask to get a better seal, check airway for blockage, squeeze bag harder. The bag and mask should have been checked prior to resuscitation.
How often should we squeeze the bag? 40 times per minute (30–50 acceptable).
What should we do when the baby starts breathing? Stop ventilation and observe to ensure that the baby continues to breathe well. Assess breathing. If breathing 30–60 breaths per minute without severe chest in-drawing, put the baby in direct skin-to-skin contact on the mother's chest and do routine newborn care including observation for feeding cues. Reassure the mother, monitor every 15 minutes.
How often should we reassess baby's breathing and heart rate? Every 1–2 minutes.
Why would a baby have a good heart rate but not breathe? Bag-and-mask ventilation may be too fast. We need to slow down the number of squeezes per minute to allow the baby the chance to breathe on her own.

7. ESTABLISHING NATIONAL AND SUBNATIONAL FACILITATORS

Facilitators need to have not only the clinical skills but also the skills to replicate the coaching methodology. In general, they need to have:

1. completed the two-day coaching – passing the written assessment, hand hygiene and skills demonstration;
2. participated in deliveries following the steps for the breathing (and, where possible, the non-breathing baby);
3. participated in half-day coaching on becoming a facilitator;
4. conducted at least one supervised coaching session; and
5. shown capacity to coach, keeping it fun and avoiding didactic lecturing.

If significant time has passed since the initial coaching, facilitators should be asked to repeat the written assessment, hand hygiene and skills demonstration to ensure their skills have been maintained.

Time	Activity
Pre-attendance	Participants are asked to review the *Facilitator's Guide* prior to attending this session.
SESSION 1 (1/2 hour)	1. Review of agenda and agreement on facilitator roles
	2. Brief review of materials and supplies needed
	3. Brief review of the annotated agenda
	4. Brief review of the *Facilitator's Guide*
SESSION 2 This session focuses on performance as facilitor.	1. Role-play – Delivery of a breathing newborn without coaching: a previously trained facilitator will act as a health-care provider with inappropriate practices. One participant takes the role of the mother and another participant takes note of every step of the procedure and records the exact time (to the second) of each intervention. 2. Re-enactment based on current practices and sequence of events: participants generate participatory agreement or disagreement with every stage of practice and encourage discussion on the evidence base for the correct practice (plenary). When participants make declarative or didactic statements or are lecturing rather than facilitating learning by a series of probing questions and answers, ask them to pause, review the relevant section of the *Facilitator's Guide*, and reconvene in 2–3 minutes. This may need to be repeated several times. Each participant should have a turn to facilitate during this session. 3. Role-play in groups of two: Participants pair up and take turns practising coaching the breathing and non-breathing baby scenarios. This should be continued until all participants are competent to coach. 4. Plenary discussion on difficulties encountered in using the coaching methodology and steps to improve coaching

8. QUALITY-OF-COACHING ASSESSMENT TOOL

A. Aim

EENC facilitation adopts a coaching style that encourages learning through open questions and practical activities. This tool should be used to assess, monitor and improve coaching through a tally of the facilitator's use of appropriate questions and practical demonstrations. This assessment tool can be used as a reference point for constructive feedback to facilitators.

B. Methods

At the beginning of each section of the coaching, time a five-minute period and make a record in the tally each time a question or statement is made. For example, the question "Why is preparing the delivery space important?" compares with the statement "Preparing the delivery space is important so that you are ready for a resuscitation."

- This tool can be completed by co-facilitator, national coordinator or observer.
- Record additional strengths or areas for improvement to provide constructive feedback to the facilitator.
- Every facilitator should be evaluated during the first facilitated sessions until more than 80% of the time, facilitators are asking questions rather than making statements. The evaluation should be repeated on, at least, a quarterly basis. It can also be used by partner facilitators to improve practice.

C. Evaluation

Facilitator's name: ..... Date: .....

Observer's name: ..... Location: .....

Section	Tally of questions asked	Tally of statements made
Preparing the delivery space		
Drying		
Direct skin-to-skin contact		
Breastfeeding		
Summary of correct sequence of events		
Newborn resuscitation		
Total (%)		

Segment	Number of participants having completed practical tasks as proportion of total
Checking bag/mask for functionality	
Complete and thorough drying	
Cord pulsations, clamping	
Newborn resuscitation – chest	
Summary of correct sequence of events	
Newborn resuscitation	

Strengths:

.....

.....

.....

Areas for improvement:

.....

.....

.....

ANNEX 1.

DETAILED AGENDA FOR STRENGTHENING CARE OF THE BREATHING AND NON-BREATHING NEWBORN

Time	Activity	Responsible facilitators
DAY 1		
08:30 10:00	**1. Review of objectives** a. To give health workers a clinical venue to practise until they master sequential steps to provide newborn care to both breathing and non-breathing babies. b. To help health workers value these skills so that they will practise them at every delivery.	
	2. Brief introduction of participants and facilitators	
	3. Pre-coaching assessment a. Written assessment. b. Handwashing exercise with fluorescent lotion. c. Hand back of pre-coaching assessment for participants' quick review.	
	BREAK: 10:00 –10:15	
10:15 12:30	**4. Role-play: delivery of a breathing newborn without coaching** Health-care providers doing their usual practice. A participant (and the facilitators) takes note of every step of the procedure and records the exact time (to the second) of each intervention. A second facilitator, if available, uses the skills checklist to assess the demonstration performance to get the baseline score.	
	5. Re-enactment based on current practices and sequence of events Facilitators generate participatory agreement or disagreement with every stage of practice and encourage discussion on the evidence base for the correct practice including providing the correct environment, and setting up and checking all the equipment for the delivery and newborn resuscitation.	
	6. Role-play with coaching for incremental correcting of gaps and inappropriate practices	

Time	Activity	Responsible facilitators
	LUNCH: 12:30 –13:30	
13:30 15:30	**7. Supervised role-play practice with involvement of all participants** Continue until all are able to demonstrate correct clinical practice for newborn care of a breathing baby (in multiple groups).	
	BREAK: 15:30 –15:45	
15:45 17:00	**7. Supervised role-play practice with involvement of all participants** *(continued)*	
	8. Discussion followed by dissemination of handouts to participants	

DAY 2		
08:30 10:00	**9. Facilitated brief Q&A on Day 1 activities (10 minutes)** *(Facilitators ask questions to participants to recall the steps for newborn care of breathing babies.)*	
	10. Role-play: delivery of a non-breathing newborn without coaching Health-care providers doing their usual practice. A participant (and the facilitators) takes note of every step of the procedure and records the exact time (to the second) of each intervention.	
	11. Re-enactment based on current practices and sequence of events Facilitators generate participatory agreement or disagreement with every stage of practice and encourage discussion on the evidence base for the correct practice (plenary). Include individual practice of effective bag-and-mask ventilation (in groups of 6–10).	
	12. Supervised practice of getting chest rise	
	13. Role-play with coaching With incremental correcting of gaps and inappropriate practices (plenary).	

Time	Activity	Responsible facilitators
	BREAK: 10:00 –10:15	
10:15 12:30	**14. Supervised practice of delivery of a non-breathing baby** Supervised role-play practice to continue until all participants are able to demonstrate correct clinical practice for newborn care of non-breathing baby (in multiple groups).	
	LUNCH: 12:30 –13:30	
13:30 15:30	**15. In plenary, discuss with the participants different scenarios for the management of a non-breathing baby**	
	BREAK: 15:30 –15:45	
15:45 17:00	**16. Post-coaching assessment** a. Written assessment. b. Handwashing exercise with fluorescent lotion. c. Two scenarios and self and group assessment of performance.	
	17. Discuss and agree with participants on how they will implement these correct practices at their health facilities	
	18. Closing	

ANNEX 2.

PARTICIPANT RECORDING FORM

Location:..... **Date:**.....

Name	**Hand Hygiene**		**Written Score**		**Demonstrations**	
	Pre-test	Post-test	Pre-test	Post-test	Breathing	Non-breathing
# **Participants:**.....	A – L – N	A – L – N	# correct/18	# correct/18	# correct/42	# correct/60
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
# Average:	N. A.	N. A.				
# Perfect:						
# Pass:						

A – a lot; L – little; N – none; N.A. – not applicable

A perfect score on hand hygiene = no contamination. To pass the hand hygiene test, participants must have achieved a score of L or N. To pass the written test, participants must achieve a score of at least 15. To pass the breathing baby demonstration, participants must achieve a score of at least 38, and for non-breathing baby, at least 54.

ANNEX 3.

PRE- AND POST-COACHING ASSESSMENTS (WITH ANSWER SHEET FOR FACILITATORS)

Participant's name:.....

Date:.....

Care of the breathing and non-breathing newborn

Except where otherwise stated, choose the single best answer

1. Delivering in the supine position during second stage of labour is best.

☐ a. True

☐ b. False

2. Applying fundal pressure (pushing down on the top of the uterus) is an effective means of supporting labour.

☐ a. True

☐ b. False

3. After a baby is born, you should call out the time of birth (accurate to minute and second), then what?

☐ a. Clamp and cut the cord.

☐ b. Thoroughly dry the baby.

☐ c. Suction the baby's mouth and nose.

☐ d. Hold the baby upside-down to let out the secretions.

4. During thorough drying and stimulation of the baby, your rapid assessment shows she is crying. What is your next action?

- ☐ a. Suction the baby's mouth and nose.
- ☐ b. Clamp and cut the cord.
- ☐ c. Place the baby in skin-to-skin contact with the mother.
- ☐ d. Place the baby onto the breast.

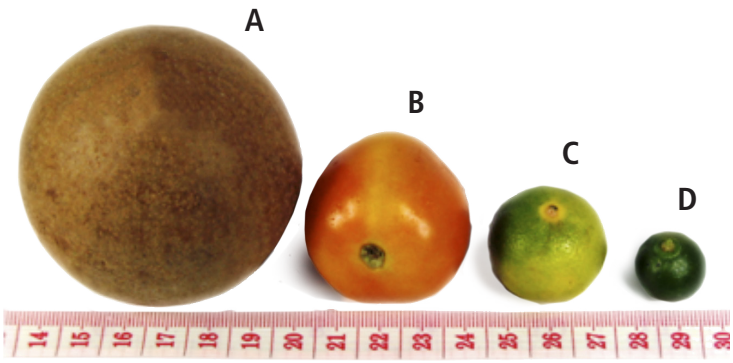
5. For which reason(s) should the baby's mouth and nose be suctioned after thorough drying?

- ☐ a. The baby is breathing and the amniotic fluid is thickly stained with meconium and the baby is covered in meconium.
- ☐ b. The baby is not breathing and the amniotic fluid is thickly stained with meconium and the baby is covered in meconium.
- ☐ c. The baby is not breathing and there is no airway obstruction visible.
- ☐ d. All of the above.

6. A baby has feeding cues indicating she is ready to breastfeed immediately after birth.

- ☐ a. True
- ☐ b. False

7. What is the approximate capacity of a newborn's stomach? Circle A, B, C or D.



8. List 3 signs a newborn baby is ready to breastfeed ("feeding cues").

.....

.....

9. List 3 signs a baby has good attachment to the breast.

.....

.....

10. List 3 things you should do to improve bag-and-mask ventilation.

.....

.....

11. When does a baby need bag-and-mask ventilation? After thorough drying for 30 seconds, the baby is:

☐ a. Not breathing.

☐ b. Having difficulty breathing (gasping respirations).

☐ c. Breathing but limp and very pale or blue in colour.

☐ d. All of the above.

12. A baby required bag-and-mask ventilation for 2 minutes. You have stopped bag-and-mask ventilation. He is now crying, breathing without difficulty, pink, and the heart rate is > 100 beats per minute.
What should you do now?

☐ a. Place the baby in direct skin-to-skin contact with the mother/do routine newborn care.

☐ b. Move the baby to an observational area and monitor breathing every 10 minutes.

☐ c. Give oxygen by nasal cannula or mask.

☐ d. Do all of the above.

ANSWER SHEET FOR PRE- AND POST-COACHING ASSESSMENTS: **FOR FACILITATORS ONLY**

1. Delivering in the supine position during second stage of labour is best.

☐ a. True

■ **b. False**

2. Applying fundal pressure (pushing down on the top of the uterus) is an effective means of supporting labour.

☐ a. True

■ **b. False**

3. After a baby is born, you should call out the time of birth (accurate to minute and second), then what?

☐ a. Clamp and cut the cord.

■ **b. Thoroughly dry the baby.**

☐ c. Suction the baby's mouth and nose.

☐ d. Hold the baby upside-down to let out the secretions.

4. During thorough drying and stimulation of the baby, your rapid assessment shows she is crying. What is your next action?

☐ a. Suction the baby's mouth and nose.

☐ b. Clamp and cut the cord.

■ **c. Place the baby in skin-to-skin contact with the mother.**

☐ d. Place the baby onto the breast.

5. For which reason(s) should the baby's mouth and nose be suctioned after thorough drying?

☐ a. The baby is breathing and the amniotic fluid is thickly stained with meconium and the baby is covered in meconium.

■ **b. The baby is not breathing and the amniotic fluid is thickly stained with meconium and the baby is covered in meconium**.

☐ c. The baby is not breathing and there is no airway obstruction visible.

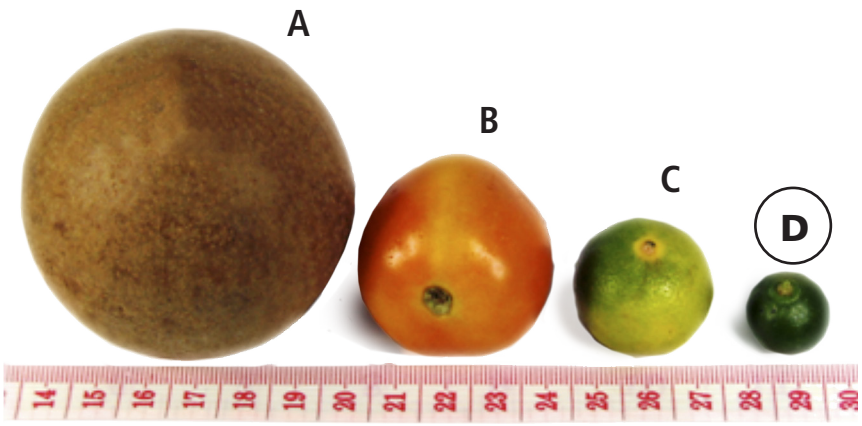
☐ d. All of the above.

6. A baby has feeding cues indicating she is ready to breastfeed immediately after birth.

☐ a. True

■ **b. False**

7. What is the approximate capacity of a newborn's stomach? Circle A, B, C or D



8. List 3 signs a newborn baby is ready to breastfeed ("feeding cues").

Drooling, tonguing, licking, mouthing, rooting, biting hand or fingers, crawling are all acceptable answers.

Note: Crying is **not** a feeding cue in the just-born baby.

9. List 3 signs a baby has good attachment to the breast.

More areola is visible above baby's mouth than below; the baby's mouth is wide open with the lower lip turned outward, chin is touching the breast; sucking is slow and deep with occasional pauses.

No signs of **ineffective** attachment including in-drawing of newborn's cheeks, lip-smacking sounds or mother's nipple pain.

10. List 3 things you should do to improve bag-and-mask ventilation.

Reposition head so neither hyperflexed nor extended and lift chin. Should this fail, reposition mask to get a better seal, check airway for blockage, squeeze bag harder.

Note: The bag and mask should have been checked prior to resuscitation, so it is not a correct answer.

11. When does a baby need bag-and-mask ventilation? After thorough drying for 30 seconds, the baby is:

☐ a. Not breathing.

☐ b. Having difficulty breathing (gasping respirations).

☐ c. Breathing but limp and very pale or blue in color.

■ **d. All of the above.**

12. A baby required bag-and-mask ventilation for 2 minutes. You have stopped bag-and-mask ventilation. He is now crying, breathing without difficulty, pink, and the heart rate is >100 beats per minute. What should you do now?

■ **a. Place the baby in direct skin-to-skin contact with the mother/do routine newborn care.**

☐ b. Move the baby to an observational area and monitor breathing every 10 minutes.

☐ c. Give oxygen by nasal cannula or mask.

☐ d. Do all of the above.

ANNEX 4. OBSERVATIONAL CHECKLISTS

Participant's number:.....
Date:.....
Location:.....

☐ Post-coaching test #1
☐ Post-coaching test redo
☐ Supervisory visit (initial)
☐ Supervisory visit (redo)

Skills checklist for the breathing baby

Complete this form for each demonstration of delivery of breathing baby

	ACTIVITY	YES	PARTIAL	NO
Pre-birth preparations				
1.	Checked room temperature; turned off fans			
2.	Washed hands (first of two handwashings)			
3.	Placed dry cloth on mother's abdomen			
4.	Prepared the newborn resuscitation area			
5.	Checked that bag and mask are functional			
6.	Washed hands (second of two handwashings)			
7.	Put on two pairs of clean gloves			
8.	Put forceps, cord clamp/ties in easy-to-use order			
Immediate postpartum/newborn care				
9.	Called out time of birth: hour__, minute__, second__			
10.	Drying started within 5 seconds of birth?	< 5 s	5–10 s	> 10 s
11.	Dried the baby thoroughly (wiped the eyes, face, head, front, back, arms and legs)			
12.	Removed the wet cloth			
13.	Put baby in direct skin-to-skin contact with mother			
14.	Covered baby's body with cloth and the head with a hat			
15.	Checked for a second baby			
16.	Gave oxytocin to mother within 1 minute of delivery			
17.	Removed outer pair of gloves			
18.	Checked cord pulsations before clamping, clamped after cord pulsations stopped (usually 1–3 minutes)			
19.	Placed clamp/ties at 2 cm, forceps at 5 cm, from umbilical base			
20.	Delivered placenta			
21.	Counselled mother on feeding cues (drooling, mouth opening, tonguing/licking, rooting, biting hand, crawling, etc.)	> 2 mentioned	1–2 mentioned	
	TOTAL NUMBERS			
	TOTAL SCORE *(maximum possible score = 42)* (# "Yes" x 2) + (# "Partial") =			

Skills checklist for the non-breathing baby

Complete this form for each demonstration of delivery of non-breathing baby

	ACTIVITY	YES	PARTIAL	NO
Pre-birth preparations				
1.	Checked room temperature; turned off fans			
2.	Washed hands (first of two handwashings)			
3.	Placed dry cloth on mother's abdomen			
4.	Prepared the newborn resuscitation area			
5.	Checked that bag and mask are functional			
6.	Washed hands (second of two handwashings)			
7.	Put on two pairs of clean gloves			
8.	Put forceps, cord clamp/ties in easy-to-use order			
Immediate postpartum/newborn care				
9.	Called out time of birth: hour__, minute__, second__			
10.	Drying started within 5 seconds of birth?	< 5 s	5–10 s	> 10 s
11.	Dried the baby thoroughly (wiped the eyes, face, head, front, back, arms and legs)			
12.	Removed the wet cloth			
13.	Put baby in direct skin-to-skin contact with mother			
14.	Covered baby's body and head with dry cloth			
15.	Called for help			
16.	Removed outer pair of gloves			
17.	Quickly clamped and cut cord.			
18.	Moved baby to resuscitation area			
19.	Covered baby quickly during and after transfer			
20.	Positioned the head correctly to open airways			
21.	Applied face mask firmly over baby's chin, mouth, nose			
22.	Gained chest rise within < 1 min of birth: minutes__, seconds __	< 1 min	1–1 min 15 s	> 1 min 15 s
23.	Squeezed bag to give 30–50 breaths per minute			
24.	Maintained good chest rise throughout or took steps to improve ventilation			
25.	On baby's breathing well, stopped mechanical ventilation			
26.	Returned baby to skin-to-skin contact, covered baby			
27.	Checked for another baby			
28.	Gave oxytocin to the mother			
29.	Delivered placenta			
30.	Counselled mother that baby is OK and on feeding cues			
	TOTAL NUMBERS			
	TOTAL SCORE *(maximum possible score = 60)* (# "Yes" x 2) + (# "Partial") =			

ANNEX 5.

EENC FREQUENTLY ASKED QUESTIONS (FAQ)

FAQ 1. WHAT IS EARLY ESSENTIAL NEWBORN CARE?

Core EENC interventions	INTRAPARTUM CARE		NEWBORN CARE
All mothers and newborn infants	**The First Embrace**	**Labour monitoring (partograph)**	• Immediate drying • Immediate skin-to-skin contact • Appropriately timed clamping and cutting of the cord • Exclusive breastfeeding • Routine care – eye care, vitamin K, immunizations, weighing and examinations
At-risk mothers and newborn infants	**Preterm and LBW infants**	**Preterm labour** • Elimination of unnecessary inductions and caesarean sections • Antenatal steroids • Antibiotics for preterm PROM	• Kangaroo Mother Care • Breastfeeding support • Immediate treatment of suspected infection
	Sick newborn infants	**Obstructed/prolonged labour** **Fetal distress** • Assisted delivery • Caesarean section	**Not breathing at birth** • Resuscitation **Suspected sepsis** • Antibiotic treatment

Source: WHO/UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020).

DETAILED EENC INTERVENTIONS FOR ALL

(including for high-risk, mothers and newborn infants)

All mothers and newborn infants

1. The First Embrace

All mothers:

- supportive environment (e.g. companion and position of choice, elimination of unnecessary/harmful procedures);
- avoiding environmental exposure to cold, draughts and infection;
- maternal and fetal monitoring during labour including use of the partograph;
- improved recognition of labour signs, care and referral of woman with risk factors (e.g. hypertension, diabetes, preterm labour), management of obstetric complications, especially pre-eclampsia/eclampsia;
- newborn resuscitation area set up, equipment checked for functionality;
- clean, organized delivery space;
- postpartum care visits: counselling for routine newborn care and danger signs; and
- HIV and syphilis point-of-care rapid testing.

All newborn infants:

- immediate and thorough drying;
- delayed bathing; and
- immediate skin-to-skin contact with mother.

All newborn infants, if breathing:

- appropriately timed cord clamping, cut once;
- exclusive breastfeeding on baby's feeding cues;
- rooming in/keeping warm;
- routine care (e.g. eye care, vit. K, immunizations and examinations) delayed until after a full breastfeed;
- elimination of harmful practices including routine suctioning, placing substances on the cord stump, and feeding of liquids other than breast milk; and
- postnatal care visits.

All mothers and newborn infants:

- avoidance of exposure to nosocomial pathogens through:
  - hand hygiene and other infection prevention measures; and
  - non-separation except for urgent care.

High-risk mothers and newborn infants

2. Prevention of prematurity and care of preterm and low-birth-weight newborn infants

High-risk mothers and newborn infants:

- elimination of unnecessary induction of labour and caesarean section;
- antenatal steroids;
- antibiotics for preterm pre-labour rupture of membranes;
- Kangaroo Mother Care;
- feeding with breast milk; and
- monitoring for complications.

3. Care of sick newborn infants

Newborn infants who are not breathing despite thorough drying (asphyxia):

- bag-and-mask ventilation; and
- post-resuscitation care (including aseptic cord trimming), monitoring and referral of cases with incomplete recovery/severe conditions.

Sick newborn infants and newborn infants with complications of birth:

- standard case management of newborn sepsis and other newborn problems (e.g. pneumonia, meningitis, other infections, jaundice, malformations);
- identification of at-risk newborn infants;
- stabilization (including prevention of hypothermia, hypoglycaemia, hypoxaemia, apnoea and infection) prior to timely referral;
- oxygen and/or continuous positive airway pressure (CPAP) for those with respiratory distress;
- care of the seriously ill newborn infant;
- antiretrovirals for infants exposed to HIV and penicillin for those exposed to syphilis; and
- referral between levels of care and wards.

FAQ 2. THE FIRST EMBRACE

Question: Why practise the First Embrace?

Answer: All babies benefit including preterm and sick, and those born by caesarean section. Aside from the natural bond it fosters, the First Embrace helps transfer warmth, placental blood, protective bacteria and – through colostrum – essential nutrients, antibodies and immune cells, to protect from infection. Hence, babies adapt better to extra-uterine life.

Source: WHO/UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020).

Question: Why is advance preparation necessary in the First Embrace?

Answer: Preparing in advance facilitates organized provision of intrapartum care (e.g. gloves for sterility, vacuum suction for extraction) and immediate postpartum care (e.g. drying of baby, cord clamping). After drying and initial skin-to-skin contact with the mother, about 3% of babies will not start spontaneous breathing. Health workers cannot predict which babies these will be. Newborns suffer when the resuscitation bag and mask are not set up in advance or the equipment is faulty.

Source: WHO/UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020).

Question: What is wrong with taking the baby away from the mother for routine checks and then bringing the baby back?

Answer: Separation from the mother causes distress, hypothermia and exposure to dangerous bacteria on facility surfaces to the newborn. The first breastfeeding is usually delayed because of incorrect sequencing of actions immediately after birth. Routine care such as vitamin K shot, eye prophylaxis, immunizations, examination and weighing should be postponed until after the first breastfeeding. Bathing should be delayed until 24 hours after birth.

Source: WHO/UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020).

Question: What is good immediate and thorough drying?

Answer: Thorough drying stimulates breathing and prevents hypothermia. Immediately dry the baby within 5 seconds of birth; use a clean, dry cloth to thoroughly dry the

baby. Wipe the eyes, mouth/nose, face, head, front, back, arms and legs. Do not dab as it does not effectively stimulate breathing.

Sources: WHO/UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020); WHO Regional Office for the Western Pacific: Early Essential Newborn Care Clinical Practice Pocket Guide, 2014.

Question: Why should routine care be given only after the first breastfeeding?

Answer: The first breastfeed is often delayed because of incorrect sequencing of actions immediately after the birth. Initiating exclusive breastfeeding on baby's feeding cues reduces the risk of death by 22%.

Source: WHO/UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020).

Question: Many senior doctors and midwives teach health staff to immediately suction babies after birth, to bathe the baby right after birth, and to give sugar water or formula. Should these practices be stopped?

Answer: Yes. These are harmful practices.

WHO strongly recommends against routine suctioning, which can cause apnoea, vagal-induced bradycardia, slow rise in oxygen saturation and mucosal trauma, and increase the risk of infection. It is only for babies born through meconium-stained liquor who do not breathe at birth that suctioning is recommended prior to positive pressure ventilation.

Newborn babies, regardless of gestational age or weight, benefit from breast milk. Giving them anything but breast milk increases the risk of all-cause mortality and decreases the likelihood that babies will successfully breastfeed.

Source: WHO/UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020).

Question: Why should bathing be delayed until after 24 hours after birth?

Answer: Immediate bathing increases risk of hypothermia – which can lead to infection, coagulation defects, acidosis, delayed fetal-to-newborn circulatory adjustment, hyaline membrane disease and brain haemorrhage.

It also removes the vernix and family bacteria which protect against infection and eliminates the crawling reflex.

FAQ 3. PRETERM / LOW-BIRTH-WEIGHT BABIES

Question: Can preterm and low-birth-weight babies receive the First Embrace?

Answer: The First Embrace is recommended for all babies regardless of gestational age or birth weight. After 30 seconds of thorough drying and being kept warm, babies who breathe well benefit from skin-to-skin contact with the mother as do other babies; additional blankets on top of the dry cover sheet give added thermal protection. It is only when the baby is not breathing well that the use of continuous positive airway pressure (CPAP)/incubator is warranted.

The use of plastic bags to maintain warmth of preterm babies has not reached the required level of scientific evidence for it to be adopted.

Source: WHO/UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020); WHO Regional Office for the Western Pacific: Early Essential Newborn Care Clinical Practice Pocket Guide, 2014.

Question: A multi-country survey shows that we are over-treating preterm babies. What is the problem?

Answer: Elective caesarean sections often result in preterm births. Antenatal steroids for the mother can help babies (of less than 34 completed weeks of gestational age) breathe better at birth, but this is often forgotten. Kangaroo Mother Care and appropriate feeding for preterm babies are often not incorporated into routine practice, whereas incubators and infant formula feeding are commonly included: this leads to increased risk of pneumonia, diarrhoea, necrotizing enterocolitis, malnutrition and death.

Source: WHO/UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020).

Question: How can we feed small babies (i.e. with less than 2.5 kg of birth weight or 37 weeks of gestational age)? What about babies below 32 weeks of gestational age?

Answer: Breast milk is life-saving for preterm and term babies alike. Some 85% of preterm newborns are past 32 weeks of gestational age (see p. 42, *Who is a preterm baby?*) and have good suck-and-swallow reflex. Thus, they can breastfeed. When the baby tires, or sucks too weakly, then feeding by cup or spoon may be done. Very small babies may need tube feeding (see p. 42, *Optimal feeding*).

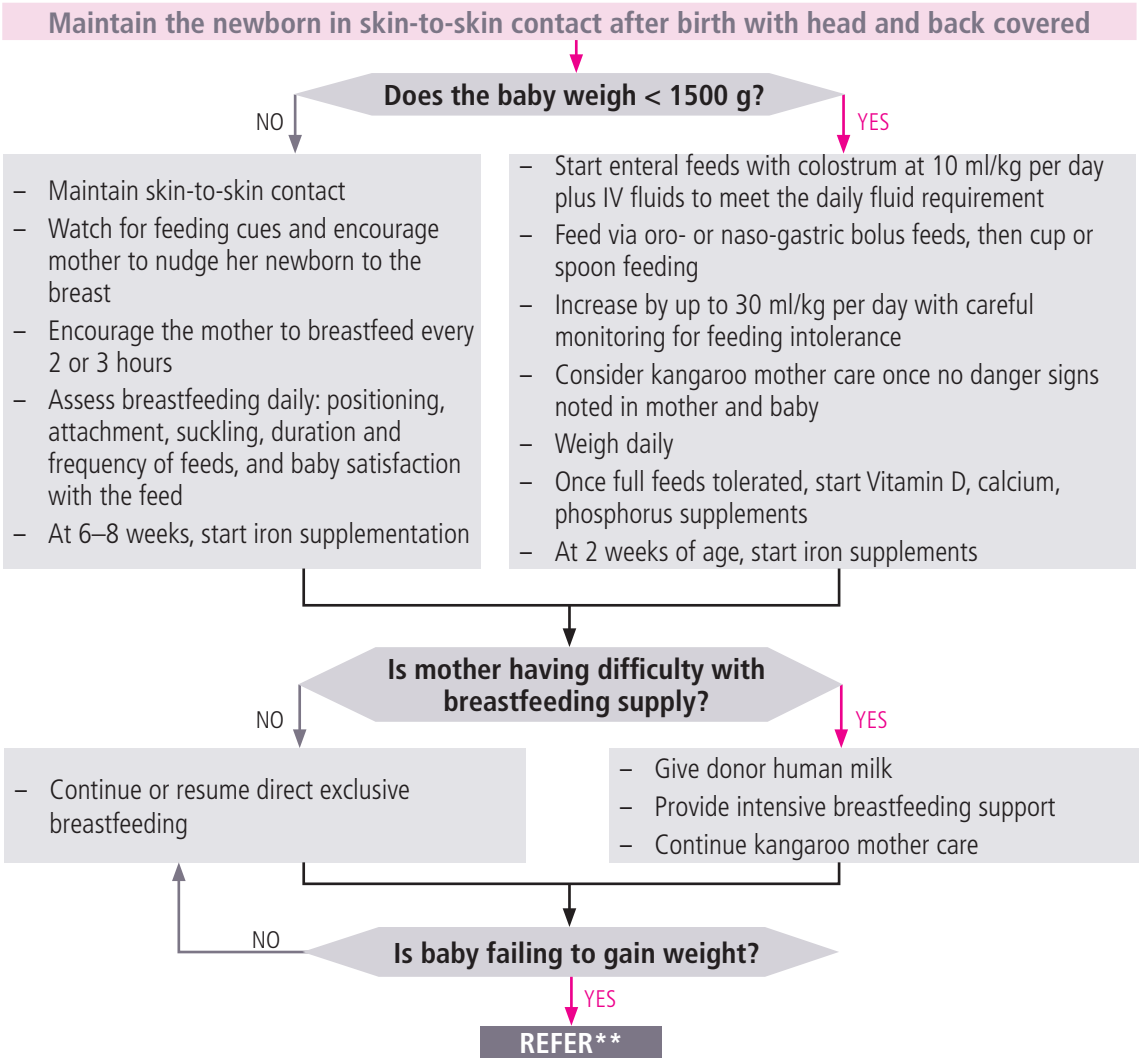
WHO IS A PRETERM BABY?

Baby born alive before 37 completed weeks of pregnancy

- Late and moderate preterm: 32 to < 37 weeks (84%)
- Very preterm: 28 to < 32 weeks (10%)
- Extremely preterm: < 28 weeks (5%)

Source: Born Too Soon: The Global Action Report on Preterm Birth, 2012.

OPTIMAL FEEDING OF THE CLINICALLY STABLE NEWBORN WEIGHING < 2500 g



Source: EENC Clinical Practice Pocket Guide.

* No life-threatening disease; no life-threatening malformation or other contraindications to put baby in skin-to-skin contact

** Breast-milk substitutes should only be resorted to after all efforts exerted to provide mother's own milk or donor human milk- Breast-milk substitutes increase the risk for necrotizing enterocolitis, pneumonia, diarrhea, meningitis and death.

FAQ 4. CAESAREAN SECTION

Question: Can the First Embrace be used for babies delivered by caesarean section?

Answer: Those involved in performing caesarean sections need to understand the benefits of the First Embrace. Professional societies, hospital administrators, operation theatre staff, anaesthetists, obstetricians, neonatologists, midwives and nurses together need to identify ways to enhance understanding of the benefits of First Embrace and to ensure every baby benefits from it.

Question: Is it okay to feed a baby born by caesarean section with glucose water?

Answer: Liquids other than breast milk are dangerous for all babies.

FAQ 5. JAUNDICE

Question: Should one continue breastfeeding in the presence of jaundice?

Answer: Breastfeeding should not be interrupted due to jaundice. The underlying cause of jaundice needs to be treated; for example, if an infection, the infection needs to be treated; if phototherapy is indicated, it should be provided.

Source: WHO. Recommendations for management of common childhood conditions: Evidence for technical update of pocket book recommendations: newborn conditions, dysentery, pneumonia, oxygen use and delivery, common causes of fever, severe acute malnutrition and supportive care, 2012.

Question: Medicines are being prescribed for jaundice. What treatments are appropriate for jaundice management?

Answer: Only phototherapy and, in extreme jaundice, exchange transfusion are recommended. Check bilirubin levels when jaundice is seen anywhere on Day 1 or on palms or soles at any time. Investigate causes of jaundice. (See detailed reference on next page.)

Source: WHO. Recommendations for management of common childhood conditions: Evidence for technical update of pocket book recommendations: newborn conditions, dysentery, pneumonia, oxygen use and delivery, common causes of fever, severe acute malnutrition and supportive care, 2012.

Question: When should I use phototherapy or exchange transfusion?

Answers:

1. Term and preterm newborns with hyperbilirubinaemia should be treated with phototherapy or exchange transfusion guided by the following cut-off levels of serum hyperbilirubinaemia.

Weak recommendation, very low-quality evidence

	Phototherapy		Exchange transfusion	
AGE	Healthy newborns ≥ 35 weeks gestation	Newborns < 35 weeks gestation or any risk factors	Healthy newborns ≥ 35 weeks gestation	Newborns < 35 weeks gestation or any risk factors
DAY 1	Any visible jaundice		260 mmol/l (15 mg/dl)	220 mmol/l (10 mg/dl)
DAY 2	260 mmol/l (15 mg/dl)	170 mmol/l (10 mg/dl)	425 mmol/l (25 mg/dl)	260 mmol/l (15 mg/dl)
DAY 3	310 mmol/l (18 mg/dl)	260 mmol/l (15 mg/dl)	425 mmol/l (25 mg/dl)	340 mmol/l (20 mg/dl)

2. Clinicians should ensure that all newborns are routinely monitored for the development of jaundice and that serum bilirubin should be measured in those at risk:

- in all babies if jaundice appears on day 1,
- in preterm babies (< 35 weeks) if jaundice appears on day 2,
- in all babies if palms and soles are yellow at any age.

Strong recommendation, very low-quality evidence

3. Phototherapy should be stopped once serum bilirubin is 50 mmol/l (3 mg/dl) or below the phototherapy threshold.

Weak recommendation, expert opinion

Source: WHO. Recommendations for management of common childhood conditions: Evidence for technical update of pocket book recommendations: newborn conditions, dysentery, pneumonia, oxygen use and delivery, common causes of fever, severe acute malnutrition and supportive care, 2012.

FAQ 6. PROGRAMME IMPLEMENTATION

Question: Many training sessions have been conducted but the practices of health-care providers have not changed. What should be done?

Answer: Changing the behaviours of health-care providers should target an understanding of the motivation for current practices and actions needed to provide the best environment for the desired practices. Training sessions are a small part of this. A different approach to changing the practices of health workers is needed. In countries where EENC has been implemented successfully, facility-based teams used a process in each facility that included training, modifying hospital policies, changing the physical environment, and collecting simple data for decision-making.

Source: WHO/UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020).

Question: We develop many guidelines and clinical protocols, but they are not implemented. What is your advice?

Answer: Guidelines and clinical protocols based on good data and consistent with international standards are essential, but they are not formulated for promoting or changing practices. It is important to have enabling and coherent policies, coaching-based methods to teach practical skills, and regular review of practice using checklists, standing orders and strategies to address barriers in health facilities, such as limitations of space and equipment and in the organization of the work. It is important that key stakeholders all work together to support all aspects of practice.

Question: Has WHO defined the role of obstetricians, midwives and neonatologists in newborn care?

Answer: Countries need to develop standards of care, with roles and tasks defined for different health professional cadres based on their preservice competencies. The role of midwives is central to the delivery of care and they need to be included.

Question: Is it a problem that many partners support separate EENC programmes?

Answer: Well-meaning partners can be part of the solution or the problem. The Ministry of Health has a critical role to ensure that partners align their programmes with national

standards and training. EENC is best implemented with one national approach having common goals, standards and guidelines – with all partners supporting the national approach.

Question: Human resources (HR) limitations are major constraints especially in rural areas.

Answer: Although many countries experience staff shortages, a very high percentage of all deliveries are still conducted by skilled birth attendants. The principal issue in newborn care is that the quality of care is not always consistent with international EENC standards; thus, the focus is on improving quality of care. Human resource limitations have to be addressed in long-term planning, but a lot can be done in the short term with currently available staff.

FAQ 7. PRE-PREGNANCY/ANTENATAL CARE

Question: The prevalence of sexually transmitted infections (STIs) is high in some areas. What is the impact on newborn survival?

Answer: STIs contribute to stillbirth and various conditions in newborns. This issue needs to be addressed with general screenings – for women of reproductive age, men and boys –and screening for women receiving antenatal care in ANC clinics. While outside EENC, this needs to be addressed as a separate high-priority issue.

Question: What should we do about hypertension, both pregnancy-induced and essential hypertension?

Answer: Hypertensive disorders of pregnancy (HDP) affect about 10% of all pregnancies globally and cause severe acute morbidity, long-term disability and death for women, the fetus and newborns (e.g. cerebrovascular diseases, fetal growth retardation and premature birth). In Asia, about 10% of maternal deaths are associated with HDP, where it is the second-leading cause of maternal death.

Source: Different estimates exist. 15% for South East Asia, 10% for East Asia, and 17% for the Oceania in the Western Pacific Region. Data source: The 2012 report by Countdown to 2015; Blood pressure: Raised blood pressure (Systolic BP ≥ 140 OR Diastolic BP ≥ 90 OR on medication), Global Health Observatory Data Repository, WHO. http://www.who.int/gho/database/en.

Timely and effective care could have prevented most deaths. Screening and appropriate management of pregnancy-related hypertension is critical in antenatal care. Women with hypertension during pregnancy should receive treatment with antihypertensive drugs. Calcium supplementation in pregnancy can be considered if serum calcium levels are low in the population. Restriction in dietary salt intake during pregnancy, with the aim of preventing the development of pre-eclampsia and its complications, is not recommended.

Sources: (1) WHO recommendations for prevention and treatment of pre-eclamspia and eclampsia, WHO, 2011; (2) Guidelines on MNCAH approved by the WHO Guidelines Review Committee–Recommendations on maternal and perinatal health, WHO, 2013.

For women with hypertension, avoiding unwanted pregnancy protects their health. Women with pre-existing high blood pressure have an increased risk of complications during pregnancy. Effective contraception to prevent unwanted pregnancy protects the health of women with hypertension.

Universal access to reproductive health – the Millennium Development Goal 5B – particularly contraceptive prevalence and met needs of contraceptives, can be improved.

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