



World Health  
Organization

# Essential Newborn Care Course

Second edition



## ENCC at a Glance



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# Introduction to Essential Newborn Care Course

*This facilitator's guide accompanies the second edition of the WHO Essential Newborn Care Course (ENCC). It is designed as a brief orientation to new features and a practical guide to organising and facilitating courses and skills updates. Full details for implementation and planning scale-up at national or sub-national level can be found in **Essential Newborn Care Course second edition: Skills-based education for health workers to improve newborn outcomes** (hereafter referred to as ENCC: skills-based education).*

## Principles of ENCC

Every newborn should receive care from a health worker skilled and equipped to provide essential newborn care. ENCC is designed to be used on site where care is provided. It is flexible and allows facilitators to collaborate with participants to design active adult learning that promotes quality newborn care.

### Features

- **Flexible** to meet the needs of newborns and the context where care is provided
- **Foundational** for care of all babies including small or sick newborns
- **Facility-based** in environment where care is provided
- **Family- and newborn-centred** with respectful care cross-cutting
- **Face-to-face format** with digital learning tools
- **FUNctional** with simulations, clinical practice, self-paced learning, and videos

## Purpose and use of ENCC at a Glance

ENCC at a Glance provides a guide to the organization and facilitation of a course in a health facility. The guide includes checklists and worksheets for step-by-step preparation of a course. Follow ENCC step by step (page 5) to access checklists and worksheets that help use materials effectively and design education to meet the needs of participants.



# ENCC step by step

1

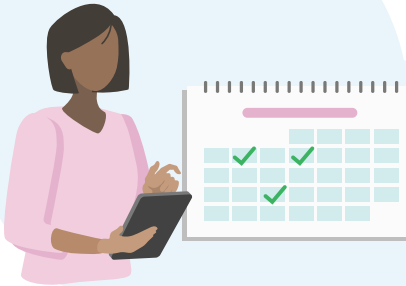


- Know the ENCC materials
- Know competencies expected
- Know who will participate
- Know clinical and educational environments

2



3



- Define learning needs
- Define course content and structure
- Define course size, timeline, and format

4



5



- Assemble materials and equipment
- Know content and adapt if required
- Review facilitation tips
- Practice facilitation methods

6



- Confirm the environment, materials, facilitators and participants are prepared
- Facilitate learning sessions
- Continue simulation practice and quality improvement

- Analyse post-course assessments and feedback
- Document process and plan for next sessions
- Review indicators



# Know the ENCC materials

## ENC 1

**Immediate Care and Helping Babies Breathe at Birth**  
The first 60 minutes after birth

**Action Plan** – Pictorial wall chart of the evaluation/ decision/action framework for providing care to newborns in the first hour

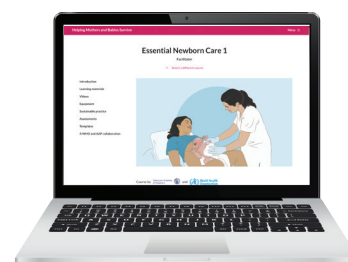
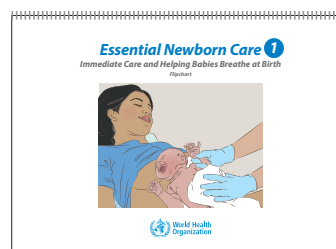
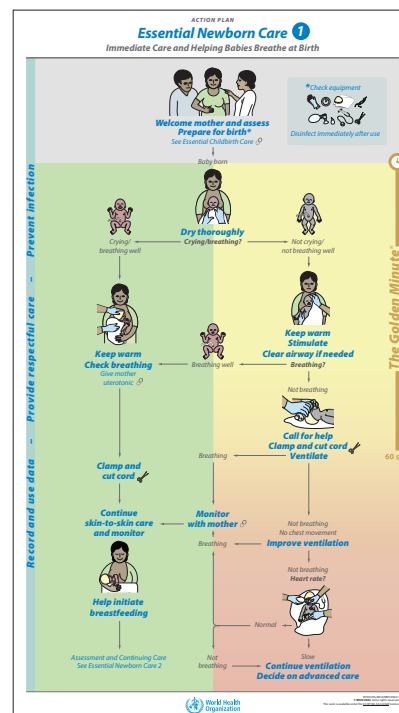
**Facilitator Flipchart** – Images that make concepts visible to participants and key messages to guide facilitators

**Provider Guide** – Participant resource for practice during a course, just-in-time refresher learning, and ideas for changes to improve care

**Simulation Practice Cards** – Group practice simulations for continued building of skills and teamwork

**Online course - ENC1** – Online, interactive learning platform that supports self-learning with videos demonstrating skills and showing clinical situations

[Online course - ENC 1](#)



## ENC 1

### Assessment and Continuing Care From 60-90 minutes to discharge from the facility and first month

**Action Plan** – Pictorial wall chart provides the framework for routine, intermediate, and referral to advanced care. Action steps support care of mother and baby together and serve as process and outcome measures for quality improvement.

**Facilitator Flipchart** – Images that make concepts visible to participants and key messages to guide facilitators

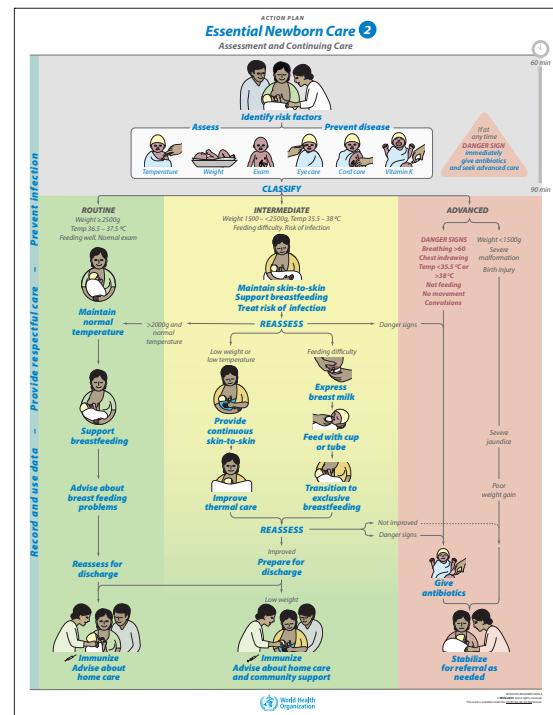
**Provider Guide** – Participant resource for practice during a course, just-in-time refresher learning, and ideas for changes to improve care

**Simulation Practice Cards** – Group practice simulations for continued building of skills and teamwork

**Parent Guide** – Pictorial chart or handout to emphasize key messages

**Online course - ENC 2** – Online, interactive learning platform that supports self-learning with videos demonstrating skills and showing clinical situations

[Online course - ENC 2](#)



## Modules

Interactive slides can be used for facilitator-led sessions or self-learning. Slide notes help guide active learning.

### Active learning methods include:

- Demonstrations, hands-on practice, simulations, videos, discussion and reflection
- Examination of the evidence behind recommendations
- Clinical practice with mothers and newborns to build skills and observe routine care in the facility
- Quality improvement activities to identify gaps in care and prioritise improvement aims

Slide notes emphasize key concepts, present additional background and promote reflection by participants on the situation where they work. Facilitators can select "View/Notes page" to review full content prior to a session. In this view hyperlinks to supplemental videos and references under "To learn more" are active. Participants can use the slide notes in self-guided learning to explore topics in more depth.

**Three cross-cutting modules address the foundation for quality in all newborn care:**

### Infection prevention for newborns



### Communication and respectful care



### Data collection and use



**Ten thematic modules explore specific issues in depth:**

**Preparation for birth**



**Keeping the newborn warm**



**Breastfeeding:  
Overcoming difficulties**



**Immediate care at birth**



**Breastfeeding:  
Ensuring a good start**



**Breast milk feeding:  
Alternative methods**



**Basic resuscitation of the newborn**



**Examination of the newborn**



**Discharge and follow-up**



**Kangaroo mother care**



## Know competencies expected

The knowledge, skills and performance expected of participants upon completion of educational sessions are outlined for ENC 1, ENC 2 and each module. Use the competencies in deciding what content meets the needs of the participants.

Facilitator competencies are also defined for ENCC; these may be useful in evaluating candidates for the facilitator role.

### Review competencies

[illegible]

## Know who will participate

Use the worksheet to ensure that everyone who provides care for newborns is reached with minimal disruption of care. Do not forget staff who work at night or weekends. In addition to health facility staff, community health workers and pre-service students from a variety of disciplines may also participate in ENCC. Make note of the scope of practice (role) and experience level of participants and community health workers.



## Foundation

Trained health workers  
with NO newborn  
experience and pre-  
service students.





### Intermediate

Health workers  
updating their skills  
and competencies for  
newborn care.

Try to include an interprofessional mix of participants with different experience levels in each session to build teamwork and communication. Adapt the worksheets to fit the health facility context.

### Know who will participate

<i><b>Know who will participate and their experience level</b></i>					
Unit	Shift	Health worker (name)	Contact (email, telephone)	Role (midwife, nurse, nursing student, doctor etc)	Experience <div>Foundation </div> <div>Intermediate </div>
Total					

# Know clinical and educational environments

Make sure that basic equipment is available at all locations providing essential newborn care in the facility. Providing education without the equipment necessary to carry out clinical care will not improve outcomes. It is unethical, and a waste of time and resources, to ask health workers to participate in educational activities if they do not have basic life-saving commodities and equipment at their place of work. It may be necessary to procure equipment before presenting some educational content (see **ENCC: Skills-based education**).

## Know the clinical environment

Know the clinical environment							
List number of functional devices and total devices (e.g. 1/5) for each location providing newborn care							
	Delivery room/s	Operating theatre	Postnatal ward/s	Paediatric ward	KMC ward	Special newborn care unit	Other
Neonatal bag							
Mask size 0							
Mask size 1							
Sterilisable suction device							
Stethoscope							
Sterile blade or scissors							
Cord clamps or ties							
Uterotonic							
Sterile delivery set (maternal)							
Room thermometer							

ENCC sessions take place in the health care facility in a setting that provides a safe, realistic environment for learning. An underutilized space can be equipped as a delivery or postnatal setting for mother and baby; a designated learning laboratory space facilitates continued practice. Maintain privacy, confidentiality, and accessibility in the space for learning. Take advantage of settings and time periods already dedicated to learning.

## Know the educational environment

Know the educational environment – space, infrastructure, accessibility, and time		
Space for education	Describe	List any actions needed
Space for discussion and skills practice in small groups		
Space for simulations in small groups		
Units suitable for Clinical Practice		
Space for debriefing after Clinical Practice		
Skills corners for Simulation Practice		
Skills/Learning laboratory		
Infrastructure for education		
Clean water	<input type="checkbox"/> 24/7 <input type="checkbox"/> Intermittent <input type="checkbox"/> No	
Electricity	<input type="checkbox"/> 24/7 <input type="checkbox"/> Intermittent <input type="checkbox"/> No	
WiFi	<input type="checkbox"/> 24/7 <input type="checkbox"/> Intermittent <input type="checkbox"/> No	
Mobile phone coverage	<input type="checkbox"/> 24/7 <input type="checkbox"/> Intermittent <input type="checkbox"/> No	
Accessibility and inclusion		
Access to learning environment/clinical spaces		
Access to materials (communication barriers)		
Access to toilets and hand hygiene stations		
Time for education		
Continuing Medical Education schedule:		
Weekly meetings		
Lunchtime sessions		
Pre shift		
Post shift		
Ad hoc "Just in time"		
Skills days		
Other		



# Define learning needs

## Ask for input from participants

Work with participants to gather their ideas for an ENC course or skills update.

### Define learning needs - participant preferences

Define learning needs	
Describe participant preferences for learning	
Topics requested (new recommendations, observed gaps in routine care, competencies)	
Learning methods	
Learning medium (digital, paper, online)	
Learning style (self-learning, face-to-face, small group learning)	
Time (days and time of day)	
Learning sessions concentrated or distributed over time.	

## Document learning needs

Document the learning needs of participants through assessments of experience, confidence, pre-course knowledge and performance.

### Assessments

Distributing these assessments as fillable forms for completion on mobile phones is convenient and permits information to be gathered as part of planning. Electronic data management platforms (such as Google Form, RedCap and others) can score assessments automatically and collate results.

### Fillable forms:

1. Participant profile and experience
2. Self assessment of confidence for essential newborn care
3. Pre-course knowledge assessment
4. Pre-course performance assessment
  - basic resuscitation, breastfeeding, care of the small baby



How you choose to do this will depend on the size of the health facility and the number of participants. In a large institution you may choose to organise in cohorts. Performance assessments can be organised as participants gather at the beginning of a course.

Facilitators fill the forms while observing individual participants complete the performance assessment(s) that relate to course content to be presented.

Observation of routine practice may give insight into potential gaps in care, and clinical supervisors may add their observations on important interventions that are missed or not performed to standards.

Review health-facility data for mortality and morbidity statistics and use audit or case review data to gather information on critical incidents and perinatal events, such as intrapartum stillbirth and neonatal encephalopathy. Data collected as part of quality improvement monitoring can provide information on skin-to-skin care, early initiation of breastfeeding, hypothermia rates, kangaroo mother care coverage, breastfeeding on discharge, supplementation rates, newborn infection rates, and other topics for education.

### Define learning needs

<b>Document learning needs</b>	
<i>Review facility newborn data and other sources</i>	
Data sources	Learning objectives to prioritise
<b>National/subnational outcome data</b>	
Maternal mortality ratio	
Stillbirth rate	
Neonatal mortality rate	
See <i>Countdown to 2030 for country profiles</i> <a href="https://data.unicef.org/countdown-2030">https://data.unicef.org/countdown-2030</a> and <a href="https://www.countdown2030.org/equity-profiles">https://www.countdown2030.org/equity-profiles</a>	
<b>Facility mortality data (total births, number of deaths and causes in last complete year)</b>	
Total births	
Maternal deaths	
Stillbirths	
Neonatal deaths	
<b>Newborn quality of care data (percentage of births in each category)</b>	
Newborns delivered by skilled birth attendant	
Newborns placed skin-to-skin after birth	
Newborns with documented birth weight before discharge	
Low birth weight (<2500g)	
Newborns with documented temperature	
Newborns with low temperature (<36.5°C)	
<b>Process data for newborn quality of care</b>	
Perinatal deaths reviewed (stillbirths and newborn deaths up to 7 days after birth)	
Perinatal quality improvement data available and reviewed	

## Prioritise learning needs

Review data collected on participant experience, confidence and knowledge as well as gaps in clinical care and poor outcomes. Identify the learning needs with the highest priority.

### Prioritise learning needs

<b>Prioritise learning needs</b>	
Prioritisation criteria	Knowledge and skills needing emphasis
Cross-cutting themes underlying quality (communication and respectful care, infection prevention for newborns, data collection and use)	
Life-saving interventions to address identified causes of death, immediate care at birth, basic resuscitation, thermal care, kangaroo mother care	
Interventions that will promote healthy growth and development (breastfeeding, responsive care etc)	

## Where there is NO data

Sometimes no data is available for newborn care, mortality and morbidity.

A useful exercise is to document a newborn's journey with health workers at the health facility, then map against recommended practices.

Gaps and out-of-date or harmful practices such as routine suctioning, no skin-to-skin care or routine separation should be evident.

Use this information to define course content.

# Define course content and structure

Map learning needs against learning goals, objectives, and competencies (knowledge/skills/performance) of materials.

Select materials that meet learning needs		
	Mark if selected	Note key knowledge and skills to emphasise
ENC 1		
ENC 2		
Communication and respectful care		
Infection prevention for newborns		
Data collection and use		
Preparation for birth		
Immediate care at birth		
Keeping the newborn warm		
Breastfeeding: Ensuring a good start		
Examination of the newborn		
Basic resuscitation of the newborn		
Kangaroo mother care		
Breastfeeding: Overcoming difficulties		
Breast milk feeding: Alternative methods		
Discharge and follow-up		

Select materials that meet learning needs

## Learning objectives

- Welcome mother and assess
- Prepare for birth

- Dry thoroughly
- Crying/breathing?
  - Keep warm
  - Check breathing
  - Clamp and cut cord
  - Continue skin-to-skin care and monitor
  - Help initiate breastfeeding

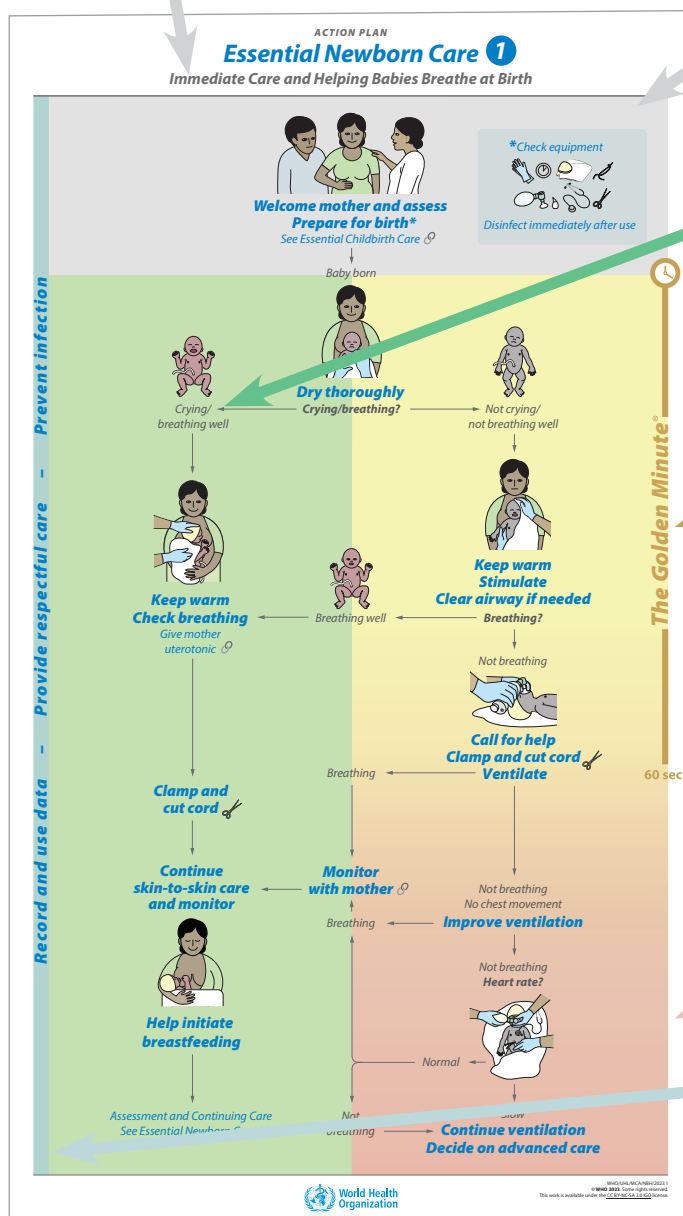
- Help a baby breathe within The Golden Minute:
  - Keep warm
  - Stimulate
  - Clear airway if needed

- Breathing?
  - Call for help
  - Clamp and cut cord
  - Ventilate

- Improve ventilation
- Heart rate?
  - Continue ventilation
  - Decide on advanced care
  - Monitor with mother

- Prevent infection
- Provide respectful care
- Record and use data

## ENC 1 learning goals



## Learning objectives

- Identify risk factors
- Assess:  
Temperature,  
Weight, Exam
- Prevent disease:  
Eye care, Cord care,  
Vitamin K
- CLASSIFY

### ROUTINE

- Maintain normal temperature
- Support breastfeeding
- Advise about breast-feeding problems
- Reassess for discharge
- Immunize
- Advise about home care

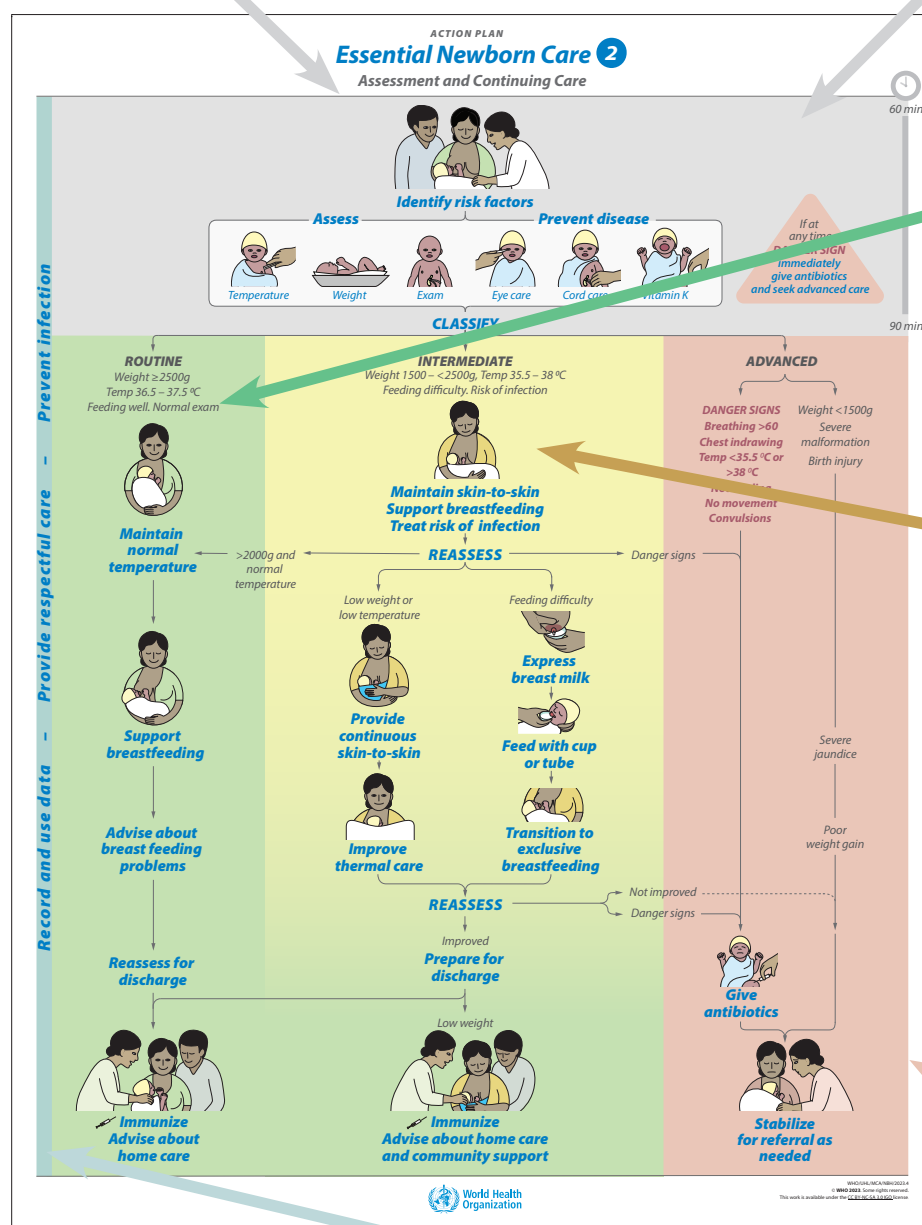
### INTERMEDIATE

- Maintain skin-to-skin
- Support breastfeeding
- Treat risk of infection
- REASSESS
- Provide continuous skin-to-skin
- Improve thermal care
- Express breast milk
- Feed with cup or tube
- Transition to exclusive breastfeeding
- REASSESS

### ADVANCED

- Assess for Danger signs
- Give antibiotics
- Stabilize for referral as needed
- Prevent infection
- Provide respectful care
- Record and use data

## ENC 2 learning goals



## Modules learning goals

### Communication and respectful care



*Every mother and newborn receives respectful care with effective communication.*

### Infection prevention for newborns



*Every newborn receives care that integrates evidence-based infection prevention and control.*

### Data collection and use



*Data collection and use are essential to providing quality newborn care.*

### Preparation for birth



*Prepare a clean, safe, and welcoming environment for birth.*

### Examination of the newborn



*All newborns are assessed to provide individualised, evidence-based care.*

### Immediate care at birth



*Every newborn receives evidence-based supportive care at birth.*

### Discharge and follow-up



*All mothers and caregivers are supported to give safe, responsive and nurturing care.*

### Keeping the newborn warm



*All newborns are protected from hypothermia and hyperthermia.*

### Breastfeeding: Ensuring a good start



*Early initiation and establishment of breastfeeding is supported for all newborns.*

### Breastfeeding: Overcoming difficulties



*All mothers are supported to prevent and resolve breastfeeding difficulties.*

### Breast milk feeding: Alternative methods



*Newborns unable to breastfeed receive breast milk by appropriate alternative feeding methods.*

### Basic resuscitation of the newborn



*All newborns who do not breathe at birth receive basic resuscitation.*

### Kangaroo mother care



*All low birthweight or premature newborns receive evidence-based care including kangaroo mother care (KMC).*

# Define course size, timeline, format and equipment

Review the information collected on potential participants and their learning preferences to make decisions about the course configuration.

## Number of participants and facilitators

Small group learning is accomplished in groups no larger than 6 participants. A ratio of 1 facilitator per 6 participants allows oversight of skills and communication. New facilitators may be paired with a mentor to build their own skills. The maximum recommended course size is 24 participants. Multiple smaller courses or skills updates are generally preferable to larger ones.

## Length and distribution of course

Distributed educational sessions give needed time for practice of new skills during the intervals between classroom meetings. Spacing the modules a month or more apart allows time for quality improvement initiatives to begin change cycles in response to observed gaps in care. Sessions distributed over weeks or even months may meet educational needs more effectively and may disrupt clinical service less. ENC 1 can be presented in one day (ideally with evaluations on a subsequent day); ENC 2 requires a minimum of 2 days. Each module requires approximately 3 hours including Clinical practice and Quality improvement. Learning efficiency decreases after 2 days of intensive education.

## Course format

All materials can be used in digital format on smart phones or computers to minimise environmental impact. Materials are also available in a format suitable for printing where digital devices will not be used. Selected Clinical Practice Cards, Quality Improvement Templates and Flipcharts should be printed. Digital assessments enable compilation of results for analysis that helps shape the presentation of material.

## Equipment needed

Review and list the equipment and supplies needed for each session planned. Calculate how many sets of equipment will be needed for the number of participants. One set of equipment is needed for 3 participants for practice and simulations, with the exception of basic resuscitation when one set is recommended for each pair.

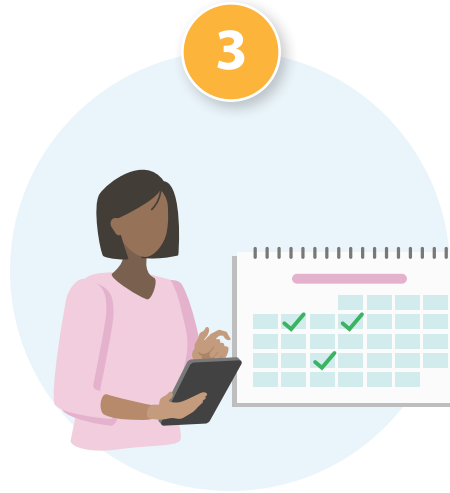
Confirm that equipment is available to provide the clinical care to be covered in the educational sessions. It may be necessary to procure additional educational materials and equipment or equipment and supplies for clinical care. Often this process is lengthy and must be started well in advance.

Educational materials that will be used in print format usually can be produced locally at lower cost than those ordered from a central supplier. Files with specifications for local printing are available for download for the Action Plans, Flipcharts and Provider Guides. Printed materials and equipment can be ordered through the UNICEF Supply Catalogue (<https://supply.unicef.org>), directly from manufacturers, or through local distributors. Shipping, customs clearance handling, and duties/fees may add significant expense and time, so anticipation and adequate budgeting are essential for this step.

## Define course size, timeline, format, equipment

Define course size, timeline, format, equipment	
Number of participants and facilitators	
Number of participants	
Number of facilitators needed	
Number of clinical practice coordinators needed	
Participants selected	
Length and distribution of course	
Estimated number of hours	
Full-day or distributed sessions	
Dates and times for sessions	
Course format	
Face-to-face with printed materials	
Face-to-face with digital materials (computer and mobile phone, projector)	
Self-paced learning (computer) and face-to-face skills practice	
Other	
Equipment needed	
Equipment and supplies (by session selected)	
Sets of equipment needed for number of participants (one set per group of 3 participants except for basic resuscitation where one set per pair recommended)	
Clinical equipment needed	





## Identify facilitators for adult learning

### Select facilitators able to:

- Model behaviours and support active learning
- Adjust materials, tailoring them to learners' needs
- Conduct formative assessments
- Plan for continued learning/practice and future activities based on post-course assessments.

#### An effective facilitator

- Focuses on the practical
- Encourages working together (interdisciplinary team work)
- Fosters two-way communication
- Encourages learning.

#### An ineffective facilitator

- Focuses on the theoretical
- Uses one-way communication
- Acts as the authority or the only source of knowledge.

One facilitator for every 6 participants is the ratio necessary for adequate oversight of practice; however, involving more facilitators allows more individual attention and also develops new facilitators. Pair experienced facilitators who have strong clinical and facilitation skills with new facilitators to nurture their competencies and confidence. Mentorship through two or three courses generally will give new facilitators the confidence and competence to facilitate on their own. Use the competencies for facilitators to measure progress.

### Mentorship serves to:

- Build relationships that are equal, collaborative, based on trust and respect
- Gain experience to handle difficult situations, solve problems, and provide leadership
- Gain the knowledge and skills for teaching the ENC course.

### Identify facilitators

Identify facilitators			
List facilitators and clinical instructors available			
Facilitator name	Contacts (email, telephone)	Availability	Strengths and weakness for facilitation

## Review facilitator competencies

Essential Newborn Care Course Facilitators' competencies				
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Overarching competencies				
Facilitators are expected to demonstrate WHO UHC competencies in their own sphere of work. (See sheet 3. Global competencies and outcomes framework for UHC.)				
When facilitating the WHO ENCC course, the following competencies should be consistently demonstrated:				
1. Places people at the centre of all practice (newborns and their families)				
3. Provides and demonstrates culturally sensitive, respectful and compassionate care (adopts an approach to practice that is non-blaming, non-discriminatory, non-judgmental and non-stigmatising)				
7. Takes a solutions-oriented approach to problem-solving				
20. Contributes to a culture of safety and continuous quality improvement				
22. Demonstrates high standards of ethical conduct (upholds legal and ethical principles, including capacity, confidentiality, consent, absence of conflict of interest, duty of care, dignity, privacy and safeguarding).				
Competencies of facilitators of the Essential Newborn Care Modular Course				
Adapted from: WHO, 2016, Midwifery nurse educators' core competencies. <a href="https://www.who.int/hrh/nursing_midwifery/nurse_educ_core_competencies/en/">https://www.who.int/hrh/nursing_midwifery/nurse_educ_core_competencies/en/</a>				
Facilitators should be on time, well prepared and should respect participants				
Goal	Learning outcomes	Knowledge	Skills	Performance (attitudes, behaviours, norms)
Evidence-based case management of newborns, including experience of care	1. Master all learning objectives of the Essential Newborn Care (ENC) course (see learners' competencies)	All key knowledge and evidence for provision and experience of essential newborn care (why and how)	All key actions of provision of care, using local equipment and supplies	Consistently models effective decision-making, effective communication, infection prevention, respectful care and maintenance of dignity
	2. Master all learning objective ENC and 2.	Learning goals, outcomes and objectives.	Structures learning clearly based on learners' needs.	Makes the learner the focus.
	Address the learner's need to know	Knows experience of learners	Promotes self-reflection	Models critical and reflective thinking.
Apply principles of adult learning	Recognize and build on experience	Adapts learner journeys	Adapts approaches to individual learners and to working with peers.	Adapts content to learners' need and specific context (self-paced learning)
	Engage the learner directly in the process	Self-paced learning recognising learner needs.	Engage learners in sharing experience.	Develops relationships of mutual trust and respect with learners and cofacilitators.
	Support autonomy of the learner	Learning at different levels of knowledge	Challenges learners to deepen understanding	
Encourage life-long learning	Encourage life-long learning	Problem-centred learning	Adapt content to local context	Shows enthusiasm for teaching and learning that inspires and motivates learners and peers.
	Demonstrate relevance/usefulness to real life	Active learning (visual, auditory, hands-on practice)	Incorporates appropriate methods that work for learners in specific context.	Flexibility according to learners' preferences
	Use preferred learning styles	Active learning (visual, auditory, hands-on practice).	Model questioning and self-reflection	Gives advice and counselling that enables learners to perform.
Understand personal motivation to learn	Understand personal motivation to learn	Clinical signs, information and risk factors	Evaluates and decides on actions	Look ahead to evaluation of learner response and next steps
	Use case studies and case scenarios effectively	Promote skills practice	Using positive feedback, encourages practice to master skills.	Stimulates self-reflection, peer feedback.
	Promote skills practice	Correct technique	Integrate skill with decision-making and behaviour	Develops behavioural skills in learners (for example, respectful, effective communication and infection prevention)
Use case scenarios with simulations and role play and adapt according to learner level and experience	Use case scenarios with simulations and role play and adapt according to learner level and experience	Evaluation, decision, action cycle.	1. Structured briefing (place, equipment, time, objectives) 2. Allows learners to organize and lead	1. Models positive behaviours 2. Monitors and promotes safe learning environment 3. Avoids intervening in simulations 4. Encourages positive, constructive peer feedback.
	Facilitate simulation	Scenario objectives, methods, guidance and environment	1. Uses a model to structure debriefing, exploring decision-making and practices of concern 2. Guides analysis of areas for improvement	1. Facilitates in-depth analysis of team performance and functionality of team. 2. Supports learners' reflection and discussion rather than providing answers
	Lead structured debriefing	Model/plan for debriefing	Supports learners to reach task competence and transfer of skills	1. Facilitates peer analysis of performance 2. Guides learners to formulate what they learned and how they will apply it when caring for newborns and mothers
Support continuing practice	Support continuing practice	Role of reflection/feedback/transfer of learning to work tasks	1. Establishes functional linkage with POCQ 2. Regular skills updates and specific practical sessions after neonatal deaths or case reviews that identify gaps 3. Links with or supports establishment of a system to identify and address gaps in quality of care for newborns (provision and experience of care)	1. Supports skills and drills and CME sessions addressing identified performance issues 2. Builds on learners' knowledge and skills to provide quality of care to all newborns 3. Ensures linkage with functional POCQ team and CME or skills and drills sessions to address gaps
	Support QI activities	1. Quality of care standards and measurement indicators 2. Skills and drills 3. POCQ cycle process		
	Systematically promote quality improvement (QI) activities			

## Define agenda

The design of ENCC second edition maximises the flexibility of learning to meet the needs of the facility.

### Review example of course agendas

Day 1	
On arrival	Pre-course Knowledge Check and rapid ventilation demonstration
60 min	Introduction
15 min	Break
90 min	Grey zone: Preparation for Birth
60 min	Break
90 min	Green zone: Routine Care
15 min	Break
30 min	Yellow zone: The Golden Minute — Clear Airway and Stimulate Breathing
60 min	Yellow zone: The Golden Minute — Establishing ventilation
5 min	Adjourn for the day
Day 2	
30 min	Review day 1 and answer questions
60 min	Yellow zone: The Golden Minute — Establishing ventilation, continued
15 min	Break
90 min	Red zone: Continued Ventilation
60 min	Break
60 min	Commit to making a difference
15 min	Break
30 min	Evaluation: <ul style="list-style-type: none"> <li>Post-course Knowledge Check</li> <li>Post-course Bag and Mask Skill Check</li> <li>Orientation to OSCE</li> </ul>
60-90 min	Evaluation: OSCE- A & B
30 min	Closing session (certificates, photo)

Hold a planning meeting with facilitators to make a detailed course agenda with dates and times. While defining the agenda, take into consideration the availability of facilitators and participants selected and the space for education. Take advantage of already-scheduled weekly or monthly meetings or preferred times (lunch, pre/post shifts) which may improve participation and coverage.

In addition to planning a formal course, consider preparing sessions in advance for presentation whenever the opportunity arises (just in time), or link sessions to special programs or initiatives - for example, Breastfeeding Week, World Prematurity Day, World Patient Safety Day.

The time needed to cover content depends on the previous training and experience of participants and the ratio of facilitators to participants for skills practice and assessments. The number and choice of videos to be shown during a module will also affect the time needed.





## Assemble materials and equipment

Assemble the equipment and check for functionality and completeness. Mannequins and teaching models should be inspected for damage and repaired if possible. The equipment and supplies can be grouped together for each participant pair or group of 3 and stored in boxes with an inventory list. It may be necessary to adjust the number of participants according to availability of materials and equipment.

Although most ENCC educational materials can be used in digital form, a few print materials are necessary. Action Plan wall posters in the space for learning help relate all knowledge and skills to the evaluation/decision/action cycles used in caring for a newborn. Facilitator Flipchart illustrations make visible many key points. Some printed materials are used in the practice of skills or as worksheets (Clinical Practice Cards and Quality Improvement Templates). Printed Simulation Practice Cards stored with the necessary equipment and supplies encourage group practice of skills after a course.

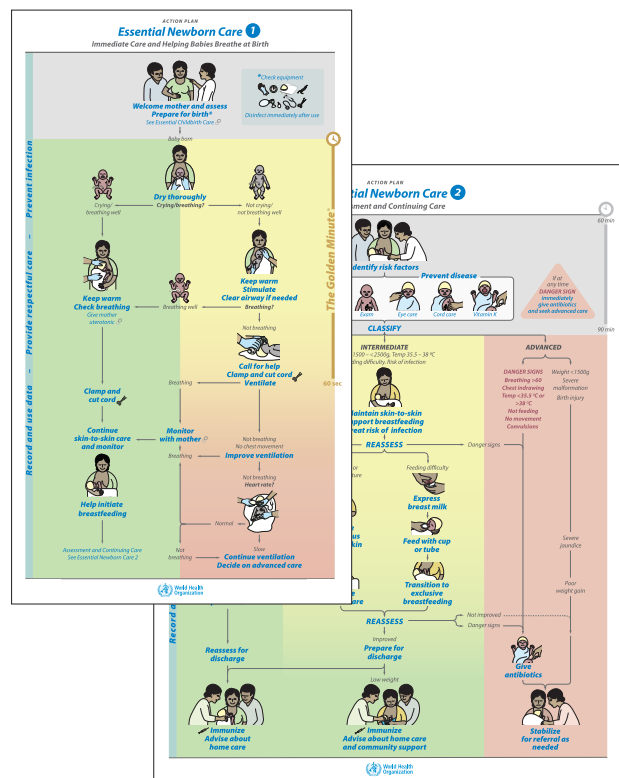
Advance preparation is needed whatever format is selected. Digital materials function best when participants and facilitators are comfortable using social messaging to send PDF files and links to fillable forms. All materials contain videos that will require a computer, projector, and screen for viewing. Where internet capacity is limited or intermittent, videos may need to be stored on an external hard drive for use during a course. Additional videos can be shared for viewing by participants on their smart phones.

### Assemble educational materials

Assemble educational materials needed		
Mannequins and teaching models	Number functional	Actions
Neonatal mannequins		
Small newborn mannequins		
Model breasts/simulators		
Other		
Additional equipment and supplies (see list for each session to be presented)	Number functional	Actions
Print materials	Number available	Action
Action Plan wall chart ENC 1 ENC 2		
Facilitator Flipchart ENC 1 ENC 2		
Parent Guide		
Simulation Practice Cards		
Clinical Practice Cards		
Quality Improvement Template		
Newborn record and other facility forms		
Other materials (list)		
Course certificate		
Digital (or print) materials	Number available	Action
Background and experience survey		
Confidence assessments		
Participant assessments (knowledge and performance )		
Provider Guide ENC 1 ENC 2		
Modules (list)		
Course evaluation		
Educational technology	Number available	Action
Computer/cables/adaptors		
Projector/screen		
Speakers		
External hard drive (videos)		

# Know content and adapt if required

## Content and methods of ENC 1 and 2

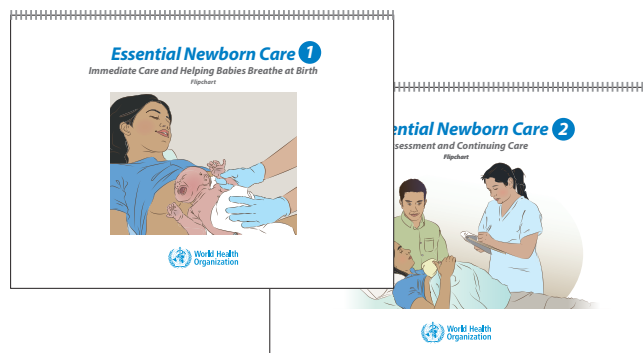


### Action Plans

The Action Plans for ENC 1 and 2 use pictures and only a few words to guide health care workers through the evaluation, decision, and action steps in the care of a newborn infant. The Action Plans are the core of the educational materials and guides to clinical care in the facility. A wall poster of the Action Plan should be used in the learning area and can also be posted in relevant clinical areas.

Action Plans use colour coding for preparation (grey), routine (green), intermediate (The Golden Minute or yellow), and advanced (red) care.

These colours are repeated on pages of the Facilitator Flipchart and Provider Guide. Evaluation steps appear in **black, bold** type; decision steps are in black, but not bold; action steps appear in **blue, bold** type.



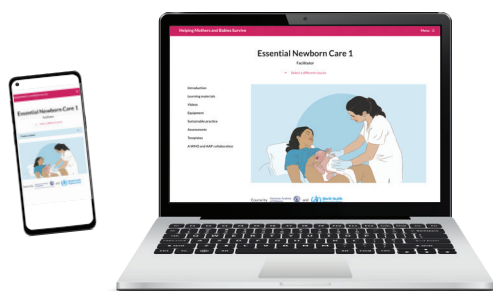
### Facilitator Flipcharts

The Facilitator Flipchart has information on both sides of each page. On the front (facing participants), an illustration shows key points in an evaluation or skill; on the back (facing facilitator) is a presentation outline for the facilitator, as well as tips for facilitation (Educational advice) and Background that should be used in preparation for a course. The Flipcharts also contain links to short video segments that illustrate physical findings and skills techniques. Each Flipchart page is organised with 3 sections: Explain and demonstrate, Practise, and Discuss. Each skill is practised in pairs or groups of 3. Discuss questions check understanding and uncover local practices. Group Practice exercises at the end of each Action Plan section combine skills with decision making.



### Neonatal mannequins and simulators

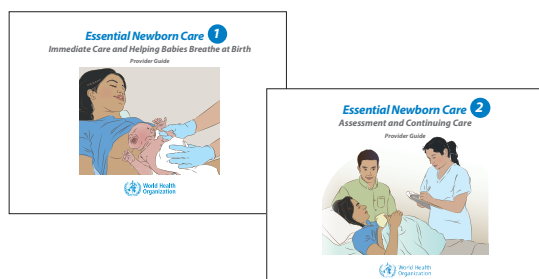
Skill building in ENCC uses neonatal mannequins or neonatal simulators. Those with spontaneous breathing and cry, chest movement with bag-and-mask ventilation, and umbilical cord pulse provide realistic practice for skills. Simple small cloth dolls can be used for practice of breastfeeding and kangaroo positioning; purpose-designed small neonatal mannequins permit practice of those skills as well as nasogastric tube placement and feeding.



## Videos of clinical performance of skills

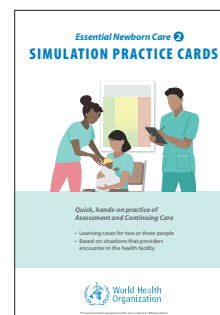
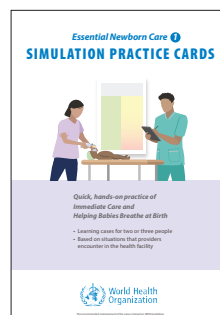
Throughout ENC 1 and 2 short video clips illustrate the performance of skills. Video clips are hyperlinked in the Facilitator Flipchart and can also be downloaded from the WHO ENCC website and stored on an external hard drive.

Videos for ENC 1 allow examination (and critique) of technique. Videos for ENC 2 not only demonstrate skills, but also model communication and interaction.



## Provider Guides

The Provider Guides for ENC 1 and 2 serve as a resource for self-learning, skills practice and group practice during a course, and just-in-time refresher learning. The Provider Guides also contain questions to improve care in the facility and guide quality monitoring. These questions can be combined with observations from Clinical Practice Cards and Quality Improvement Templates from each of the 13 modules to define quality improvement aims and plan-do-study-act cycles.



## Continued learning with Simulation Practice Cards

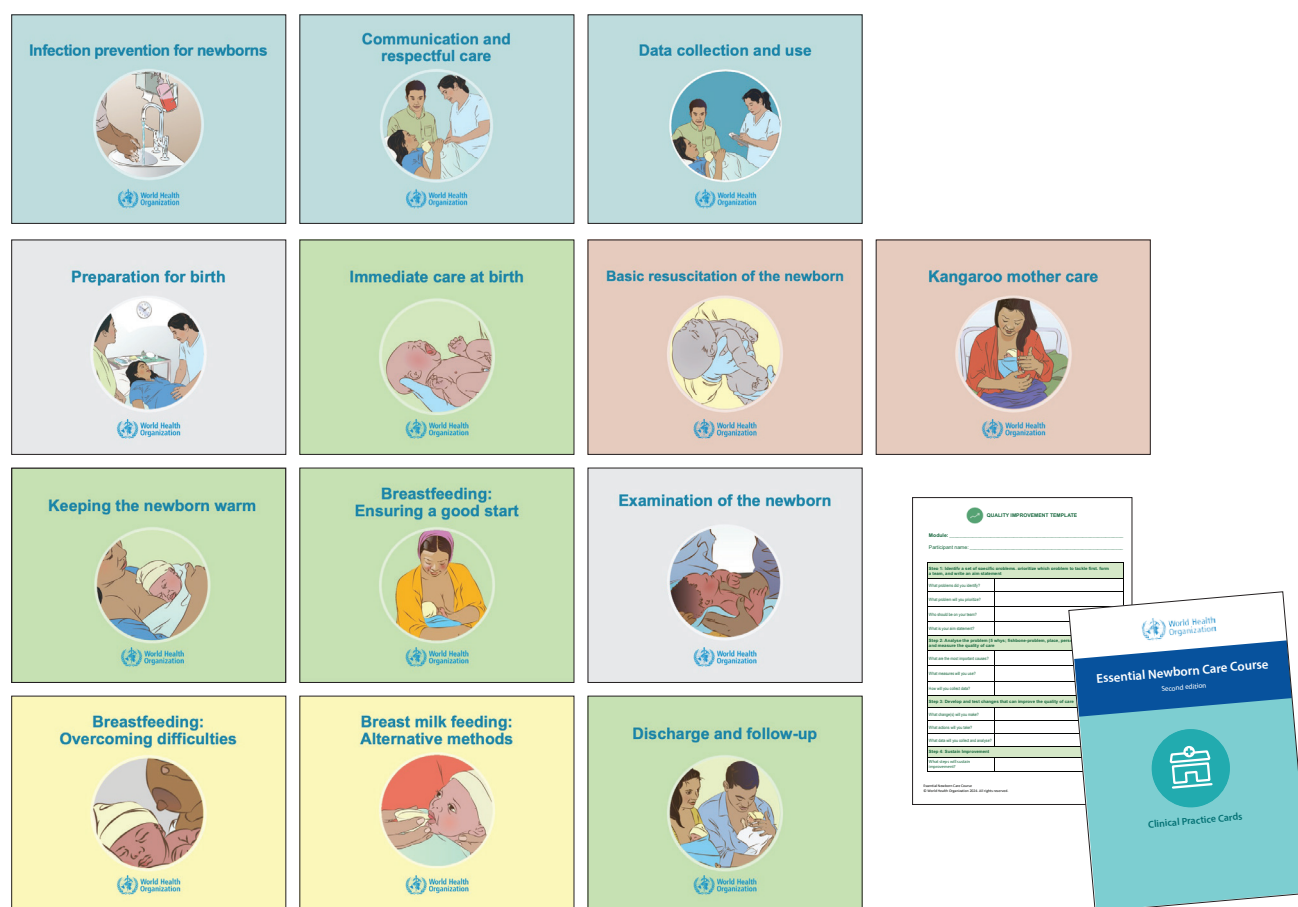
Simulation Practice Cards present scenarios for continued practice of skills in inter-professional groups after the course. Equipment used for an ENC 1 or 2 course can be stored with the Simulation Practice Cards to enable easy access to ongoing practice. Availability of equipment for practice is essential to maintain skills.



## Parent Guide to accompany ENC 2

The Parent Guide can be used as a job aid when preparing families for discharge. It can be used either as a chart for reference or as a handout.

## Content and methods of modules



### Each module follows a similar content outline through the slide set and notes:

- Materials and equipment list on first notes page
- Learning goal and outcomes
- The situation – the current situation and importance of the theme
- Baseline simulation - diagnostic simulation to assess knowledge, skills and performance of intermediate level participants
- Demonstration and practice – modeling and building of skills
- Questions and discussion – accessing and building knowledge
- Videos – demonstration and reflection on practice
- Treasure hunts – finding the evidence
- Case study – assessment, decision-making, calculations
- Simulations – case scenarios to build performance integrating respectful care and infection prevention
- Summary
- Clinical Practice Card - observing and practising care for newborns
- Quality Improvement Template

- tool for identification of potential gaps in care and areas for improvement
- References and additional resources – active hyperlinks in each thumbnail

Slide notes provide guidance to the facilitator on key points and additional background to help in preparation of an educational session. To view notes, select "View/notes page". All hyperlinks are active in this view. Decide in advance what points to emphasise and download any additional videos selected for use. Organise materials and equipment and prepare any PDF files or printed matter.

When showing slides, use the "Presenter View". This display keeps your speaker notes in view. Questions and discussion slides use animation to present the question first, allow discussion among the group, and then show responses. You can also jump to other slides quickly and add additional notes. A timekeeping tool helps you track how long you've been speaking. If you have not used "Presenter View" before, ask a colleague to demonstrate how to do so, or see [Use Presenter View](#).



## Demonstration and practice



### Foundation

Demonstrate all steps correctly and then ask participants to practice.



### Intermediate

Ask participants to demonstrate and others to give constructive feedback then all practice. Demonstrate key steps as necessary.

#### Facilitator

- Demonstrates the whole procedure from beginning to end without commentary
- De-constructs the procedure or activity into parts, describing the steps

#### Participants

- Practice the individual parts
- Practice from beginning to end

#### Feedback

- Self-reflection: Participants identify what they are doing correctly and what they need to practice.
- Feedback from peers: Peers ask "what?" "why?", "how?" and "what if?" questions.
- Feedback from facilitator: Facilitator repeats demonstration or leads more practice if needed.

Participants remember what they see. Facilitator demonstrations should model smooth performance with correct actions, technique, and sequence as well as behaviour modelling (communication and respectful care, infection prevention). Practice the demonstrations as part of preparation for a course.



## Questions and discussion



### Foundation

Discuss and then show possible responses on slides.



### Intermediate

Discuss and compare responses to practice in the facility to identify quality gaps.

Questions and discussion provide an opportunity for participants to share their ideas, doubts, questions, in a group setting with a facilitator.

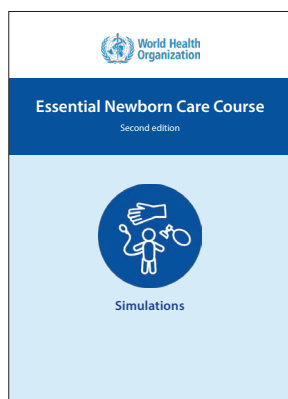
- Ask question on the slide and facilitate a discussion.
- Ensure that the group stays on the subject and all participants contribute.
- Summarise key points and use slide animation feature to compare with suggested responses.
- Note any identified quality gaps.

Questions and discussion can also be completed by participants as self-paced learning.

Avoid using the suggested responses as a lecture.



## Simulations



### Why simulations?

- Lead to quicker acquisition of the skill
- Develop skills without causing harm to patients
- Result in high levels of satisfaction with the learning experience
- Increase self-confidence and improve clinical judgment
- Result in longer retention of knowledge than lectures

A diagnostic simulation at the beginning of each module assesses the starting points, gaps and sequencing of **intermediate level participants**. Use this to adjust content and emphasis during sessions. This simulation is repeated at the end to observe progress made. Omit the baseline simulation for **foundation level participants**.

Each module has additional simulations which can be selected to build competence and confidence of participants. The health worker role changes in each simulation to call attention to teamwork by an interdisciplinary newborn team. All simulations are compiled for ease of access and review of performance objectives.

### Options for running a simulation

- **Option 1:** Divide participants into groups and run the simulation concurrently in each group, with a structured briefing before and a debriefing at the end in the larger group.

- **Option 2:** Ask one group of 3 to carry out the simulation, observed by the larger group. Then repeat with other groups.

### Demonstrate as necessary

Simulations should be enjoyable when participants have sufficient time and opportunity to practice in small groups and everyone remains engaged. Participants may wish to document their progress by video-recording simulations on smart phones and using the recordings for debriefing. Providing skills corners or laboratories that are accessible for practice at any time will help maintain and build skills.

## Steps

### Prepare

- Prepare environment as close to the real-life situation as possible, as described in scenario.
- Prepare equipment specified: one set per group.
- Organise small groups as specified.

### Brief

- Read scenario aloud.
- Ask participants to assign roles.
- Give clear instructions orienting participants to the scenario objectives and time allowed.
- Answer questions.

### Run simulation

### Debrief

- The structured debriefing is critical for changing behaviour and shifting from a culture of blame to one of change.
- Allow adequate time.
- Participants self-reflect on performance objectives outlined in slide notes and speak about:
  - What was done well?
  - What could have been done better?
  - What will you change the next time?
- Participants give feedback to one another in their roles (encourage feedback from all).
- Explore quality gaps, norms and behaviours or harmful practices in this safe environment.





## Videos

Each module includes multiple videos embedded with active hyperlinks. Review and select videos as part of preparation for a course. Downloading these to an external hard drive can avoid problems with internet connectivity. Consider the length of selected videos and available time for a session when deciding which videos to show and which to share as self-learning. Videos should not replace actual hands-on practice.

Be aware that some video content may be culturally sensitive or not totally aligned with the most recent WHO guidance. Variation in practice can serve as the basis for discussion of quality improvement.

### **After viewing videos, ask guiding questions:**

- What is new knowledge for you in this video?
- Are there any skills or practices that are different from your current practice?
- What provider behaviours are different from your current practice?
- Does this video highlight a quality gap in your setting? If yes, update the Quality Improvement Template.



## Treasure hunt

The treasure hunt finds and applies evidence from the latest WHO recommendations, guidelines and documents. It should be fun, with participants understanding why interventions are recommended or are no longer recommended. Before the session, share a copy of relevant WHO documents as a PDF file by social messaging.

Incorporating an element of competition (who can find the evidence first) or reward can increase engagement.

### **To conduct a treasure hunt:**

- Read the guiding question.
- Challenge participants search for the answers in recommendations, guidelines or documents.
- Ask a participant to explain the evidence and why it is important.
- Discuss how to systematically apply the recommendation.

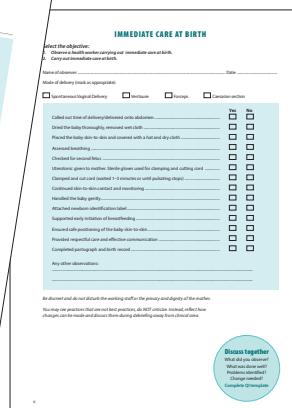
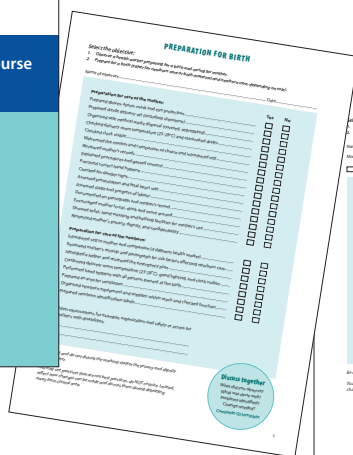
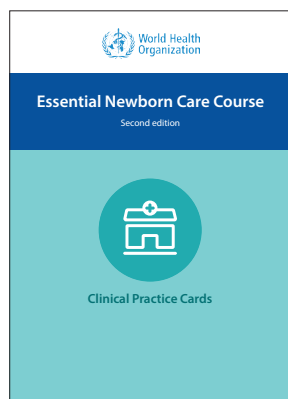


## Case study

Selected modules include case studies (Breastfeeding: Overcoming difficulties, Kangaroo mother care, Discharge and follow-up) in additional resources. Case studies help build decision-making when caring for the mother and baby dyad. Case studies can be completed by participants as self paced learning or facilitated during face-to-face sessions. Suggested answers can be found in slide notes.



## Clinical practice



Each module is accompanied by a clinical practice which can be used with either of two objectives:

- Practice with mothers and babies (individual performance)
- Observation of routine care in the facility to identify quality gaps.



### Foundation

Assess skills and performance



### Intermediate

Observe routine care and identify potential quality gaps

Objective	Skills practice		Quality improvement
Level of learner	Foundation (preservice)	Orientation for newborn care	Intermediate
Group size	Pairs of 2	Pairs or groups of 3, no more than 6	Groups of 3 - 6
Facilitator role	Demonstration Direct oversight during performance	Possible demonstration Direct oversight	Observer with participants
Health facility staff role	Identification of mother/baby dyad	Identification of mother/baby dyad	Identification of mother/baby dyad and performance of observed actions
Consent from mother	For learner	For health worker	For observation during routine care



**Select the objective of each clinical practice in advance and prepare all facilitators, participants, and facility staff.**

The number of participants, their level, the educational objective, and the availability of mother/newborn dyads and facilitators will determine how to run clinical practice. Inform health facility staff of the educational objective and seek their support. Be sure that mothers are informed and give consent for any educational activity involving them and their babies. Ensure all participants participate actively and have a function - communicating with mother, hands-on interaction with mother/baby, recording and formulating findings.

**Prepare in advance**

- Obtain the permission of the in-charge or director and the consent of mothers who will participate. Explain clearly to mothers and families the purpose of the session and their important role. Thank them for their participation.
- Ensure clinical staff are prepared, and the ratio of facilitators to participants is respected.
- If too few newborns available, then spread clinical practices over a number of sessions.

**Run the clinical practice**

- Organise in groups as specified above.
- Give clear instructions orienting participants to the objective and review the content of the clinical practice card.
- Communicate location, duration of session and time and location for debrief away from the clinical area.
- Remain with participants ensuring:
  - Respectful care and consent
  - No comments or disapproval while in the clinical setting
  - Correct hand hygiene and infection prevention practices are followed.
- Stop a participant if any dangerous or harmful practice, e.g., continuing to place a nasogastric tube when the newborn is coughing, gagging or desaturating.

**Debrief**

The debriefing is critical for reflecting on and changing practices and behaviours.

- Move away from the ward for discussions.
- Base discussion on the objective.
- Ask participants to give constructive, respectful feedback covering both content of care and experience of care for mothers and newborns.

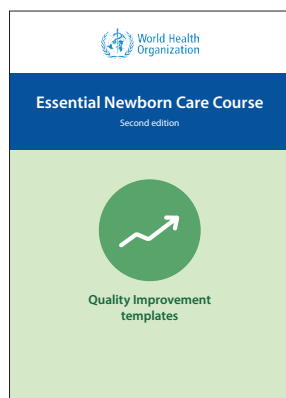
**Demonstrate** as necessary if participants had difficulties.

**Link findings of clinical practice with quality improvement**

- Debriefing is critical for reflecting on and changing practices and behaviours.
- Participants make notes on their observations to begin the Quality Improvement Template.



## Quality Improvement



After completing the Clinical Practice Card, facilitate discussion on observations made, possible reasons for practices and changes needed to improve the quality of essential newborn care. Use the Quality Improvement Template to guide the discussion. If participants have not completed the module Collection and Use of Data, it may be helpful to provide them with the Quality Improvement Template with tips that summarise each step.

### [Quality improvement template](#)



#### Foundation

- Document gaps or observed practices that need to change.
- Reflect on practical solutions.
- Discuss and prioritize one simple, achievable aim.



#### Intermediate

- Link to full Plan–Do–Study–Act (PDSA) cycle.

### Example of guiding questions

- What quality gaps have you noted between what you have seen and what you have learned?
- What are your concerns?
- What are possible barriers and solutions for change?

### Facilitate the discussion

- Prioritize a problem to tackle first.
- Choose one simple, achievable action and prioritize it to start QI and the PDSA cycle.
- Make sure the action is achievable and relevant (will it contribute to decreased mortality or disability or promote healthy growth and development?) and then fill out the QI tool, including the causal analysis (for example, fish bone or 5 why's), aim statement, and measures of change.

### Follow-up on change

- Participants should keep all Quality Improvement Templates.
- With the facility QI team, participants will review their quality improvement plan, discuss priorities and decide where to start.

### Local adaptation of materials

When preparing for a course, determine if there is a national adaptation of ENCC (See ENCC: Skills-based education) and know its content. Review the materials selected and note any local adaptations needed.

Without adapting the materials to suit the local context, end users may find what they learn inappropriate for their setting or irrelevant, and they may be unable to translate what they learn into practice.

### [Adapt the materials as needed](#)

Adapt the materials as needed			
Review national adaptation of ENC materials and list any additional local adaptations needed.			
Local adaptation	Describe	Document changes	
Language			
Literacy level			
Local terms relating to newborns (For example, cleft lip, stillbirth, etc)			
Local cultural practices related to newborn birth and death			
Content and recommendations	Follow national guidelines (eye and cord care, first-line antibiotics, criteria for referral, etc)		
Videos	Check if available in local languages and if any cultural sensitivities		
Practice activities	Use locally available equipment and supplies		
Simulations	Change names to local names and modify to include local harmful practices, marginalized communities, or those receiving poor quality/experience of care		

# Review facilitation tips

## Tips and hints for ENC 1 and 2

These are included on each page of the Facilitator Flipcharts.

## Tips and hints for thematic modules

The same characters appear throughout modules following the baby's progression and needs. Change the names to locally acceptable names throughout the modules.

When assigning participants to roles in simulations, change from the role they have in real life, so they can appreciate the important role of other members of the interdisciplinary newborn team.

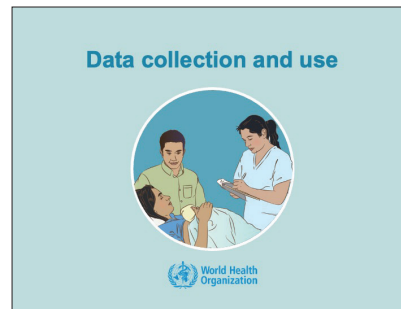


Some of the simulations address common but difficult situations, for example a baby who dies or a newborn with a congenital condition. These are important for participants to prepare for the situation in real life.

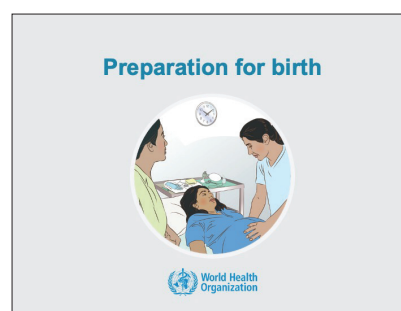


An optional practice uses fluorescent gel to demonstrate the quality of handwashing process. If this is not available in your setting, show the video.

The question and discussion exercise "Which gloves would you select?" can be run as a game if you have access to adequate supplies of gloves.



Collect forms and registers in advance. Make mock data sets or de-identify copies of mother's and newborn's notes, blanking their names.



Provide local supplies used for deliveries (clamps or ties) and clean delivery kits if these are used.

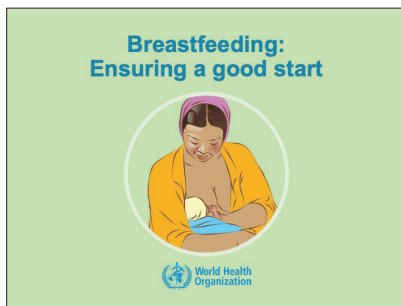


All participants should observe a delivery to complete the Clinical Practice Card. Facilitators need to be flexible and be informed of expected deliveries. Ensure participants also take the clinical practice card for Basic resuscitation in case the newborn requires ventilation.

Practice simulations with different modes of delivery (caesarean section, ventouse, instrumental) and for twins especially if skin-to-skin care or separation of the baby is an issue.



Have locally appropriate newborn clothing and blankets for environmental conditions.



Make model breasts for demonstrations and practice.

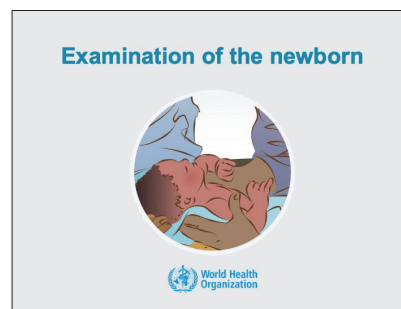
- Use a pair of near-skin-coloured socks, stockings or an old sweater or knit shirt.
- Make the cloth into a round bag shape and stuff it with other cloth or soft material to make it breast shaped.
- Using a running stitch to make a circle in the middle of the breast to form a nipple.
- Put a small amount of cloth or wool into the circle and pull the stitches to form the nipple.
- Colour the areola and nipple with a felt pen or paint or shoe polish or embroidery.
- Push the nipple in to make an 'inverted' nipple.

To show the inside structure of the breast, with the lactiferous sinuses, make the breast with two layers, for example with 2 socks.

- Sew the nipple in the outer layer and draw the lactiferous sinuses and ducts on the inside layer, beneath the nipple.
- Remove the outer layer with the nipple to reveal the inside structure.

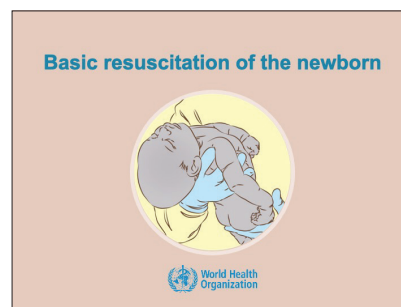
Use a game to practice different breastfeeding positions:

- Form group in circle.
- Play music on phone or similar.
- Pass the baby mannequin to the person beside you handling gently.
- When the music stops, person holding baby demonstrates good positioning and explains when the position can be useful.
- Peers give feedback. Continue till everyone has had a turn.
- Pass several mannequins around at once to ensure the game does not take too long.



Allow adequate time for this two-part module.

Focus on congenital malformations most common in the local context.



Simulations replace actual clinical practice in the delivery room. Prepare a realistic practice area.

- Select appropriate simulations for participants, building skills and performance.
- Each group should have a newborn mannequin with lungs and relevant equipment.

- Communicate a sense of urgency. Measure the time to start of ventilation and practice until it is one minute or less.

Encourage participants to continue practicing with peers using skills corners or learning labs.

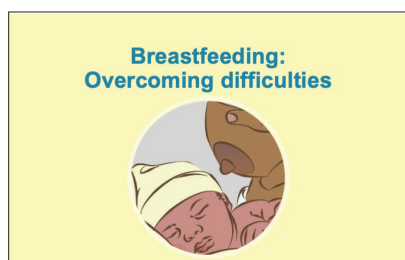


### **New WHO 2022 guidelines have been included.**

How to make a KMC binder:

- Choose a locally available, reasonably priced fabric or cloth or clean recycled cloth from home. The cloth should have some elasticity so that it will hold the baby snugly.
- Cut the cloth into strips 0.8–0.9 metres long and 0.5 metres wide.
- Sew the ends of each cloth strip together to form a loop.
- Test the binders with mothers and preterm babies to establish correct average size. Adjust the fabric and length to ensure an adequate fit for the average mother.

Alternative patterns for KMC wraps can be found at <https://www.healthynewbornnetwork.org/resource/kmc-wraps-example-and-pattern/>



See making model breasts above.

To use breast simulators effectively, ensure they are filled adequately, are worn correctly and the internal tap is open. If they are new and have never been

used, then massage breasts to improve filling. You can feel the lactiferous ducts. Only if technique is correct, can breast milk (water) be expressed.

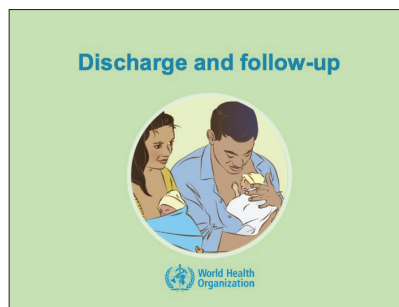
Simulations also deal with sensitive issues such as a mother wanting to suppress breastmilk after the death of her baby and another who wishes to donate her expressed breast milk. Feeding small babies and those with cleft is discussed.



Equipment should include locally available safe cups and containers for each group.

### **New WHO 2022 guidelines have been included.**

See advancement of feeds, feeding cues, supplementary feeding.



### **New WHO 2022 postnatal care guidelines have been included:**

- Screening for red reflex (ophthalmoscope needed) and developmental dysplasia of hip
- Nurturing care
- Planning for discharge.

## Tips and hints for assessments

### Pre-/post-course knowledge

- Score the assessments and compile the results for each item.
- Note what questions are answered incorrectly and emphasize those topics during facilitation.
- Repeat after the course to identify any remaining gaps in knowledge.

### Bag-and-mask skill check

- Ensure that each participant can complete this skill assessment successfully before moving to the Case Scenarios for ENC 1 or the Basic Resuscitation performance assessment.

### Performance Assessments

- The performance assessments for basic resuscitation, breastfeeding, and care of the small baby can be used both pre- and post-course to measure progress of intermediate participants. Foundation level participants are assessed only after course completion.
- Conduct these assessments either individually (summative) or in small groups with those observing offering (formative) feedback to the active participant.

### Case Scenarios

- Case Scenarios are completed at the conclusion of ENC 1 and 2 as performance assessments.
- Provide all equipment and supplies for a realistic performance of skills.
- Clarify that facilitators will not interrupt incorrect steps and will provide information only when asked.
- Debrief by giving an opportunity for self-reflection before providing feedback.

## Practice facilitation methods

As part of preparation, gather all facilitators to practice the facilitation methods included in the materials selected.

### 1. Review materials and sessions allocated with all facilitators

Review materials and discuss and resolve doubts or questions on content or methods of teaching.

### 2. Practice using mannequins correctly

- View videos of correct use and storage of mannequins and simulators.
- Practice how to assemble, disassemble and trouble-shoot use of mannequins.
- If water-filled, use clean water.
- If the chest does not rise, check attachment of the trachea and lungs. Know where to find spare parts (lungs).
- Know how to simulate both umbilical pulsations and breathing.
- For small mannequins know how to empty the stomach.
- Store safely.
- Provide one mannequin per group of 2-3 participants and one for the facilitator to demonstrate.

### 3. Practice baseline simulations

Introduce, perform, and debrief simulations with co-facilitators. Discuss how to use participant baseline performance to adjust emphasis during facilitation.

### 4. Practice demonstrations

Ask for peer feedback on skill technique and practice supportive ways of giving feedback to participants during their practice.

#### 5. Practice using videos

Practice smooth transition from slides or flipchart to showing selected videos or clips.

#### 6. Practice discussion questions

Review questions and show suggested answers (using animation and presenter view in module slides).

#### 7. Practice running a treasure hunt

Share a copy of relevant WHO documents as PDF file by social messaging or email.

#### 8. Practice using Clinical Practice Cards

Select relevant objective and practice as outlined above.

#### 9. Practice completing a QI Template

After clinical practice run QI session with co-facilitators

#### 10. Practice post-course assessments

- Knowledge check
- Bag and mask skill check
- Clinical scenarios (performance)

#### 11. Review time needed and strategies for time management

Update and adjust timetable.

#### 12. Assemble and practice popular ice breakers, warm-up exercises and games

Have popular warm-ups and ice breakers ready for when participants disengage or have low energy.





## Ensure environment, people, materials and equipment are prepared

In the days before an ENC course, use the checklist below to ensure that the environment, materials, participants and facilitators are prepared.

### Ensure environment people materials and equipment are prepared

<b>Ensure environment, people, materials and equipment are prepared</b>	
<b>Check and confirm: environment</b>	List any actions needed
Visit areas where practice, simulations, and clinical practice sessions will take place.	
o Confirm a convenient time to conduct clinical practices	
o Identify a room near the clinical area for debriefing	
o Secure space for practice and simulations	
o Provide enough tables and chairs	
o Check accessibility for learners with disabilities	
<b>Check and confirm: people</b>	
Availability of facilitators	
Availability of facility staff for clinical practice	
How many mother/baby pairs needed each day	
Preparation of health facility staff (if not already done)	
<b>Check and confirm: participants</b>	
Availability of participants	
Phone, social media and email contacts listed	
Fillable forms shared (background and experience, confidence level)	

## Facilitate learning sessions

On the day of an ENC course, use the checklist below to complete final preparations and lead a short briefing with all facilitators before the course begins.

### Facilitate learning

<b>Facilitate learning sessions</b>	
<b>Activity</b>	<b>Document any actions needed and who is responsible</b>
Arrive early to solve last-minute problems	
Post signs to direct participants	
Set up demonstration area and small group practice areas (prepare mannequins/simulators)	
Set up and test audiovisual system	
Brief facilitators on agenda, assignments, and any changes	
Confirm organization for clinical practice sessions	
Welcome participants and complete pre-course assessments	
Introduce the course and learning objectives	
Create a positive learning environment as free from distraction as possible (smart phone use)	
Engage participants in course content and active learning	
Use a clock or timer for good time management	
Use energizers and tea breaks to refresh participants	
Arrange remedial support for participants, if necessary	
Complete post-course assessments and course evaluation	
Explain ongoing practice – Simulation Practice Cards	
Summarize gaps and potential changes for Quality Improvement	
Present certificates of completion	



# Continue simulation practice and quality improvement

Education is only a first step toward better health for newborns. Knowing the right care is not enough to save lives or promote healthy growth and development. That knowledge must be put into practice.

## Improve care by:

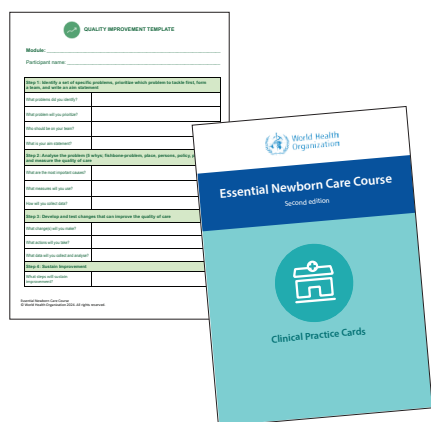
- Identifying areas that need improvement
- Making changes to improve care
- Creating a system for ongoing review, practice and team simulation.

## Identifying areas for improvement

After every educational session, ask the following questions:

- What new things are we going to do?
- What old things will we no longer do?
- How will we make the change?

Health workers who participate in ENCC readily identify differences between what is recommended and what is done at the facility and contribute valuable ideas for change.



Use **Clinical Practice Cards** together with the **Quality Improvement Template** to identify gaps in care, prioritize them, and begin the process of making change through PDSA (plan, do, study, act) cycles.

**Use Debriefing in the clinical setting** as a powerful way to reinforce correct practices and identify areas for improvement – both in individual practice and in facility routines and organization of workflow.

- Follow the Action Plans to debrief resuscitation at birth or stabilization of a newborn requiring intermediate or advanced care. In addition to the questions used for debriefing simulations, ask for suggestions to improve the organization of care and facility routines.
  - What was done well?
  - What could have been done better?
  - What will you change the next time?
  - What changes are needed in the facility to improve efficiency or effectiveness?
- Debrief with the team members involved immediately after an event (resuscitation, still birth, separation of mother and baby, violation of BMS code).
- Use a simple form to record the debriefing to create a record of changes needed and increase the likelihood of follow-up action.

## Making changes to improve care

**Make quality improvement part of everyday care** in the health facility to promote change in behaviour and better outcomes for mothers and newborns.

After ENCC educational activities, health workers are often motivated to work together with their peers to find ways their care can become better, easier, faster, and more enjoyable. These health workers may become important champions for change and quality improvement. Making a choice for change allows expression of self-efficacy, and seeing the results of change provides further motivation to provide the highest quality care to newborns.

ENCC educational sessions throughout the calendar year can serve to stimulate new change cycles and reinforce successful changes in care.

**Promote behaviour change by:**

- Engaging a high proportion of staff in educational activities
- Bringing interprofessional teams together in the educational setting
- Ensuring the most senior clinicians and clinical leaders participate in educational activities along with more junior staff members and all other relevant cadres
- Identifying clinical champions for change
- Coordinating perinatal quality improvement team activities with educational activities.

**Creating a system for ongoing review, practice and team simulation**

**Set up a skills practice area** in the health facility to maintain individual skills and spread best practices through **peer-to-peer learning**.

Keep **Simulation Practice Cards** and additional simulations from the modules with educational equipment and supplies in a convenient location accessible to health workers and students. Practicing in pairs or small groups with peers provides valuable feedback and is more likely to improve skills than independent practice. Set an expectation for practice between distributed educational sessions to make efficient use of face-to-face time with facilitators.

**Review clinical data to identify goals for further learning.** Using data to design educational sessions makes them directly relevant to improving outcomes.

- Debriefings of clinical events (resuscitation, near-miss events, referrals)
- Case reviews and audits (morbidity and mortality reviews, Maternal and Perinatal Death Surveillance and Response)
- Quality improvement indicators (process and outcome measures for change cycles)
- Facility, regional, and national indicators (Every Newborn Action Plan, DHIS-2 indicators)

**Use real-time data to design team simulations**

that improve team performance and clinical response. Customized in-situ simulations help refine systems changes and overcome delays in initiating action, making decisions, and communicating effectively. For example, starting ventilation within one minute of birth might require practicing with a sense of urgency, developing a system to call for help, and reorganizing equipment.



# Analyse post-course assessments and feedback

## Post-course assessment

Assessment after a course may include knowledge, skills/performance and confidence as well as evaluation of the course itself.

## Fillable forms and surveys

- Knowledge Check for ENC 1 and 2
- Post-course knowledge assessment for ENC (combined content)
- Bag and mask skills check for ENC 1
- Case scenarios for ENC 1 and 2
- Basic resuscitation
- Breastfeeding
- Care of the small baby

Analyse the assessments for information on:

- Total number of participants and proportion that successfully completed the course
- Participants who need to repeat assessments or need further follow-up
- Improvement in scores from pre-course to post-course assessments
- Frequently missed questions on knowledge assessment or missed steps in performance assessment
- Remaining areas of low confidence by participant self-assessment.

## Analyse post-course assessments and feedback

Analyse post-course assessments and feedback	
Use fillable forms	Summarise observations and actions
<b>Post-course knowledge and confidence</b>	
Knowledge check	
Confidence self-assessment	
<b>Post-course performance</b>	
Bag and mask skills check (ENC 1)	
Case scenarios (ENC 1 and 2)	
Basic resuscitation	
Breastfeeding	
Care of the small baby	
Other	
<b>Course evaluation</b>	
<b>Metrics</b>	
• Ratio of facilitators to participants	
• Ratio of participants per set of educational materials and equipment	
• Ratio of active practice to discussion/lecture	
• Course completion (percentage of participants)	
<b>Facilitator feedback</b>	
• Ratio of facilitators to participants	
• Adequacy of educational environment (space, lighting, etc)	
• Completeness/functionality of materials and equipment	
• Functionality of educational technology (audiovisual, fillable forms, social	

Use the analysis of the assessments and the feedback from facilitators and participants on the course to identify problems and changes for the next educational session.

## Document process and plan for next sessions

Documentation of who, when, what and how you provided education to participants is an important part of the process.

- Maintain a participant register.
- Link with review of indicators to measure impact.
- Document measures put in place to ensure ongoing practice for maintenance of skills, such as skills corners or learning laboratories and document when participants access these facilities.
- Maintain a register of facilitators able to mentor new colleagues.
- Document clinical and educational equipment required for procurement.

Use the analysis of assessments and feedback to plan ongoing practice and future educational sessions.

- Skills practice, follow-up and low-dose high frequency practice, team simulations addressing observed difficulties
- Time and budget allocation, including for procurement (above)
- Next skill update session and content needed
- Refresher training and updates whenever policy and guidelines change

## Review indicators

The goal of education in essential newborn care is improved clinical outcomes and elimination of preventable newborn deaths.

- Use National, ENAP or newborn QI indicators to measure progress over time.
- See ENC 1 and 2 Provider Guides for suggested indicators to follow. Steps of the Action Plans can be turned into process and outcome indicators.
- See the WHO [Toolkit for Routine Health Information Systems \(RHIS\) data](#) for additional details on monitoring in the health facility.









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