Maintaining the provision and use of services for maternal, newborn, child and adolescent health and older people during the COVID-19 pandemic

Cambodia: strengthening early essential newborn care during COVID-19

Background

As of 2014, Cambodia’s maternal mortality ratio was estimated to be 170 deaths per 100,000 live births, and its neonatal mortality rate 18 deaths per 1000 live births, based on the Cambodia Demographic and Health Survey 2014 (1). These figures mean Cambodia reached its Millennium Development Goals targets in 2015 for maternal mortality, neonatal mortality, and other main maternal, newborn, and child health indicators such as births with skilled birth attendants, births at health facilities, second antenatal care (ANC2+) contacts, births by caesarean section, and the ratio of referral facilities covered by the Health Equity Fund.

The Fast-track initiative road map for reducing maternal and newborn mortality (FTIRM) (Phase 1 - 2010-2015) was introduced to increase the competency of midwives across the country in pregnancy, childbirth and postnatal care (2). No specific services were mentioned for newborns in the FTIRM; only some interventions for newborn care were incorporated in the primary health care system across the country. A higher level of care relied on neonatal care units at referral/provincial hospitals. Linked to these efforts, a series of training courses for midwives were organized to equip them with updated knowledge and skills necessary for newborn care and treatment.

To continue the work beyond 2015, Phase 1 extended into Phase 2 of the FTIRM (2016-2020) which is aligned with the Five-year action plan for newborn care (3). FTIRM Phase 2 aimed to reduce maternal mortality to 140 per 100,000 live births and neonatal mortality to 14 per 1000 live births by 2020. It also included emerging issues such as teenage pregnancy and strengthened early essential newborn care (EENC), mainly focusing on the practice of skin-to-skin contact immediately after birth and kangaroo mother care (KMC) for preterm and low birthweight babies, as priorities.
Under the FTIRM, the Newborn Care and Integrated Management of Childhood Illness (IMCI) Working Group was created in 2012 and has been instrumental in guiding and supporting newborn activities. The National Maternal and Child Health Centre (NMCHC) with technical support from the World Health Organization (WHO) coached health workers on immediate newborn care and scaled it up in all public health facilities in the country, as health centres are the entry point for newborn care at the primary level. In 2015, to ensure and maintain the quality of EENC practice, WHO began providing technical support for introducing quality improvement (QI) for newborn care for health workers who had already been coached. Since 2017, following the National quality improvement guidelines on EENC (4), multi-disciplinary hospital core teams (HCTs) have been established at the provincial hospitals to routinely monitor and support QI of EENC. By the end of 2021, 27 HCTs were established and functional in all 24 provincial hospitals and Phnom Penh municipal hospital as well as two district referral hospitals in Battambang Province. At the same time, besides the newborn data routinely collected through the existing indicators of the health information system of the Department of Planning and Health Information of the Ministry of Health, all 27 hospitals have also set up specific EENC data collection of detailed indicators for measuring the trend of newborn care. Later in 2019, with technical support from WHO, the online Health Information System (DHIS2) was introduced and is being used by all 27 HCTs since 2021 for online EENC data collection. In early 2022, two additional hospitals were supported to strengthen the linkage between sexual and reproductive, maternal, newborn, child and adolescent health and EENC services.

Impact of COVID-19 on newborn services

The COVID-19 pandemic was first identified in Cambodia in March 2020. Initially, no impact was noted on the delivery and use of newborn services until the beginning of the second quarter of 2021. Service provision for newborns was affected as a proportion of the staff were re-assigned to support the country’s COVID-19 vaccination effort. In addition, in several facilities staff were infected with the virus. Fear of the pandemic and unwillingness to approach health facilities among the general population, including pregnant women and mothers, resulted in low access to essential health care services. Comparison of data from the health management information system for 2019 and 2020 (full years) and the first nine months of 2021 showed reductions in attendance for a number of core services, namely antenatal care (ANC) (2 and 4 visits) and postnatal care (PNC) (2 and 4 visits), following the onset of the pandemic (see Figures 1 and 2 below). Analysis of DHIS2 data for the first nine months of 2020 and 2021 also showed an increase in stillbirths from 15% to 18%, an increase in neonatal deaths from 10.7% to 15.8%, and an increase in the prevalence of low birth weight from 7.4% to 8.8%.

Fig. 1. Comparison of number of ANC2+, 2019 - 2021

Fig. 2. Comparison of number of second postnatal care visits (PNC2), 2019 - 2021
**Description of EENC interventions to improve newborn care during the COVID-19 pandemic**

Within Phase 2 of the FTIRM, to achieve the goals of the *Five-year action plan for newborn care (2016-2020)* the Ministry of Health had committed to 90% of provincial hospitals having EENC HCTs for effective implementation of newborn care and services, with staff of 18 provincial hospitals trained prior to 2021, and seven provinces not yet prepared. However, the arrival of the COVID-19 pandemic led to disruption of services as well as gaps in service provision, particularly in relation to the quality of services and the availability of human resources. With the assistance of the Newborn Care and IMCI Working Group, in 2021 the Ministry of Health with the support of the WHO Country Office in Cambodia conducted QI activities, as well as expansion and scale-up of EENC services to the remaining five provincial and community hospitals (Kratie, Oddor Meanchey, Preah Vihear, Ratanakiri, and Tbong Khmom) to address the shortage of EENC providers during the COVID-19 pandemic. Several activities for strengthening and scaling-up the EENC were successfully implemented in 2021 despite the pandemic. The priority actions taken by the Ministry of Health and activities conducted during COVID-19 pandemic are explained below.

1. **EENC-QI coaching for provincial HCTs**

   The four provincial hospitals in Kandal, Kep, Mondulkiri, Steng Treng, and one municipal hospital in Phnom Penh received coaching to set up EENC HCTs to support the *Five-year action plan for newborns*. The EENC-QI coaching involved virtual meetings between the WHO focal point and staff to discuss the structure, specific roles and functions, members of the HCT, and the use of the DHIS2 system to follow up and monitor progress. The EENC HCTs are multi-disciplinary teams which include staff from the maternity ward, neonatal care unit, infection prevention and control (IPC), and health management information system of the hospitals. These EENC HCTs meet regularly to discuss progress updates, develop strategies for addressing gaps, and determine QI plans linked to EENC implementation.

   Four national facilitators experienced in EENC-QI coaching led the process in the five hospitals. Members of the EENC HCT in each hospital attended two-day sessions for capacity-building and self-assessment on EENC-QI. The QI process focused on: a) identifying EENC clinical practice problems (through assessments and observation of immediate newborn care practices at birth, IPC measures, especially during the COVID-19 pandemic, reviewing the status of hospitals’ policies, medicines, and commodities for EENC, and conducting exit interviews with mothers and individual patient chart reviews); b) discussing (amongst the HCT members) the findings of the assessments and reviews; c) identifying, synthesizing and solving clinical problems; and d) developing strategies to address gaps and deciding on steps for EENC-QI implementation.

2. **Training of trainers on intrapartum and immediate newborn care**

   A training of trainers course was organized by the NMCHC with a focus on intrapartum and immediate newborn care. The initial coaching to the health workers in selected provincial hospitals was provided through seven hybrid (combination of in-person and remote/online participation) coaching sessions. Four participants from each province remotely joined the training sessions, while three to five technical staff physically ran the training from the NMCHC training room. As part of the coaching effort for provincial facilitators, five additional sessions of immediate newborn care training were conducted in five provinces where there was a shortage of trainers (mainly due to retirement of staff and/or staff assigned to other duty stations). The coaching tools were updated to support the training.

3. **Assessment of readiness of facilities to introduce and support KMC**

   Assessments were conducted in the five provincial hospitals from October to December 2020 to determine the readiness of facilities to introduce and support KMC clinical practice. The assessments were facilitated by senior staff of the NMCHC and technical officers of the Newborn and IMCI Working Group and conducted over two days. The assessment process included training of the technical staff of the HCTs on the use of an assessment checklist provided by the facilitators; data collection performed by HCT staff covering facility, equipment, staff number, and staff training as well as postpartum interviews with women, etc.; analysis (as a group) of all data and information gathered by the team to identify gaps that need to be addressed; and the development of an action plan with a timeline to ensure the readiness of the facility to support KMC.

4. **KMC clinical coaching**

   Based on the findings of the assessment, KMC clinical coaching was provided to the health workers at the maternity wards and neonatal care units in the five provincial hospitals in 2021. Overall, 84 health workers attended the initial coaching through seven hybrid (in-person and remote) training sessions.
5. Review of the existing clinical guideline on IMCI for children from birth to 2 months

To strengthen and scale up EENC activities, the National Pediatric Hospital with technical support from the Newborn Care and IMCI Working Group conducted a review and adaptation of the existing clinical guideline on IMCI (for children from birth to 2 months) which was done in line with the existing WHO IMCI training guide (5) (updated in 2019). At the time of writing, the guideline was being submitted to the Ministry of Health for approval.

Outcome of the implementation of the scale-up and strengthening of EENC during COVID-19

Results from the above-mentioned activities include the expansion of the HCTs which are now functioning in all 25 hospitals to support QI of routine childbirth and newborn care. As a result of targeted coaching and EENC training, the HCT members are able to effectively implement EENC, track progress, identify and solve related problems. Through assessment and KMC coaching. Staff capacity has been upgraded on aspects linked to special care for babies born by caesarean section, and preterm and low birthweight babies.

In total, 84 health care workers attended the coaching sessions, of which 20 have been trained to be immediate newborn care trainers and facilitators; 75 members of EENC HCTs have been coached on EENC-QI from October to December 2021 extending quality EENC services to all 25 provincial and community hospitals; and 84 participants from five provinces have received coaching in supporting KMC practices.

The coaching for EENC QI resulted in the expansion of implementation of skin-to-skin contact after birth by caesarean section (from 18 hospitals in 2020 to 22 hospitals in 2021) and in KMC provided to preterm and low-birth-weight babies (from 11 hospitals in 2020 to 16 hospitals in 2021) in the provinces where EENC HCTs were functional.

Facilitating factors and challenges

Facilitating factors

Progress in EENC was possible due to a number of facilitating factors.

- At the national level, the Ministry of Health showed strong commitment to supporting the NMCHC to deliver essential services for mothers and newborns.
- The NMCHC used the FTIRM, the National guidelines on EENC care and treatment, and the Five-year action plan for newborn care to guide and advance EENC implementation under the leadership of the NMCHC.
- Strong coordination mechanisms were in place, guided by the Newborn Care and IMCI Working Group and provincial health departments (PHDs)/operational districts.
  - Focal points on newborn care at the Ministry of Health were designated and played a critical role in facilitating and stimulating all hospitals and health centres for the provision of quality EENC services.
  - A provincial coordination group was set up for EENC which met regularly to review progress.
  - The HCTs at the hospital level are the primary mechanism for managing care and treatment of the newborn, but also for close monitoring, identifying service delivery gaps and developing new plans to address the gaps. These coordination and monitoring mechanisms at the national and sub-national level were crucial for efficient roll out of activities.
- The adoption of virtual training, coaching and monitoring helped to continue the capacity-building effort, despite the COVID-19 outbreak.
- The availability of data from the recently-established DHIS2 was key to allowing PHDs and operating districts to closely monitor progress.
- Several provinces could count on the support of United Nations agencies, other implementing partners and nongovernmental organizations, which directly invested in EENC activities. Regular coordination meetings in those provinces were important to take stock of progress and address the challenges faced.
Challenges

Progress in the future should be possible if the identified challenges can be overcome.

- Replacement of staff, whether following retirement or for other reasons, has been a challenge for the training unit of the NMCHC, leading to slower implementation of the training plan.

- Financial constraints have been a major challenge both for immediate newborn care and KMC coaching and training of trainers. As a result, not all staff (including nurses working at external consultation sections) have received training on immediate newborn care. Neonatal death review guidelines were prepared, but the NMCHC has not been able to scale up the training on these guidelines to all the provinces due to competing priorities and budgetary restrictions.

- Conversations with facility staff indicate that some are reluctant to adopt new skills and change their practices.

- In certain facilities, skin-to-skin practice has not been applied consistently for reasons such as lack of physical space in the health facility, small birthing rooms and/or limited number of hospital beds.

- Some mothers of preterm or low-birth-weight babies insist on being discharged from the health facility earlier than recommended. Mechanisms for follow-up at the community level can be strengthened.

- Hygiene in health facilities remains a problem. A number of facilities do not have running water, flushing toilets, etc. The management of waste also needs attention in some facilities.

- Most of the activities described in this report have been technically and financially supported by implementing partners, including United Nations agencies, donors and nongovernmental organizations. With the phasing out of this support the continuity of service delivery and the organization of events such as the hybrid annual EENC workshop, which was held in December 2021 with over 200 staff from across the 25 PHDs, hospitals and partners, may not be possible in the coming years. Impacts have already been seen as the HCTs of the affected hospitals have not been able to meet and discuss various issues linked to the management of hospital services for newborns and mothers as planned. Such meetings have been important during the COVID-19 outbreak.

Moving forward

Work during the post-pandemic phase should be carried out on strengthening the community's (especially mothers’ and fathers’) awareness and understanding of the health and care needs of newborns through primary health care. To this end, user-friendly digital tools should be employed where applicable.

Current efforts to strengthen the capacity of staff will continue to be a priority for the NMCHC. There is also a need to ensure any newly-developed guidelines are integrated into training and that the guidelines will be disseminated to all staff.

Data management, monitoring and reporting through the DHIS2 are well-embedded into the current health system, and they are widely accepted by the NMCHC and health partners. Staff of the remaining ten provinces have been trained in 2022 using financial support from WHO and the non-governmental organization Alive and Thrive. These provinces will soon implement the DHIS2.

The checklist for EENC-QI has been integrated into the health system and is used by the Ministry of Health for assessing the core skills of midwives providing EENC.

The Newborn Care and IMCI Working Group has identified key next steps, including: a) scaling up KMC for the management of preterm and low-birth-weight babies; b) strengthening the management of neonatal sepsis; c) scaling up and improving the quality of data from the DHIS2 related to EENC; d) strengthening EENC-QI in national hospitals; e) updating and coaching IMCI efforts for children under 5 years of age; f) continuing work with NMCHC to reduce the impact of COVID-19 on sexual and reproductive, maternal, newborn, child and adolescent health services; and g) further integrating EENC interventions and QI into the primary health care system. More work and deeper exploration of neonatal deaths and other affected indicators (disaggregated by poverty status, mothers’ education level, status of COVID-19 vaccination, etc.) are needed to better understand the root causes of the impacts, and thus allow for formulating specific interventions to address them.
Acknowledgements

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The views in this brief do not necessarily represent the decisions, policy or views of the World Health Organization.

Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td>ANC</td>
<td>antenatal care</td>
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<td>DHIS2</td>
<td>district health information system</td>
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<td>EENC</td>
<td>early essential newborn care</td>
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<td>FTIRM</td>
<td>Fast-track initiative road map for reducing maternal and newborn mortality</td>
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<td>HCT</td>
<td>hospital core team</td>
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<td>IPC</td>
<td>infection prevention and control</td>
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<td>IMCI</td>
<td>Integrated Management of Childhood Illness</td>
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<td>KMC</td>
<td>kangaroo mother care</td>
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<td>NMCHC</td>
<td>National Maternal and Child Health Centre</td>
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<td>PNC</td>
<td>postnatal care</td>
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<td>QI</td>
<td>quality improvement</td>
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References


