World Health Organization

Essential Newborn Care Course

Contents

Acknowledgements

The WHO Department of Maternal, Newborn, Child and Adolescent Health and Ageing gratefully acknowledges the work of the many individuals and organizations that contributed to this interim version of the second edition of the WHO Essential Newborn Care Course (ENCC) 2022.
The second edition will be finalized after field testing in face-to-face settings and incorporating feedback from use of the materials by countries and organizations. This is currently not possible during the COVID-19 pandemic

The WHO steering group that coordinated, developed and drafted the update of the ENCC materials included Ornella Lincetto, Helenlouise Taylor and He Tang.

Special thanks go to the Technical Advisory Group (TAG) who contributed to all stages of the updating of the ENCC:
Jenny Bua, Tedbabe Hailegebriel, Anne Jorunn Svalastog Johnsen, Beena Kamath-Rayne, Marzia Lazzerini, Ornella Lincetto, Karoline Myklebust Linde, Susan Niermeyer, Janna Patterson, Nalini Singal, Helenlouise Taylor, Anna af Ugglas and Fabio Uxa.

Special thanks to Laerdal Global Health for development of the illustrations and layout, to Global Health Media for videos, to the WHO Collaborating Centre for Training and Research in Newborn Care (All India Institute of Medical Sciences, AIIMS) for videos, UNICEF for videos and photographs and Dr Rajesh Mehta for input on Point of Care Quality Improvement (POCQI) for pre-service learners.

WHO acknowledges the contributions of all experts who gave feedback and participated in reviewing and using the first draft of the updated materials:
Ebun Adejuyigbe, Jamela Al-Raiby, Selebalo Ts'Oarelo Amos, Karen Okutoyi Aura, Mustapha Bello, Mary Nana Ama Brantuo, Beatrix Callard, Chinyere Ezeaka, Fatima Gohar, Allan Govoga, Leah Greenspan, Kenechukwu K Iloh, Joyce Jebet, Ovuoraye A. John, Martin Chabi Joseph, Ufere Joy, Jordan Kamanga, Lydia Kelane, Nancy A. Kidula, Neema Rusibamayila Kimambo, Thabelo Makhupane, Amelia Mashea, Nicole Minckas, Sebonoang Mohlaba, Motebang Isaac Molainyane, Assumpta Muriithi, Caroline Mwangi, Nkaiseng Ngwane, Azubuike Benjamin Nwako, Karen Owende, Michela Papotti, Julia Petty, Sarah Shalongo, Hilma Shikwambi, Khalid Siddeeg, Julia Thabo, Merran Thomson, Mantsane Tsoloane-Bolepo, Esperanca Van Der Merwe, Scola Wabwire, Rose-Marie De Waldt, Karen Walker and Teshome Desta Woldehanna.

WHO and UNICEF staff in headquarters, regions and countries, the WHO Collaborating Centre for Training and Research in Newborn Care (AIIMS), WHO Collaborating Centre for Maternal & Child Health (Istituto per l'Infanzia IRCCS Burlo Garofolo), staff from the American Academy of Pediatrics (AAP), the Council of International Neonatal Nurses (COINN), the International Pediatric Association (IPA), the International Council of Nurses (ICN), the International Confederation of Midwives (ICM) Smile Train and the members of the Every Newborn Action Plan Country Implementation group (ENAP CIG) who reviewed the materials and provided input.

Development of the competencies for learners and facilitators was supported by the WHO Academy and WHO acknowledges the support of Maryam Arabi. These competencies have been linked to the WHO 2021 Universal Health Coverage (UHC) Competency Framework.

A subgroup of the TAG developed standardized knowledge and skills assessments. Special thanks go to He Tang, Susan Niermeyer, Nalini Singhal and Helenlouise Taylor for this work.

Special thanks to Sue Crabtree, Mary Lyn Gaffield, Francis McConville, Nester Moyo, Patricia Titulaer, Meg Towle, Griet Vandevelde, Florence West, the TAG for Interprofessional Midwifery Education Toolkit and the TAG working on the Essential Respectful Care Course for their collaborative work to ensure alignment with the WHO 2020 learning strategy and with the team producing the online Interprofessional Midwifery Education Toolkit for Maternal, Newborn, Sexual/Reproductive and Perinatal Mental Health to ensure alignment of goals and outcomes, language and learning methodologies.

Special thanks go to the AAP and Helping Babies Survive Planning Group for updating and aligning the 2015 edition of Helping Babies Breathe and Helping Babies Survive action plans, flip charts and materials for integration into Option A (basic course parts 1 and 2) of the Essential Newborn Care course:
Sara Berkelhamer, Carl Bose, Robert Clark, Danielle Ehret, Victoria Flanagan, Beena D. Kamath-Rayne, William J. Keenan, George A. Little, Douglas McMillan, Hasan Merali, Susan Niermeyer, Jeff Perlman, Steven Ringer, Renate D. Savich, Eileen Hopkins Schoen, Nalini Singhal, Michael K. Visick and Julie Wood.

WHO thanks members of the ENC TAG who reviewed the updated basic course:
Jenny Bua, Anne Jorunn Svalastog Johnsen, Marzia Lazzerini, Ornella Lincetto, Karoline Myklebust Linde, Helenlouise Taylor, Anna af Ugglas and Fabio Uxa.

WHO acknowledges and thank the United Kingdom Foreign, Commonwealth & Development Office, Laerdal Foundation and United States Agency for International Development for financial support for this work.

Abbreviations and acronyms

CRC	Convention on the Rights of the Child
CRPD	Convention on the Rights of Persons with Disabilities
CRVS	Civil registration and vital statistics
DALY	Disability-adjusted life year
EENC	Early essential newborn care
ELBW	Extremely low birth weight
ENAP	Every Newborn Action Plan
ENC	Essential newborn care
ENCC	Essential Newborn Care Course
GHMP	Global Health Media Project
HBB	Helping Babies Breathe
HBS	Helping Babies Survive
HICs	High-income countries
HMIS	Health management information systems
HRH	Human resources for health
ICM	International Confederation of midwives
ICN	International council of nurses
IPA	International Pediatric Association
IPC	Infection prevention and control
KMC	Kangaroo mother care
LBW	Low-birth-weight
LICs	Low-income countries
LiST	Lives Saved Tool
LMICs	Low- and middle-income countries
MICs	Middle-income countries
MISP	Minimum Initial Service Package for Reproductive Health in Crisis Situations
MPDSR	Maternal and perinatal death surveillance and response
NICU	Neonatal intensive care unit
NMR	Neonatal mortality rate
PCPNC	Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice
POCQI	Point of care quality improvement
PPE	Personal protective equipment
PROM	Premature rupture of membranes
RMNCH	Reproductive, maternal, newborn and child health
SDGs	Sustainable Development Goals
SGA	Small for gestational age
UHC	Universal health coverage
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VLBW	Very low birth weight
WASH	Water, sanitation and hygiene
WHO	World Health Organization

Glossary

Competency-based essential newborn care training	Competency is the 'ability' to perform and covers knowledge, skills and attitudes. After training, learners need practise and be supported support to move from competency to proficiency. They need the opportunities to practise the new competencies, the capability (the needed knowledge and skills, supplies and equipment) and the motivation to do so. Providing coaching and support, or linking learners virtually or face-to-face, helps learners solve problems and develop the confidence to use the new competencies every time they care for mothers and newborns.
Cultural competence	Cultural competence is the ability to participate ethically and effectively in personal and professional intercultural settings. It requires being aware of one's own cultural values and world view and their implications for making respectful, reflective and reasoned choices, including the capacity to imagine and collaborate across cultural boundaries
Disability	Disability results from the interaction between individuals with a health condition as well as personal and environmental factors including negative attitudes, inaccessible transportation and public buildings, and limited social support.
Essential newborn care	Essential newborn care: key routine practices in the care of all newborns, particularly at the timeof birth and during the first days of life, whether inthe health facility or at home.
Family-centred care	Family-centred care: an approach to care delivery that promotes a mutually beneficial partnership among parents, families and health-care providers to support health-care planning, delivery, and evaluation. The principles of family-centred care include: dignity and respect; information sharing; participation; and collaboration. It can be practised in health facilities at all levels
Social norms	Social norms are the perceived informal, mostly unwritten, rules that define acceptable, appropriate, and obligatory actions within a given group or community (Cialdini, Reno, & Kallgren, 1990; Cislaghi & Heise, 2018). Social norms are a set of social expectations shared by a group of valued individuals with whom individuals compare themselves, also known as a reference group (Bicchieri, 2014). These reference groups may enforce behaviors through associated sanctions or rewards.

Introduction

The first edition of the WHO Essential Newborn Care Course was first published in 2010.

This publication is an interim version of the second edition of the WHO Essential Newborn Care Course (ENCC) 2021. This version has integrated WHO guidelines, recommendations, quality of care standards and materials updated since 2010 and is newborn-centred, addressing the newborn's right to quality and respectful care. The reach of the course has been extended from the classroom to many contexts, including humanitarian situations. Changes and additions are fully described in the *Course overview*.

The second edition will be finalized after field testing and feedback from use of the materials by countries and organizations. This is currently not possible during the COVID-19 pandemic.

Process for updating

Collaboration between the American Academy of Pediatrics (AAP) and WHO on Essential Newborn Care (ENC) educational materials started in 2017. In 2019 the WHO Africa Region Office coordinated field testing of the basic course, parts 1 and 2 in United Republic of Tanzania. This was followed by the updating of this WHO ENCC and the course design with three options.

A scoping review identified all guidelines, standards, indicators and materials related to newborn care, newborn-centred care, newborn survival, morbidity, disability and development that had been updated since the first edition in 2010. These were reviewed and classified for inclusion into the updated interim version of the ENCC.

Competencies for learners and facilitators and learning were developed in collaboration with the WHO Academy.

Pilot field testing of the WHO Essential Childbirth Care Course in Telangana, India, in February 2020 enabled observation of use of new methodologies that have been integrated into the ENCC, and additional structured simulations linked to performance outcomes were added to the course.

The materials were reviewed virtually in four countries – Namibia, Lesotho, Nigeria and Kenya – by clinical educators and practitioners. Structured feedback from experts and participants was collated and built into the final revision of the interim modules, assessments and the development of "plan, adapt and facilitate" guidance for countries on planning, adapting and running the interim ENCC.

The interim course is the result of close collaboration with a number of actors, including Laerdal Global Health for development of illustrations and layout and the Global Health Media Project for videos. The WHO Collaborating Centre in Trieste, Italy, staff from AAP, the Council of International Neonatal Nurses (COINN), the International Pediatric Association (IPA), the International Council of Nurses (ICN), the International Confederation of Midwives (ICM) and the members of the Every Newborn Action Plan Country Implementation Group (ENAP CIG) reviewed the materials and provided inputs.

Plan

1.1 Who should use this guide?

This guide is for national planners and policy-makers, faculty from pre-service institutions, professional bodies who provide essential newborn care training, for example, neonatal nursing, midwifery, paediatric and obstetric organizations, regional and district programme managers and implementation partners, as well as anyone who will be in charge of organizing the course (course director).

This guide covers:

- **the planning and selection of an appropriate format for the context**
- **adaptation of the content to the context**
- **organization of the training and preparation of facilitators to teach the World Health Organization (WHO) Essential Newborn Care Course (ENCC) in a variety of contexts.**

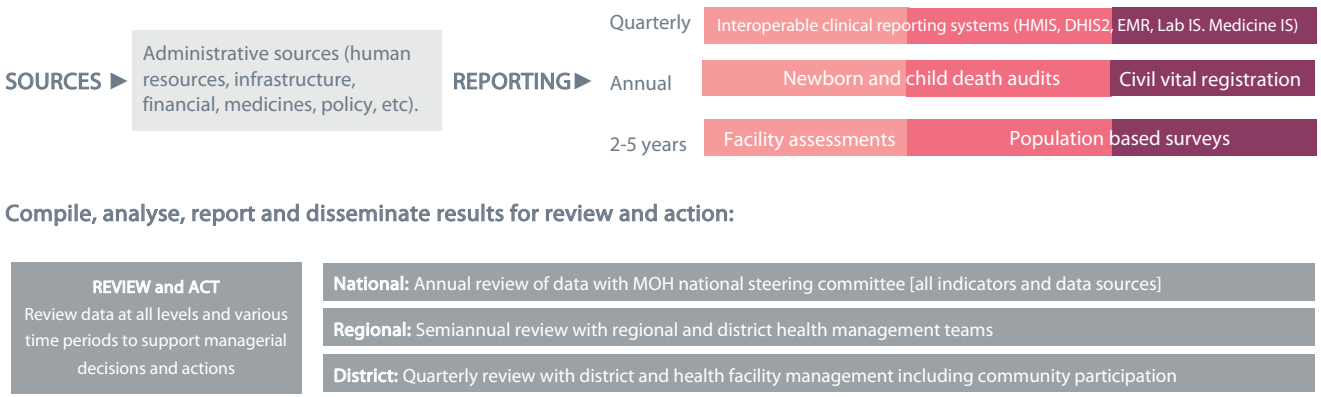
1.2 Planning

Good planning is key for the success of the course and requires assessing the learning needs, context, resources and expected short-, medium- and long-term outcomes.

Planning to improve essential newborn care should be anchored in national planning and budgeting for RMNCAH (reproductive, maternal, newborn, child and adolescent health), nutrition, universal health coverage (UHC), quality improvement programmes and medical and allied professional training. It is an inefficient use of resources to separate maternal and newborn activities and programming around the time of birth, as they are interdependent.

Local-level planning should be based on the context and the learners' needs and it should use all available data sources, such as health facility surveys or health management information system (HMIS) data or rapid needs assessments. These data will then be used to plan learner journeys.
See section 2, Adapt.

At the national and subnational levels, review available data sources (1) and prioritize the introduction or expansion of activities based on review of your data. The graphic below shows proposed strategy for monitoring and evaluation of child health, which can be used for acting on newborn data and planning activities.



Analysis and use of health facility data — Guidance for RMNCAH programme managers. WHO, 2019.

Use the national Every Newborn Action Plan, the Early Essential Newborn Care (EENC) Annual implementation plans and reviews (introducing and sustaining essential newborn care in hospitals), health facility surveys, population-based surveys, national and subnational HMIS coverage data (2, 3), subnational mapping of mortality, morbidity, disability and effective coverage of maternal and newborn interventions. Ensure that these data are disaggregated by the age of the mother (10–14, 15–19, 20+), the sex and age of the newborn and by disability (4).

If these data are not available, plan for a situation analysis and/or health facility surveys using validated instruments. Ensure equity (5, 6) and that those health workers caring for newborns and their mothers who are marginalized or consistently left out of plans are integrated into these updated plans and activities. Include newborns in hard-to-reach areas, humanitarian emergencies, fragile settings or special situations, as well as those newborns abandoned at birth, newborns with anomalies or infants receiving terminal care.

1.3 Course director/ organizer

The course director/organizer should be an experienced trainer and educator with practical, specialist knowledge of newborn care and good organizational and communication skills. The organizer can have a professional background in paediatrics, midwifery, neonatology or neonatal nursing. If possible, the organizer should be from the region in which the course is held and should speak the local language(s).

1.3.1 Course director/organizer's role in the ENCC

The organizer of the course has overall responsibility for the planning and running of the training of facilitators and the first ENCC course ensuring quality and fidelity to the evidence-based content.

The course director/organizer's role **during the preparation** of the course is to:

- coordinate with the ministry of health (MoH) department and organization/persons requesting the training;
- inform and advise the organizers what the training involves;
- calculate and organize for procurement or loan of adequate training mannequins and materials;
- prepare costing and budget;
- check the course materials including the most recent MoH guidelines on newborn health and quality of care standards and indicators, teaching aids and visual aids and videos (this is especially important if translation of materials has taken place).

If the course is to be taught in a large hospital or if the clinical observation will take place in an institution other than where staff work every day, make a preliminary visit to the teaching venue and clinical facility. Meet the hospital staff including the hospital's clinical director.

Meet the hospital staff involved in assisting with clinical observation and practice arrangements to ensure that the health facility meets government standards for early essential newborn care. Also, ensure that the necessary equipment is available and functioning and that care is safe.

Plan training sessions according to the training strategy selected. Adjust the timetable and modality of implementation (5-day course, coaching, on-the-job training, mentoring or as a component of supportive supervision).

- If in-service training at the teaching site is away from the place of work, check arrangements for trainees' accommodation.
- Know the content and methodologies of updated the ENCC and prepare to facilitate and support new trainers.
- Ensure that the EENC Clinical Practice Pocket Guide is available in electronic format for your language.
- Check that videos have been correctly voiced over and subtitles are correct.
- Mark the pages of relevant MoH or WHO guidelines for each session.
- In collaboration with the faculty or health facility senior staff, review all forms and handouts used in the course to decide whether or not to use local/ national materials These include, for example, partographs, safe birth checklists, referral forms, perinatal death review and response forms.

1.4 Who is the course for?

This course is for health workers at the in-service or pre-service level who care for newborns or who will take care of newborns.

In-service students include a multidis ciplinary team caring for newborns (midwives, nurses, neonatal nurses, doctors, paediatricians, obstetricians and clinical assistants).

Pre-service students include those in nursing, midwifery and medicine-allied disciplines who work with newborns as well as all other cadres caring for newborns and working with mothers and newborns during childbirth and the first month of life.

This update has been designed as both a stand-alone and face-to-face course with flexible modules which can be used within a variety of educational and work settings and as a combined course with the Essential Newborn Care (ENC) basic course, parts 1 and 2.

This course can be used as part of either pre-service or in-service training. In this context, in-service training includes: on-the job training, continuing medical education, mentoring and supportive supervision and as part of updates in quality im-provement efforts.

For those attending childbirths who are not trained accredited health workers, it is assumed that they have some level of health care training (birth at-tendants, auxiliary midwives or auxiliary nurses).

Those who supervise the care of newborns, for example, doctors, paediatricians, obstetricians and neonatologists, also need to have good practical knowledge of the content of the ENCC modules and current guidelines so that they can effectively supervise and improve the quality of care of new-borns as part of their routine daily work and quality improvement efforts.

1.5 Course overview and options

1.5.1 ENC basic course

An overview of the course and new additions and changes can be reviewed at the following links:

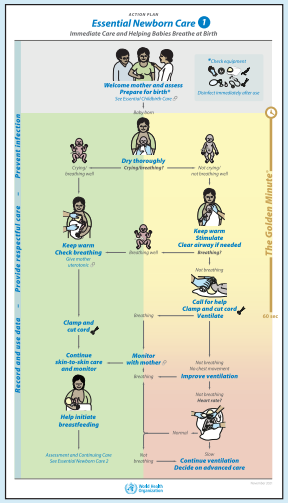
ENC basic course part 1

ENC basic course part 2

The ENC basic course includes one flipchart focusing on essential care in the first 60 minutes of life and a second flipchart focusing on routine care after the first 60 minutes of life. These flipcharts are complemented by action plans and job aids to support simulations and quality improvement after the end of the training. This version of the course is a good introduction to essential newborn care, but differs from the modules, which have many simulations and clinical practice with mothers and newborns. The ENC basic course can be offered as a combined course by adding selected modules based on learners needs (see section 2, Adapt).

The ENC basic course is updated to include WHO guidelines.

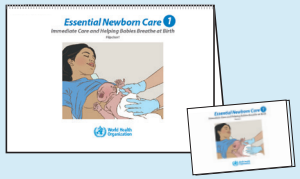
Course option (A)

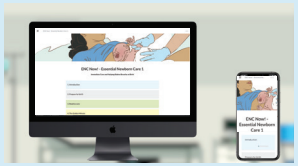


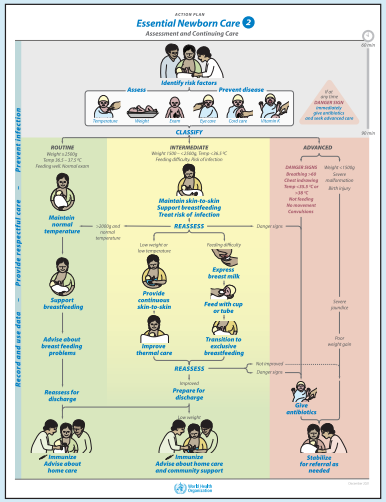
Basic course part 1:

Immediate Care and Helping Babies Survive at Birth

- Learning the Action Plan steps
- Knowledge of resuscitation and essential care
- Basic skills integrated in a framework of evaluation, decision and actions
- Peer-to-peer practice with simulations



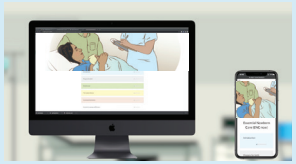




Basic course part 2:

Assessment and Continuing Care

- Learning the Action Plan steps
- Assessment and continuing care
- Basic skills integrated in a framework of evaluation, decision and actions
- Peer-to-peer practice with simulations

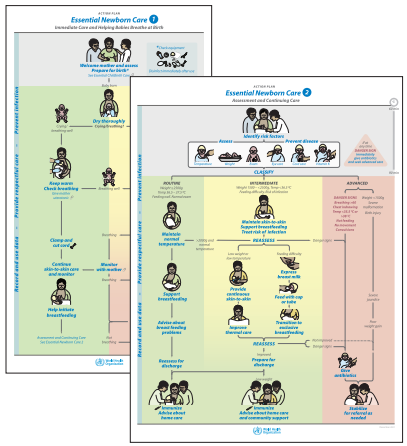


1.5.2 ENC modular course

The ENC modular course comprises 14 modules:

- Introduction
- Communication skills
- Infection prevention for newborns
- Prepare for delivery
- Immediate newborn care
- Examination of the newborn
- Keeping the newborn warm
- Breastfeeding: ensuring a good start
- Basic resuscitation of the newborn
- The small baby
- Kangaroo mother care
- Breastfeeding: overcoming difficulties
- Alternative methods of feeding
- Preparing for discharge

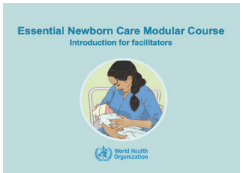
Course option (B)



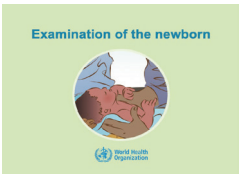
Modular course

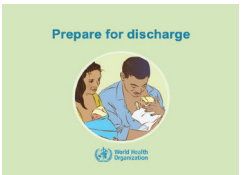
- Building on basic knowledge
- Building of practical skills and competencies by simulations and clinical practice
- Quality improvement activities
- Application of updated evidence-based guidelines
- Ongoing peer-to-peer learning and practice

Cross-cutting themes



Routine care





Additional care/intermediate care

1.6 Duration of the modular course

The 14 modules will take a minimum of five days to complete when used as a stand-alone course. For pre-service learners this will be much longer, as the second edition has been expanded to include nurturing care and more practical sessions and simulations.

Adequate time needs to be allocated for simulations and clinical practice sessions, both of which are mandatory. This, in turn, will depend on the:

- number of expected deliveries per day
- number of learners in each cohort
- availability of equipment such as mannequins and neonatal bag and masks
- number of trained facilitators available.

For planning time for each module, indicative timings have been given for in-service and pre-service learners. The sessions may take longer to teach than indicated, depending on the experience, skills and capacities of the participants. In addition, consider whether the course is in a language other than the learners' mother tongue.

Indicative timetables for each module can be updated for pre- and in-service learners and adjusted based on pre-course assessments. *Adjustable time tables*

When the modules are taught over a longer period of time, build in time to ensure that knowledge and skills taught at previous sessions are demonstrated, reviewed and refreshed before adding new topics. Also ensure that health workers have been able to put their new competencies into practice in their daily work.

For each module, the relevant clinical practice should be arranged in advance enabling participants to immediately put newly acquired skills into practice.

The updated modular course is designed to be flexible, and it can be adapted to suit the needs of the MoH, institutions and organizations, and the context in which the sessions are taught. The modules can be taught individually or in combination with the ENC basic course (combined course), depending on the local situation and needs.

It is recommended that the modular course start with the Introduction, Communication skills and Infection prevention for newborns, as these are cross-cutting themes.

For in-service learners the order of modules can be changed, varied and locally adapted depending on the needs and gaps identified. A variety of options can be used (see Agendas, section 2, Adapt). It may be more appropriate to focus on simulations and clinical practice when addressing quality gaps.

For pre-service learners it is recommended that they progress through the modules 1–14.

1.7 Where to run the ENC courses

The modules can be taught in many different environments. Pre-service institutions, universities, learning laboratories or skills labs, as well as in hospitals or health centres, in delivery rooms, on the wards at the community level and in humanitarian situations. Past experience teaching the ENC course has shown that participants are more likely to put their new knowledge and skills into practice if they learn and are followed up in their normal working environment. They are also more likely to notice gaps and improvements that they can make themselves linked to quality improvement, such as reorganizing the delivery room to ensure safety, privacy and ease of working.

Where participants are widely dispersed geographically, planners may consider grouping participants geographically in one health facility and rotating training sessions to the others each month or each quarter, with facilitators travelling to minimize travel costs. If this is not possible or if the training is away from the place of work, the learning environment should be adapted to replicate the clinical environment as much as possible. For example, if training cannot be conducted in the delivery or labour room, all necessary equipment (such as childbirth bed, resuscitation equipment) must be available for each group.

Clinical practice should take place in health facilities with:

- 20 to 30 deliveries per day (if this is not possible, adapt training timetable to teach in small groups);
- easy access to postnatal areas;
- out-patient clinic and/or health centre with a newborn clinic;
- baby-friendly hospital status (preferable);
- a special care newborn unit;
- kangaroo mother care beds;
- adequate water, sanitation and hygiene.

1.8 Costing and budgeting the ENCC

Funds should be available to cover all of the foreseeable expenses. However, it should be noted that if opportunities are used within existing systems, additional costs for improvement in newborn care can be marginal. This could include updating skills at existing supportive supervision or integrated outreach visits or any other opportunity.

1.9 Adaptation and translation of materials

Adequate funds and time need to be allotted for adapting course materials, videos and key references. As this is a generic course, materials should align with up-to-date national treatment guidelines and policies.

Ensure that course materials are consistent with the current WHO guidance. If changes are necessary, they should be completed before the translation of any parts of the course and materials.

Check if videos are available in local languages. WHO videos are available in official UN languages (Arabic, Chinese, English, French, Russian and Spanish).

Global Health Media Project (GHMP) videos used in the course are available in a large number of languages. Check before launching into voice-overs and subtitle translation.

If translation of materials is required (such as voice-overs and subtitling videos), the necessary permission should be sought, funds identified and adequate time allotted for preparation and verification of the translation. To ensure that the translation is correct, extracts from the translated materials should be translated back into English and compared with the original text. Scripts and timings are

available in English and some other languages on request for translation rights. The person chosen for the voice-overs should speak clearly and slowly. The videos will then be produced in four formats, which can be downloaded onto multiple devices, including smart phones and shared via the GHMP website.

WHO's EENC Clinical Practice Pocket Guide is available in a number of languages.

1.10 Equipment

Environment, materials and equipment.

At least one mannequin per group of four participants needs to be available for the modular course and one per group of two to three learners for the ENCC basic course, part 1.

If these need to be procured from outside the country, adequate time should be allowed for procurement, and the budget should include any import taxes unless educational materials are exempt.

Mannequins and models needed:

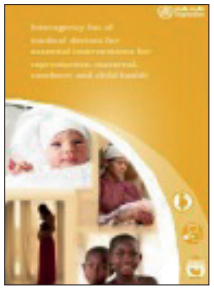
- newborn with inflatable lungs which can be used for resuscitation
- premature newborn for care of the small newborn and kangaroo mother care
- breast (for teaching hand expression of breast milk), which can be locally made
- optional pregnant woman mannequin or cloth to simulate normal delivery
- neonatal bag and masks (sizes 0 and 1), one per mannequin for resuscitation.

In some countries these can be borrowed from a regional or district equipment library.

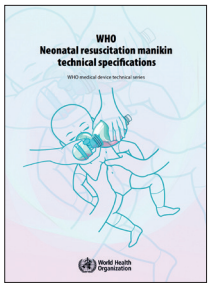
As part of the overall budget, consider equipping a skills corners for maintenance of ENC skills. This will ensure that learners can maintain their skills by practicing regularly with their peers.

1.10.1 Specifications

The newborn mannequin used should be realistic in size and appearance and also have normal weight, feel and touch. It should facilitate effective bag and mask ventilation, with chest rise only when correct technique is used.



WHO specifications (7) for newborn simulation and other equipment.



Specifications for mannequins for newborn resuscitation have been updated by WHO 2021 .

WHO 2021 Neonatal resuscitation manikin technical specifications.

Three types are available. The essential newborn care course uses only 1 and 2 .

1. Basic type neonatal mannequin

2. Basic type inflatable neonatal mannequin

3. Advanced type neonatal mannequin with simulation

The specifications take into consideration:

- Ease of use, set up time and time considerations for disinfecting mannequins;
- Ease of transport and storage, which is important when the mannequins are used for frequent ons-ite training sessions, for educational outreach and use in acute humanitarian situations;
- Flexibility and simplicity . It is important to use a simple mannequin for multiple neonatal training situations in addition to neonatal resuscitation. In the essential newborn care course mannequins are used for simulations in all modules. Complex mannequins are more difficult to maintain and transport;
- Durability and maintenance. Ensure that the mannequin is capable of enduring frequent use in the extreme climatic conditions in your region. Ready availability of affordable parts also needs to be considered;
- Cost of ownership It is important to evaluate the cost of consumables for disinfection and cost of disposables such as lungs, their availability in your context and minimum order quantities;

A functional mannequin should have the following characteristics;

- full-term, anatomically accurate newborn mannequin;
- visible chest rise when correctly ventilated through mouth;
- independent activation of chest rise (for example by squeeze bulb) for initiation of spontaneous breaths by the trainer;
- head tilt/chin lift to open the airway. Air entry limited if neck overflexed/overextended;
- ability to use without electricity;
- cardiovascular functions such as umbilical pulse and heart sound (optional).

The appearance of a preterm newborn simulation mannequin should resemble a preterm baby (approximately 1.6 kg, 32-week gestational age). The mannequin should have features for training-assisted feeding by nasogastric/orogastric tube insertion, that is, a stomach pouch and oro- and nasogastric tracts to practise correct tube placement.

© WHO/ Gato Borrero

1.10.2 Procurement

When procuring training equipment consider the weight, price of shipping and import duties. Countries with high neonatal mortality, "countdown countries", can procure some mannequins and resuscitation equipment at cost price, while others can be sourced via UNFPA and United Nations Children's Fund (UNICEF) offices in each country.

1.10.3 Essential equipment and commodities for health facilities for the routine care of newborns

Planning for the course should include an inventory of the items needed for essential newborn care at the health facilities of health workers included in any ENCC training. A quick inventory can be made over the phone or by using Checklist 8 from the WHO *ENCC Clinical Practice Pocket Guide* (8) or WHO's Hospital care for mothers and newborns: quality assessment and improvement tool (9).

It is unethical, and a waste of time and resources, to train health workers if they do not have basic life-saving commodities and equipment at their place of work. Essential commodities include a newborn bag and masks, a suction device that can be cleaned and sterilized, delivery sets, a means for sterilizing essential equipment and appropriate national guidelines. The costs for any gaps in life-saving commodities (10) will need to be calculated and added to the budget.

1.11 Printing

Printing costs should be calculated for course materials which are not used in electronic format. These include documents, posters, key references including the *Action Plan* and all relevant forms, clinical practice cards, handouts and supporting documents (guidelines and standards). If the budget allows participant should be provided the *EENC Clinical Practice Pocket Guide* and their facilities the PCPNC guide, ideally in the national language.

1.12 Skills maintenance and follow-up

Skills maintenance, follow-up and low-dose high frequency training need time allocation, as well as travel and associated costs if a facilitator needs to travel to support learners in hard-to-reach areas or humanitarian settings. If time is not allocated in the plan, the activity is unlikely to take place. Skills may be lost.

1.13 Planning and administration

The ENCC is designed to be flexible, and can be adapted to suit the needs of the MoH, institutions and organizations.

On-the-job training

In-service

Where the modules are taught as part of on-the-job training, mentoring, supportive supervision or a quality improvement process, ALL health workers in the facility caring for mothers and newborns during labour, delivery and the postnatal period must participate in the training over time. In a large hospital, the timetable must be adjusted to ensure that all staff (including those who work night shifts and weekends) are included.

In order not to disrupt clinical care, training sessions should be conducted with a small number of health workers and repeated. Staff identified by facilitators as having good skills can be trained and coached to facilitate their colleagues to lighten the task and ensure sustainability. These staff can also coordinate refresher sessions and simulations for skill maintenance.

For settings that choose to offer the course in its entirety for in-service health workers, the participant numbers should be between 12 and 24 to ensure that group work and clinical practice sessions are well facilitated. A ratio of 1 facilitator to 6 participants is recommended. In addition, this ratio of facilitators to participants should be maintained to ensure effective coaching and that competencies are acquired.

Pre-service

Integrate relevant updated modules and sections of modules into the core curriculum. Ensure that adequate time is allowed for simulations and effective clinical practice.

Run practical sessions in learning a laboratory or a disused delivery room and postnatal ward. Ensure that the training settings are equipped with essential equipment.

Ensure that students have access to mannequins and materials to continue practicing to build competence and confidence. Ensure access to a learning laboratory or skills corners after hours.

Prepare the faculty well to teach the updated curriculum. Run skills updates for ENC facilitation and to assimilate updated learner and facilitator competencies, to run assessments and to design learner journeys.

1.14 Facilitators and clinical mentors

1.14.1 Facilitator trainers

A maximum of six new facilitator trainers are trained during each preparation course. They will learn to:

- master all content of the ENCC;
- apply adult facilitation and learning methodologies to promote active learning;
- adapt and tailor facilitation according to learners' needs, based on standardized assessment;
- promote skills practice for clinical scenarios and simulations using correct technique, facilitating self-reflection and peer feedback;
- support learners to apply evaluation, decision and action cycles;
- use clinical practice effectively;
- understand and apply the Point of Care Quality Improvement process (POCQI).

1.14.2 Clinical mentors

The clinical practice sessions SHOULD be facilitated by a trained clinical mentor who:

- has the competencies listed for a facilitator for essential newborn care;
- works or teaches in a health facility where clinical sessions are held;
- is experienced in the practical care of newborns and their mothers and applies up-to-date guidelines in their clinical practice;
- can choose appropriate mothers and babies for learners to visit and observe;
- ensures that norms and behaviours are respectful and treats all mothers and newborns with respect and dignity;
- continues to support learners;
- is linked to quality improvement teams.

1.14.3 Preparation of facilitators

The preparation of new facilitators takes place over 5 days in the week before the participants' training. This preparation period must **not** be shortened. Facilitators need to be adequately trained and familiar with ALL the materials used in the course, and have acquired the competencies expected. Facilitator's performance will be assessed. Facilitators trained to deliver the first edition of this course or related courses will participate in 2-day facilitation skills update to cover new methodologies and deliver effective simulations and clinical practice sessions.

New facilitators MUST attend ALL sessions in the first and second week in order to qualify as a facilitator. During the preparatory period, trainees work through the course under the supervision of the course director/organizer. They familiarize themselves thoroughly with the materials and practice teaching the sessions using course materials.

1.14.4 Timetables for preparing facilitators

Three options are provided. Two, 2-week timetables for preparing new facilitators, one of which includes an official opening if the ENCC is new to the country or province and a 2-day skills update for existing trained ENC facilitators. *Timetable.*

1.14.5 Build a competent facilitator resource

Provinces, districts or hospitals may decide to train a pool of facilitators where sessions are part of ongoing quality improvement efforts or linked to outreach education or continuing medical education. Trained experienced facilitators can mentor new facilitators.

Ensure that the training register is updated for facilitators who have completed training.

1.15 Pre- and post-test assessments

Inservice and preservice learners will take a knowledge pre-test. This can take place the day before the planned training sessions. See *pretest questions.* This can be carried out using traditional paper and pen or using a form filled out on smart phone.

1.15.1 Pre-test assessment of in-service learners

In-service and pre-service learners will take a knowledge pre-test. This can take place the day before the planned training sessions. See pre-test questions INSERT LINK. This can be carried out using traditional paper and pen or using a form filled out on a smart phone.

1.15.2 Competency assessment of in-service learners

This should ideally take place in the week before planned teaching. Inservice learners will be observed carrying out 3 clinical scenarios.INSERT LINK The number of learners participating in a group will depend on the availability of facilitators. The recommended group size is six, with three pairs rotating during the simulations. Facilitators will use standard observation checklists, which are also used as part of clinical practice.

1.15.3 Learner journeys

The course director, faculty and facilitators will organize the course and the sections within modules based on results of assessments and the pre-test. Develop specific learner journeys (see section 2, Adapt).

1.15.4 Post-test and competency assessments

All learners will participate in a standardized knowledge post-test and skills assessment.

The results of these will be used for planning ongoing practice and also for evaluating the training, the need for skills updates of the facilitators or any change of methodology for specific sections of the course. *Post-test and competency assessments.*

1.16 Course facilities

© WHO/Yoshi Shimizu

The preferable course environment is the health facility which is as close as possible to the real setting in which the learners will work/apply their competencies. This is particularly important for in-service training. For new learners, simulation in labs and training rooms is recommended before practicing with real mothers and babies.

Where on-the-job coaching, mentoring and supportive supervision are the modes chosen for improving the quality of essential newborn care, then sessions MUST take place in the delivery room and

in postnatal, kangaroo mother care and neonatal wards, as appropriate.

If there are once per week/month trainings as part of continuing medical education and delivery rooms are not available, the sessions may take place in a training room or a disused delivery room set up with the appropriate equipment and supplies. The availability of supplies may dictate the number of participants in the sessions. Each group should ideally not be larger than four participants.

1.16.1 Clinical practice facilities

If clinical practice is held separately in a larger health facility, transport will be required for participants, trainers and clinical facilitators. This needs to be planned well in advance and costed in the budget.

A room in the clinical area will be required where the clinical practice takes place. This room can be used for participants, facilitators and clinical mentors to meet before the practice begins, and then for debriefing, discussion reflection and coaching after the clinical practice.

1.16.2 Arranging the clinical practice sessions

This course covers a wide range of clinical situations. Its success depends upon adequate clinical practice opportunities within the health facility and the cooperation of the staff, mothers and babies. The following steps should be taken to ensure that the health facility is suitable.

1. Visit the health facility before the course
Purpose:

- Gain the support and cooperation of the director and staff of the health facility.
- See that the health facility has appropriate amenities to support the training course, including adequate WASH (water, sanitation and hygiene).
- Observe if the health facility practices are consistent with current global guidelines and standards, national policies and the Baby-friendly Hospital Initiative.

2. With the head of the unit and other key actors, observe care using standard assessment tools (9):

- team working, norms and behaviours of interdisciplinary newborn team
- use of guidelines
- infection prevention and standard precautions
- respectful care and communication with the mother and newborn
- normal delivery and early essential newborn care
- care of the non-breathing newborn
- care of the small baby including kangaroo mother care.

3. Discuss with the head of the unit if modifications in the organization of care are possible in preparation for the course and if there is interest in an orientation session before the course.
Sometimes the course is an opportunity to introduce improvements, but at times changes take place only after the course.

1.16.3 Prepare the facility staff

Inform the staff about the course, why it is being held in their health facility and what, if any, their role is to be.

Involve facility staff from the host facility in the course. Involve clinical staff as clinical facilitators.

The local knowledge and expertise of clinical staff is a valuable resource. If practices differ from standards and recommended practices, refresher and coaching sessions may need to be held and will need to be included in the budget.

1.16.4 Special clinical practice arrangements: attending a childbirth

© WHO/ Khasar Sandag

All learners must attend and observe a childbirth. Coordination of this may be challenging, as childbirth cannot always be scheduled in the time allocated to the clinical practice sessions.

Liaise with the in-charge for each shift, and ask to be informed of any imminent deliveries.

Ensure that groups with facilitators attend deliveries in turn throughout the course or during the evening.

1.17 Evaluating and monitoring the course

The course is evaluated by participants using an evaluation questionnaire which can either be completed at the end of each session or module. This formative evaluation is particularly useful if filled in daily because it gives the trainers and clinical facilitators the opportunity to discuss issues raised and make any necessary change. In addition, facilitators can document what worked well and where there were any difficulties. Information from the evaluation should be used for improving the training sessions.

Evaluate the results of assessments and follow-up activities to adapt and update the course for improved results and to improve the skills of facilitators.

1.18 Ensure quality training

Ensure quality and fidelity of training by respecting the ratios of learners to competent facilitators, the ratios of equipment for groups and by carrying out structured simulations and clinical practices with debriefing to ensure that all learners can adequately practice and are supported. Short cuts and time saving usually result in health workers who have difficulty putting into practice the key life-saving interventions and actions that promote healthy growth and development and prevent disabilities.

1.19 Follow-up activities: plans of action

It is important to know if participants have put into practice what they have learned during training and if not, why? This will be much easier if the sessions have been linked to a quality improvement programme and training is at the place of work. For those who have had training away from their workplace, plans of action and planned follow-up activities are essential.

- Participants are encouraged to develop a simple plan of action during the course, making notes after each session.

- The plan of action should outline how they will apply new knowledge and competencies into daily practice and how they will monitor change. Where groups come from the same institution, a team exercise linked to the POCQI to complete the plan is recommended. Single handed midwives or doctors should make a personal plan of action.

Participants should finalize their plans of action and indicate how they will monitor them. Initially, these should be simple, achievable and not reliant on the health system or additional finance to make changes.

Follow-up activities can include:

- feedback on daily ward rounds;
- regular practise with peers to gain competence and confidence. This is recommended;
- scheduled drills and simulations supported by supervisors, coaches or clinical mentors;
- monthly ENCC practical sessions to ensure maintenance of skills;
- webinars and learning platforms for sharing experience, ideas and finding solutions to problems;
- social media groups with participants sharing tips, photos and videos of changes in their practice for improvement in quality of care of newborns and mothers;
- new materials and videos shared via social media, telephone and internet links;
- SMS reminders to practise simulations;
- observational visits to centres of excellence;
- eographical groupings of learners rotating visits to observe and to support each other;
- coordinators/organizers/facilitators contacting ALL participants by email, telephone or video messaging at three, six or 12 months;
- course organizers/trainers/ mentors visiting participants one, three, six or 12 months after the course to observe practices and support participants to overcome any problems (including in the workplan and budgeting);
- monthly health facility meetings to review data monitored by the POCQI, PDSR perinatal death surveillance and response and HMIS using core newborn indicators.

The follow-up activities will vary according to the context, including local and national decisions and planning.

In all cases the follow-up activities should be realistic, practical and possible to achieve. They also need to be costed and included in the budget for the training.

All findings and lessons learned need to be documented, their progress followed and any information appropriately shared and widely disseminated.

Adapt

2.1 Introduction

All ENC materials are generic and should be adapted.

Adaptation is a key part of the implementation process. It involves modifying the materials so they are suited to the country or regional context. This process takes into account local human resources and health system capacity, as well as local values and preferences and where and how the health workers work.

Adaptation should be country-owned, country-led, context-specific and aligned with global and national policies, guidelines and standards for training and service delivery as well as the scope of practice of the specific health worker. It should be led by the course director in collaboration with the key stakeholders interested in strengthening human resources for newborn health and supporting improvement in essential newborn care practices.

DO NOT CHANGE:

- **recommended evidence-based interventions for essential newborn care**
- **content based on internationally ratified Charters Conventions and Articles (14, 15)**
- **clinical practice and simulations sections set in the timetable.**

Review relevant national and subnational data (1) for newborns to identify where and what are the key problems to address and where adaptations are needed.

Frequency of data sources and levels of data use *ANALYSIS AND USE OF HEALTH FACILITY DATA: Guidance for RMNCAH programme managers WHO 2019*

The adaptation process requires collaboration, creativity and decision-making from key stakeholders to provide guidance contributing to a systematic adaptation process. Adaptation also needs to be linked to the job descriptions of end users/providers.

Adaptation needs to engage a diverse team, including the active participation of end users of the materials. Ensure that adaptations are tested on different groups of end users before finalizing (pre-service and in-service) and from different regions, not just from the capital city.

Without adapting the materials to suit the context of implementation, 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. An example of this is the auxiliary midwife trained in a high-level well-equipped referral hospital. None of her training took into account the fact that she delivered mothers at home in the mountains without running water and sanitation. After the training she felt disempowered and unequipped to provide quality care to mothers and newborns at home.

© WHO / Malin Bring

2.2 Adaptations to incorporate into curricula

If you are adapting the course to update national or sub national curricula, use learner competencies to assess performance needs for essential newborn care LINK. Adaptation must also include assessment of training needs of educators and students and address all knowledge and skills gaps for newborn care. Develop a long-term plan for capacity-building of educators as part of support for implementation of the adapted curricula to improve the quality of education for essential newborn care. It is important to decide what to emphasize during the adaptation.

Adaptation should be conducted in such a way that it is seamless to integrate within core curricula components and expected learner competencies. Adaptation should be included as part of national curricula review and approval to ensure that the changes maintain their fidelity with the core components of the curricula. The process should include time and resources for adaptation of materials, including approval, dissemination and building capacity for use of updated adapted curricula. The adapted curricula should include adequate time and resources for teaching core essential newborn care competencies.

2.2.1 Adaptations may require change and skills updates of educators

Adaptations should not be made to make it easier or more convenient to teach the ENC content or continue with old familiar ways because educators lack the appropriate knowledge, skills, competencies or time to teach the new content.

2.2.2 Decide what to include in pre-service education and what to leave for in-service training

Adaptations should consider the feasibility of building competencies and performance within the allocated teaching time.

Adaptations should also consider capacity of schools, such as the availability of equipped skills laboratories and clinical instructors.

Participants should include:

- educators from public- and private-sector schools;
- representatives from regulatory bodies (medical, nursing, midwifery);
- national curriculum development committee;
- content experts;
- representatives of professional associations and councils, paediatric associations, neonatology associations (International Confederation of Midwives, International Council of Nurses, Council of International Neonatal Nurses);
- providers from a diverse range of training sites;
- students, existing pre-service and in-service learners.

2.3 What to adapt

Language

The interim version of the Essential Newborn Care Course, Edition 2, is in English. Modules and slides can be translated. However, it is recommended that countries wait until the second edition is released when feedback from field testing around the world will be integrated. All translations should be back-translated to ensure fidelity. This should be costed and added to the budget.

Requests for permission to reproduce or translate WHO publications should be addressed to WHO Press through the WHO website *https://www.who.int/about/policies/publishing/permissions*

2.3.1 Literacy and education levels

Countries may consider reviewing the language level for some end users.

2.3.2 Adaptation to the local context

Character names can be updated to more suitable local names.

Simulations can be adapted to include local concerns and common harmful practices.

Include mothers who are excluded or marginalized or mothers who receive poor quality of care and poor experience of care or communication, such as mothers with disabilities and adolescent mothers.

Additional role plays, simulations and case studies should be developed to address local issues and to build participants capacity and to promote changes in practice.

Use national and subnational data. *Countdown 2030 Country profiles.*

2.3.3 Photographs

© WHO Malin Bring

Photographs have copyrights and are reused from the first edition of this course, or they come from other WHO courses, the WHO picture library or UNICEF. Effort has been made to cover all continents. Review the WHO and UNICEF photo libraries for local pictures. *https://whophotosearch.who.int/*

If you choose to change photographs, ensure and document consent of the mother in the photograph. Photos should show diversity and be inclusive. For example, do not just show pictures of male doctors or of one social or ethnic group. Include photos of mothers with disabilities. Ensure that photographs are reviewed by content experts to be sure they illustrate the recommended evidence-based practice.

2.3.4 Illustrations

Illustrations in the ENCC are generic. Adaptations may be made to reflect the look and feel of people and places in the local context. Dress, hairstyle and style of home play a role in helping learners feel that the content is relevant to their work and lives.

For adapting breastfeeding cup, feeding home care and counselling refer to the Infant and Young Child Feeding image bank. *IYCF image bank.*

This resource also shows how local photographs can also be converted into illustrations.

Illustrations should be reviewed to ensure that they are aligned with recommended guidelines and that they represent safe newborn care.

2.3.5 Videos

Generic videos used are already available in a large number of languages, with voice-overs or with subtitles. Check links to see if they are available in your

language of choice. See video listing in annexe.

UNICEF and WHO videos are available in the official UN languages (Arabic, Chinese, English, French, Russian and Spanish).

Quality videos showing interventions correctly carried out with respectful care of both mother and newborn are extremely time-consuming to make locally. If the decision is made to make videos, carefully review scripts and ensure that they are aligned with global guidelines and standards. Allow adequate time and budget and have the videos reviewed by national experts to ensure correct practices.

© Global Health Media Project

2.4 Customization for pre-service or in-service

The order of modules and sections can be customized for either pre-service or in-service courses.

2.4.1 Pre-service

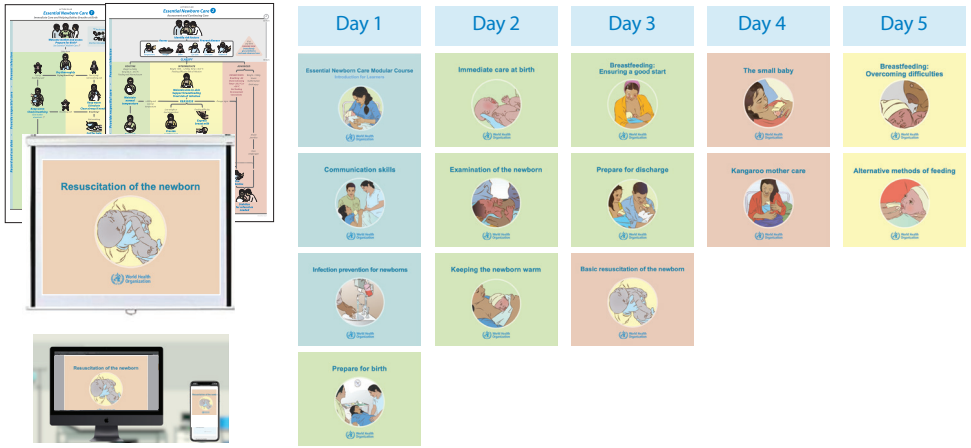
Pre-service learners will need to cover all topics. This can be a modular course or a combined course.

Sections which apply only to preservice learners are included in blue boxes.

Adjust the agenda according to whether you will run modules as a block or over an extended period. *Course overview*

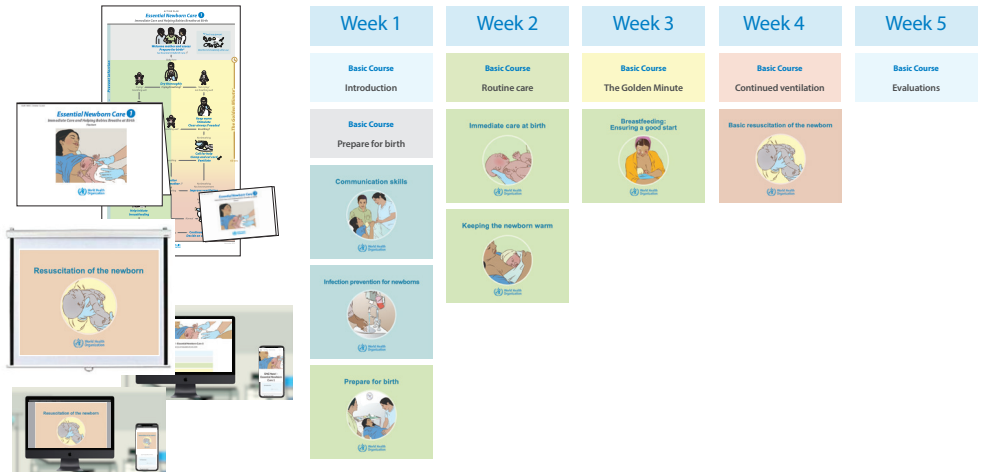
B Modular course – Pre-service

- Time needed for module will depend on learners´ capacity
- Adjust *time table* accordingly
- Deliver as a block or over a longer time period



C Combined course – Pre-service

- Design agenda and content based on pre-test
- Example: combination of ENC basic course part 1 and relevant modules



2.4.2 In-service

Choose sessions based on the specific competencies you need to build and according to your specific context. Review learner competencies.

Learner's competencies

Example

WHO ENCC module	Goal	WHO QoC standards/statements	Learning outcomes	Knowledge	Skills	Performance (attitudes, behaviours, norms)
3 Infection prevention	Every newborn receives care that integrates evidence-based infection prevention and control.	All staff working in neonatal units of a health facility have the necessary knowledge, skills and attitudes to provide infection prevention and control. All newborns receive care with standard precautions to prevent health care-associated infections, including implementing additional measures required during outbreaks and pandemic situations. All newborns at risk for tuberculosis and/or HIV infection are correctly assessed, investigated and managed appropriately according to WHO guidelines. All newborns at risk of congenital syphilis are assessed, investigated and managed according to WHO guidelines	1. Perform correct hand hygiene and respiratory etiquette. 2. Correctly use personal protective equipment (PPE). 3. Clean/disinfect equipment and the environment. 4. Dispose of waste safely.	1. Moments to perform hand hygiene 2. Respiratory etiquette 3. PPE based on risk of transmission of infection (HIV, hepB, Ebola and respiratory pathogens such as SARS-COV 2) 4. WHO guidance for correct use of gloves, environmental cleaning protocols, cleaning and disinfection protocols for childbirth and resuscitation equipment 5. Safe labelling and disposal of waste 6. Additional measures to be taken during outbreaks or pandemic situation	1. Correct hand washing with soap and water or alcohol gel 2. Correct use of gloves (sterile and non-sterile) 3. Put on and take off PPE safely, avoiding contamination 4. Selection of correct waste bags and bins for waste	1. Applies hand hygiene applied in all simulation and clinical situations 2. Organizes care to prevent health care-associated infection 3. Disposes of or reprocesses equipment correctly 4. Bags, labels and disposes of contaminated waste correctly 5. Observes and documents environmental cleanliness and organization to prevent infection

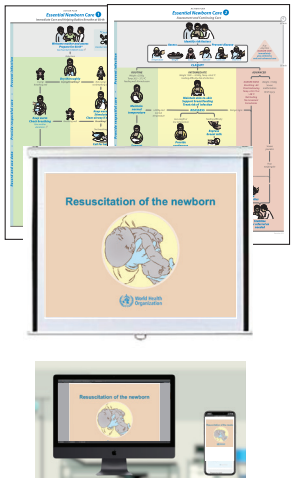
2.5 Adapt agenda

Decide on the agenda, adapting it for learners and context. Here are a number of examples.

See the ENCC overview for other examples.

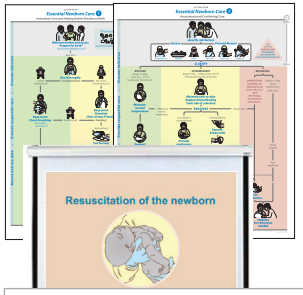
(B) Modular course – Interprofessional midwifery team

- Build on WHO Essential Childbirth Care course (Interprofessional Midwifery Education Toolkit)
- Assess and identify learners´ needs and decide on optional sessions
- Continuous building of practical skills and competencies
- Prioritize simulations and clinical practice sessions
- Mentored and peer-to-peer clinical practice with mothers and newborns



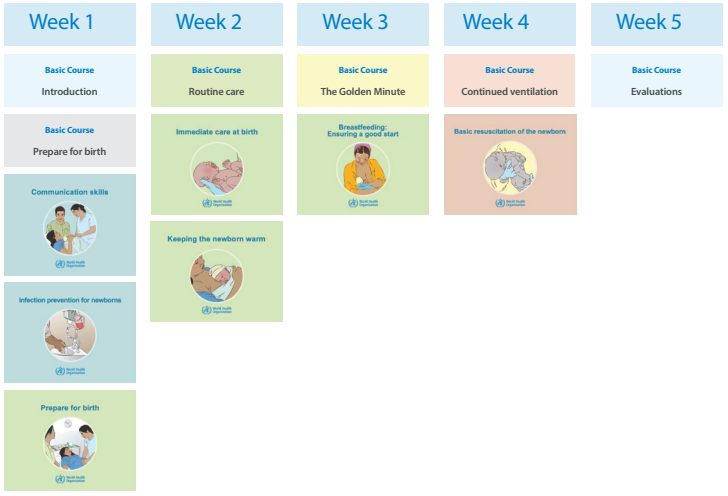
(B) Modular course – Interdisciplinary newborn team

- Quality improvement team identifies competency gaps
- Assess learner performance needs and decide on optional sessions
- Prioritize modules to ensure competent, motivated, empathic health providers
- Prioritize simulations and clinical practice sessions
- Integrate into Continued Medical Education (CME) or skills and drills according to context



(C) Combined course – In-service

- Design agenda and content based on pre-test and assessment
- Example: combination of ENC basic course part 1 and relevant modules



2.6 Adapting training for specific contexts

Leave No One Behind

Use data to identify which mothers and newborns are left behind (marginalised or excluded). Ensure that health workers caring for vulnerable/excluded mothers and newborns are included in the training plan so these mothers and newborns, too, will have access to safe quality mother- and newborn-centred care. Endeavour to reach first the furthest behind, including mothers and newborns with disabilities, from indigenous peoples, refugees, adolescent mothers, internally displaced persons and migrants.

Adapt the agenda and training to ensure that no newborns are left behind.

Ensure that learners consider access, quality of care and the experience of care for mothers with disabilities.

2.6.1 Humanitarian context

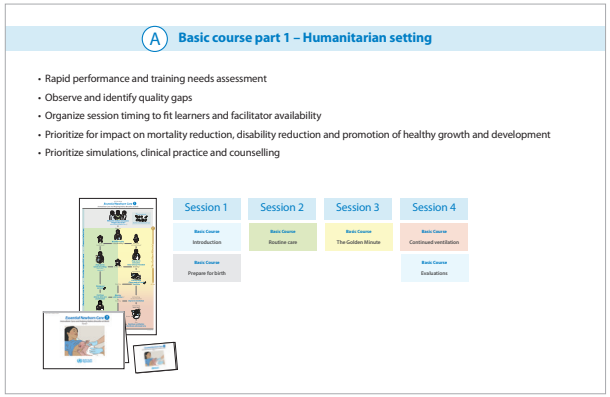
Run sessions in or replicate the environment or situation in which the health workers are currently working.

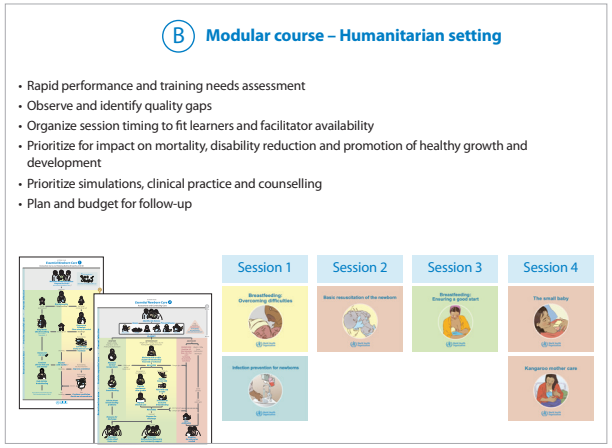
Run a rapid performance and training needs assessment based on learner competencies. This can be a discussion and rapid assessment by observation of practices. Include gaps expressed by health workers or their supervisors for essential newborn care and what practices they are least confident in carrying out. Ensure cross-cutting topics are covered including infection prevention, effective communication and respectful care of both mother and newborn.

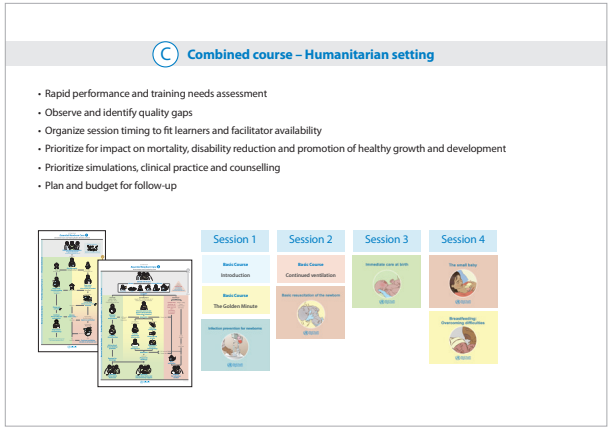
Run 2-day skills updates for facilitators, as they may be trained only in caring for adults.

Adapt the agenda to the time available from health workers and facilitators, ensuring no disruption of vital services. Run groups of learners as cohorts ensuring continuity of care for mother and babies.

Prioritize lifesaving interventions (for example, basic resuscitation) and those with the greatest impact such as immediate prolonged skin-to-skin contact (for all newborns), kangaroo mother care for small newborns and early initiation and maintenance of breastfeeding.







Plan and budget for follow-up to build and maintain skills.

If it is an acute situation and there are no delivery beds, then teach using clean delivery kits and mannequins. Support health workers to deliver newborn care safely, with dignity and respect, using the means available. Facilitators should demonstrate and run simulations using the clean plastic sheet in the clean delivery kit on the floor. If the newborn is not breathing, then the newborn will need ventilating on the sheet on the floor, paying careful attention to infection prevention and warmth. The facilitator/health worker will need to kneel at the head of the newborn to effectively ventilate.

Adapt simulations and develop additional simulations reflecting the current situation and needs of learners to save lives, prevent disabilities and promote healthy growth and development.

2.6.2 Hard-to-reach areas

In many hard-to-reach areas mothers are delivered by a trained midwife or health worker at home.

Replicate the situation at home for simulations, reinforcing infection prevention, respectful care and counselling for home care and postnatal care visits and follow-up.

Adapt simulations and role plays. Develop additional simulations reflecting common situations or difficulties and any local harmful practices.

2.6.3 Newborns abandoned in health facilities

For abandoned newborns or orphans ensure that health workers and allied workers understand the importance of responsive nurturing care and can recognize behavioural cues including discomfort, pain and feeding cues. Some of these infants may have congenital anomalies or be receiving terminal care. These babies have the right to care with respect and dignity.

Run simulations practicing nurturing care for newborns, such as responsive feeding, play and serve and return activities, massage and other recommended practices. Include videos on nurturing care and breast milk feeding of newborns with feeding difficulties. Organize clinical practice sessions in centres offering responsive nurturing care for newborns so that learners can observe good practices and then apply them in their own working environment. Link with local and national experts in this field.

Serve and return works like a game of tennis or volleyball between the child and caregiver. The child "serves" by reaching out for interaction with eye contact, facial expressions, gestures, babbling or touch. A responsive caregiver will "return the serve" by speaking back, mimicking sounds or expressions, playing peekaboo, etc.

© WHO Bangladesh/Tatiana Almeida

Facilitate

3.1 Introduction

This section is for facilitators. Review it in preparation for learning to facilitate the course. You will not be able to facilitate the course effectively if you have not gone through this introductory content.

Although this course is for essential newborn care, it is important not to lose sight of the fact that mothers and newborns are a unit. Poor quality of care of the mother may lead to complications in both the mother and the newborn. Pre-existing conditions of the mother may also lead to complications in the newborn.

3.1.1 What is new in the second edition of the ENCC?

The updated course offers a more flexible approach towards meeting learners needs. The modular ENCC integrates WHO guidance which has changed since 2010, and it reflects feedback from in-country users since the first edition. Infection prevention and control, use of personal protective equipment and guidance for water sanitation and hygiene have been updated and take into consideration the COVID-19 pandemic. Nurturing care has been introduced as a concept. WHO standards for newborn care have been mainstreamed into each module. The concept of quality improvement has been introduced into each module, using the point of care quality improvement tools from the WHO Regional Office for South-East Asia. Respectful care of the mother–newborn dyad has been integrated into all relevant modules.

Other newborn training courses have also been integrated into the ENCC in an effort to streamline and standardize content and reduce confusion at country level. These include Helping Babies Breathe (HBB) and Helping Babies Survive (HBS), which have been updated using WHO guidelines working in collaboration with the American Academy of Pediatrics and other partners. The Action Plans used in the HBB and HBS courses have been integrated into the modules and are now offered as the basic course, parts 1 and 2, as a short course or as part of a combined course (see course overview).

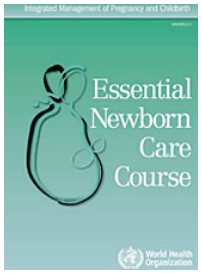
The user-friendly graphics and format have been developed by Laerdal Global Health, making the materials more uniform and harmonious.

Sessions from existing WHO training courses such as the WHO Regional Office for the Western Pacific (WPRO) Early Essential Newborn Care (First Embrace) and the WHO 2020 Baby Friendly Hospital Initiative training course for health workers 2020 have also been included to strengthen the existing content. The content of the modules was reviewed in May 2021, with input from national facilitators from four countries (Kenya, Nigeria, Namibia and Lesotho) and global experts. This interim version is based on feedback from this review.

WHO guidelines are regularly updated as evidence is reviewed. Faculty and facilitators should ensure that they are always using the most up-to-date guidance, thus ensuring evidence-based essential newborn care that is:

- **Safe** – delivering health care which minimizes risks and harm to service users, including avoiding preventable injuries and reducing medical errors.
- **Effective** – providing services based on scientific knowledge and evidence-based guidelines.
- **Timely** – reducing delays in providing/receiving health care.
- **Efficient** – delivering health care in a manner which maximizes resource use and avoids wastage.
- **Equitable** – delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, disability or socioeconomic status.
- **People-centred** – providing care which takes into account the preferences and aspirations of individual service users and the cultures of their communities.

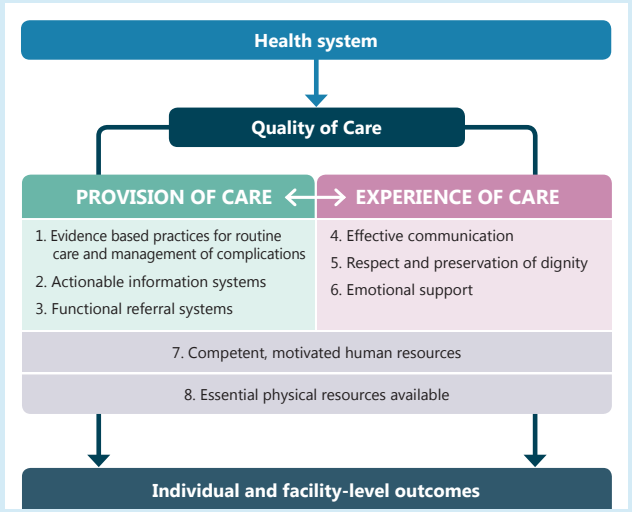
Previous version



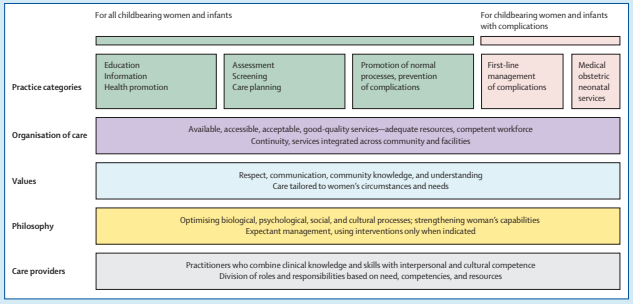
New

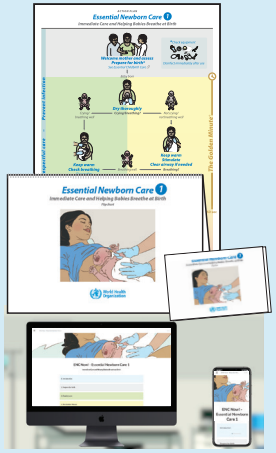
- WHO standards for maternal and newborn care and care for sick and small newborns
- COVID-19, infection prevention and control and WASH in health facilities
- Baby-Friendly Hospital Initiative, Competency toolkit 2020
- Nurturing care
- Birth defect surveillance
- Point of Care Quality Improvement linking each module with PDSA cycle

What is new?



Framework for quality maternal and newborn care

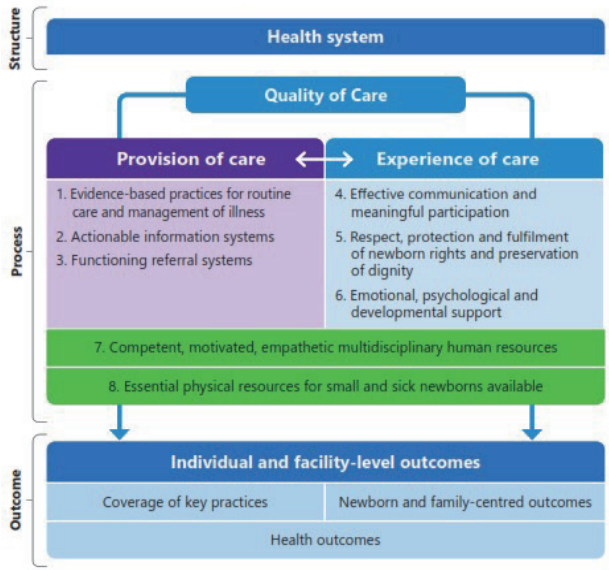




This course will be regularly updated based on inputs from users and new guidelines.

The updated course places emphasis on the competencies of learners. Competencies for activities in each module have been defined for knowledge, skills and performance. These include decision-making competencies, task competencies and transfer of knowledge when working with mothers and newborns.

All competencies are aligned with the WHO Quality of Care Framework (diagram). Newborn standards are integrated into each module and cover provision of care, experience of care and health system requirements.



Quality of care for maternal and newborn health, a monitoring framework

Throughout the modules, knowledge, skills and performance are built upon in a stepwise manner and assessed.

The materials have a number of structured simulations to build and objectively measure knowledge, skills, attitudes and behaviours of learners. The structured debriefing for each simulation serves to enable participants to learn by reflecting on their actions and to transfer learning to their practice. Learners are encouraged to reflect on outdated or harmful practices. Effective communication, respectful care and infection prevention practices are cross-cutting issues, applying to all modules, simulations and mentored clinical practices.

Assessment of learners is also more developed than in the first edition and is aligned with WHO Academy Learning Design Standards, 2021. These assessments include questions mapped against expected competencies. Assessments play a critical role for structuring the content of each module.

It is critical that learners can perform ALL skills individually and combined, when working with newborns, including respectful care for every newborn, respecting their rights to quality care and dignity.

Ensure that learners consider access, quality and the experience of care for mothers with disabilities during discussions.

The missing billion : Access to health services for 1 Billion people with disabilities 2019

3.2 Who is the ENCC for?

The ENCC is for health workers and students in health disciplines that care for mothers and newborns during childbirth and the first month of life. Learners include those responsible for attending births, those who assist and those who are called to manage complications. The course is for health workers everywhere including in fragile and humanitarian settings.

Meeting learner's needs and addressing the newborns right to quality essential newborn care

Facilitators should have mastered all content before facilitating learners.

The course is the foundation that should be mastered and applied before training in Essential Care for Small and Sick Newborns (WHO, 2021).

3.3 Learner levels

There are two levels of learners:

- Foundation level: Pre-service students in all related disciplines and trained health workers who have no experience in newborn care.
- Intermediate level: In-service health workers of maternal and neonatal services updating or addressing gaps in their knowledge, skills and competencies for quality service delivery and ensuring that newborns are cared for with respect and dignity.

In the ENCC, the sections in the facilitator notes are marked for the level of learner, either pre-service or in-service.

The course can be readily integrated into the curriculum of colleges of nursing, midwifery, medicine and other cadres who care for newborns, such as auxiliary midwives and clinical assistants.

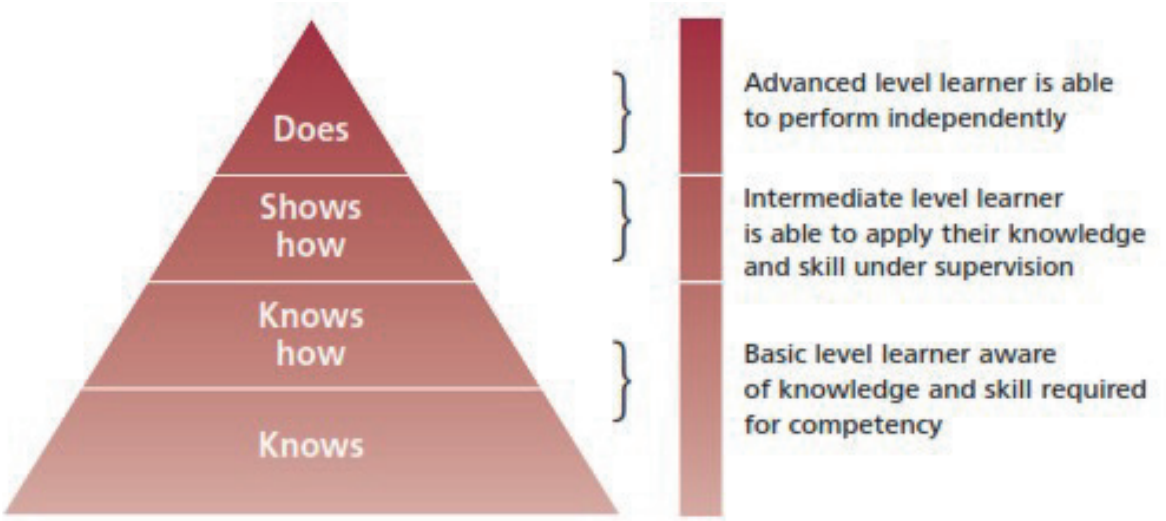
Those who supervise the care of newborns, for example, medical officers, paediatricians, obstetricians and neonatologists, should also have good practical knowledge of the content of the ENCC. They should have mastered all of the knowledge, skills and competencies so that they can effectively collaborate, supervise and improve the quality of care of newborns as part of their routine daily work and facilitate essential newborn care mentoring.

Modules or sections of modules can be used as part of in-service education such as on-the-job training, continuing medical education, mentoring and supportive supervision, skills and drills. A digital version of this course is integrated into the WHO Midwifery Matters Toolkit and will be accredited as part of continuing professional development and continuing medical education for midwives.

Pre-service learners will need more support for knowledge transfer, followed by structured simulations that build their skills and confidence with ongoing adequate practice, prior to moving on to real mothers and babies. Good practices need to be instilled and modelled from the beginning, ensuring that quality delivery of care and experience of care are inclusive.

In-service learners can practice with simulations, case studies and clinical practices with increased complexity, always ensuring respectful care and infection prevention practices.

The modules have moved from a mostly knowledge-based course (edition 1) to a competency-based course . With learners moving progressively from knowledge through decision making competence and task competence to consistently applying knowledge and skills whenever needed.



Millers Pyramid Source: Miller GE, 1990 (12).

3.4 Facilitating the ENCC

To effectively support learners, facilitators need to develop specific competencies. These competencies are based on the WHO 2016 Nurse Educator Core Competencies.

Facilitators will be supported by the course director to work on these competencies when trying out sessions with each other and will continue to develop facilitator skills when working with peers, especially from those experienced in adult learning methodologies.

Facilitators also need to know and understand learner competencies for this course.
https://cdn-auth-cms.who.int/media/docs/default-source/mca-documents/nbh/enc-course/competencies-(facilitators-and-learners).xlsx

3.5 Facilitator role

A facilitator supports learners to gain the competencies and confidence for essential newborn care and apply them whenever working with mothers and newborns.

The facilitator supports learners, either individually or in small peer groups. This can be face to face or when using online platforms.

Facilitators are not lecturers, as in a traditional classroom. Facilitators need to have mastered all competencies covered in the ENCC, to be very familiar with the material being taught and, in addition, be able to organize appropriate learning sessions and assessments.

3.5.1 Facilitator competencies

Competencies for facilitators to effectively deliver the ENCC are based on *WHO Nurse educator core competencies* and *WHO Midwifery educator core competencies.*

These competencies include:

- mastering all content of the ENCC;
- applying adult facilitation and learning methodologies to promote active learning;
- adapting and tailoring facilitation according to learners' needs, based on standardized assessments;
- promoting skills practice for clinical scenarios and simulations using correct techniques, facilitating self-reflection and peer feedback;
- supporting learners to apply evaluation, decision-making, action cycles;
- using clinical practice effectively;
- understanding and applying the POCQI.

Facilitators may need to relearn or unlearn some practices, ways of thinking and behaviours. New facilitators should be supported to develop the necessary competencies and mentored by a more experienced peer.

Facilitators need to give enough attention to each learner and give additional support to those learners who have less experience.

To gain skills, competence and confidence, both you as facilitators and learners need to have adequate practice using mannequins before moving on to real mothers and babies. Follow guidance in each module on facilitator-to-learner ratios, essential equipment and group sizes for simulations and clinical practice sessions to ensure a quality training and learning experience.

Facilitation is not just about teaching knowledge or skills. It is critical that you model good behaviours and practise at all times. This is especially important for respectful maternal and newborn care including kindness, compassion and gentle handling.

An effective training will place great emphasis on practical sessions and use adult learning methodologies.

Imagine yourself as a learner and make your sessions enjoyable.

Regardless of your experience as a facilitator, it is important that you are thoroughly familiar with the contents of the sessions and follow the logical order planned by your team when designing a training for your learners. Always adapt to your learners' needs and manage time effectively.

3.5.2 Clinical facilitators and mentors

The clinical practice sessions need to be facilitated by a trained clinical mentor who:

- has the competencies listed for a facilitator for essential newborn care;
- works or teaches in a health facility where clinical sessions are held;
- is experienced in the practical care of newborns and their mothers and applies up-to-date guidelines in their clinical practice;
- can choose appropriate mothers and babies for learners to visit and observe;
- ensures that norms and behaviours are respectful and treats all mothers and newborns with respect and dignity;
- continues to support learners after training;
- is linked to quality improvement teams.

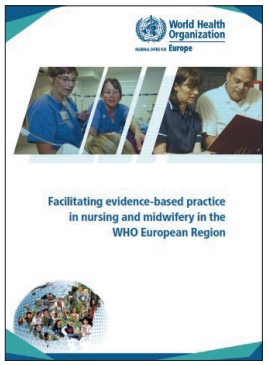
3.5.3 Facilitation of online self-paced learning

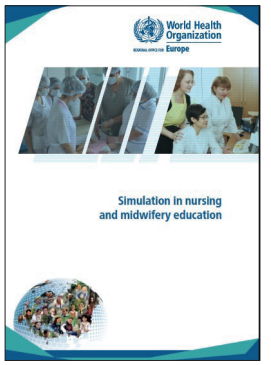
If learning tasks are assigned to self-paced learning as part of a blended online/face-to-face course, adequate time should be allotted to give feedback to learners. Set up an online forum or chat for discussion and feedback.

Competencies needed by a facilitator for online learning in a digital environment are different from those needed from teaching in the presence of learners. **Competencies needed include:**

- Knowledge: Knowledge of the subject area, adult learning principles, importance of learner presence, teaching presence and social presence in the online environment.
- Decision-making competence: Decide when/how to intervene when a learner does not participate or do well. Decide how to provide support to learners who don't progress as expected.
- Task competence: Use effective strategies to deliver the training, communicate effectively, engage learners and keep them focused.
- Use strategies to engage and involve learners who display resistance or a lack of involvement.
- Use group facilitation strategies that promote a learner-centred environment.

3.5.2 Key facilitation references



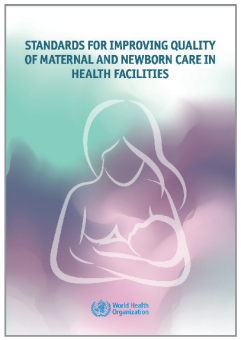


Use key references to update your knowledge for quality facilitation.

Assessment strategies training competency-based education for health professionals focused on maternal and perinatal health – 2021. WHO PAHO.

3.6 Competency-based essential newborn care training

The goal of competency-based training is to prepare learners to provide safe, quality and respectful care. The WHO standards describe the expected performance. Refer to these standards when preparing for your facilitation sessions. Most countries will have adapted these standards for newborns and for the mother–baby dyad or have other documents that outline expected performance. Activities should emphasize and target identified gaps or problems in worker or student performance based on these standards.



3.6.1 Supporting learners to become competent

Can you teach someone to swim by showing them power-point slides or a video? Or to drive a car by reading a manual? Essential newborn care is no different. Providing essential newborn care and more advanced newborn care require **competencies**. These competencies include a combination of psychomotor (eye and hand skills), clinical decision-making and communication skills, as well as the knowledge and attitudes required to perform those skills. Learners need to gain knowledge and skills and consistently perform tasks.

Knowledge is the foundation for any type of skill required for a desired competency.

Health workers also need appropriate **attitudes** to ensure quality services and professional behaviour when providing respectful care to all mothers and newborns. Health workers need to transition from considering only service provision to respectful interactions with every newborn and mother.

3.6.2 Process of developing a competency

The process of developing a competency involves confirmation of knowledge and skills (demonstration and practice). This can be achieved by coaching with constructive feedback and reflection, ensuring positive behaviour and attitude modeling and assessment of learner competency.

A good facilitator continually assesses: at the beginning to revise the approach or the time needed throughout to ensure that learning goals are being met, and then at the end, to assess competency gained.

3.6.3 Create a positive learning environment

Create an atmosphere where learners feel able and capable, where they learn not only what is required but they can master new skills and use them in their work. Support this by giving positive feedback.

Use the following tips to create a positive learning environment:

- Make the environment as free from distraction as possible to promote learning.
- Address any distractions that may interfere with learning, for example, smart phone use. Manage difficult learners, ensuring that you, or the learning, are not interrupted and learners not distracted.
- Ensure timely breaks and consider using warm-ups, energizers and games.
- Model engagement in the process. If the facilitator is distracted, constantly uses their phone or computer or goes out during learning activities, learners are unlikely to be motivated to participate.

3.6.4 The basics

The following facilitator actions are important for a positive learning environment:

- Always be clear.
- Build logically and slowly from simple to complex (depending on learner level).
- Always provide positive feedback.
- Always treat learners as individuals.
- Create an atmosphere of openness.
- Encourage discussion.
- Ask for feedback and always respond.

Keep the training fun and enjoyable

Use warm-ups and ice-breakers to maintain energy levels. Games can be used to introduce or summarize a concept or to check memory and recall. Use strategies that work in your context and that your learners enjoy.

Apply adult learning methodologies

The ENCC is based on adult learning principles. Learning is more effective when learners are ready to learn, when learning builds on experience and when learners are involved in assessing their progress and identifying interventions. Practice is essential and the focus is on mastery of the desired competencies. Learners should be able to master all of the desired competencies if they have adequate practice, feedback and support from facilitators and peers.

In addition, expect, promote, support and encourage learners' accountability for their own learning and give timely, specific feedback on progress. Individualize learning experiences according to the needs of the learner.

Apply adult learning methods

Address the learner's need to know.
Recognize and build on the learner's experience.
Engage the learner in directing the process.
Support the autonomy of the learner.
Encourage life-long learning.
Demonstrate relevance/usefulness to real life.
Use preferred learning styles.
Understand personal motivation to learn.

Introduce each module and activity

Every learning activity has an objective. Introduce the session ensuring that you gain the attention of the learners and set expectations. The purpose of the introduction is to make sure that learners know the learning objectives and prepare them to get maximum benefit. ALL learning activities should be introduced in order to put them in the context of the overall goals and objectives of the course.

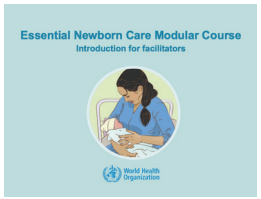
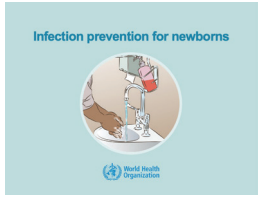
3.7 Materials

3.7.1 Modules

There are 14 colour-coded modules.

- Blue modules are cross-cutting, foundational modules. Learnings from these modules should be applied across all modules and whenever caring for the mother baby dyad (infection prevention and control, communication and respectful care).
- Green is care for every newborn.
- Yellow represents additional support required.
- Red is more advanced care such as basic resuscitation or care for the small baby.

The sessions progress from the normal situation, which covers 85% of births, to those needing additional interventions or care. The numbering of the modules reflects this. For the pre-service learner, the preferred order is 1–14. For other learners the order should reflect their needs and how critical the module is for saving lives and preventing disabilities. For example, if learners cannot perform or are not confident in performing basic resuscitation, ensure that it is covered early. The same would apply for care of the small newborn, as these newborns have a high risk of dying, disability and not reaching their full developmental potential. The faculty may wish to change the order, for example, grouping the breastfeeding modules together.

Cross-cutting themes	Routine care		Additional care/intermediate care	
				
				
				

3.7.2 Job aids

Job aids include posters, handouts, action plans, algorithms and the PCPNC guide for decision-making and management charts.

3.7.3 Posters

The ENCC integrates the WHO Quality of Care Framework and newborn standards, which are based on the universal rights of the newborn. Apply the principles of universal rights of newborns and mothers whenever caring for the mother–baby dyad. Always model this for your students and peers.

Place the The Universal Rights of Women and Newborns poster in the learning environment and newborn points of care to remind learners. Ensure that you review the content and the implications for your own practice and facilitating.

There are a number of other useful posters in facilitators resource materials.

3.7.4 Action plans

The Action Plans give an overview of the essential steps to carry out during essential newborn care. The Action Plans are easy-to-use guides for clinical care in the workplace. They use pictures and only a few words to guide health workers and students through evaluation, decision-making and action steps. They give a clear, simple summary of the actions needed and their timing. The Action Plans in the form of posters can be used for teaching in delivery room and on the postnatal ward.

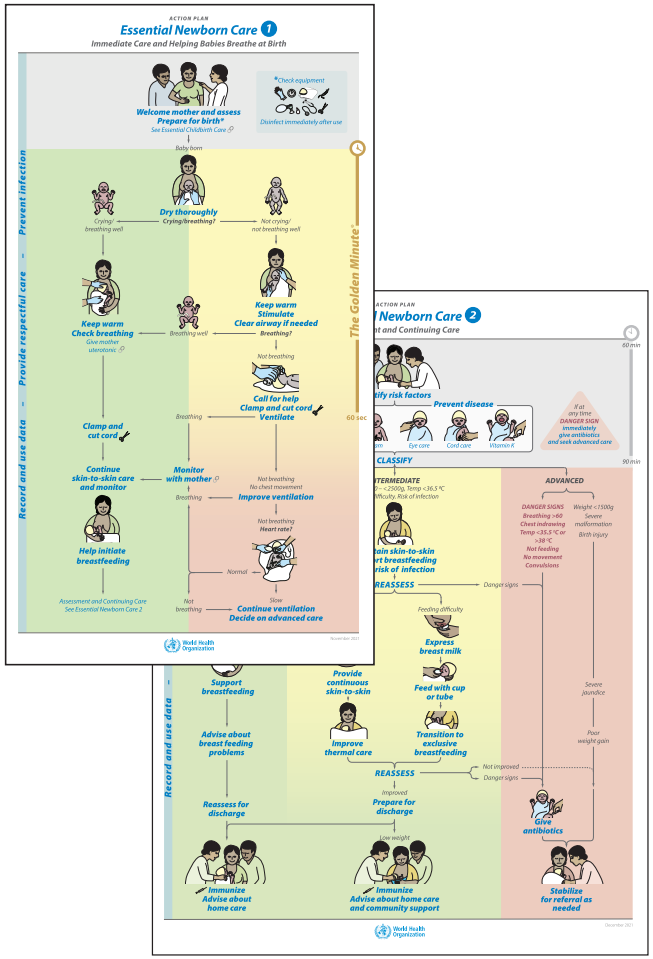
The Action Plans have been updated and aligned with the 2021 WHO guidelines as part of the process of updating and harmonizing the ENCC. This was carried out in collaboration and partnership between the American Academy of Pediatrics, Laerdal Global Health, WHO, UNICEF and other partners.

Ensure that the Action Plans used for teaching and the flipcharts are the latest WHO updated and aligned versions.

Action Plans should be used by learners to guide their steps in evaluation, decision-making and management of newborns and mothers.

Use the Action Plans when facilitating when:

- checking answers for quizzes and case studies (emphasize steps decision making and timing of actions);
- explaining or demonstrating key actions;
- debriefing after simulations and clinical practice.



Action Plan 1 - Immediate care and helping babies breathe at birth covers preparation for birth, the actions for routine care in the first hour after birth, and actions to help a baby who is not breathing.

The evaluation-decision-action cycles that repeat throughout the care of a newborn baby form a framework for using knowledge and skills. These cycles are presented in symbols and words:

Evaluation

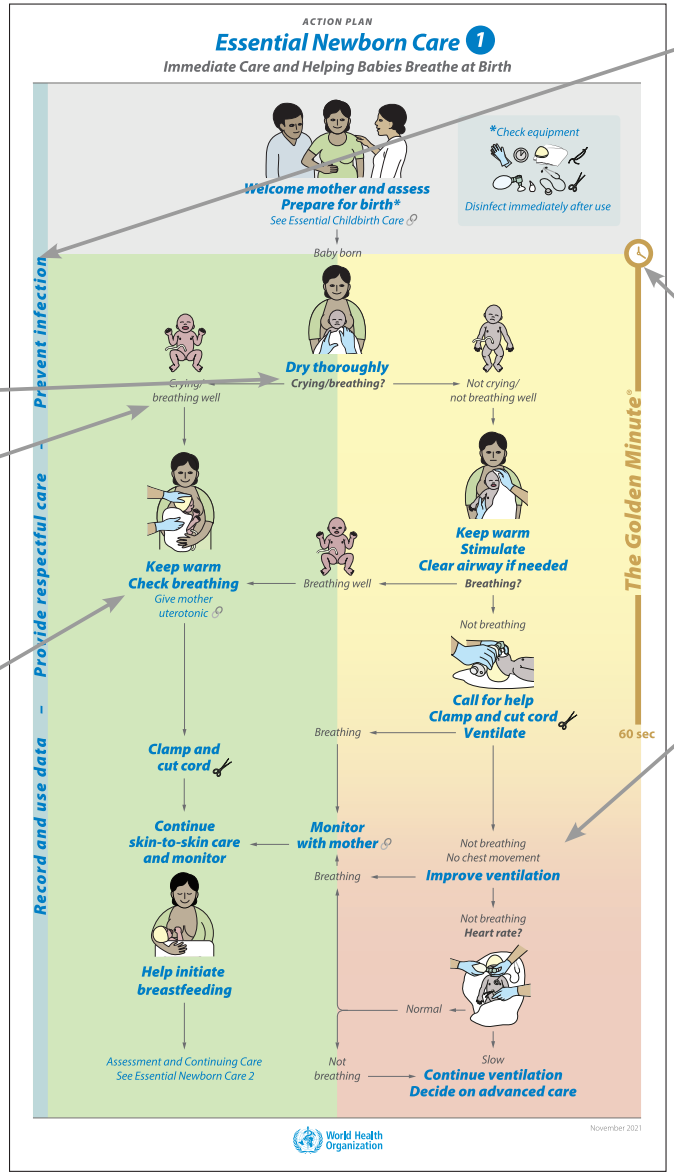
- ***Crying/breathing well?***
- ***Breathing?***
- ***Heart rate?***

Decision

- *Crying/breathing well*
- *Not crying/not breathing well*
- *Breathing well, not breathing, breathing*
- *Normal, slow (heart rate)*

Action

- ***Dry thoroughly***
- ***Keep warm, check breathing***
- ***Cut cord***
- ***Monitor with mother***
- ***Clear the airway and stimulate***
- ***Cut cord***
- ***Ventilate***
- ***Call for help***
- ***Improve ventilation***
- ***Continue ventilation, advanced care***



Three cross-cutting themes inform all the action steps:

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

The Golden Minute
adds time to ENC Action Plan 1 to emphasize that the baby's breathing is the priority in the minute after birth.

Three color zones signify the level of help a baby needs:

- Green – routine care
- Yellow – intermediate care
- Red – advanced care

Action Plan 2 - Assessment and continuing care covers care during the facility stay after birth and preparation for transition to care at home and in the community.

The evaluation-decision-action cycles that repeat throughout the care of a newborn baby are presented in symbols and words:

Evaluation

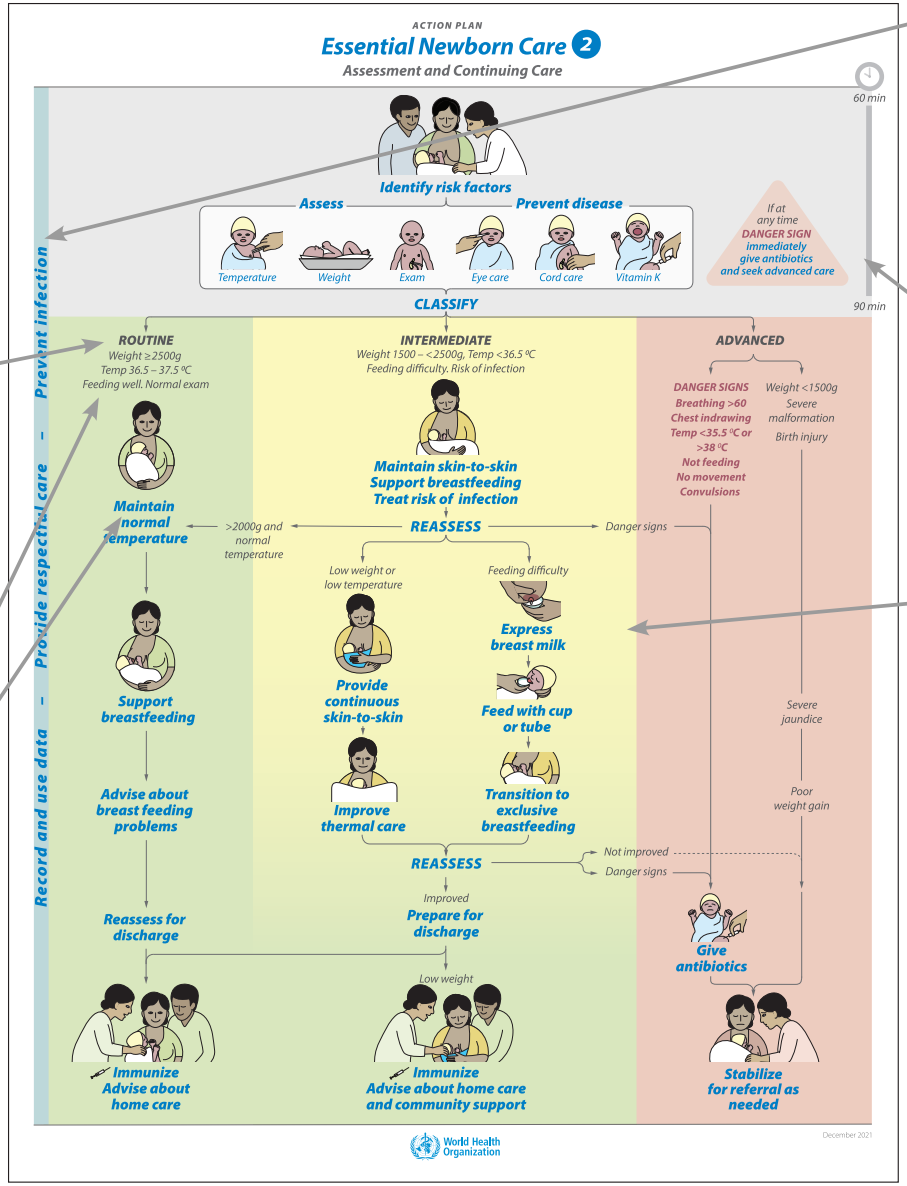
- ***Routine***
- ***Intermediate***
- ***Advanced***

Decision

- *Weight ≥ 2500 grams and normal temperature*
- *Weight 1500 – <2500 grams, Temp <36,5^0 C, Feeding difficulty, Risk of infections*
- Danger signs or Not improved

Action

- ***Identify risk factors***
- ***Assess and prevent disease***
- ***Maintain normal temperature***
- ***Advise about breastfeeding problems***
- ***Reassess for discharge***
- ***Immunize, Give guidance for home care***



Three cross-cutting themes inform all the action steps:

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

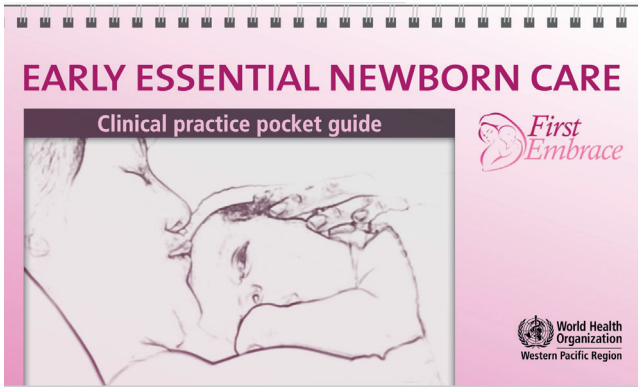
The gray zone
calls attention to the assessment and classification that occurs after the first hour of undisturbed skin-to-skin contact but before 90 minutes.

Three color zones signify the level of help a baby needs:

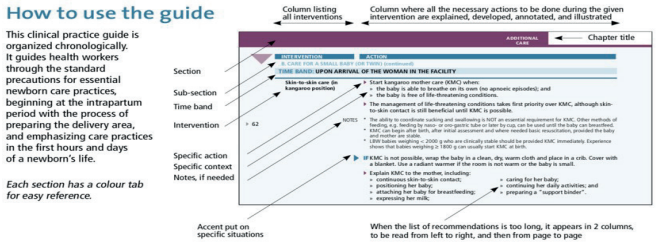
- Green – routine care
- Yellow – intermediate care
- Red – advanced care

Algorithms

Many countries have adopted the WHO WPRO Early Essential Newborn Care training (First Embrace) and the EENC Clinical Practice Pocket Guide. There are algorithms and flow charts included in the Pocket Guide. Continue to use the algorithms to ensure quality essential newborn care. These algorithms are more detailed than the Action Plans and give clear instructions for each step in the management of a newborn. Decision points and timing are also clearly marked. They are continuously updated by a WHO Global Technical Advisory Group to ensure that the latest evidence is included.

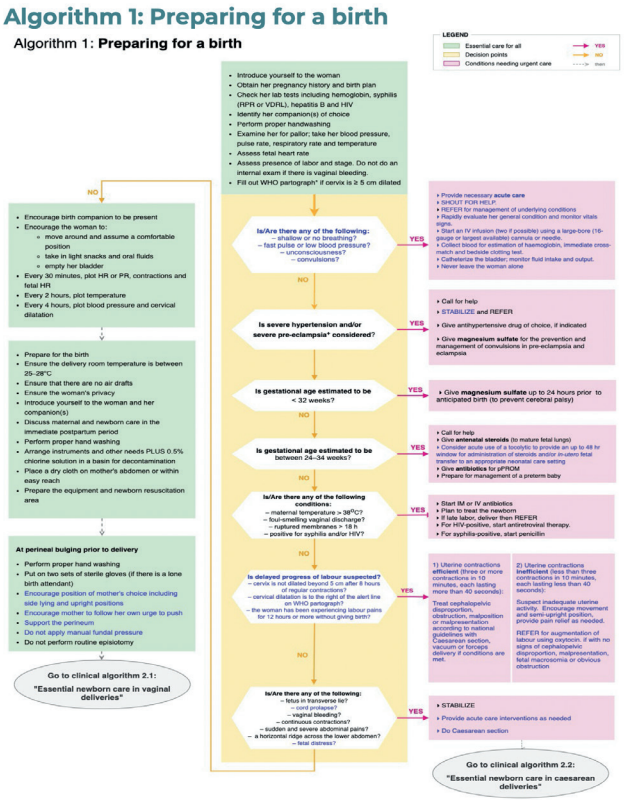


EENC Clinical Practice Pocket Guide



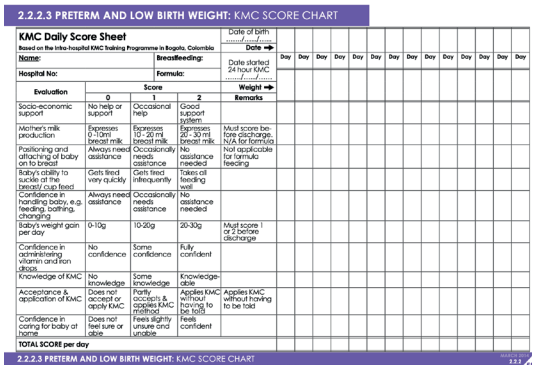
Use the algorithms and flow charts in the following ways:

- as job aids by health workers to give safe quality care;
- whenever you are demonstrating;
- when you ask learners to check answers to questions and case studies and when discussing decision-making;
- for debriefing after simulations and clinical practice sessions to check for gaps and incorrect sequencing or timing.



Checklists

Your MoH may have adopted, developed and validated other checklists such as WHO Safe Birth Checklist, Kangaroo Mother Care checklists, breastfeeding observation checklists and algorithms from WHO. Ensure that you use these consistently and that learners are able to apply them whenever practicing with peers and when caring for the mother–baby dyad.



2.2.2.3 PRETERM AND LOW BIRTH WEIGHT: KMC SCORE CHART

KMC Daily Score Sheet

Based on the Intra-hospital KMC Training Programme in Bogota, Colombia

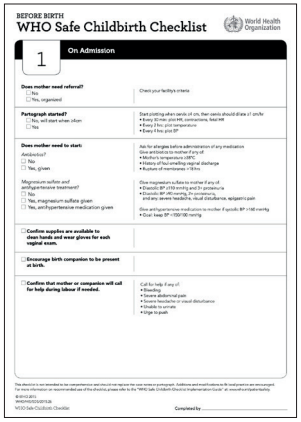
Name: Breastfeeding: Date started 24 hour KMC

Hospital No: Formula:

Date of birth ____/____/____ Date → Weight →

Evaluation	Score 0	Score 1	Score 2	Remarks	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day
Socio-economic support	No help or support	Occasional help	Good support system															
Mother's milk production	Expresses 0-10ml breast milk	Expresses 10 -20 ml breast milk	Expresses 20 - 30 ml breast milk	Must score before discharge. N/A for formula														
Positioning and attaching of baby on to breast	Always need assistance	Occasionally needs assistance	No assistance needed	Not applicable for formula feeding														
Baby's ability to suckle at the breast/ cup feed	Gets tired very quickly	Gets tired infrequently	Takes all feeding well															
Confidence in handling baby, e.g. feeding, bathing, changing	Always need assistance	Occasionally needs assistance	No assistance needed															
Baby's weight gain per day	0-10g	10-20g	20-30g	Must score 1 or 2 before discharge														
Confidence in administering vitamin and iron drops	No confidence	Some confidence	Fully confident															
Knowledge of KMC	No knowledge	Some knowledge	Knowledge-able															
Acceptance & application of KMC	Does not accept or apply KMC	Partly accepts & applies KMC method	Applies KMC without having to be told	Applies KMC without having to be told														
Confidence in caring for baby at home	Does not feel sure or able	Feels slightly unsure and unable	Feels confident															
TOTAL SCORE per day																		

2.2.2.3 PRETERM AND LOW BIRTH WEIGHT: KMC SCORE CHART



BEFORE BIRTH

WHO Safe Childbirth Checklist

World Health Organization

1 On Admission

Does mother need referral?
- No
- Yes, organized

Check your facility's criteria

Partograph started?
- No, will start when: when
- No

Start plotting when cervix ≥4 cm, then cervix should dilate ≥1 cm/hr
- Every 30 min: pulse, contractions, fetal HR
- Every 4 hrs: urine, temperature
- Every 4 hrs: plot BP

Does mother need to start:

Antibiotics?
- No
- Yes, given

Ask for allergies before administration of any medication
- Dose and administration route of Cef
- Mother's temperature ≥38°C
- History of foul-smelling vaginal discharge
- Duration of membranes >18 hrs

Magnesium sulfate and antihypertensive treatment?
- No
- Yes, magnesium sulfate given
- Yes, antihypertensive medication given

Give magnesium sulfate to mother if any of:
- Diastolic BP ≥110 mmHg and 2+ proteinuria
- Diastolic BP ≥90 mmHg, in combination with any severe headache, visual disturbance, epigastric pain

Give antihypertensive medication to mother if systolic BP ≥160 mmHg
- Oral: keep BP <150/100 mmHg

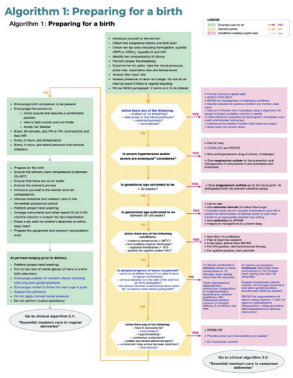
Confirm supplies are available to clean hands and wear gloves for each vaginal exam.

Encourage birth companion to be present at birth.

Confirm that mother or companion will call for help during labour if needed.

Call for help if any of:
- Bleeding
- Severe abdominal pain
- Severe headache or visual disturbance
- Unable to urinate
- Urge to push

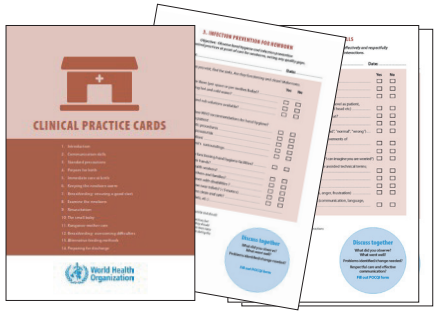
Completed by: _____



Algorithm 1: Preparing for a birth

Algorithm 1: **Preparing for a birth**

Clinical practice cards



There is one clinical practise card per module. Clinical practice cards are designed to give learners the opportunity to observe and practice skills learned earlier in simulations with mothers and newborns in the delivery room, ward areas, special care units and clinics. These sessions allow learners to try what they have learned and reflect on what can be improved. Integrated into each module, they lead naturally to reflection, critical thinking and activities to improve care for newborns and their families. Use these cards when observing, debriefing or supporting self-reflection. Encourage learners to use them during peer practice.

Handouts

There are handouts for learners on keeping the newborn warm, breast milk expression and safe storage, congenital abnormalities/birth defects and requirements for essential newborn care. Ensure learners have the relevant handouts for each module.

Check the list of handouts in the Environment, materials and equipment table

Parent guide

There is a generic parent guide which can be used if there is no counselling guidance for parents available in your context. Check your road to health card immunization card or hand held records which often contain advice on care, prevention nutriition and early childhood development

Learner workbook

There is a workbook with self-paced learning activities and key content from each module, including the objectives of each activity.

3.8 General principles

Supporting and motivating participants

Encourage interaction

Interact with every participant and encourage them to interact with you. Make an effort to learn participants' names and use them whenever it is appropriate. Use counselling skills taught during the course for communicating with learners. Use appropriate non-verbal communication, ask open questions, praise learners and help them to feel confident in their work with mothers and newborns and health staff.

Be readily available at all times. Remain in the learning environment and look approachable. Do not read emails or talk constantly with other facilitators. Interact with participants during tea and coffee breaks and be available after a session has finished.

Language difficulties

Try to identify participants who have difficulty understanding or speaking the language in which the course is conducted or any difficulty in reading and following the materials.

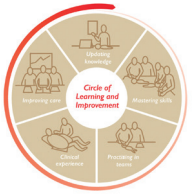
Speak slowly and clearly and find solutions to their difficulties. If necessary, speak with a participant in their own language (or ask someone else to do so for you) to clarify difficult points. It may be possible to arrange help for the learner or for them to do some of the exercises in a different way. Use a facilitator who speaks the same language to run the session.

Disability inclusion

Ensure that learners with disabilities are supported to fully participate in the ENCC sessions (13). Consider physical environmental and communication barriers. Find solutions. Ensure that all learners have access to the learning environment and materials, clinical areas, refreshments, toilets and hygiene stations.

Content of modules

The content and flow of each module is standardized. This flow can be adjusted to your context during adaptation of the course The flow can also be adjusted in response to learners' needs. For example, the facilitator may decide to run a treasure hunt for guidelines at the beginning of the session if health workers are not aware of the evidence-based practices or apply harmful practices. Treasure hunts can also be used as energizers if learners have disengaged.

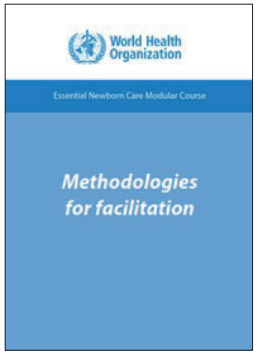


Content and flow within modules

1. Goal and learning outcomes.
2. The situation.
3. Diagnostic simulation to assess starting point of in-service learners.
4. Key steps demonstrated by facilitator, videos, case studies and knowledge verification.
5. Simulations to apply new knowledge, decision-making and improve performance in preparation for clinical practice.
6. Treasure hunt to find WHO recommendations and guidelines.
7. Mentored clinical practice with specific learning objectives, and structured debriefing.
8. Point of care quality improvement exercise.
9. References and additional reading.
10. Learners continue practising with their peers.

Methodologies for facilitation

This document gives an overview of the methodologies used. Use it to remind you of the steps involved. For more information on learning the methodology



refer to Methodologies for facilitation.

Make notes and adapt the guidance to suit your learners and your context. Some methodologies may not be appreciated in your context. Others, such as games, may be highly valued. Use your personal experience and feedback from learners.

Add your own icebreakers or energizer activities.

Optional PowerPoint slide sets
If you are based in an educational institution and choose to give presentations, these need to be planned carefully to keep up interest and engagement. Learners can become passive, bored and disengage. Slides have been prepared for each module. These are **optional**. Unhide the slides you will use. Learners are unlikely to retain or apply knowledge from monotonous slide presentations. Adapt the content to your context.

Key symbols

The following explains the key symbols used in the modules.

Pre-service learners

Pre-service learners need to cover and practis e all core compulsory sections. In addition, some pre-service learners can cover some optional sections, depending on their capacity.

In-service learners

In-service learners need to know and perform all core content, but ensure that you keep them interested and skip repetitive sections that are designed for novice learners. Plan based on learner assessments. Never assume that in-service learners can perform all skills.

Self-paced learning

Sections marked with the self-paced learning symbol can be carried out by learners either:

- as preparation in advance for the module
- facilitated during face-to-face sessions
- as self-paced learning for reinforcement after facilitated face-to-face sessions

- online (WHO academy) as part of blended learning
- using linked applications (apps).

The choice should be made in advance as it will influence the time needed for each section. For pre-service learners, it is recommended that the questions are given as homework and that you review the answers, giving adequate time for discussion.

If learners have completed the ENC basic course, parts 1 and 2, or the WHO Essential Childbirth Care Course, or the Baby Friendly Hospital Initiative training course, or other courses such as Early Essential Newborn Care (First Embrace), these sections can be run as a quick review and skills verification.

This applies especially for questions and quizzes, which are linked to online learning, and would be repetitive for in-service learners.

Questions/quizzes

Use questions effectively to engage learners. They can:

- increase participation and interaction
- respond to learners' needs
- help learners analyse information and reflect
- assess understanding of the topic
- evaluate if the learning activity was effective.

Use a variety of questioning techniques. Ask open questions and ask a volunteer to answer or target questions to particular learners. Encourage full participation of the group.

There are a number of questions in the slide sets. Time for each section will depend on learner level. Choose carefully the questions for in-service learners as they may become disengaged and bored. Time would be better spent asking in-service learners to SHOW what they normally do in specific situations.

Learners check answers using the Action Plans, the PCPNC or the EENC Clinical Practice Pocket Guide.

Questions can be completed by learners:

- self-paced learning
- facilitated during face-to-face sessions
- as preparation in advance for the module as homework
- for reinforcement after facilitated face-to-face sessions.

For pre-service learners, give questions as homework and allocate time to review answers and to answer questions from the group.

Case studies

Case studies act as instructive examples to learners of a particular newborn case, describing the background of the newborn and clues that the learner should pick up. Case studies support learners in decision-making and actions when caring for mother–baby dyad.

Case studies can be completed by learners:

- as self-paced learning
- facilitated during face-to-face sessions
- as preparation in advance for the module
- for reinforcement after facilitated face-to-face sessions.

Decide in advance which case studies you will use and ensure that you can explain answers.

Learners should check answers using the Action Plans, the PCPNC guide or the EENC Clinical Practice Pocket Guide.

Allow adequate time for reflection and discussion of answers and whenever learners have difficulties.

Reflection and critical thinking

Reflection is an intentional process of thinking, analysing, assessing and learning actions and behaviour. It is a tool for quality improvement and professional growth. The situation slide of each module is designed to trigger critical reflection. Simulations and clinical practice sessions should also prompt learners to reflect critically. As a facilitator you need to reflect on your own performance and the situation. Support learners to reflect and discuss in a safe learning environment. Reflection should cut across all activities and feed into quality improvement activities.

Use of videos

Most modules have videos. See video listing in annexe . Review videos before you start to teach each module. Decide which videos you will show and how long they will take. Ensure that videos function correctly before you start your session. Note sections that you need to emphasize based on the assessment of learners.

For some videos, play just the time indicated. Learners can watch the entire videos in their own time. Point out good practices and any practices which are incorrect or could be improved.

Videos can be used for:

- self-learning in preparation for a section or module
- reinforcement after completing the module
- references for learners and facilitators.

Use the video sites provided for essential newborn care and nurturing care for newborns.

Participants should have copies of videos for their personal use on their telephones or other electronic devices. Encourage learners to share videos with their peers and communities of practice, especially those not included in the training. Encourage them also to share videos with mothers.

Steps when showing a video
Questions for reflection:

- 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?

This is important if any practices are NOT aligned with latest guidelines. Point out good practices and ask learners if they noted any practices which could be harmful.

- Does this video highlight a quality gap in your setting?
- If yes: Note the practice that needs changing and start to think about possible solutions. Reflect on actions the learner can do immediately to start to address the problem. Encourage small doable steps.

Demonstration

© WHO/ Gato Borrero

Each module requires that the facilitator demonstrates correctly the actions for essential newborn care. Demonstrate each step **as in real life** and do not take short cuts. Use your co-facilitator or a learner as the mother. You can use a mannequin or preferably work with a real mother/newborn pair. Always model good practices, behaviours and attitudes. Ensure hand hygiene, respectful care and effective communication whenever working with mothers and newborns. Always be respectful and handle the baby gently and with kindness. Learners will remember what they see you do.

Steps for demonstrations

Always state clearly the objective of the demonstration.

- Demonstrate the entire, correct procedure (no short-cuts). Describe the steps aloud while doing them. Project your voice so that all can hear. Stand where everyone can see you.
- Encourage questions from participants.
- Ask participants questions to check their understanding.
- Answer any questions or put them in parking lot to review later.

© WHO/ Gato Borrero

New learners may need more demonstration and explanation. Experienced health workers may have developed incorrect practices, so it is important to demonstrate correctly before observing their techniques.

Simulations

Simulations are a set of structured activities representing actual situations. They are played by learners in a realistic environment using real materials and equipment to develop or build knowledge, skills and behaviours.

Simulations are **compulsory.** They are NOT optional. Simulations build competencies and skills in a stepwise manner. Allocate adequate time for pre-service learners. Some learners will require additional practice sessions between peers. Ensure that you support these additional practice sessions. Adapt simulations as learners' competencies grow to maintain interest and improve quality of care. Ensure that in the debriefing you cover both delivery of care and the experience of care.

Well-facilitated simulations are key to building competencies and confidence of learners who have never worked with newborns before, or learners who have difficulties with some practices. Feedback from the ENCC first edition is that when simulations take place in a classroom without clear objectives and structured debriefing, learners do not always apply what they learned in their place of work.

Simulations are for face-to-face sessions, in person or via video link with the facilitator or a clinical mentor. The simulation can also be repeated by peer groups in learning labs or skills corners at the place of work. The simulation should be enjoyable. It is not an examination. If it is normal practice to record video on smart phones, learners can record their group and use it to document their progress.

Steps for simulations

- Explain the learning objective/s.
- Brief the learners (where, when and how in groups of 4).
- Read the scenario (see the facilitator notes for each module).
- Debrief (support learners to discuss and reflect on their performance and the learning objective/s.

Brief

Give clear instructions orienting learners to the scenario and objectives.

Include information about the equipment, environment, mannequin, learners' roles, time allotment and clinical situation. This will depend on the context of the training (real delivery room, learning lab, simulation centre or in a humanitarian situation). Ensure that the environment is safe and as close to the real-life situation as possible. If not, ask learners to organize the environment before starting the simulation.

Observe

When learners are not active in the simulation, ensure that they observe carefully and note which

things are done well. They should use the Action Plan or an algorithm and note actions that were missed, incorrect sequences or timing, what should be done differently or questions they have. Ensure that learners switch until everyone has practised.

Debrief
Ensure positive, constructive feedback. Remember that the purpose is to identify gaps in knowledge and any norms or practices that need to be addressed. Emphasize these when you do a step-by-step demonstration.

The debriefing should be based on the scenario structure and objectives, linking to quality standards. As facilitator, you will lead and encourage learners' reflective thinking and transfer of their learning to future situations.

Address any issues relating to norms, behaviours or concerns about practices in this safe environment. Ensure that respectful care of newborns is addressed.

Practise running effective simulations with mannequins. Use the feedback tips in the facilitator notes and *Methodologies for facilitation.* Positive feedback and participants' reflection are important parts of the process. Always remember that it is both the delivery of care and the experience of care of both the mother and newborn which are fundamental to quality newborn care.

In-service learners will benefit from simulations that build their assessment, decision-making and management skills. Ensure that respectful care with the mother–baby dyad and family-centred care are consistently delivered with quality treatment.

The first simulation of each module is diagnostic to assess the starting points, gaps and sequencing of in-service learners. If learners are pre-service students, skip this first simulation.

Observe each learners' performance carefully. Emphasize demonstrating each step correctly. Prior to clinical practice, the simulation is repeated allowing learners and facilitators to note progress and build confidence.

Role play

Role plays are a training technique where learners act the part of a particular person or character. The aim is to give a good performance or imitation. Emotions, personalities and ethical motives are supplied in the instructions for the role play. You need to act out the role given and be consistent with the instructions given.

Learners can experience how a mother feels, for example, if she is treated without respect or dignity or if her baby dies.

The communication module has a number of role plays.

Role plays are NOT the same as a simulation.

Steps for role plays

- Set up role plays carefully. Obtain necessary props (for example, doll or mannequin).
- Brief those who will play the roles and allow them time to prepare.
- Clearly introduce the role play by explaining its purpose, the situation and the roles to be enacted.
- Keep the role play brief and to the point.
- After the role play, guide a discussion. Ask questions of both the players and observers.
- Summarize what happened and what was learned.

Add new role plays to explore any issues you have in your context and difficult situations.

Treasure hunt

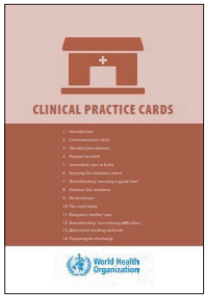
The treasure hunt is an activity enabling learners to find and apply evidence from the latest WHO recommendations/guidelines/documents. It should be fun. Run it as a game or competition. Before the session, share a copy of relevant WHO documents (electronic or hard copy). The role of the facilitator is to promote evidence-based and up-to-date recommendations

and to ensure that the recommendations are put into practice both during and after the course.

Steps for the treasure hunt

- Read the guiding question.
- Learners search for the treasure in recommendations/guidelines/documents.
- The first learner or team to find the treasure shares their findings.
- Ask another learner to explain the treasure and why it is important.
- Confirm the findings and facilitate a discussion on how to systematically apply the recommendation.

Mentored clinical practice with continuing peer-practice



Mentored clinical practice with mothers and newborns is key to learners applying new knowledge and skills to save lives, prevent disabilities and ensure that every newborn will reach their full potential.

Mentored clinical practices are NOT optional. Simulations cannot replace practice with real mothers and babies. Ensure that learners communicate effectively, respecting the dignity and rights of both the mother and newborn. Discuss and reflect on practices during the structured debriefing sessions.

Each module has a clinical practice session. These are a mix of observation and clinical practice with mothers and their babies.

Steps for clinical practice

- Prepare in advance. Gain permission of the person in charge or director and gain consent of mothers who will participate. Explain clearly to the mothers and families the purpose of the session and their important role. Gain consent. Thank them for their participation.
- Organize learners in groups of 4 or in pairs depending on the number of mother–baby pairs available.
- Ensure that learners have relevant materials as specified for each module.

Clinical brief

Give clear instructions orienting learners to the objectives. Answer any questions. Include information about the equipment, environment, learners' roles, time allotment and clinical situation. This will depend on the context of the training, the size of the hospital or health facility and whether it is a postnatal ward or in a humanitarian situation.

Clinical practice

Ensure respectful communication and privacy and dignity of the mother. Ensure that learners do not comment on their observations or show any disapproval while in the clinical setting. Ensure correct hand hygiene. Give feedback after clinical practice during a debriefing that does not take place on the ward.

Stop a learner if dangerous or harmful practices such as continuing to place a nasogastric tube if newborn coughing gagging.

Clinical debrief

The debriefing should take place away from the ward. It should be based on the objectives and linked to relevant quality standards. As facilitator, you will lead and encourage learners' reflection and critical thinking. The purpose of debriefing is to learn by reflecting on actions and to transfer learning to future situations. Ask learners to give constructive,

respectful feedback. Be sure to include infection prevention, communication and respectful care.

Alternative clinical practice arrangements
If a course is planned at health facilities without adequate numbers of childbirths to hold clinical practice, clinical practice sessions must be arranged flexibly between sessions. This would either be in the participants' own time, during their normal clinical duties, timed with monthly meetings at the district level or during continuing medical education sessions. Ensure that there is time for discussion, reflection and critical thinking after clinical practice sessions.

Where the modules are taught as part of on-the-job training, mentoring, supportive supervision or a quality improvement process, ALL health workers in the facility caring for mothers and newborns during labour, delivery and the postnatal period must participate in the training over time. In a large hospital, the timetable must be adjusted to ensure that all staff (including those who work night shifts and weekends) are included. Consider setting up a skills corner where learners and peer groups can practise together when time allows.

In order not to disrupt clinical care, sessions should be conducted with a small number of health workers and repeated for others. Staff identified by facilitators as having good skills can be coached to train their colleagues to lighten the task for facilitators and to ensure sustainability. These staff can also coordinate refresher sessions and drills to maintain skills.

Special clinical practice arrangements: attending a childbirth
All learners need to attend and observe a childbirth. Seeing at least one childbirth is mandatory. Ensure that learners are discreet and respect the mothers' dignity. Always obtain consent in advance. The course director will be informed of imminent deliveries. Each group should attend in turn.

Make arrangements with the head of the delivery room for the best time to conduct the clinical practices and to be informed when a childbirth can be observed.

If they have not seen a delivery on day one, arrange for them to attend a delivery during the evening with consent of the mother, or the following day. As facilitator you need to be flexible and reactive.

Quality improvement

Each module has a quality improvement exercise. This course will not train learners how to do the whole POCQI process. After this course learners will need to attend a full POCQI course if they have not already done so. Pre-service learners should note areas for quality improvement and reflect on simple actionable solutions until quality improvement is covered in their curriculum.

Discussion, review and reflection sessions

Discussion, reflection and critical thinking are an important part of adult learning. Ensure that time is allowed for this in the agenda. This is a compulsory part of the clinical practice sessions and simulations.

Before moving to a new module, have a brief review of the previous one. Instead of always giving oral feedback, you can ask learners to use a mannequin to show/demonstrate one new skill they learned in the last module.

Observe if the learners have retained knowledge, skills and competencies from the previous session. If not, organize a skills update and review how you taught the module.

Plan review sessions or skills and drills, which enable the learners to demonstrate the skills they learned during previous sessions (for example, basic resuscitation).

3.9 Time management

Plan to keep on time. Indicate time limits in your trainer's notes or note the time limit in the course outline. Make sure that there is a clock so that you and the learners can keep track of time. This is very important for tight training schedules.

The time needed for each section will depend on the learners' levels, prior knowledge and experience (basic or intermediate).

Therefore, the **timings are only indicative** and will need adjusting according to the learners and the context. Adjust timings after you reviewed pre-assessment results and have practiced the session in the context you are teaching.

3.9.1 Keeping to planned timelines

Prepare well.
Use your facilitator notes. Highlight key information in the facilitator notes, note questions you plan to ask and underline key terms or points.

Use the outline to keep focused.

Do not lose time between sessions (for example, going to a practical session or group work). Before participants begin to move, explain clearly what they will do.

3.10 Effective use of mannequins

© Laerdal Global Health

This course cannot be taught without functional newborn mannequins for practicing basic resuscitation and immediate care at birth. A mannequin allows learners to practise evaluation of the baby and to provide the appropriate sequence of actions and repeat these actions until they gain the required skills. In this way learners develop an understanding of the link between actions and responses.

Facilitators need to be able to use mannequins effectively, which should be integrated into preparation time. For effective use of mannequins in teaching, first-time facilitators may require additional practice. Some mannequins are accompanied by demonstration videos. In addition, facilitators and trainers can review materials supplied with the mannequin that they have purchased or borrowed for the training.

Know how to assemble, disassemble and troubleshoot use of mannequins. If the chest does not rise, check attachment of the trachea and lungs. Know where to find spare parts.

Always check all pieces of equipment when packing away.

For pre-service students, skills practice in essential newborn care is most effective when a neonatal simulator is used that can show spontaneous breathing and crying, chest movement with bag and mask ventilation and umbilical cord pulse. A simpler neonatal mannequin may also be used for practice, but then the facilitator or a learner must tell the health care provider doing the actions how the mannequin is responding.

One mannequin is required per group of 4 learners and one for the facilitator to demonstrate with.

3.11 Run the course

3.11.1 Prepare materials to facilitate

Each module gives clear instructions on what to prepare, the environment, materials and equipment.

Other materials should be prepared using local MoH-approved materials when available.

- Photographs
- Videos in local languages
- Growth charts (boy girl term and preterm)
- Clinical charts
- Feeding charts
- Discharge assessment charts
- Example of newborn notes
- Referral forms
- Birth and death certificates
- Perinatal death surveillance and response forms.
- Forms for reporting congenital anomolies

Review and practise your sessions. If any of the content is new to you discuss with your own peers and faculty.

3.11.2 Organizing the learning environment and the equipment

Whenever possible organize the training in a health facility where it is possible to conduct all clinical practices. This is particularly important for in-service learners.

It is strongly recommended that the practical sessions be run in the clinical setting (for example, delivery room, postnatal ward, neonatal unit), or in a learning laboratory for simulations.

A list of the environment needed, as well as equipment and materials for all modules can be found here: *Organization and assessment.*

With the support of learners, ensure that the environment is prepared, and it is clean, safe and organized.

This should be in a real-life situation or as close to a real-life situation as possible to give learners an immersive experience. Learners are less likely to apply learning on a mannequin in a classroom than when practicing in a real delivery room or postnatal ward. Place posters (action plans and respectful maternity care) where they can be easily read and consistently used.

Facilitators need one set of equipment for demonstrations and there should be a set for each group of 4 learners.

Set up skills corners where learners can practise before or between shifts or whenever activities are quiet.

If learners use skills laboratories, enable access between learning sessions to build competencies and confidence.

3.11.3 Visit facilities where clinical sessions will take place

© WHO/Yoshi Shimizu

The purposes of the visit are to:

- gain the support and cooperation of the staff of the health facility;
- explain the objectives of the clinical practice sessions to the staff;
- ensure that the health facility has appropriate amenities to support quality training;
- assess how many learners could be accommodated

according to the number of mother–baby pairs.
- Visit all the newborn points of care in the facility before running modules (antenatal ward/delivery room/postnatal ward/kangaroo mother care unit/neonatal care unit/outpatient department).
- Observe and document the physical environment and equipment using WHO standards or quality assessment checklists.
- Observe whether health worker practices are aligned with guidelines and standards, including the Baby Friendly Hospital Initiative. This includes infection prevention and respectful care.
- Discuss and organize any changes needed before running the clinical sessions.

Prepare the facility staff:
- Inform the staff about the course, and what, if any, their role is to be.
- Involve facility staff. Plan coaching and mentoring to update knowledge, skills and attitudes as necessary.

3.11.4 Contextual considerations (see section 2, Adapt)

Special considerations will be needed if the course sessions are used for refresher training or drills. If this is the case, ask participants to demonstrate, showing what they normally do. Then, show a video if appropriate, or demonstrate step-by-step and allow participants to practise the skills observed using checklists.

© WHO/Yoshi Shimizu

If the course is being delivered in a hard-to-reach area or in a humanitarian emergency, the sessions will need to be prioritized according to any assessments and gaps identified by participants and trainers or shown by the data. Sessions should be grouped in logical and feasible order according to the time available. Regular follow-up also needs to be organized. You will also need to adapt your facilitation to the context. You may need to demonstrate and run simulations using the clean delivery kit on the floor. If the newborn is not breathing, then the newborn will need ventilating on the sheet on the floor, paying careful attention to infection prevention and warmth. The facilitator/health worker will need to kneel at the head of the newborn to effectively ventilate.

Adapt simulations and develop additional simulations reflecting the current situation and needs of learners to save lives, prevent disabilities and promote healthy growth and development.

3.11.5 Know the learning materials

- Review the learning materials and facilitator notes.
- Review related evidence, guidelines and standards.
- Review learning objectives for each activity that you will cover.
- Review slides and watch videos. Decide which you will use and decide which activities will be completed as self-paced learning. Hide slides that you will not use.
- Ensure that there is adequate equipment and materials for a quality learning experience.

Respect facilitator-to-learner ratios and group size.

3.11.6 Steps for facilitating the ENCC

1. Run a pre-test and assessments.
2. Review the results of the pre-test and pay careful attention to the assessment of competencies linked to this module. Discuss learners'

needs with the learners, as well as with the faculty or management or quality improvement team. Identify learning needs or gaps and tailor practice activities.

3. Review modules and materials.
4. Review all sections of the modules. Decide if and how you will cover these sessions for in-service learners.
5. Decide which sections will be carried out as self-paced learning and plan how when and where you will review answers, questions and facilitate discussion.
6. Allocate time and place for discussion of self-paced learning.
7. Decide if you will use any slides. Select slides you will use. Hide all others.
8. Decide which videos you will use and how they will be delivered. Ensure reflection on the content of and linkage to POCQI sessions.
9. Review simulations and clinical practice sessions. Review learning objectives. Decide if the objectives need to be adapted to your learners and adjust as required.
10. Estimate the time needed by learners for simulations and clinical practice sessions. Be sure to give adequate time to these practical sessions. These are key for competency-based training.
11. Organize a safe learning environment that is as close to real life as possible. Verify equipment including mannequins. Assess if you have adequate supplies for all learners to practise. If NO adapt agenda to ensure that you can support and coach all learners.
12. Organize clinical sessions at a time that will not disrupt services.
13. Practise sessions with a co-facilitator and calculate how much time or how many sessions your learners will need.
14. Allocate time and adjust the agenda.
15. Run the adapted module.
16. Give a standardized post-test and a standardized competency assessment. Compare pre- and post-test results.
17. Review the results of the standardized competency assessment. Have learners gained the expected competencies? Can learners do or perform what you expect? If NO review how the module was taught. Adapt the module. Organize skills updates and coaching sessions.
18. Reflect on quality gaps noted during delivery of this module. Give feedback and plan quality improvement activities in collaboration with the quality improvement team.

3.11.7 Evaluating and monitoring the course

Use an evaluation questionnaire or focus group discussion at the end of each day giving trainers and clinical facilitators the opportunity to discuss issues raised and make any necessary changes.

In addition, facilitators should make notes about what worked well and any difficulties they had. Information from the evaluations should be used for improving the training sessions.

3.11.8 Follow-up activities after training

The ENCC is just the beginning of a journey to improve the quality of essential newborn care. Apart from the quality improvement activities and continuing practice with peers and clinical mentors already integrated into the course, follow-up activities need to be planned. These will vary between contexts. The follow-up activities should be realistic, practical and possible to achieve. They also need to be costed and included in the annual budget.

Follow-up activities can include:

- feedback on daily ward rounds;
- regular practise with peers to gain competence and confidence (recommended);
- scheduled drills and simulations supported by

supervisors, coaches or clinical mentors;
- monthly ENCC practical sessions to ensure maintenance of skills;
- webinars and learning platforms for sharing experiences, ideas and finding solutions to problems;
- social media groups with participants sharing tips, photos and videos of changes in their practice to improve the quality of care of newborns and mothers;
- new materials and videos shared via social media, telephone and internet links;
- SMS reminders to practise simulations;
- observation visits to centres of excellence;
- geographical groupings of learners rotating visits to observe and to support each other;
- coordinators/organizers/facilitators contacting ALL participants by email, telephone or video messaging at three, six or 12 months;
- course organizers/trainers/mentors visiting participants one, three, six or 12 months after the course to observe practices and support participants in overcoming any problems (include in workplan and budgeting);
- monthly health facility meeting to review data monitored (POCQI, PDSR, HMIS using core newborn indicators).

All activities results and findings need to be documented, progress followed and information appropriately shared and widely disseminated.

3.12 Preparation of facilitators

3.12.1 Modular course

The preparation of facilitators for the modular course takes place over 5 days in the week before running an ENCC for real learners.

Facilitators who are used to lecturing in a didactic way will need more time to make the sessions participatory and to use adult learning methodologies.

Facilitators need to be flexible and adapt to the context and situation. Facilitation will not be the same in a pre-service institution or in a humanitarian situation or when training learners are in a primary health care centre in a hard-to-reach area with a different mother tongue or in a university.

Facilitators MUST attend ALL sessions in order to be accredited. During the preparatory period, trainees must demonstrate all the skills and competencies outlined for the course.

During the 5-day course preparation training, organizer will give an overview of the course followed by a demonstration of each methodology including using mannequins effectively.

Facilitators will be assigned to demonstrate methodologies, lead sessions and conduct clinical practices. Facilitators are expected to observe each other and give positive constructive feedback on their facilitation. It is important to build confidence before moving to facilitate real learners in week 2.

Facilitators will be assigned in pairs to teach specific modules or sessions. Each of these uses a variety of methodologies.

Facilitators not leading a session will act as learners, answering quizzes and case studies and participating in simulations, clinical practices and other activities.

There is a 90 to 120 minute clinical practice session in each module. A facilitator will be assigned to 4 learners.

Each facilitator will lead one or part of one clinical practice in the preparation week and supervise a group of 4 "participants" (learners) in the second week.

Each session during week 1 will be followed by a short discussion covering the following when relevant:
- Did the facilitator follow the session instructions accurately?
- Did the facilitator prepare all necessary equipment?
- Were all the points clearly explained and demonstrated?
- Was active participation of learners observed in discussion and practice?

- Did the facilitator use adult learning methods?
- Was the level appropriate for the learners (pre-service or in-service)?
- Were action plans or algorithms used appropriately?
- Did all learners have enough time to practise skills? If not did the facilitator give instructions on future practice?
- Was the session interesting and did it hold learners' attention?

Peers will provide constructive feedback using a standard observation form. *Organization and assessment.*

In week 2 there will be a 30-minute meeting at the end of each day to review progress and to address any issues.

Two teaching plans will be prepared by the course organizer and shared in advance:

- A plan in which facilitators are assigned to sessions that they will practise during the preparation week.
- A plan indicating which sessions facilitators will lead during the ENCC week 2.

3.12.2 Basic course

The basic course uses master trainers who are responsible for preparing other trainers in the cascade. Master trainers may be responsible for training regional/district trainers, who in turn train facilitators to use the educational methodology applied in the basic newborn courses. See basic course materials.

ENC basic course part 1
ENC basic course part 2

© Laerdal Global Health

3.12.3 Assessment of facilitation skills

During the second week new facilitators will be assessed by course organiser and faculty using a standard observation checklist. This will be used to decide if facilitators need additional support and mentoring to deliver a quality training. Existing facilitators participating in a 2 day skills update will also have individualised feedback.

Faculty will give feedback to each facilitator suggesting improvements and organize mentoring of facilitators who need more practice or did not perform well.

Facilitators are encouraged to work with their peers to build confidence and skills to run a quality essential newborn care course.

References and Annexes

References

1. *Diaz T, Rasanathan K, Meribole E, Maina I, Nsona H, Aung Kyaw M et al. Framework and strategy for integrated monitoring and evaluation of child health programmes for responsive programming, accountability, and impact. BMJ. 2018;362:k2785. https://www.bmj.com/content/bmj/362/bmj.k2785.full.pdf*
2. *Visualizing and using routine reproductive, maternal, neonatal, and child health data at health facilities: a resource package for health providers and district managers. Washington (DC): United States Agency for International Development, Maternal and Child Survival Program; 2018. https://www.mcsprogram.org/resource/visualizing-and-using-routine-rmnch-data-at-health-facilities-a-resource-package-for-health-providers-and-district-managers/*
3. *Data quality review: a toolkit for facility data quality assessment. Geneva: World Health Organization, 2017. http://apps.who.int/iris/handle/10665/259224*
4. *Producing disability-inclusive data: why it matters and what it takes. Geneva: United Nations Children's Fund; 2020. https://data.unicef.org/resources/producing-disability-inclusive-data-why-it-matters-and-what-it-takes/*
5. *National health inequality monitoring: a step-by-step manual. Geneva: World Health Organization; 2017. https://www.who.int/data/gho/health-equity/manual immunization.*
6. *Inequality monitoring in immunization: a step-by-step manual. Geneva: World Health Organization; 2019. https://www.who.int/data/gho/health-equity/manual immunization.*
7. *Interagency list of medical devices for essential interventions for reproductive, maternal, newborn and child health. Geneva: World Health Organization; 2017. https://apps.who.int/iris/bitstream/handle/10665/205490/9789241565028_eng.pdf?sequence=1&isAllowed=y*
8. *Early essential newborn care clinical practice pocket guide. World Health Organization, 2014. https://iris.wpro.who.int/bitstream/handle/10665.1/10798/9789290616856_eng.pdf*
9. *Hospital care for mothers and newborn babies: quality assessment and improvement tool - A systematic standard based participatory approach. Second Edition. World Health Organization, 2014. https://www.euro.who.int/ data/assets/pdf_file/0004/244831/Hospital-care-for-mothers-and-newborn-babies-quality-assessment-and-improvement-tool.pdf*
10. *UN commission on life-saving commodities for women and children. Commissioners' Report. New York: United Nations; 2012. https://www.unfpa.org/sites/default/files/pub-pdf/Final%20UN%20Commission%20Report 14sept2012.pdf.*
11. *The missing billion: access to health care for 1 billion people with disabilities. https://www.themissingbillion.org/.*
12. *Miller GE. The assessment of clinical skills/competencies/performance. Acad Med. 1990;65:S63-7. https://pubmed.ncbi.nlm.nih.gov/2400509/*
13. *How do we support women and girls with disabilities to overcome stigma against them? London: London School of Hygiene & Tropical Medicine; 2021. https://www.disabilityevidence.org/questions-evidence/how-do-we-support-women-and-girls-disabilities-overcome-stigma-against-them.*
14. *Convention on the Rights of the Child. Committee on the Rights of the Child (CRC), United Nations. https://www.ohchr.org/en/professionalinterest/pages/crc.aspx*
15. *Convention on the Rights of Persons with Disabilities. Committee on the Rights of Persons with Disabilities, United Nations. https://www.ohchr.org/en/hrbodies/crpd/pages/conventionrightspersonswithdisabilities.aspx*

Annex 1 For organizers

A1.1 Assignment of facilitators: Module 1, Introduction

Module	**Name of assigned facilitators**		
	1	2	3
Videos			
Questions/quizzes			
Case study			
Simulation			
Role play			
Clinical practice			
Treasure hunt			

A1.2 Assignment of facilitators to modules

Module	**Name of assigned facilitators**	
	Lead	Support
1. Introduction to ENCC		
2. Communication skills		
3. Infection prevention for newborns		
4. Prepare for birth		
5. Immediate care at birth		
6. Keeping the newborn warm		
7. Breastfeeding: Ensuring a good start		
8. Examination of the newborn		
10. The small baby		
11. Kangaroo mother care		
12. Breastfeeding: Overcoming difficulties		
13 Alternative methods of feeding		
14. Prepare for discharge		

A1.3 Course preparation checklist for course organizer

One month or more before planned course.

Review local data (mortality, morbidity, disability and coverage data for newborn interventions)	
Verify number of learners and facilitators	
Prepare the environment and equipment	
Teaching space or classroom	
Visit the health facility and clinical practice site(s)	
Confirm a convenient time to conduct clinical practices	
Design the course based on current practice	
Visit the delivery room, observe a delivery to see current practices	
Visit all clinical areas where newborns are cared for to observe practices and availability of lifesaving commodities	
Check Baby Friendly Hospital Initiative status and practices in newborn areas	
Check WASH (Water Sanitation and hygiene) status of facilities for mothers, staff and learners	
Check accessibility for learners with disabilities	
Meet staff and clinical director, discuss issues and any changes needed	
Plan and run skills update(s) of staff, if necessary, prior to the start of training	

Organize the course	
Decide on dates and length of the ENCC and preparation course for facilitators*.	
*Allow 5-days of preparation for new facilitators and a 2-day skills update for facilitators experienced in teaching essential newborn care	
Select course time and timetable according to learners	
Initiate official process according to your context	
Organize plans for any opening and closing ceremonies	
Select facilitators (trainees) and faculty (see selection criteria in the Organization, competencies and assessments file)	
Verify number and availability of facilitators	
Send official invitations if opening and closing ceremony	
Verify equipment is available and functional	
Organize loan/procurement of necessary supplies and equipment for simulations and demonstrations	
Adjust schedule/timetable as necessary	
Share electronic materials with facilitators	
Have a pre-course meeting with facilitators for expectations, preparation and pre-reading	
Obtain adequate hard copies of key materials	
Print posters and handouts	

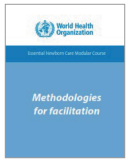
A1.4 Checklist preparation of training

One week or more before planned course.

Arrange for a visit to the health facility where clinical practice sessions will happen	
Check and confirm: environment	
Clinical areas to be visited	
A room near the clinical area for debriefing	
Check and confirm: people	
Availability of clinical facilitators	
How many mother/baby pairs needed each day	
Preparation of health facility staff (if not already done)	
Before the Essential Newborn Care Course	
Adjust times of the clinical practice sessions	
Prepare timetables for facilitators and assign sessions	
Give each facilitator a timetable for the preparation course on day 1	
Explain clearly the aim of the course and expectations	
During the Essential Newborn Care Course	
Allocate a facilitator to go to clinical area each morning to organize the clinical practice session for later that day	
Allocate groups of 4 participants to each facilitator for clinical practice sessions. Put a list of participants in each group on the wall/notice board	
Reorganize the timetable as necessary, for example, no small babies or based on learner capacity	
Run pre and post-test and performance assessments	
Prepare a course completion certificate for participants who attended ALL sessions and demonstrated skills satisfpreactorily	
Review documented results of learners	
Review feedback and assessments of facilitators	
Do a one-to-one debrief with each facilitator and develop a plan of action	
Conduct a review meeting with faculty	
Update or adapt the course as needed	

Annex 2 For facilitators

A2.1 Checklist of pre-reading materials for facilitators

	*Essential Newborn Care Course Overview*	☐
	*Methodologies for facilitation*	☐
	*Universal rights of newborns*	☐
	Part 3 of Plan, adapt and facilitate	☐
	*Safe maternal and newborn care*	☐
	*Nurturing care for every newborn*	☐

Videos	*Human rights-based approach and standards*	☐
	Equity and equality	☐
	WHO how midwives keep mothers and newborns safe	☐
	UNICEF What is nurturing care? Why is it important?	☐
	WHO Nurturing care in humanitarian settings	☐
	Serve and return	☐
	Respectful care during labour and birth	☐

A2.2 Key references for facilitators

	WHO recommendations on newborn health. WHO, 2017.	☐
	Standards for improving quality of maternal and newborn care in health facilities. WHO, 2016.	☐
	Standards for improving the quality of care for small and sick newborns in health facilities. WHO, 2020.	☐
	Action Plan 1	☐
	WHO recommendations: intrapartum care for a positive childbirth experience. WHO, 2018.	☐
 *If used in your context*	Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. WHO, 2015.	☐

	Simulation in nursing and midwifery education	☐
	Facilitating evidence-based practice in nursing and midwifery in the WHO European Region. WHO, 2017.	☐
	Implementation experience of the WHO SEARO model of point-of-care quality improvement (POCQI). WHO, 2020.	☐
	Action Plan 2	☐
 *If used in your context*	Early Essential Newborn Care Clinical Practice Pocket Guide. WHO, 2014.	☐

A2.3 Checklist for facilitator preparation

1.	Prepare for the course with the pre-course materials. These materials include WHO recommendations, videos and other important content. Review materials which are new to you or you have never used.	
2.	Check which modules you have been assigned	
3.	Prepare the environment, materials and equipment	
4.	Review slides and facilitator notes	
5.	Review videos	
6.	Learner competencies Review competencies that learners are expected to achieve for each module. See the Organization, competencies and assessments file.	

A2.4 Timetables for training and time allotment for essential newborn care modules

See the *Organization, competencies and assessment* file.

A2.5 Videos used in ENC Course

See *Organization, competencies and assessments* file

A2.6 Equipment, materials and references

See the *Organization, competencies and assessments* file.

How to make a model breast

Use a pair of near skin-coloured socks, stockings or an old sweater or tee 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 of stitches in the middle of the breast to make a nipple.
- Put a small amount of cloth or wool into the nipple shape and pull the stitches to form the nipple.
- Colour the areola and nipple with a felt pen or paint.

A2.7 Handouts and posters

No.	Name of handout
1	*Handout: POCQI template*
2	*Handout: Universal rights of newborns*
3	*Handout: Requirements for newborns by level of care*
4	*Handout: Infant- and family-centred developmental care*
5	*Handout: WHO glove use information leaflet*
6	*Handout: Keeping the newborn warm*
7	*Handout: Hand expression and safe storage*
8	*Handout: Birth defects and congenital abnormalities*
9	*Handout: Answers - Common questions on KMC*
10	*Handout: Assessment of breast milk expression checklist*
11	*Handout: Reducing supplementation relactation*
12	*Handout: Alternative feeding methods*
13	*OPTIONAL handout: ENC examination recording form*

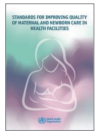
No.	Name of poster
1	*Poster: The universal rights of women and newborns*
2	*Poster: WHO ENC Action Plan 1*
3	*Poster: WHO ENC Action Plan 2*
4	*Poster: WHO How to guide putting on PPE*
5	*Poster: WHO how to wear a medical mask safely do's*
6	*Poster: WHO how to wear a medical mask safely don'ts*
7	*Poster: BFHI The ten steps to successful breastfeeding*
8	*Poster: Benefits of breastfeeding*

A2.8 Pre-reading for learners

	*Safe maternal and newborn care*	☐
	*Handout: Universal rights of newborns*	☐
	*Video: Human rights-based approach and standards*	☐
	*Nurturing care for every newborn*	☐
	*Video: Equity and equality*	☐

A2.9 References for learners

Key references		
	*Action Plan 1*	☐
	*Action Plan 2*	☐
 *If used in your context*	*Early Essential Newborn Care Clinical Practice Pocket Guide. WHO, 2014.*	☐
 *If used in your context*	*Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. WHO, 2015.*	☐

Additional references		
	*Standards for improving the quality of care for small and sick newborns in health facilities. WHO, 2020.*	☐
	*Standards for improving quality of maternal and newborn care in health facilities. WHO, 2016.*	☐
	*Integrating stakeholders and comunity engagement in quality of care initiatives for maternal, newborn and child health*	☐
	*Counselling for maternal and newborn health care : a handbook for building skills*	☐
	*Quality of care in fragile, conflict-affected and vulnerable settings*	☐
	*Improving the quality of care for mothers and newborns in health facilities*	☐
	*Newborn health in humanitarian settings*	☐
	*How do we support women and girls with disabilities to overcome stigma against them?*	☐