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REGIONAL OFFICE FOR

South-East Asia

SUCCESS STORIES

SOUTH-EAST ASIA REGION

**REPRODUCTIVE,
MATERNAL, NEWBORN,
CHILD & ADOLESCENT HEALTH**



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Success Stories in Reproductive, Maternal, Newborn, Child and Adolescent Health from WHO South-East Asia Region.

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FOREWORD

In 2020 the world embarked on a Decade of Action to deliver the Sustainable Development Goals (SDGs), including SDG 3 and its targets on maternal, neonatal and under-5 mortality. The WHO South-East Asia Region has in recent years made significant progress in all areas of sexual, reproductive, maternal, newborn, child and adolescent health (SRMNCAH), in line with its Flagship Priorities and “Sustain. Accelerate. Innovate” vision.

Between 1990 and 2019 the Region reduced the under-five mortality rate (U5MR) by 73% and the neonatal mortality rate by 62% (NMR). Between 2000 and 2017 the Region reduced the maternal mortality ratio (MMR) by 57% compared with 38% globally. Five Member States have already achieved the 2030 U5MR target of 25 per 1000 live births or lower. Four have achieved the 2030 NMR target of 12 per 1000 live births or lower and six have achieved the 2030 stillbirth rate target of 12 per 1000 total births. Two are on track to achieve the 2030 MMR target.

As this regional compendium highlights, Member State progress can be attributed to sustained increases in the coverage of evidence-based and life-saving SRMNCAH interventions, and steady overall improvements in the quality of care provided to mothers, newborns and children. The 26 case studies contained herein are intended to document best practices and lessons learned from across the Region, and to facilitate cross-learning between countries to maximize impact in this Decade of Action. This is especially important amid the current pandemic scenario, where we are unable to conduct study tours.

I thank contributors from all Member States and appreciate the untiring efforts of ministries of health, whose commitment to enhance the health of women, children and adolescents is an inspiration. Throughout the COVID-19 response, recovery and beyond, WHO will continue to support Member States in the Region to increase the coverage of evidence-based and life-saving interventions across the SRMNCAH life-course, and to drive further reductions in maternal, neonatal and under-five mortality. For a fairer and healthier Region for all, together we must act.



A handwritten signature in black ink, reading 'Poonam Khetrapal Singh'.

Dr Poonam Khetrapal Singh

Regional Director,
WHO South-East Asia

INTRODUCTION

The WHO South-East Asia Region has achieved a commendable 71% reduction in under-5 mortality rate (U5MR) and 62% reduction in neonatal mortality rate (NMR) in 2018, from the baseline of 1990.¹ The maternal mortality ratio in the Region has also declined by 71% between 1990 and 2017, which was the largest reduction among the WHO regions.² This achievement allows us to move into the remaining decade of the SDGs phase with five of our Member States having already achieved the targeted U5MR of 25 per 1000 live births, four having achieved the targeted NMR of 12 per 1000 live births, three having achieved the targeted stillbirth rate of 12 per 1000 total births and two countries being on track to achieve the targeted MMR, as of 2019–2020.

However, the progress has been variable among the different countries of the Region, wherein some countries have already achieved selected SDG targets while others need to accelerate mortality reduction to reach the target by the year 2030. In addition to the mortality reduction, countries also need to pay attention to the “Thrive” and “Transform” objectives of the Global Strategy (2016–2030) to support health and development of all women, children and adolescents across the life-course continuum to improve the quality of their lives and develop an enabling environment towards societal transformation.

This progress in mortality reduction can be related to an increase in the coverage of known life-saving evidence-based interventions. The progress in scaling up coverage of such interventions varies across and within countries owing to wide disparities on account of social and economic factors such as wealth status, gender, education of women and geographical locations within the countries.

Several countries in the Region experience financial, human and other health system constraints for the health programmes for women, children and adolescents, which make it difficult to achieve high coverage of life-saving, evidence-based interventions. Despite the challenges, it has been observed that Member States in the SEA Region have diverse strengths and capacities and have achieved progress in specific areas of reproductive, maternal, neonatal, child and adolescent health (RMNCAH) programmes by adopting effective and innovative approaches and have demonstrated success in specific areas.

Defining “success” depends on the local context specific to a country. For example, while one country may consider achieving 90% implementation coverage of an RMNCAH intervention as “success”, another country may view even an introduction of the same service in the country’s policy dialogue as a reasonable success. Nevertheless, there is a

¹ United Nations Inter-Agency Group for Child Mortality Estimation (UN IGME). Levels and trends in child mortality: report 2020. Estimates developed by the United Nations Inter-Agency Group for Child Mortality Estimation. New York: United Nations Children’s Fund; 2020.

² WHO, UNICEF, UNFPA, World Bank Group, United Nations Population Division. Trends in maternal mortality 2000 to 2017: estimates. Geneva: World Health Organization; 2019. License: CC BY-NC-SA 3.0 IGO

learning in both that could benefit another country. Therefore, we have not restricted the use of the term “success” to describe a state of perfection in this compendium. Hence, the results conveyed in a “success story” included in the document could appear partial and related to just one or more aspects of the practice.

Nevertheless, the countries can benefit tremendously from exchanging such successful experiences and hard-won solutions with one another. Driven by this understanding, the WHO Regional Office for South-East Asia has collated a series of country experiences related to the RMNCAH programmes and services that have contributed to the improved access and coverage of the essential health services/interventions, and are thus considered “success stories”.

The success stories included in this regional compendium were prioritized from the suggestions received from countries in consultation with the ministries of health. A template was provided by the Regional Office to prepare the manuscript of the selected case studies that were prepared by the country experts using the information available in the published documents and reports within the Ministry of Health and outside, and did not involve primary data collection. The manuscript was initially reviewed by the WHO team at the Regional and country offices and was finally reviewed by the relevant technical leads of the RMNCAH programme in the Ministry of Health.

Knowledge sharing about what has worked well across the RMNCAH life-course in a country could inform actions in another country with appropriate adaptations. This could maximize the impact of translation of experiential knowledge into action and accelerate progress towards the survival, health and development of all women, newborns and children in the Region. This is a Regional Flagship Priority and contributes to the “Sustain, Accelerate, Innovate” vision of the Regional Director for South-East Asia.

The success stories have been compiled in several sections representing the life-course across RMNCAH, including maternal, newborn and child health, adolescent health and sexual and reproductive health.

CHAPTER

1

MATERNAL HEALTH AND MIDWIFERY



BANGLADESH

A new journey to improve maternal health: Experience of implementing midwifery programme

Introduction

The Government of Bangladesh is improving the situation of maternal and child health care and has made admirable progress in this direction. Various data made it evident that the maternal mortality rate (MMR) has decreased by 56% in the country within the last 15 years and, according to SVRS (Sample Vital Registration System) 2019 it stands at 165 per 100 000 live births. This means the absolute reduction in maternal death is from 21 000 to 5200 from 1990 to 2019. Bangladesh Demographic and Health Survey (BDHS) 2017–2018 reveals that facility deliveries have increased from 37% to 50% from 2014 to 2017. The gradually reducing trends in MMR indicate that access to maternal health-care services is improving. However, despite significant progress and efforts, it is highly difficult to ensure respectful maternity care for all pregnant women in Bangladesh.

According to BDHS 2017–2018, half of all deliveries still take place at home. However, lack of better infrastructural facilities, poor governance among service providers, traditional health-seeking behaviours of the people, and shortage of human resources are common challenges to achieving the Sustainable Development Goal (SDG) of reducing MMR to as low as 70 per 100 000 live births by 2030. Therefore, pregnant women, especially from rural areas, are deprived from accessing such life-saving services.

Bangladesh is a developing country fully committed to achieving the Sustainable Development Goals 2030. There is no doubt that reduction of maternal and newborn morbidity is a key concern of the Ministry of Health and Family Welfare of Bangladesh. Accordingly, a series of initiatives to overcome the challenges has been taken up. Over the last two decades, the National Health Policy has incorporated a broader perspective developed from the "Right to Safer Motherhood."

In 2008, the Government of Bangladesh endorsed certain strategic directions and created 3000 midwifery posts. This is the first time that a dedicated cadre skilled in the provision of safe motherhood services was created to provide maternal health services to all women when needed.³ To implement the programme WHO and the United Nations Population

³ Bangladesh Journal of Bioethics 2014; 5(3): 26-27

Fund (UNFPA) supported the training of the midwives. The training was planned to be completed by 2015; the profession of midwifery being introduced in 2013. The midwifery cadre was set up by upgrading the skills of some of the existing nurses with a six-month, post-basic training programme and instituting a three-year diploma course on midwifery.⁴

The commitment expressed by the honourable Prime Minister of Bangladesh at the United Nations General Assembly also spurred the acceleration of the programme. Based on the commitment, the Government initiated a three-year midwifery diploma course under the Bangladesh Nursing and Midwifery Council (BNMC) to train 3000 midwives to be deployed at all the 427 *upazila* health complexes (UHCs), 63 district hospitals (DHs) and 70 mother-and-child welfare centres to be designated as "centres of excellence". Besides, a "post-basic six-month midwifery training" course for nurses who have completed the three-year nursing diploma was begun as an interim strategy in 2010, and a three-year direct entry diploma on midwifery was launched nationwide in December 2012.

To make it more effective and functional, the updated National Strategic Directions for Midwifery in Bangladesh 2014 focused on four priority areas with strategic actions for each area, such as (a) Policy and planning; (b) Training, education and research; (c) Deployment and utilization; and (d) Regulations.

The Ministry of Health and Family Welfare has incorporated midwifery transformation into the International Confederation of Midwives' (ICM) standard provisions on the Maternal, Child, Reproductive and Adolescent Health (MCRAH) Operational Plan (2017–2022) of the Directorate General of Family Planning (DGFP). It was mentioned that DGFP will introduce midwives into its health-care facilities as per the global standard of using professional midwives as the first-line health-care providers for reproductive, maternal and newborn health services. A plan was made to transition the existing family welfare visitor (FWV) positions into midwifery positions. This was done both by upgrading existing FWVs to midwives, and by changing recruitment policies so that in the future midwives will fill up posts as they open up.⁵

The Government of Bangladesh has taken a major step forward in ensuring safe motherhood and quality of care through the introduction of the midwifery cadre. The following are the major steps in the process:

Establishment of midwifery institutes

To meet the targets the government has taken the initiative to increase the number of educational institutes in both the public and private sectors. Table 1 shows that during 2009–2013 there was no government or private midwifery institute except for four private junior midwifery institutes (18-month course). During 2014–2018 both government and private midwifery institutes were established, and the course launched. The government not only established the institutes but also increased the number of seats so that more students can be enrolled as future midwives.

⁴ National Guideline for Midwives 2017

⁵ 4th HPNSP, MCRAH Operational Plan, January 2017–June 2022

Table 1. Establishment of midwifery institutes

No.	Type of institute	2009–2013	2014–2018
1	Govt. midwifery institute	0	38
2	Private midwifery institute (three-year diploma)	0	16
3	Private junior midwifery institute (18-month course)	4	1

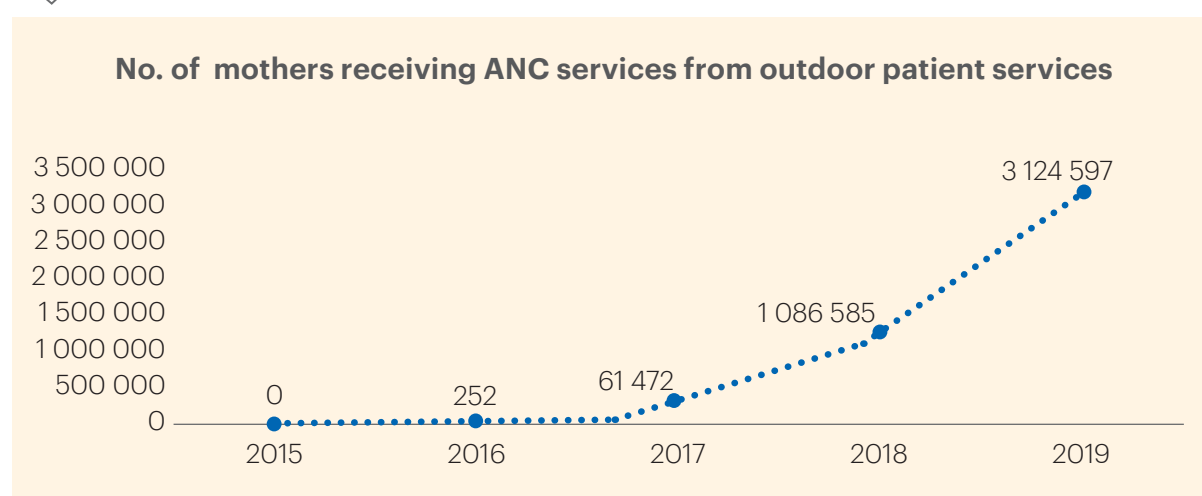
Seats for the midwifery programme

About 600 midwives were deployed at the beginning of the Maternal, Newborn, Child and Adolescent Health (MNCAH) Operational Plan (2017–2022) of DGHS, and their job description and the modalities of “midwives-led maternal and newborn care” have been developed and approved.⁶

Currently, a total of 1149 registered midwives have been deployed in 342 *upazila* health complexes throughout the country. Besides this, a total of 4623 midwives have graduated and 4399 received the licence to practice as professional midwives.⁷ Now midwives are playing an active role in district, sub-district and Union-level health facilities, and this creates a positive impact on antenatal care (ANC), normal vaginal delivery (NVD), essential newborn care (ENC) and postnatal care (PNC) services.

Table 2. Increase in number of seats for new students

No.	Type of institute	2009–2013	2014–2018
1	Govt. midwifery institute	0	975
2	Private midwifery institute (three-year diploma)	0	560
3	Private junior midwifery institute (18-month course)	180	40

Fig. 1. Number of mothers receiving ANC services from outdoor patient services

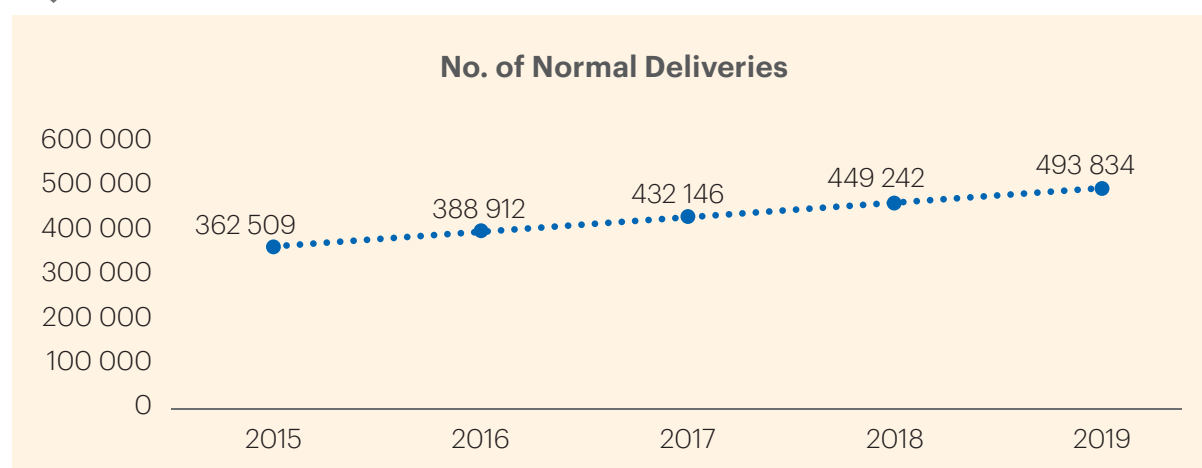
Source: National Health Information System (DHIS2)

⁶ 4th HPNSP, MNCAH operational plan, January 2017–June 2022

⁷ <https://bangladesh.unfpa.org/en/news/midwives-continue-save-lives-braving-COVID-19>

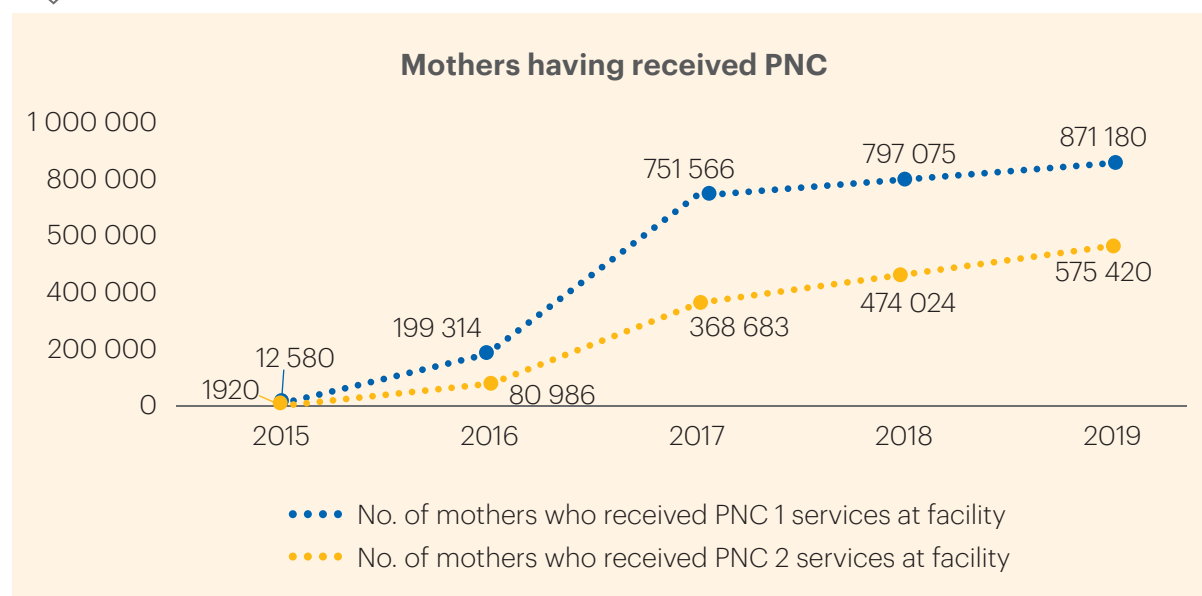
Fig. 1 shows that ANC services increased very slowly from 2016 to 2017 but very rapidly from 2018 to 2019. Fig. 2 shows that the number of normal deliveries also increased day by day over the years. According to Fig. 3, both PNC-1 and PNC-2 services are increasing gradually.

Fig. 2. Mothers receiving ANC services from outdoor services



Source: National Health Information System (DHIS2)

Fig. 3. Number of mothers receiving PNC-1 and PNC-2



Source: National Health Information System (DHIS2)

Midwives are playing a crucial role in securing the health and well-being of the mother and newborn. They are the key service providers for quality maternal health. However, midwives are facing various challenges in performing their role, and being a new cadre, other health professionals do not easily accept them. There are also challenges in regular recruitment. An insufficient number of dedicated midwives for normal delivery and overall maternal health services is also a challenge. Given the shortage of qualified midwives, midwifery education will have to be expanded in both the public and private sectors.

Considering the country's development, and in the maternal and newborn health context, there is no alternative to midwives for achieving quality maternal health services. Professional bodies played a vital role in standardizing the training curriculum and providing quality assurance of training in both the public and private sectors. Operational plans also include midwifery activities under DGHS and DGFP.

The Government and its partners provide support to improve capacity for the development and implementation of standardized training as well as in the functioning of training institutions for a quality midwifery programme. Strategic directions on redesignated nurses who have completed six months of post-basic midwifery training and are deployed as dedicated midwives in the labour units have also been provided.

The three-year midwifery course in the private sector is being promoted to fill the gap in midwifery needs, and preference is being given to trained community skilled birth attendants (CSBA) for admission to this course. Unemployed diploma nurses are being enrolled for the post-basic six-month midwifery training. They will be considered while filling up the newly created posts of midwives to ensure success for the midwifery programme in Bangladesh.

Service data shows that maternal health services improved significantly after the deployment of midwives in the routine health system. Midwives support 24x7 normal delivery in the facilities. Therefore, the government with the support of development partners should mitigate the existing challenges and include more midwives in the routine health programmes. Their contribution should be recognized formally to boost their confidence and their journey towards improving the maternal health programme in Bangladesh should be supported.

Further reading

Bangladesh National Strategy for Maternal Health, 2015–2030



Pinki Datta is a midwife at the upazila health complex at Botiyaghata in Khulna district. Her first posting was in the Paickgacha complex, also in Khulna district, from July 2018. After a few months, she was transferred to Botiyaghata upazila. At that time ANC coverage was very low in her facility, but now she serves 30–40 ANC services each month. Facility delivery is also increasing day by day. 'We are away from our families and stay in a remote area to serve pregnant women. We are not even recognized as essential service providers by others,' she says. 'But when a baby comes out in this world and I see the smiling face of the mother; I forget my sorrows. It gives me great joy. I don't have any word to explain my feelings then. But we need more support and respect to carry out our noble job.'

INDIA

Integrated maternal care through the labour room and maternity operation theatre quality improvement initiative (LaQshya)

Introduction

India has shown marked improvement in reducing its maternal mortality ratio from 301 in 2001–2003 to 113 in 2016–2018 (SRS). Institutional deliveries have increased by approximately 40%, and almost 80% of deliveries happened in health-care facilities by 2015–2016 (NFHS). The Ministry of Health & Family Welfare (MoH & FW) of the Government of India defined the National Quality Assurance Standards (NQAS) for improving the quality of care in public health facilities in 2013–2014.

These standards have attained international accreditation from the International Society for Quality in Health Care (ISQUA), and from the Insurance Regulatory Development Authority of India (IRDAI) at the domestic level. This was based on the health systems approach for ensuring quality of care. It is based on establishing institutional framework for seamless implementation of standards of care, objective measurement, capacity-building, resource allocation for gap closure, certification and incentivization. These standards of care are available for various levels of health-care facilities, which include district hospitals, community health centres, primary health centres (rural and urban) and health & wellness centres (PHC & Subcentres).

Despite all ongoing efforts for improvement, an urgent need was felt to accord greater focus on improving the quality of care in labour rooms and maternity operation theatres for maximum impact in reducing preventable maternal and newborn deaths. As defined by WHO, quality of care is “the extent to which health-care services provided to individuals and patient populations improve desired health outcomes”. In line with this definition of quality of care, the Government of India launched an ambitious programme – “labour room and maternity operation theatre quality improvement initiative” or “LaQshya” (meaning “target” in English) – in 2017 to improve the care around birth and strengthen existing quality efforts in MCH services.

Key components of the programme are

- » Organization and standardization of labour rooms (LRs) and maternity operation theatres (OTs) as per national guidelines and standards.
- » Structured efforts (based on scientific methodology) to improve adherence to critical (clinical and non-clinical) practices around childbirth.
- » Ensuring conducive environment and processes for improving client satisfaction such as “respectful maternity care” (RMC).

Fig. 4. LaQshya programme framework

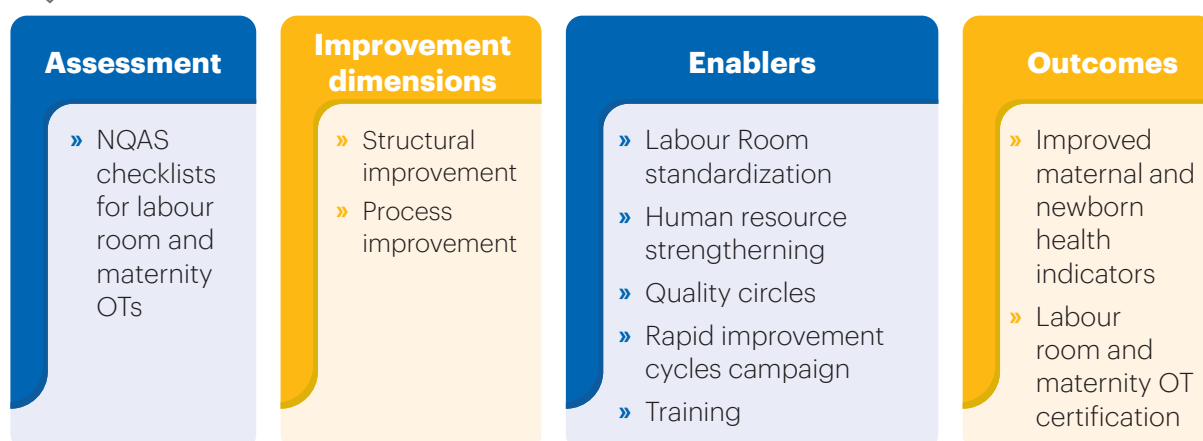
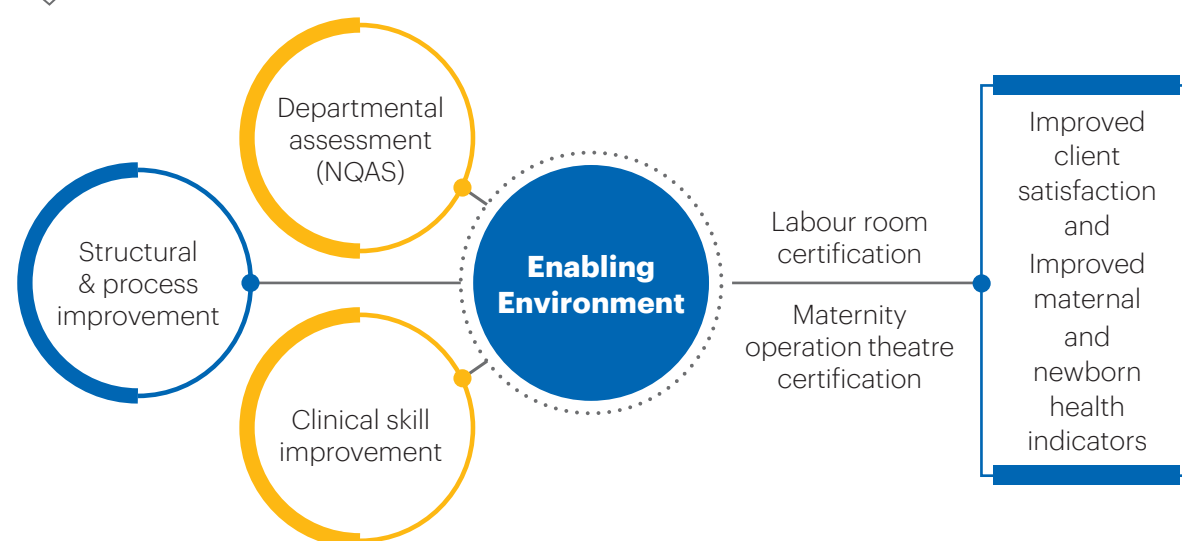


Fig. 5. Activities under LaQshya programme



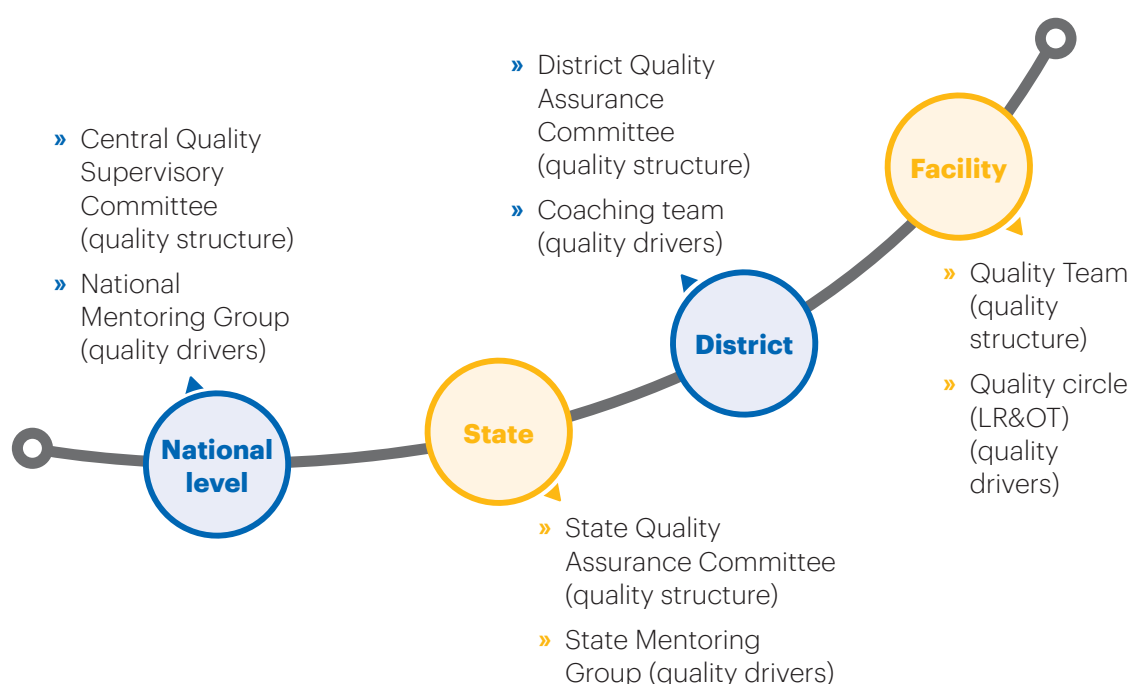
Implementation of the practice

To bring improvement to the system it is essential to find out gaps and take action accordingly. The gaps could be critical (like gap identified in clinical processes) or it could be a simple, non-critical gap where some structural changes or enhancement is required.

As part of the infrastructure upgradation, the MoHFW provided technical guidance and financial support for standardization of labour rooms and OTs, and introduced the concept of "Labour-Delivery-Recovery" (LDR) rooms and obstetric HDUs and ICUs, providing an opportunity for the facilities to standardize their structural components to ensure quality of care. Apart from the structural changes, LaQshya aims to improve the "processes" which are to be sustainable over the years.

States have identified and prioritized more than 2800 public health facilities under the LaQshya programme,⁸ which includes medical colleges, district hospitals, first referral units (FRUs) and high-delivery load facilities. The programme is being implemented under the existing institutional framework for the National Quality Assurance Programme, which includes: State Quality Assurance Committees (SQAC), District Quality Assurance Committees (DQAC), and quality teams at the facility level.

Fig. 6. Programme structure and institutional arrangement under LaQshya



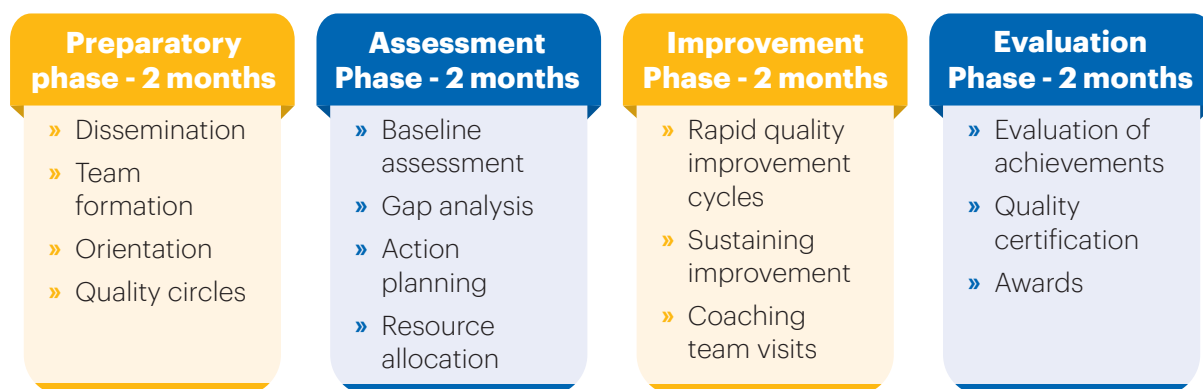
For the seamless implementation of LaQshya, the quality assurance committees at the national and state levels are supported by a National Mentoring Group and State Mentoring Group respectively.

Similarly, to mentor the district-level efforts, mentoring groups are constituted at the district levels also to provide ongoing guidance for clinical and quality assurance efforts to their identified facilities. These teams work in tandem with facility-level quality circles that work closely for improvement in their labour rooms and maternity operation theatres.

⁸ <https://pib.gov.in/PressReleasePage.aspx?PRID=1578508>

The activity of the mentoring groups/coaching teams are divided into four phases: preparatory, assessment, improvement and evaluation. Of these, the improvement phase is the longest and is spread across 12 months encompassing six well-defined rapid improvement (RI) cycles.

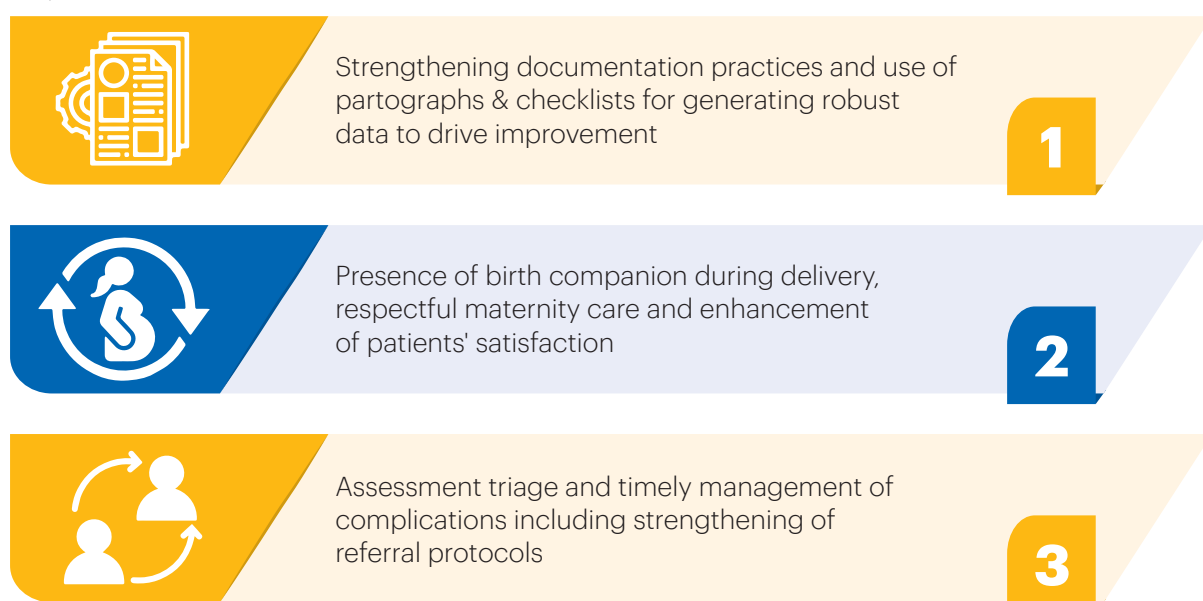
Fig. 7. Activities of mentoring group under LaQshya

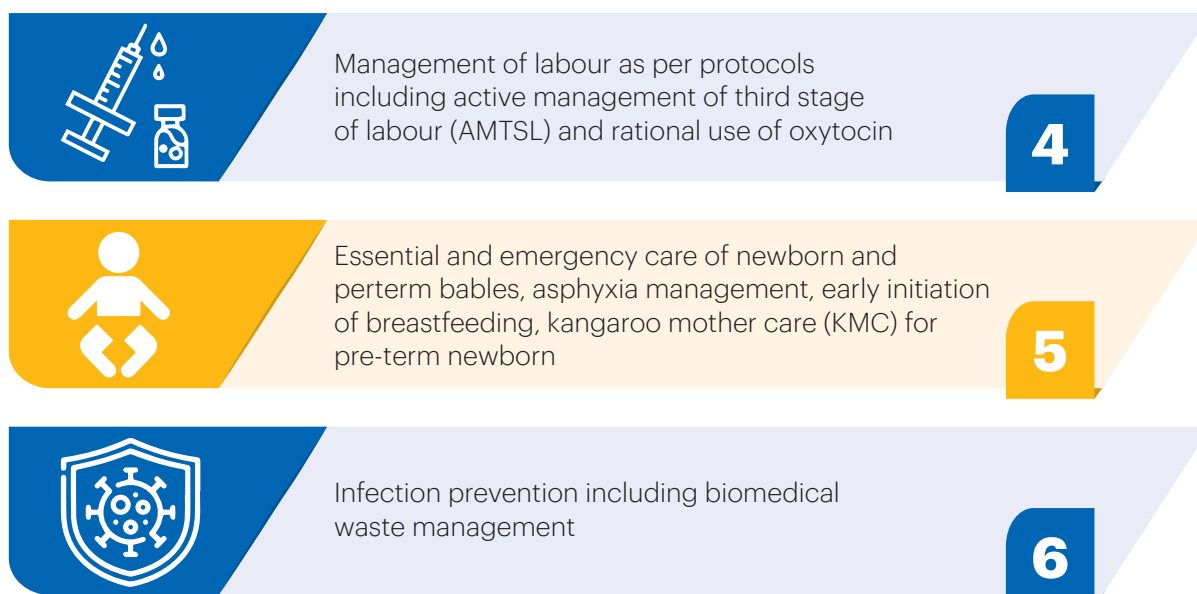


Six rapid improvement cycles have been suggested to support the facilities in improving the gaps identified during departmental assessments using NQAS checklists for LR and M-OT.

The initiative prioritizes local problem-solving, thereby ensuring ownership and accountability at the facility level through formation of quality circles (departmental level) and quality teams (facility level) at the intervention facilities. Critical gaps identified through NQAS checklists for LaQshya are removed using scientific methodologies of "Plan-Do-Check-Act (PDCA)," which are used to drive and sustain change through 6 defined RI cycles.

Fig. 8. QI Cycles defined under LaQshya

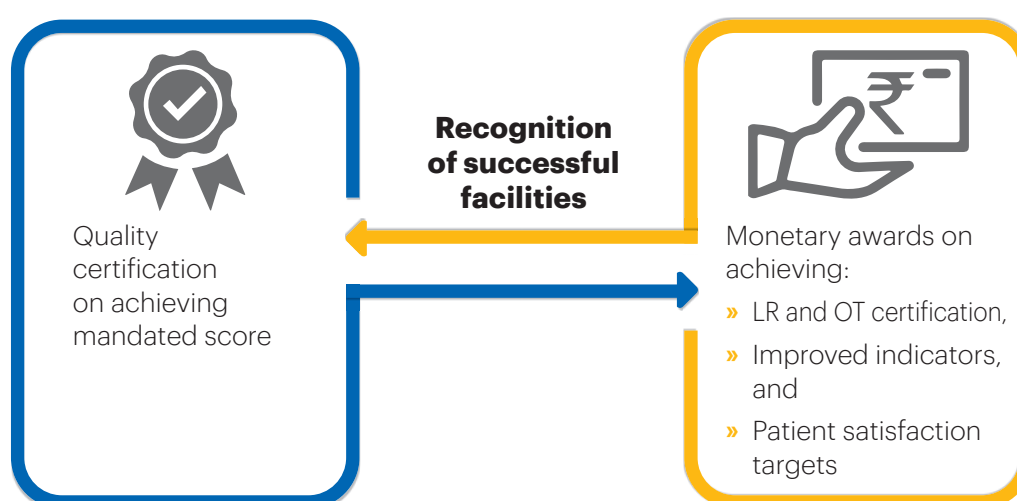




Certification, incentives and branding

For continual quality improvement, the health facilities undergo four levels of assessment, namely facility, district, state and the national level (conducted by trained, empaneled assessors). Quality of care at the labour room and maternity OT are being assessed through NQAS checklists, and every department meeting the defined criteria of stipulated target score, attainment of facility-level quality targets and client satisfaction score are provided LaQshya certification. Facilities achieving the LaQshya certification must mandatorily undergo annual surveillance assessment to ensure sustenance. Furthermore, facilities achieving LaQshya certification are provided monetary incentives as well.

Fig. 9. Recognition of successful hospitals under LaQshya



The National Health Mission is providing continuous support to the states with capacity-building for undertaking the assessments, analysing the gaps, developing action plans for bridging the gaps, application of quality tools, and measuring the outcomes. The budget for quality assurance activities, including infrastructure upgradation, procurement of equipment and supplies, human resource training, incentivization, etc. is being provided through the National Health Mission.

In addition, digital support is being provided through a dedicated "Gunak" application which helps the assessors (of all levels) to conduct paperless assessments. It now envisages dashboard visualization at all levels for review and decision-making support.

Journey so far

Since its inception and launch, the Ministry has been proactively supporting states in the roll-out of the LaQshya programme. A series of state orientation meetings were conducted after the national launch to create wider discussions around the LaQshya programme and institutional structures for quality improvement.

Fig. 10. LaQshya – journey so far



The Ministry facilitated national–regional– and state-level training of trainers as capacity-building for the states to start the work under LaQshya and support further dissemination of the guidelines to districts. Similarly, the medical colleges were also brought under the ambit of LaQshya and mentoring was provided to them for the implementation of the scheme. With the imposition of COVID-19–associated lockdown and travel restrictions in the country in 2020, the Ministry of Health released an interim guidance document for facilitating online mentoring and assessment of the health facilities.

Results of the practice

Till May 2021, out of 2805 targeted facilities, more than 650 labour rooms and maternity OTs have been certified in the country. Gujarat and Maharashtra have been at the forefront, reporting the maximum number of LaQshya certified hospitals and medical colleges in the country since 2018. It is also important to view the achievement beyond numbers as a sustainable quality drive across the country. Results are more significant in the present circumstances where the facilities at various levels including at medical colleges are not only managing the COVID-19 response but also working to improve quality of care for maternal and newborn health.

Various states in India have been at the forefront of developing strategies for LaQshya implementation in their facilities. Notable efforts have been undertaken in the states of Gujarat, Tamil Nadu, Maharashtra and Chandigarh Union Territory. While Tamil Nadu adopted a special three-tier system for the LaQshya programme, Gujarat was the first state to achieve certification for its medical colleges. All these examples provide a glimpse of how a national quality assurance programme was adopted and contextualized by states based on their individual strengths and capacities.

Success stories from the States/UTs

Gujarat has been leading in LaQshya certification for medical colleges in the country. Since the launch of the programme, the state worked proactively in meeting the infrastructure gaps, human resource deployment, streamlining processes for quality of care and developing state– and facility– level quality improvement systems. The state focused on LaQshya certification for high-delivery load facilities with a focus on medical colleges certification.

As a result, two medical colleges in the state – GMC Ahmedabad and GMERS Medical College, Gandhinagar – were the first medical college institutions in the country to be awarded LaQshya certification. Currently, the state has received certification for 51 labour rooms and 46 M-OTs which include 11 medical colleges. As part of the ongoing monitoring mechanism, there is a regular monitoring of 20 key process indicators which are reported and reviewed on a monthly basis from these facilities.

Similarly, **Chandigarh** did exemplary work in fast-tracking LaQshya certification of its four hospitals. Once the baseline assessments were completed, the team worked with the facilities to develop a plan of action for each institution. The team focused on developing multi-disciplinary units comprising state nodal officers, representatives from civil,

electricity and public works departments for fast-tracking infrastructure development. There were weekly meetings and checklist-based systems were adopted for weekly progress review and follow-up. The team worked closely to measure progress against indicators in a stipulated time period, which allowed it to complete the gaps and facilitate national assessment within a span of a few months. Creating master trainers, imparting training to health workers including on-job training, and periodic monitoring through checklists led to improved processes translating into improved patient satisfaction scores.

Similarly, **Tamil Nadu** also worked proactively with obstetricians and caregivers in the facilities to create awareness around quality of care. In the beginning, there was reluctance among clinicians about the programme as medical colleges are overburdened with cases and there was paucity of human resources as well. However, the state gradually imbibed the transformation, beginning with facilities in the aspirational districts achieving certification.

The state then facilitated experience-sharing sessions from this achievement. That brought about a collective motivation towards quality of care and LaQshya programme in the state. The state also utilized the existing network of regional consultants to facilitate LaQshya mentoring. This network of collaborative learning and implementation led to certification of 33 facilities including seven medical colleges.

Lessons learnt

India's **Labour room and maternity operation theatre quality improvement initiative (LaQshya)** experience shows that leadership and commitment at the highest level are instrumental in driving change. Provision of state- and national- level certification underlines the fact that quality is an ongoing process and not a one-time effort. Motivation through financial as well as non-financial incentives, and recognition at the national and state level act as catalysts for sustained quality improvement efforts.

While the programme is still being bolstered in the country, there is need to develop sustainable mechanisms for supporting continuous quality improvement in the facilities. As per the current system, facilities receiving national certification need to undergo annual verification and reassessment by state quality assurance committees (SQAC). In this regard, exploring the role of LaQshya-certified medical colleges as resource centres may be beneficial in the long run for sustainability of the programme.

As the name suggests, "LaQshya" has now become the target of every facility that aims to improve the processes and the related outcomes. Facilities have now geared up to achieve the well acclaimed "LaQshya certification" status. Even in the COVID-19 period the initiative did not lose momentum. Online mentoring and online assessments have now become the "new normal".

Conclusion

Bringing out the required change in the processes related to care during delivery is essential to achieve further reductions in preventable maternal and newborn deaths within a short period of time. Prerequisites of such an approach would also hinge upon

the health system's preparedness, availability of adequate infrastructure, functional equipment, drugs & supplies, and human resources, along with meticulous adherence to clinical protocols by the service providers at the health facilities.

LaQshya has been able to bring about change by implementation of the change ideas using scientific methodologies such as gap identification and closure. Sustainability mechanisms are vitally important, as quality is a continuous and ongoing process for long-term impact on health and well-being of mothers and newborns.

Further reading

- Tuncalp ö, Were WM, MacLennan C, Oladapo OT, Gulmezoglu AM, Bahl R, Daelmans B, Mathai M, Say L, Kristensen F, Temmerman M, Bustreo F. Quality of care for pregnant women and newborns—the WHO vision. BJOG 2015; 122:1045–1049.
- Operational Guidelines for quality assurance in public health facilities. National Health Mission. Government of India. 2013
- LAQSHYA. Labour room quality improvement initiative. National Health Mission. Government of India. 2017
- https://www.who.int/maternal_child_adolescent/topics/quality-of-care/network/en/

Links to documents

LaQshya guidelines, MNH Toolkit and Operational Guidelines for quality assurance in public health facilities and checklists – all maternal health-related documents of the Government of India are available at: <https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=839&lid=377>

Fascimile of covers of information documents



THAILAND

Elimination of mother-to-child transmission of HIV

Introduction

The human immunodeficiency virus (HIV) not only affects the quality of life in pregnant women, but also has serious implications for her baby if not managed properly. Thailand experienced an HIV epidemic during the 1990s,⁹ during which the HIV prevalence among pregnant women was 2.0%¹⁰ and the mother-to-child transmission (MTCT) rate was more than 20%. Hence, this is recognized as a long-term national and societal problem with significant budgetary implications for the country.

Elimination of maternal to child transmission of HIV and syphilis was initiated at national level in 2000 and it focused on activities such as couple counselling for HIV and syphilis screening, diagnostic services, antiviral regimen for pregnant women to prevent MTCT regardless of maternal CD4¹¹ level, early infant diagnosis of HIV infection by polymerase chain reaction (PCR) technique, and antiviral therapy for HIV-infected newborns and breast-milk substitutes for 18 months.

Till the year 2013, only 75% of newborns from HIV-infected mothers were receiving early PCR infant diagnosis, and among those diagnosed as HIV-infected, only 67% were registered under the National AIDS Programme. Of these, only 59% received adequate antiretroviral therapy, effectively meaning that less than 30% of the total infants born to HIV-infected women received adequate management. This reveals that though it was well recognised by Thailand that early initiation of ART reduces HIV-related morbidity and mortality among infants infected with HIV, the coverage of adequate care for maternal to child transmission remained low.

This led the Thailand Ministry of Public Health to launch the Active Case Management Network to promote early ART initiation, "Aiming for Cure (ACC)", in August 2014. This was further supported by the Thai National AIDS Strategy 2016–2030 that defines goals of elimination of maternal-to-child transmission of HIV to <1% by the year 2020 and zero mother-to-child HIV transmission by the year 2030.¹² This was followed by the development

⁹ Lolekha, R., Boonsuk, S., Plipat, T., Martin, M., Tonputsu, C., Punsuwan, N., ... & Chaivooth, S. (2016). Elimination of mother-to-child transmission of HIV—Thailand. *Morbidity and Mortality Weekly Report*, 65(22), 562-566.

¹⁰ Thailand Ministry of Public Health. Validation of elimination of mother to-child transmission of HIV and syphilis, Thailand 2013–2015 Report. Nonthaburi, Thailand: Thailand Ministry of Public Health; 2016.

¹¹ Cluster of differentiation

¹² World Health Organization defines "elimination" as <2% of mother-to-child transmission (MTCT)

of Thailand's comprehensive Operational Plan to Accelerate Ending AIDS by 2030, focused on the period 2015 to 2019.

This plan was meant to translate new scientific evidence into programmatic action and refocus key interventions among key populations, i.e. pregnant women and their partners and infants in high-priority geographical sites, with the specific purpose of addressing gaps needed to achieve Thailand's goal of ending AIDS by 2030.

The programme has been implemented nationwide among all high-risk pregnant women with positive HIV infection. Strategies introduced include active follow-up procedures, such as telephone follow-up, CD4 count monitoring twice a year, measurement of HIV viral load prior to labour and offering labour management according to the HIV viral load level. For infants, laboratory investigation at birth was introduced; if found positive the follow-up was done in one month and appropriate ARV management started.

Consultation at a pregnancy clinic in Thailand



Source: Ministry of Public Health, Thailand

Implementation of the practice

The active case management (ACM) programme builds on the pre-existing strategy and was designed for individual pregnant women with high risk of maternal to child transmission of HIV. The risks include late antenatal care (ANC), antiviral therapy received for less than 12 weeks, poor compliance with antiviral treatment, different HIV status with partners (result positive in one partner and negative in the other) and concealing the HIV result. The ACM programme was established with collaboration between the Department of Medical Science, Department of Disease Control, Department of Health, academia, and

international organizations to expand HIV testing coverage and promote early antiviral therapy in HIV-infected newborns. The programme interventions consisted of:

- a) Establishment of ACM Network consisting of Department of Medical Science, Department of Disease Control, Department of Health, academia, and international organizations for early antiretroviral treatment in HIV-positive infant.
- b) Assigning stakeholder organization and responsibility.
- c) Building laboratory human capacity in active case finding and data collection.

Outlets and integrated services are being provided at every level of health-care facility (public, private and university hospitals) by physicians and nurses with regular maternal and child services. Special provisions have been made for population groups that are not covered in the national health insurance programme. The initiative also established a committee of related stakeholders and frequent meetings were organized. Workshops and seminars in building capacity in laboratory system development and data were organized along with improved communication platforms within the region, such as via the Line mobile application (an online messaging platform).

For pregnant women, seminars and trainings focused on prevention of MCT, and measures to establish HIV prevention, diagnosis and treatment among migrant pregnant women and infants were put in place. For newborns of HIV-infected pregnant women, early infant diagnosis (EID) is being implemented since 2006. Dried blood spot (DBS) test in newborn and PCR diagnostic test were conducted initially at 2 and 4 months and later modified to three times for infants at age of 1, 2, 4 months (including for migrants). The Department of Medical Sciences activates alerts to the hospital if the result is positive and a repeat examination is requested. In addition, a regional case manager is notified for individual care. In case of negative result, the result is delivered to the hospital within seven days. The Perinatal HIV Intervention Monitoring System (PHIMS) has been operational since 2000 and is used to monitor the results of DBS testing. Access to antiretroviral therapy with early treatment was ensured and parents were encouraged to ensure infant's drug compliance. The programme is being implemented nationwide since 2017.

Results of the practice – outputs and outcomes

Thailand is the first country in the Asia-Pacific region which was certified by the World Health Organization as having eliminated mother-to-child transmission (MTCT) of HIV.¹³ The result of early infant diagnosis from the Perinatal HIV Intervention Monitoring Systems (PHIMS) report revealed that by 2015, the MTCT rate had dropped to 1.9%, below the World Health Organization's elimination threshold of 2%.¹⁴ This rate further dropped to 1.41 (negative 3922 cases/positive 56 cases) in 2017 and 1.27 (negative 3684 cases/positive 47 cases) in 2018. Over 90% of newborns from HIV-infected mothers received early PCR infant diagnosis in 2018 (98.97 %) and 2019 (94.27 %).¹⁵

Other programme indicators are shown in Fig. 11 below.

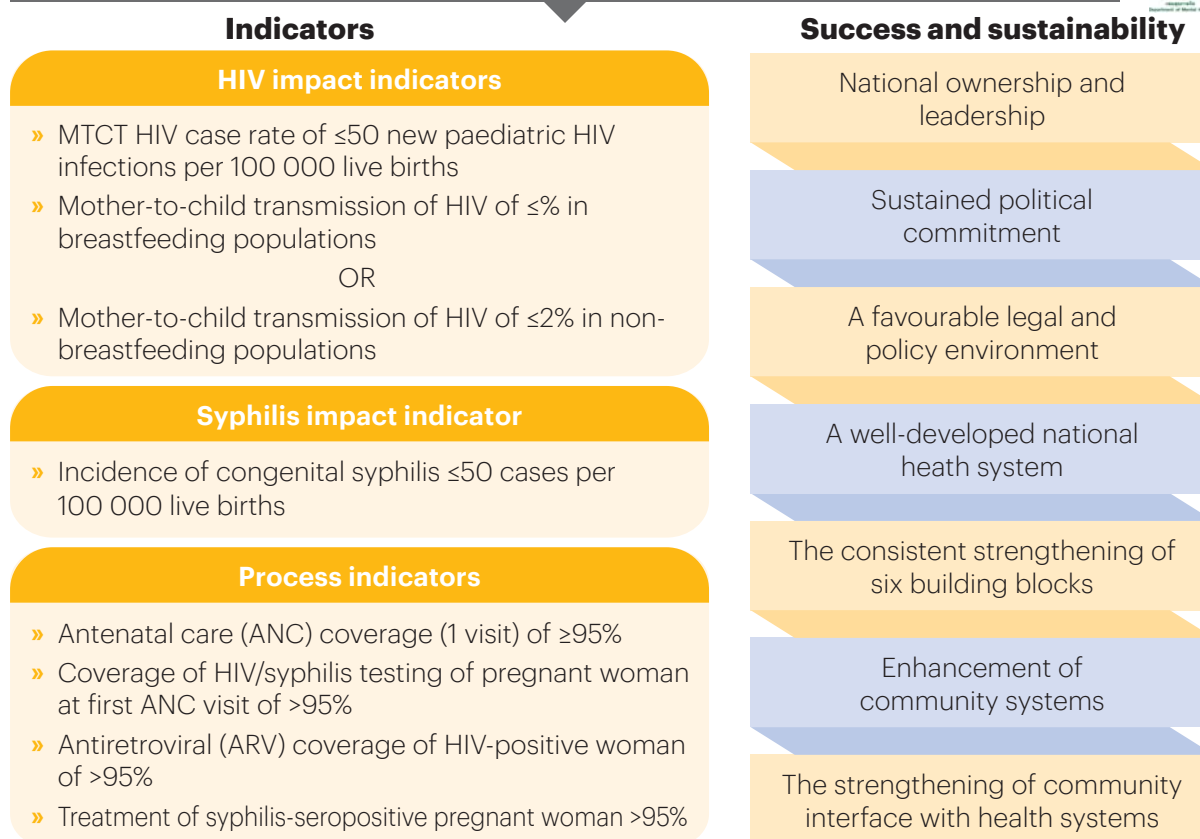
¹³ Thailand is the first country in Asia to eliminate mother-to-child transmission of HIV and syphilis. Press release. https://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2016/june/20160607_Thailand

¹⁴ Validation of elimination of mother-to-child transmission of HIV and syphilis report 2013–2015

¹⁵ Maintenance for Thailand elimination of mother-to-child transmission of HIV and syphilis validation 2016–2017

Fig. 11. List of indicators

Elimination of mother-to-child transmission of HIV/syphilis



Data

		2013 (2556)	2014 (2557)	2015 (2558)	2016 (2559)	2017 (2560)	2018 (2561)
Impact indicators	Target	%	%	%	%	%	%
MTCT rate of HIV – by Spectrum (GAM)	2.0	2.3	2.0	1.9	1.79	1.68	1.34
Annual rate of new paediatric HIV infections per 100 000 live births by birth cohort	≤ 50 cases	14.7	12.2	11.5	10.6	9.6	7.8
Annual rate of congenital syphilis per 100 000 live births***	≤ 50 cases	8.6	11	10.9	15.0	14.6	39.9
Key monitoring indicators							
Antenatal care coverage (at least one visit)	$\geq 95\%$	99.0	98.1	98.3	98.45	98.53	98.57
HIV testing coverage of pregnant women	$\geq 95\%$	99.8	99.8	99.6	99.73	99.82	99.72
Syphilis testing coverage of pregnant women	$\geq 95\%$	98.9	99.3	99.1	99.22	99.14	99.52
ART coverage of HIV-positive pregnant women	$\geq 95\%$	94.4	95.3	95.6	96.48	96.52	97.65
Treatment coverage of syphilis-positive pregnant women	$\geq 95\%$	98.1	96.5	95.9	97.84	97.54	98.14

— Validation of elimination of mother-to-child transmission of HIV and syphilis, Thailand 2013–2015 report

— Maintenance for Thailand elimination of mother-to-child transmission of HIV and syphilis validation, 2016–2017

— (Draft) Re-validation on the elimination of mother-to-child transmission (EMTCT) of HIV and syphilis in Thailand, 2018–2019

Lessons learnt

The key lessons learnt from the implementation of this practice were as follows:

- a. Political commitment is required to ensure an access to HIV and syphilis diagnosis and treatment under universal health coverage. As a result, effective early detection of HIV infection is enlisted in the benefit packages.
- b. Responsible staff must be assigned in maternal and child health at hospital, district and provincial public health offices. Include multidisciplinary teams including physician, nurse, pharmacist, laboratory technician, social worker, and computer programmer who have regularly receive training.
- c. Integration with routine services avoids increasing health-care worker workload.
- d. Engage all stakeholders throughout the process.
- e. Provide active and early diagnosis and treatment to everyone, regardless of their ethnicity and health scheme on the lines of universal health coverage.
- f. The cooperation between public sector and private sector (i.e. compliance with compulsory licensing for the provision of antiretrovirals) is important to address supply-side problems, such as universal access to and provision of key health services and medicines, especially to those who are hardest to reach, such as the very poor, marginalized and geographically distant.
- g. Locally adapted practices and support delivered through nongovernmental actors such as peer support networks have ensured that programmes are accessed effectively locally.
- h. Identifying and finding those who remain at risk and are hard to reach (especially those among undocumented migrants or marginalized ethnic groups) requires continued investments in monitoring and surveillance.
- i. The coverage of early HIV detection in infants with HIV-infected mothers may be limited among private hospital patients as data were not linked with the government system. In addition, some patients may be lost to follow-up after hospital discharge and will not be able to access treatment.

Conclusion

The intervention has led to successful alleviation of a major public health problem in Thailand and has improved in the quality of life of one of the most vulnerable populations. It has ensured quality of care in both diagnosis and treatment of HIV infection, including early initiation and completion of treatment, and reduced long-term burden. The programme was also well-integrated into the routine practice without creating a burden on human resources and the national budget. A strong public health infrastructure, committed political leadership, government funding, engagement of multiple partners, and a robust monitoring system allowed Thailand to achieve this important public health milestone of becoming the

first country in the Asia Pacific region to have eliminated mother-to-child transmission of HIV in 2016. Strong policy advocacy should be in place from the national level to hospital level with engaged collaboration. In addition, sustainable domestic funds should be ensured to support the prevention, diagnosis and treatment systems.

Further reading

- » World Health Organization. Elimination of mother-to-child transmission (EMTCT) of HIV and syphilis: Global guidance on criteria and processes for validation. Jun, 2014. Available at <http://www.who.int/reproductivehealth/publications/rtis/9789241505888/en/>.
- » World Health Organization. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: Recommendations for a public health approach. Geneva: World Health Organization; Available at <http://www.who.int/hiv/pub/arv/arv-2016/en/>.
- » Joseph Wong, Andrea Macikunas, Aylin Manduric, Joy Dawkins & Simran Dhunna (2020) Reaching the Hard to Reach in Thailand: Eliminating Mother-To-Child HIV Transmission, Health Systems & Reform, 6:1, DOI: 10.1080/23288604.2019.1625498

TIMOR-LESTE

Strengthening Emergency obstetric and newborn care

Introduction

Since the restoration of independence in 2002, Timor-Leste, with support from development partners through its Ministry of Health, has made significant efforts in tackling problems associated with the health of the mother and newborn. These include building health facilities, provisioning skilled birth attendance and institutional deliveries, and capacity-building of midwives and medical doctors among others. In 2002, the prevailing maternal mortality ratio was 668 per 100 000 live births and neonatal mortality rate was 34 per 1000 live births, according to UN estimates. Both the government and development partners have also strengthened synergies and collaborative interventions to further address this national effort.

The Ministry of Health was established after the restoration of Independence in May 2002, to focus on improving the health system and health service delivery that was being maintained by the International Committee of the Red Cross (ICRC) during the transition period. Many health services including maternal and child health are under-documented for both achievements and failures to address issues such as poor infrastructure, lack of maternity spaces, weak supplies of essential medication and equipment, and poor transportation.

All development partners including the United Nations Population Fund, World Health Organization, the United Nations Children's Fund (UNICEF), Care International, John Snow Institute (JSI), Health Alliance International (HAI) and others are supporting the Ministry of Health in ensuring reduction of maternal and child mortality rates. The report of the 2010 Demographic Health Survey (DHS) noted a reduction of 16% in maternal mortality rates (from 660 per 100 000 live births in 2003 to 557 per 100 000 live births in 2010) and 34% in under-5 mortality rates (115/1000 live births in 2003 to 64/1000 live births in 2010). In addition, infant mortality was similarly reduced from 83/1000 live births in 2003 to 54/1000 live births in 2010.¹⁶ Although this reduction is significant, maternal and child health is still at risk of missing the Sustainable Development Goal on reduction of maternal and child mortality rates compared with other Member States of the WHO South-East Asia Region.

¹⁶ General Directorate of Statistics (GDS), Ministry of Finance and ICF. 2010. Timor-Leste Demographic and Health Survey 2010. Dili, Timor-Leste and Rockville, Maryland, USA: GDS and ICF.

EMOC-EmONC programme overview and timelines

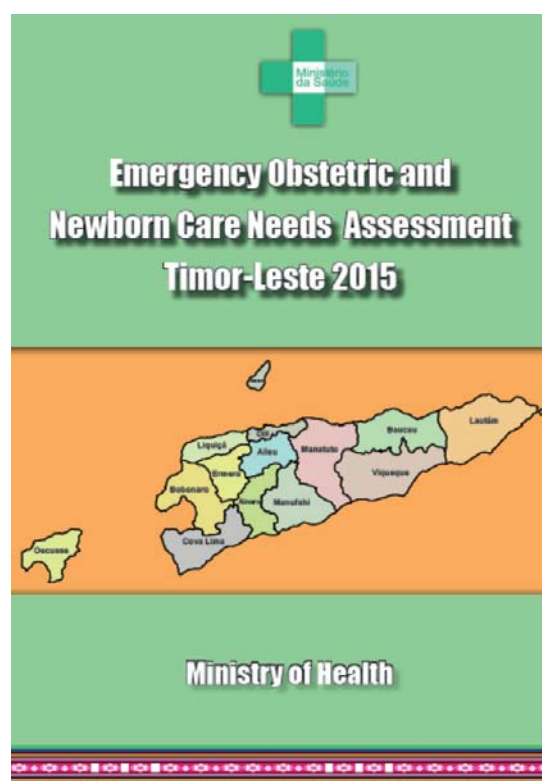
Since the restoration of Independence in 2002, the Democratic Republic of Timor-Leste with support from development partners has strengthened synergies and collaborative interventions to further address problems associated with the health of mothers and newborns. In 2004, the government established the emergency obstetric care (EmOC) programme with the objective of increasing reproductive health-care access, skilled birth attendance, and birth spacing education to improve maternal and child health in the country. This contributed to the country's progress towards achieving the Millennium Development Goal 5 (MDG5) of "improving maternal health" by 2015.

However, challenges such as increased number of home deliveries and reduced antenatal care visits remain and can continue. This will contribute to maternal and infant mortality in the future if not addressed adequately. Despite this, an estimated 270 women die during every 100 000 live births and about 24 newborns out of every 1000 born live die soon after birth.¹⁷

In 2008, the Ministry of Health (MoH) of Timor-Leste, in collaboration with UNFPA, conducted the first assessment of emergency obstetric care in the country, where it identified gaps in the availability and functioning of maternity care, especially at the basic emergency obstetric care (BEmOC) level. The findings became the basis for strategic interventions in this area. In 2015, the Ministry of Health and UNFPA carried out another needs-assessment using the AMDD (Averting Maternal Death and Disability, John Hopkins University) global tool to determine the EmONC facility function through cross-sectional facility assessment.¹⁸

This needs assessment was done to further understand the status of maternal and newborn health services and evaluate the related plans and programmes with the objective of aligning strategic interventions with government plans, policies and best practices. The assessment was focused on the availability, accessibility, utilization and quality of EmONC services in order to help MoH and development partners in better

Fig. 12. Emergency obstetric and newborn care needs assessment



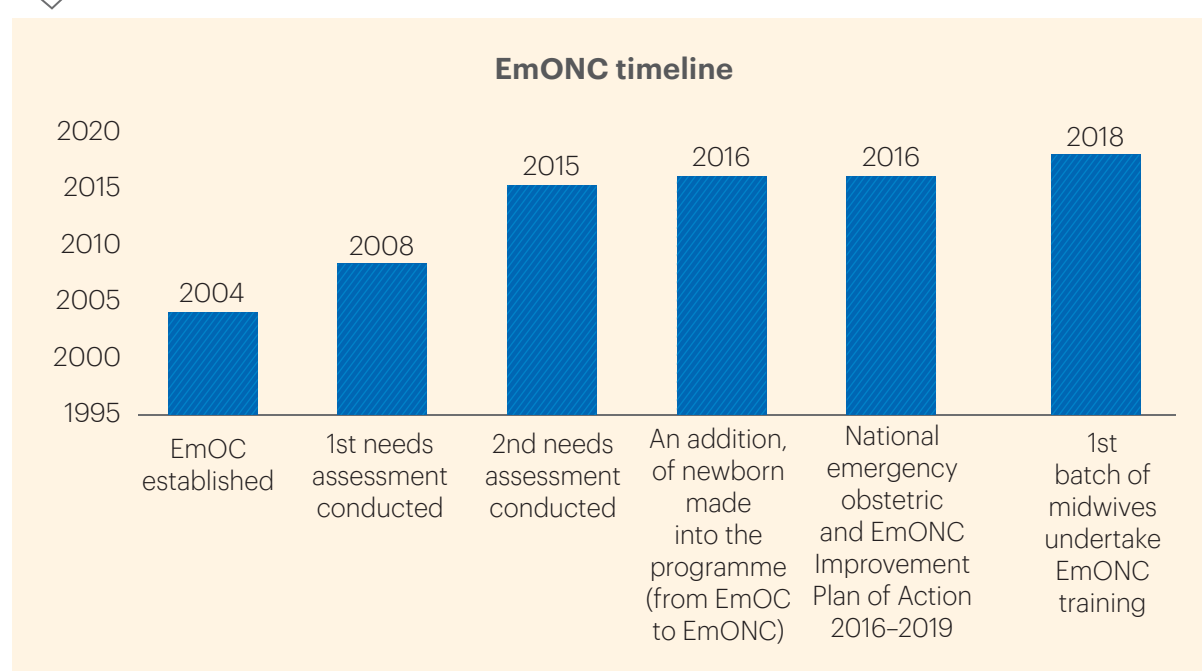
¹⁷ MoH 2017a

¹⁸ Ministry of Health 17a, 2015, *Emergency Obstetric and Newborn Care Needs Assessment Timor-Leste*.

planning, programming and better targeting through the EmONC Improvement Plan of Action (IPA) for 2016 and 2019. This will help accelerate maternal and newborn mortality reduction in Timor-Leste.

The survey showed that, only 25% of women in Timor-Leste delivered in an EmONC facility and more than half of all women (54%)¹⁹ chose to deliver at home where skilled care is limited. Access to health care is also difficult due to the geographical challenges posed by the terrain of the country. Hence, to enable the achievement of expected outcomes by 2019 to reach a total of 43 functional EmONC facilities, provisions for EmONC training need expansion.²⁰

Fig. 13. Implementation of EmONC programme



In this context, the WHO Regional Office for South-East Asia promoted the sharing of experiences among Member countries on approaches to halt maternal and newborn deaths that will increase the chances of the country to achieve the SDG target of less than 70 deaths per 100 000 live births by 2030. Hereinafter is a case study that will narrate the implementation of EmONC in Timor-Leste, in term of successes, lessons learnt and best practices that can be shared with other Member countries in the SEA Region and beyond. Two methods – document reviews and interviews with key stakeholders (see Annex 1) – were used in this study. In the next section, the implementation activities related to EmONC are presented, followed by results achieved and lessons learnt.

¹⁹ National strategy on Reproductive, Maternal, Newborn, Child and Adolescent Health, 2015-2019; MOH

²⁰ HAI and Ministry of Health, March 2012: Basic Emergency Obstetric and Neonatal Care Assessment Manufahi and Ainaro Districts Final Report

The implementation of EmONC improvement plan of action

The findings of the 2015 EmONC needs assessment resulted in an elaborate EmONC Improvement Plan of Action for 2016–2019. This plan of action lays out seven expected outputs in an attempt to improve the emergency obstetric and newborn care situation throughout the country. These seven outputs are: reviewing policies, norms and standards adhering to international standards; establishing networks and facilities of BEmONC and CEmONC to effectively cover all signal functions throughout the country; strengthening human resources; enhancing positive supervision; operationalizing referral systems in all parts of the country; strengthening management competencies at both national and subnational levels; and strengthening community involvement.²¹

At the policy and decision-making level, the Ministry of Health in collaboration with development partners has consistently advocated for the importance of maternal and newborn care service provisions throughout the country through information dissemination, raising visibility about maternal and newborn health, producing standard guidance and protocols, and conducting trainings and meetings, among others. In addition, the government has mobilized resources, both internally and from development partners, to support the implementation of the EmONC Improvement Plan of Action.²²

In terms of the establishment of EmONC facilities, the plan of action recommended the upgradation of 36 *Centro Saude Internamento* (CSIs) and community health centres (CHCs)²³ into BEmONC facilities to cater to the demands in the country. Each facility needs to have proper supplies and adequate equipment, essential drugs and supplies, as well as sufficient staff available 24x7. It was recommended to have four midwives and two doctors at a BEmONC facility that records less than 300 deliveries annually, and that the number should increase in line with increasing demand. It was also planned to accord special attention to securing equipment for advanced newborn resuscitation in comprehensive EmONC facilities (such as laryngoscopes, positive pressure machines (CPAP) and oximeters).

In response, the Ministry of Health with support from development partners including the Korean International Cooperation Agency (KOICA) has refurbished some of these facilities to convert them into BEmONC facilities, while at the same time further bolstering the existing CEmONC facilities through capacity development. For instance, in 2019, various trainings on EmONC were provided to doctors and midwives by UNFPA, WHO, UNICEF, HAI and DFAT, in collaboration with the National Hospital of Guido Valadares (HNGV) and National Health Institute (INS), across 12 municipalities and the Special Administrative Region of Oecussi. The training focused on dissemination of the "seven signals function" and clinical protocols, and intrapartum and postpartum care, to health-care providers from all municipalities.

²¹ MoH 2017b, 2016. National Emergency obstetric and EmONC improvement Plan of Action 2016–2019

²² MoH 2017b, 2016. National Emergency obstetric and EmONC improvement Plan of Action 2016–2019

²³ Centro Saude Internamento (CSIs) differ from CHCs as they have inpatient facilities and generally can keep a patient for about three days.

In addition, training of trainers (ToT) was implemented with help from UNFPA, WHO, INS and HAI to all District Public Health Officers– Maternal and Child Health (DPHO)²⁴ from 12 municipalities and the region of Oecussi. UNICEF, DFAT and KOICA contributed to rolling out these trainings. UNFPA and the midwife’s association collaborated to provide refresher training on safe delivery and emergency obstetric care (EmOC), specifically on the seven signal functions, across the country. Various activities to ensure the proper functioning of the BEmONC centres were also carried out (see table 3).

Table 3. Promotional activities

Promotional activities		
Infrastructure	Training	Capacity-building focus
KOICA refurnished EmONC centres to become BEmONC centres through provision of essential equipment and medication	In July 2019, in response to COVID-19 pandemic, a training for medical doctors and midwives across 13 municipalities was conducted	Dissemination of clinical protocols for antenatal, immediate intrapartum and postpartum care for mother with COVID-19 highlighted the seven signal function and triage system
Establishment of an EmONC training centre at National Hospital of Guido Valadares (HNGV) supported by WHO and DFAT through PHD and UNFPA	Training of trainers for medical doctors and midwives across 13 municipalities	The seven signals functions implementations
	Refresher training done in collaboration between UNFPA and the APTL (Timor-Leste Midwifery Association)	Refresher trainings conducted on safe delivery and emergency obstetric care (EmOC) specifically on seven signals functions across the country

Some of the positive feedback received from the participants and facilitators has been reproduced below.

It was recommended that when facilities observe minimum visits with each obstetric complication, refresher training should be organized to remind staff of the operational procedures with instruments. In addition, norms, protocols and procedures for all cases should be developed and made available to all units and also available at all times for consultation. As such, UNFPA has been supporting the government to develop the required documents, and in providing training to EmONC personnel at the EmONC facilities.

Efforts have been made by the government to improve access to EmONC facilities. Communication and roads and vehicles saw some significant improvement in the past few years as the government invested more on infrastructure development. Therefore, efforts have been focused on the referral conditions, first-aid training of drivers, and the reception at the end point, in order to ensure that patients receive proper treatment and handling.

²⁴ SMI=Saude Materno Infantil/ Maternal and Child Health

'Before the training we always used to refer cases with obstetric complications to referral hospitals, but now we (midwives) have the ability to perform a safe delivery in our own community health centre,' said Ms Guilhermina. 'Ever since the BEmONC trainings have taken place, it has been reported that obstetric referrals to referral hospitals such as Dili and Maubisse have reduced by more than 50%. The trainings enabled the health providers to acquire the skills to reduce maternal and infant mortalities.'

'There have been significant achievements in terms of the BEmONC abilities of the midwives, which are crucial for the well-being of mothers and newborn babies,' said UNFPA obstetric trainer Dr José Antonio.

Source: UNFPA Timor-Leste, 2019, Paving the way for quality maternal and newborn care in Timor-Leste, <https://timor-leste.unfpa.org/en/news/paving-way-quality-maternal-and-new-born-care-timor-leste>

In terms of enhancing competencies, MoH and development partners have been trying to develop the capacity of managers of EmONC facilities. This has been done through capacity-building and workshops. Strengthening the participation of key stakeholders, especially community members, is essential to reduce maternal and newborn mortality. As such, MoH with support from WHO and UNFPA has been advocating the need for active participation of community leaders in raising awareness about access to and utilization of EmONC services.

Results of the practice

The results achieved with the Improvement Plan of Action at the political level indicate that the government, through the Ministry of Health and the municipal health department, has expressed greater commitment to reducing maternal and newborn mortality arising from pregnancy, delivery and postpartum complications. However, at the technical level, there were a limited number of incentives for health workers to take up additional responsibilities, including serving as committee members or coordinators of EmONC.

The global target for MMR reduction by 2030 is less than 70 per 100 000 live births. Timor-Leste's MMR reported by the 2016 Demographic Health Survey was 195 per 100 000 live births.²⁵ The effort of upgrading 36 CSIs and CHCs to BEmONC facilities is ongoing, with a total of eight BEmONC and six CEmONC facilities currently operational throughout the country, compared with the baseline of two BEmONC and six CEmONC facilities in 2015.

In terms of capacity-building, a range of trainings on EmONC has been provided to doctors, midwives and health workers both at the national and subnational level throughout the country since 2016. For instance, seven batches of intrapartum and

immediate postpartum care (IP & PPC) training sessions have been completed between July 2018 and November 2019 for 85 (64 midwives, 17 doctors and four postgraduate diploma-holders in obstetrics and gynaecology) personnel from 22 selected health facilities across 11 municipalities.²⁶

UNFPA Timor Leste, 2019



Inauguration of an EmONC training centre by the honourable Australian Ambassador and H.E the Minister of Health (**Source:** WHO)

In addition, a total of 120 personnel (doctors and midwives) completed the course on dissemination of the seven signal functions of EmONC and clinical protocol of intrapartum and postpartum care at four municipalities and the Special Administrative Region of Oecussi Ambeno.²⁷ It was also reported that a total of 200 nurses and midwives completed their refresher training on safe delivery and emergency obstetric care with a specific focus on the seven signal functions across the country.

In 2017, another 12 trainers completed training on intrapartum and immediate postpartum care that focused on the seven signal functions related to BEmONC and maternity care as per the UNFPA and WHO guidelines. The training was carried out at the National Hospital with the objective of assessing any relevant case at the hospital. On completion of the trainers' trainings, the 12 trainers in turn trained staff in eight BEmONC centres. As a result, 72 of 85 staff from 21 health CHCs, including the eight BEmONC centres, acquired the necessary skills as qualified BEmONC providers in 2019.²⁸

²⁵ General Directorate of Statistics (GDS), Ministry of Finance and ICF. 2018. Timor-Leste Demographic and Health Survey 2016. Dili, Timor-Leste and Rockville, Maryland, USA: GDS and ICF.

²⁶ Guterres 2020

²⁷ Guterres 2020; RAEOA (Regiaun Administrativu Especial Oecusse Ambeno)

Training in EmONC in progress



Source: WHO



Source: WHO

In terms of enhancing positive supervision, apart from the training, several documents have also been developed. These include an EmONC improvement plan, documents on standards of care and clinical protocols for pregnancy, and intrapartum and immediate postpartum care including training modules, and an introductory course. This is to provide necessary information on, and raise the visibility of, EmONC services.

In addition, to raise awareness and generate support from community leaders, various promotional activities on EmONC were carried out throughout the country. These included: campaigns, supervised post-training client practice, and workshops, as well as stories on the successes and failures related to the three main causes of delay in health care, to promote better utilization of BEmONC centres.

Table 4. Availability of EMONC, 2020

Indicator	Finding	Standard
Current availability of functional EmONC facilities	3.4 EmONC facilities per 500 000 population	≥5 EmONC facilities per 500 000 population
	2.6 CEmONC facilities per 500 000 population	≥1 CEmONC facility per 500 000 population

²⁸ Guterres 2020

Lessons learnt

The lessons learnt from stakeholders directly involved in EmONC revealed that the establishment of the EmONC Commission at the national level was an important milestone in rolling out the programme. The Commission is endorsed by local authorities. However, limited budgetary allocation to support the Commission to carry out its activities has impeded its functioning.

In addition, it is acknowledged that despite all the action taken, sustainable provisioning of essential equipment and medication for the maternity centre and human resource management still require significant attention. For example, during the MCH municipality and national review meeting it was observed that despite the exemplary achievements by some municipalities in implementing and utilizing the BEmONC facilities, about three to four municipalities have not been practising the skills learned because their personnel had been transferred from their designated positions, or they lack essential equipment and medication to perform the seven signal functions.

Conclusion

Despite facing many challenges with most of the country's infrastructure being destroyed in the aftermath of the post-Independence conflict, Timor-Leste has made significant progress in addressing maternal and newborn health issues. The country has embarked on a new EmONC Improvement Plan of Action to further strengthen gains in the maternal and newborn health areas.

This plan has included capacity development for health personnel in order to provide EmONC services, information dissemination and campaigns about the benefits of using institutional delivery facilities, strengthened coordination between the national and subnational level, and the setting up of infrastructure to cater to the demands of women and newborns in urban and rural areas. All this allowed EmONC services to be provided closer to the community, which could have a positive impact on maternal and newborn mortality related to pregnancy and related complications.

Further reading

- » Timor-Leste Demographic and Health Survey 2016
- » Emergency obstetric and newborn care (EmONC) Improvement Plan of Action, Timor-Leste 2016–2019
- » Emergency obstetric and newborn care Needs Assessment, Timor-Leste 2015
- » Dr José António Gusmão Guterres Summary Report: UNFPA consultant activity report, 9 December 2018 to 8 November 2019.

References

- » General Directorate of Statistics (GDS), Ministry of Finance and ICF. 2010. Timor-Leste Demographic and Health Survey 2009–2010. Dili, Timor-Leste and Rockville, Maryland, USA: GDS and ICF.
- » General Directorate of Statistics (GDS), Ministry of Finance and ICF. 2018. Timor-Leste Demographic and Health Survey 2016. Dili, Timor-Leste and Rockville, Maryland, USA: GDS and ICF.
- » Ministry of Health Timor-Leste. 2011. National Health Sector Strategic Plan. 2011–2030: Towards a Healthy East Timorese People in a Healthy Timor-Leste.
- » World Health Organization, United Nations Population Fund & United Nations Children's Fund. 2017. Managing complications in pregnancy and childbirth: a guide for midwives and doctors, 2nd ed. World Health Organization. <https://apps.who.int/iris/handle/10665/255760>

MYANMAR

Maternal mortality reduction through maternal death surveillance and response actions

Introduction

Over the past decades, Myanmar has strived to address high maternal mortality in the country. Under the roadmap of the Five-Year Strategic Plans for Reproductive Health 2004–2008, 2009–2013 and 2014–2018, strategic interventions were delivered across the country with limited domestic budget and support from the international community. Myanmar is also committed to the global initiative of “Family Planning 2020” with a costed implementation plan (CIP) to meet the targets, and has developed the strategies towards “Ending Preventable Maternal Mortality (EPMM)” in Myanmar 2017–2021.

Despite all these efforts, the country has missed the Millennium Development Goal target of reducing maternal mortality by three quarters by 2015. It has the highest MMR among the 11 Member countries of the WHO South-East Asia Region. The lifetime risk of maternal death for a woman in Myanmar is 1 in 190, compared with 1 in 1900 in Thailand and 1 in 1300 in Sri Lanka. Between 2000 and 2017, maternal deaths were reduced by 28% from 340 per 100 000 live births to 250. Nevertheless, seven women are still dying every day from largely preventable causes before, during and after the time of delivery.

Disparities in maternal mortality are observed among both the rural and urban populations as well as the rich and the poor. MMR in Chin State was found to be considerably higher than that of other states and regions. Postpartum haemorrhage still remains the first leading cause of maternal deaths while abortion-related deaths have become the second leading cause.

Maternal death surveillance and response (MDSR) is one of the crucial cross-cutting actions of the EPMM strategy towards the achievement of the Sustainable Development Goals. Maternal mortality ratios alone do not reveal the real reasons why mothers die and provide no insight into the preventable or avoidable factors. The stories beyond these numbers have to be investigated so that necessary actions can be taken to respond to and prevent maternal deaths in the future. The Myanmar EPMM strategy also identifies MDSR as a priority to ensure accountability for improving quality of care and equity for mothers.

The Ministry of Health and Sports of Myanmar, together with WHO, UNFPA and other partners, has made a shift from maternal death review (MDR) to maternal death surveillance and response. MDSR system was launched nationwide in Myanmar since September 2016.

MDSR is a form of continuous surveillance system linking health information systems and quality improvement processes from local to the national level. MDSR includes routine surveillance of maternal deaths (identification and notification), counting of each and every maternal death (quantification), identifying the underlying factors and delays leading to maternal death (review and analysis of each maternal death), and providing corrective actions (response) at all levels of the health system to prevent future deaths. This is a pivotal step for Myanmar towards ending preventable maternal mortality and achieving the SDGs by 2030.

Implementation of the practice

MDSR is an approach that is an extension or enrichment of a maternal death review, (MDR), which in Myanmar was already being implemented since 2005. MDR was first introduced as a pilot in one of the regions in the country. Of the five methods of MDR from the WHO guidelines “Beyond the numbers – Reviewing maternal deaths and complications to make pregnancy safer”, two were employed in Myanmar: a community-based MDR in some pilot townships and a facility-based MDR conducted in selected hospitals.

However, even with the extended capturing of data by MDR, the number of maternal deaths reported and therefore counted, to arrive at the maternal mortality ratio (MMR) was still less than the actual. There was limited information regarding the circumstances surrounding a maternal death, especially on causes of death and other variables about the deceased woman, and the reasons why the death occurred. Many of the deaths are also likely to be preventable.

In 2013, a national workshop for developing a roadmap to implement the recommendations of the Commission on Information and Accountability (CoIA) was conducted in Myanmar, with technical support from WHO. One of the seven thrust areas of the CoIA recommendations was to conduct maternal death surveillance and response (MDSR). For most countries including Myanmar, this meant transforming the existing MDR into MDSR. Immediately after the workshop, MDR was successfully scaled up to cover the entire country.

In addition, Myanmar’s participation in the WHO South-East Asia Regional Meeting on MDSR, held in Maldives in February 2016, strengthened capacity on maternal and perinatal death surveillance. Furthermore, being a South-to-South collaboration, a study visit to Sri Lanka was organized during June 2016 for key MoHS officials to learn from Sri Lanka’s experiences and success stories on MDSR. The MDSR system was well established in Sri Lanka, which is considered one of the “good practice” countries in the Region.

These efforts were followed by a series of consultations with key stakeholders and representatives from MoHS, academia and implementing partners. From these consultations the Myanmar MDSR Technical Guidelines, training manuals and MDSR forms for the community as well as for hospital reporting, were produced. The national MDSR advocacy package was also developed with crucial support from WHO.

In September 2016, the national MDSR system was launched at the central level, followed by advocacy meetings and trainings on MDSR in all states and regions. MDSR committees (teams) were formed at different levels (national, state and regional, and township levels). These committees carried out MDSR reviews as a routine and ongoing mechanism at their respective level (both in public health and in hospital settings). The MDSR committees are formulated at different levels, and the composition of committee members are different at each level.

Launch of MPDSR programme



The Myanmar Union Minister for Health and Sports, H.E. Dr Myint Htwe, delivers the opening address at the national launch of MDSR
(Source: MoHS)

Participants read the MDSR advocacy material during the launch event in Nay Pyi Taw.
(Source: MoHS)

In addition to these, a joint symposium on MDSR was organized by the Obstetrical and Gynaecological Society of the Myanmar Medical Association at their 12th Annual Conference on 24 February 2016, with collective support from WHO, UNFPA and the Ministry playing the leading role. The key players from MoHS who have unique roles in Myanmar MDSR committees at different levels, obstetricians from both public and private sectors, and other implementing partners participated to raise awareness and reiterate their roles and responsibilities in the MDSR mechanism. The MDSR team from the Sri Lanka Ministry of Health, Nutrition and Indigenous Medicine participated in the symposium and shared their best peer experiences on the operationalization of MDSR in Sri Lanka.

Since its inception, Myanmar has been implementing the four primary steps of MDSR:

- 1) Identification and notification of all maternal deaths.
- 2) Review of maternal deaths by maternal death review committees at different levels, which include: examination of cause of death, medical and non-medical contributing factors that led to the death, assessment of avoidability, development of recommendations for preventing future deaths, and immediate implementation of prioritized recommendations.

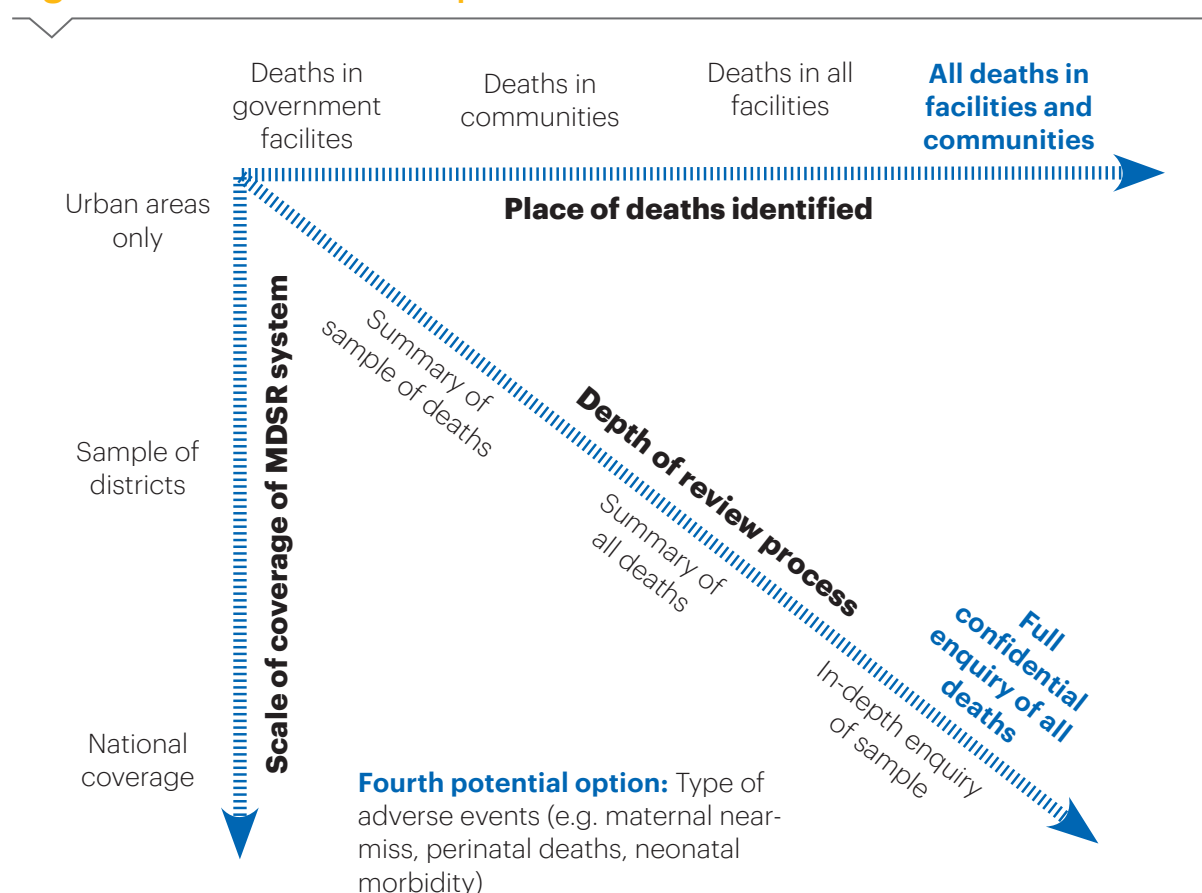


- 3) Analysis and interpretation of findings from maternal death reviews.
- 4) Response and monitoring of the response, which includes the implementation of recommendations made by the review committee(s) and monitoring of these recommended responses/actions to address problems at the community, facility and/or multisectoral levels.

Results of the practice

The scope of MDSR implementation in Myanmar encompasses (i) maternal deaths at both community and all health facilities (place of death), (ii) identification of all maternal deaths across the entire country (scale of coverage of MDSR system), and (iii) fully confidential enquiry of all maternal deaths (depth of review process).

Fig. 15. WHO death review process



Source: WHO

MDSR review meetings at the central level were held every year since 2017 wherein all state- and regional-level MDSR focal persons presented on their experiences on MDSR in their respective areas. Based on the MDSR data and findings, specific response actions were undertaken at different levels of health systems. Data from MDSR 2017 and 2018 showed that certain townships and states/regions contribute to a significant proportion of maternal deaths compared with other areas across the country. It was thus of great importance to specifically tackle these “high-MMR townships” and promote community and stakeholder awareness and action on reduction of maternal mortality.

Being the “response” actions of MDSR, a set of interventions were delivered in 16 “high-MMR” townships during 2019. Township-level advocacy meetings with local authorities and stakeholders concerned, including village leaders, were organized. Health staff from those townships were also trained on MDSR system (refresher trainings), mainly for timely notification of maternal deaths, reporting, review of each death and action to be taken at their level.

In addition, at each township, knowledge sharing sessions were conducted for traditional birth attendants (TBA) from different villages where TBAs were educated on the importance of safe motherhood. These sessions focused on “dos and don’ts” for mothers and danger signs during the antenatal, intrapartum and postnatal period, aiming at better collaboration and early referral to midwives (MWs) or auxiliary midwives (AMWs). At each village in those townships, community awareness sessions were carried out for community members including women, girls and families. The importance of safe motherhood and institutional delivery were at the core of the sessions.

The interventions narrated above were supported by the Regional Health Department through supportive supervisions and monitoring in these townships. The Regional Health Department made sure that township MDSR meetings were conducted regularly and appropriate actions and responses taken. In addition to promoting community awareness on maternal mortality, the central, regional and township health departments ensured essential supplies and equipment, and also that health workers and infrastructure was well in place at the hospitals and health centres in the target townships, to promote demand-side readiness for institutional delivery.

The Myanmar MDSR Report 2018 also highlighted the MDSR response actions undertaken in different areas at different levels. The most frequent actions taken were: raising community and institutional awareness on maternal mortality; antenatal care and family planning; improving knowledge and skills of providers in the management of obstetric emergencies (capacity-building and training); and provision of contraceptives to the local townships with feedback on MDSR report findings.

Lessons learnt

The Myanmar MDSR mechanism, technical guidelines and training materials were developed and adapted based on WHO technical guidance and through multistakeholder participation and collaboration. These facilitated the smooth transition of MDR to MDSR, as well as successful initiation and scaling up of the system across the country.

Implementation of the MDSR system had raised the awareness of health staff at different administrative levels on the importance of “surveillance”, which led to efforts to obtain more complete data on maternal deaths as well as on other relevant information. New and innovative means of information transmission have been employed to ensure early notification, such as through instant messaging, Viber or the telephone.

It was noticed that the response actions taken by hospitals in response to in-patient care were immediate. There has been improved monitoring of labour, and adherence to standard operating procedures in obstetrics and anaesthesia. Occasionally and as required, some health departments organized refresher training for the management of

the third stage of labour for midwives and prevention of postpartum haemorrhage for auxiliary midwives. Some townships organized community health education sessions to raise awareness on contraception, dangers of unsafe abortion, the importance of antenatal care, and birth preparedness plans.

Nevertheless, there have been certain delays in transmission of MDSR investigation forms and organization of MDSR review meetings. Frequent transfer of staff trained on MDSR implementation, and the costs of travel for verbal autopsies and for convening review meetings also presented significant challenges to the successful implementation of the MDSR system in Myanmar.

For basic health staff at the township level, data management, review and reporting still posed challenges, which highlighted the need for continued training and refresher courses. Alongside, follow-up and monitoring of response actions could be strengthened at all levels of the MDSR systems. It was evident that good leadership and adequate interest from the local authorities and effective community engagement approaches are crucial for the success of MDSR in an area.

Conclusion

Strong political will to eliminate preventable maternal deaths in Myanmar has been demonstrated by the nationwide use of MDSR tools and guidelines for all cases of maternal deaths in both community and health facilities, and in conducting death audits and continuous monitoring.

The trends in maternal mortality in Myanmar are encouraging; however, efforts need to be further strengthened to meet the SDG3 Goal related to MMR by the target year of 2030. The implications for Myanmar to achieve this MMR are daunting, but with enhanced efforts, progress can be accelerated. MDSR, which has replaced MDR, is one of the inputs that will contribute to this acceleration.

While progress has been made in MDSR implementation in Myanmar, there is still much to be done for improvement. The “Response” component of the surveillance system is crucial to be merged with ongoing implementation of the strategies to end preventable maternal mortality in the country. These include, in particular: comprehensive emergency obstetric and newborn care, post-abortion care, sexual and reproductive health information, and family planning services.

Further reading

1. Maternal Death Review Report 2016, Ministry of Health and Sports, Myanmar
2. Myanmar MDSR Advocacy Package, 2016
3. National MDSR Report 2017, Ministry of Health and Sports, Myanmar
4. National MDSR Report 2018, Ministry of Health and Sports, Myanmar
5. Trends in maternal mortality 2000 to 2017: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division.

TIMOR-LESTE

Maternal death surveillance and response system

Introduction

Timor-Leste has made significant progress in the reduction of maternal mortality since the restoration of its Independence in 2002. This can be seen through a range of policies and activities – establishment of health centres, health posts, mobile clinics, and SISCa ("Integrated Community Health Services") posts, as well as hospital service packages through national and referral hospitals – to address factors contributing to maternal deaths. These factors include high fertility rate, unmet needs for family planning, inadequate knowledge of contraceptive methods, postpartum haemorrhage (PPH), anaemia, infections/sepsis, obstructed labour, hypertensive disorders and unsafe abortion.

However, the accuracy of maternal mortality rate reduction figures in the country remain questionable since the maternal death surveillance response (MDSR) system was missing in the country and the estimated maternal mortality ratio ranged widely from 219 to 317 per 100 000 live births in 2010. The 2010 Timor-Leste Demographic Health Survey (TLDHS) reported an MMR of 557 per 100 000 live births. A 65% reduction to 195 per 100 000 live births was reported in six years in 2016.

Therefore, to enable continuous reduction of MMR to achieve the global target of 70 per 100 000 live births, the Ministry of Health, with support from the development partners UNFPA and WHO, established the MDSR system in the country to produce accurate data on circumstances surrounding maternal deaths. This would provide an insight into the status of maternal health and further build on the positive results achieved.

Such information was deemed helpful for both the government and development partners to plan, programme and target in a better manner for the reduction of maternal and perinatal mortality, as well as to come up with informed decisions and interventions in the health sector. This will also help the country to achieve the Sustainable Development Goals target of an MMR of 64 per 100 000 live births by 2030.

This case study seeks to provide Timor-Leste's experiences in terms of interventions, results, outputs and outcomes, and challenges and lessons learnt in relation to maternal mortality.

Two methods – document reviews and interviews with key stakeholders – were used in this evaluation. The next section outlines the implementation of the maternal death surveillance and response system, followed by the results achieved and lessons learnt.

Implementation of maternal death surveillance and response system

Prior to the implementation of MDSR system, the Government of Timor-Leste, with support from development partners UNFPA and WHO, had implemented a range of activities related to the provision and utilization of health-care services during pregnancy, childbirth and after delivery throughout the country. These activities included the provision of good and well-equipped health facilities for delivery with skilled medical attendance and hygienic conditions. They also promoted maternal health, family planning and counselling on marriages, access to antenatal and postnatal care, and routine immunization starting from birth. The objective of these interventions was to ensure a good survival rate for infants and the well-being of both the mother and child.

Establishment of MDSR system

The MDSR system was established in 2014 with technical support from UNFPA and WHO. It is a key initiative of the Ministry of Health to reduce maternal mortality through gathering of information on circumstances surrounding maternal deaths (why, when, how, and what were the causes?) in consultation with the WHO guidelines on MDSR. The system allows the generation of data from both the community level (lower health posts) and hospitals (national and referral), which is then transmitted to the Maternal and Child Health Department, where it is analysed and possible actions recommended.

Fig. 16. Stages of establishing MPDSR system in Timor-Leste (Gomes, 2020)

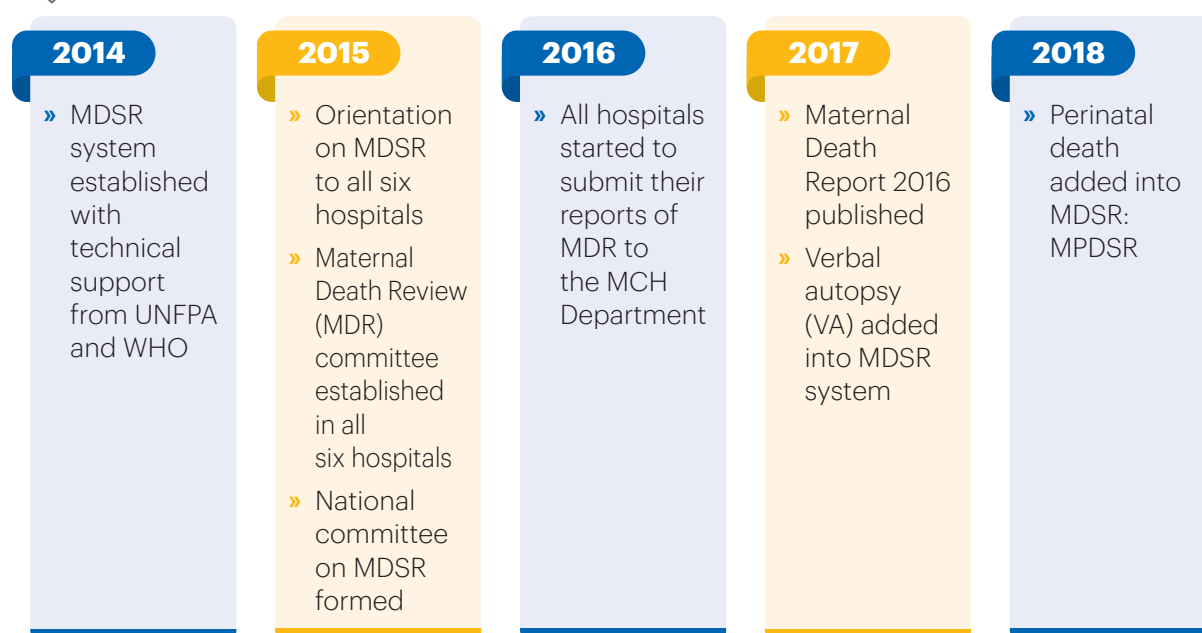
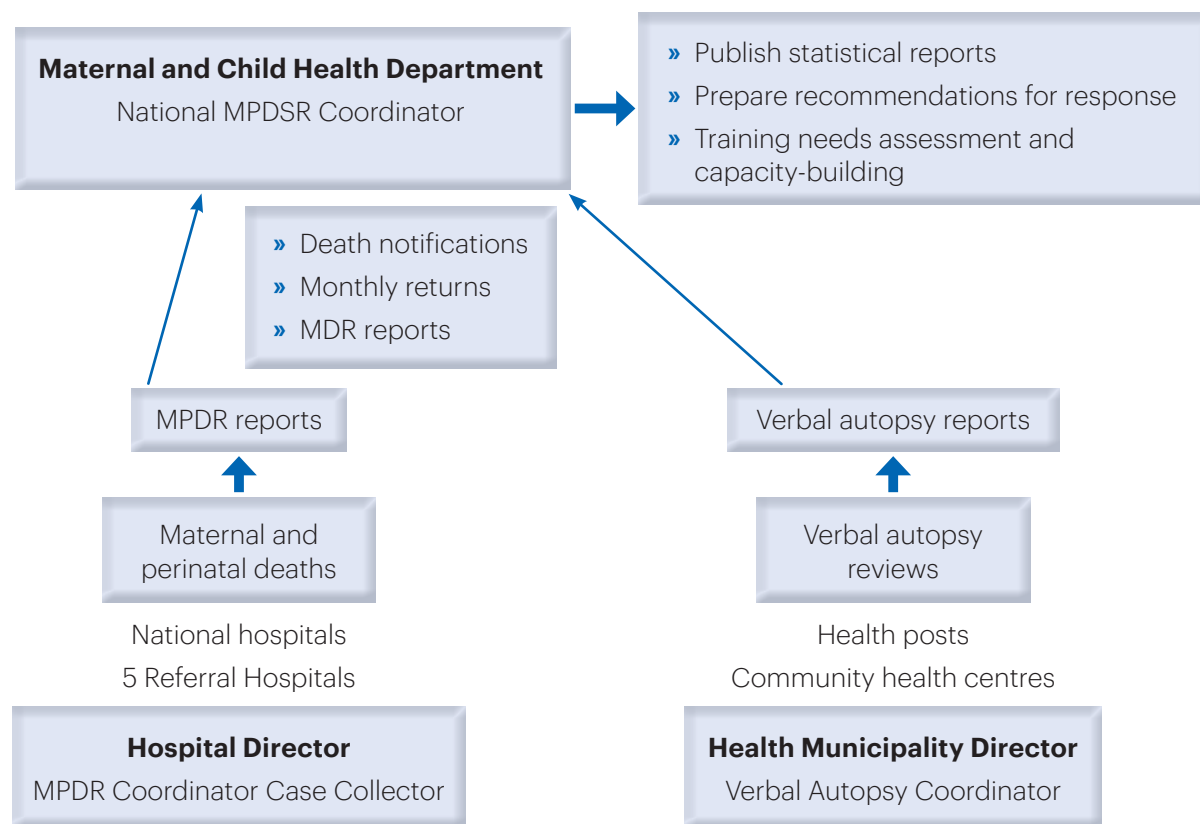


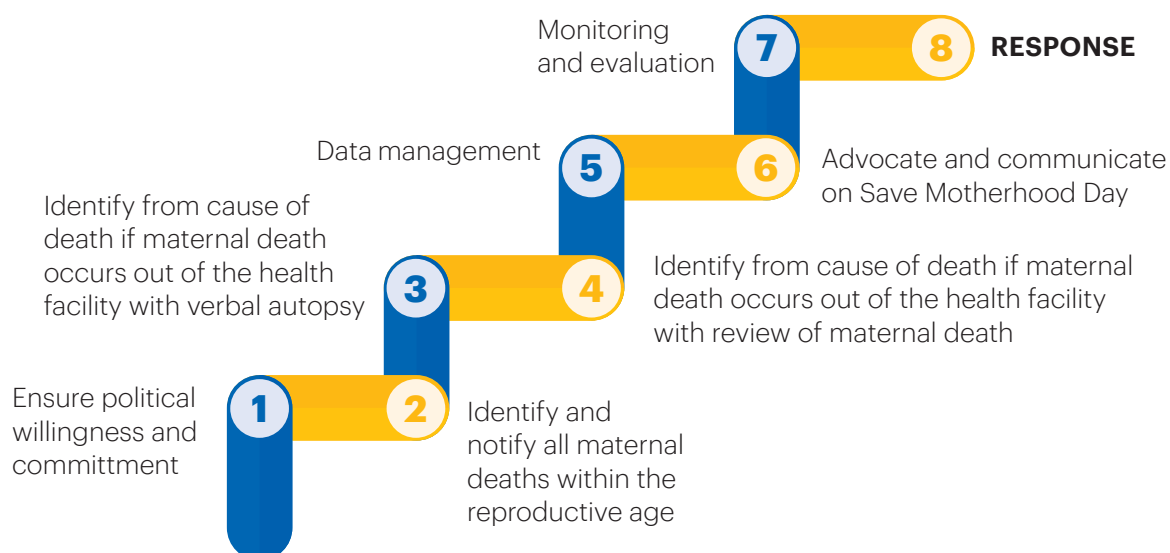
Fig. 17. Current maternal and perinatal death surveillance and response (MPDSR) system in Timor-Leste



Methodology

The methodology used in the reporting system is based on the eight steps in establishing MDSR in Timor-Leste enumerated at the consultative meeting of the Ministry of Health and partners in February 2014 (see Fig. 18).

Fig. 18. Eight steps in establishing MDSR in Timor-Leste



In addition, in 2015, the maternal death review process was established at the National Hospital and five referral hospitals. This was followed by the establishment of a system of verbal autopsy review (VAR) in 2017 in all 13 municipalities. In 2019, perinatal death was integrated into the MDSR system and it was updated to the maternal and perinatal death surveillance and response system with technical assistance from UNICEF.

The MDSR system has two components, as described below.

Hospital maternal death review

The first component of MDSR system is the hospital-based maternal death review in order to identify, notify, review, record and report all maternal deaths and identify deaths at the national and referral hospitals (Fig. 19). This activity is often carried out by trained staff. Based on this review system, practical actions are taken to prevent similar cases in the future. This system was developed with support from UNPFA.

Fig. 19. MDR process in the hospital (RDTL, 2017)



Community-based maternal death review/verbal autopsy

The second component of maternal death surveillance and response is the community-based maternal death review or verbal autopsy (VA) (Fig. 20). It is an information collection technique for maternal deaths at the lower-level health facilities or at the community level. It is often conducted by a Delegado Saude Municipiu/Municipality Health Officer (DSM), who is in charge of the patient folder. All relevant information pertaining to the deceased is available to him and he is responsible for informing the administrator and local leaders.

These systems have enabled proper data collection, revision and reporting on maternal mortality-related cases throughout the country, and expedited responses on interventions from both the government and development partners in order to avoid similar cases in the future.

Fig. 20. Verbal autopsy process (RDTL, 2017)



In Timor-Leste, the MPDSR system has been utilized to identify the contributing factors behind the causes of death and learn lessons to rectify the factors that lead to perinatal and maternal deaths across the country.

Workshop on MDSR re-orientation and dissemination of EmONC results in progress



Source: WHO



Source: WHO

A verbal autopsy being done in a village of a pregnant mother who died due to postpartum haemorrhage



Source: WHO



Source: WHO

Results

The efforts of both the government and development partners to address maternal mortality in the preceding years led to positive trends in reducing maternal mortality in Timor-Leste. The maternal mortality rate has reduced significantly from 798 deaths per 100 000 live births in 1998 to 142 deaths per 100 000 live births in 2017 (see Table 5).

Access to reproductive health services has also improved as only 43% of women had access to prenatal care in 2006, while in 2016 84% of women aged 15–19 received at least one antenatal care session from a skilled provider during the pregnancy of their most recent birth, mostly from nurses/midwives (70%) and doctors (14%). Access to skilled

birth attendants (SBA) has also doubled from 30% in 2013 to 57% in 2016, with 49% of births taking place in a health facility (more than double the rate in 2010). All these have contributed to a conspicuous reduction in the maternal mortality rate.²⁹

Table 5. Maternal mortality over 20 years in Timor-Leste

Year	Mortality rate (deaths/live births)
1998	798/100 000
2000	745/100 000
2005	415–506/100 000
2009–2010	195–317/100 000
2010	219–317/100 000
2015	160–215/100 000
2017	142/100 000

Source: Various, including WHO 2019.³⁰

There is, however, little certainty about data. Therefore, with the establishment of the MPDSR system at the National Hospital and five regional hospitals and verbal autopsy (VA) at the lower-level health facility (community health centres and health posts) and in the community (see Table 5), the data gap can perhaps be bridged to reflect the real situation.

Some progress has been made through the MPDSR system, and the Ministry of Health in collaboration with UNPFA provided capacity-building to selected health staff across five regions. A total of 97 health personnel (8 DSM, i.e. *Delegadu Saude Munisipiu*/municipality health delegates, 40 doctors, 38 midwives and 11 DPHO MCH (District Public Health Officer Maternal and Child Health) were trained in the MPDRS system.³¹

Timor-Leste is one of the nine countries globally to achieve the MDG 5A target of reducing by three fourths, between 1990 and 2015, the maternal mortality ratio. As per 2017 estimates it is one of the countries with very high annual reduction in maternal mortality rates and is likely to achieve the SDG.³² MDSR is, therefore, a high-impact strategy for MMR reduction.

The Visible Verbal Autopsy Committee has been established in 12 municipalities and the Special Administrative Region of Oecussi, with a chief, a coordinator and four to eight members consisting of doctors and midwives. A guide has been developed to provide technical direction to health administrators, middle-level managers and implementers in establishing and implementing maternal death surveillance and response at all levels.

²⁹ GDS and ICF. 2018

³⁰ World Health Organization, UNICEF, United Nations Population Fund and the World Bank, Trends in Maternal Mortality: 2000 to 2017. WHO, Geneva, 2019

³¹ MoH, n.d

³² Millennium Development Goal Report (2015), p. 38 [http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG/2015-rev 28 July 2019.pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG/2015-rev%20July%202019.pdf)

An assessment of the MPDSR system has shown positive results in terms of reporting on maternal deaths being reviewed from all six hospitals in 2016, 2017 and 2018, with the numbers at 42, 26 and 18 respectively. There was also verbal autopsy of 21 cases conducted in all municipalities and in Oecussi.³³

The rapid assessment showed that the National MPDSR Committee has not been functioning well enough to provide regular feedback on maternal mortality reviews performed at the health facilities. However, MPDRS Committee members have demonstrated unwavering commitment to implement or facilitate the implementation of the MPDRS system. It was noted that some health facilities had not been able to conduct maternal and perinatal mortality review on a regular basis, with the government providing a very limited budget to implement MPDRS activities. Most often, development partners such as UNFPA and WHO have accommodated the associated costs.

Challenges to and strengths of MDSR

Some challenges encountered in implementing the MPDSR system include the unwillingness of the maternity department at some health facilities to implement regular reporting due to the extra work with documentation that this entailed. There was also unwillingness to report data in some health facilities that affected data quality and accuracy of death reporting. Collaborative work from obstetricians at the health facilities in assisting with on-time reporting and action to address the causes of death was not supportive.

In addition, although the identification and notification steps have been implemented, the review and response process has not been implemented well due to inadequate collaboration between the Ministry of Health and professional associations such as the Medical, Midwifery and Nursing Association. Commitment from the professional associations could improve documentation, on-time reporting and actions to address maternal mortality issues.

Lessons learnt

A rapid assessment of the MPDSR system shows that financial support from the government budget was inadequate, and this impeded proper implementation of MPDSR activities despite the committee members demonstrating unwavering commitment towards its implementation.

Most often, development partners such as UNFPA and WHO have to accommodate the associated costs for the implementation of MPDSR activities. This may have negative impact on the sustainability of the system. Therefore, consistent policy dialogues within the Ministry of Health at both the top management and technical levels is necessary to maintain and sustain the MPDSR system in the future.

³⁰ MoH, n.d.

Conclusion

Timor-Leste has established the MPDSR system and it is currently operational. With commitment and political support from the government and in collaboration with development partners, the progress that has been made in reducing maternal and perinatal mortality can be further strengthened through collecting, reviewing and reporting cases related to maternal deaths. This will facilitate decisions and future interventions by the government and other stakeholders.

Since its implementation in 2015, the programme has been assisted in identifying maternal deaths, causes of death, time and locations. Verbal autopsies have also been performed for maternal and neonatal death reporting outside of health facilities. It is hoped that the government with continuous support from its development partners will be committed to ensure the sustainability of the MPDSR system to identify, monitor, evaluate and act upon maternal and neonatal deaths and continue efforts aimed at minimizing maternal and perinatal mortality rates across the country.

Further reading and references

- » Timor-Leste Demographic and Health Survey 2016
- » Brief Report: Rapid assessment of MPDSR in Timor-Leste
- » Maternal Death Surveillance and Response (MDSR) System: A guide for establishment of maternal death reviews in hospitals and verbal autopsy in lower level of health facility and community.
- » General Directorate of Statistics (GDS), Ministry of Finance and ICF. 2018. Timor-Leste Demographic and Health Survey 2016. Dili, Timor-Leste and Rockville, Maryland, USA: GDS and ICF.
- » Gomes, M. 2020. Maternal Mortality Report 2018: A power point presentation. Ministry of Health, Dili, Timor-Leste.
- » Millennium Development Goal Report (2015), p. 38 [http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG/2015-rev 28July 2019.pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG/2015-rev%20July%202019.pdf)
- » MoH. n.d. Brief Report: Rapid assessment of MPDSR in Timor-Leste. Ministry of Health, Dili, Timor-Leste
- » RDTL. 2017. Maternal Death Surveillance and Response (MDSR) System: A guide for establishment of maternal death reviews in hospitals and verbal autopsy in lower level of health facility and community. Dili: Ministry of Health
- » WHO, 2019. Trends in maternal mortality 2000 to 2017: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Geneva: World Health Organization.

CHAPTER 2

NEWBORN HEALTH



BANGLADESH

Role of newborn services (SCANU) in preventing neonatal mortality

Introduction

Bangladesh has radically marched forward in the development of its health and economic sector. But the country still experiences higher rates of newborn deaths, with about 62 000 newborns dying every year (<https://www.unicef.org/bangladesh/en/saving-newborn-lives>).

The main causes of newborn death in Bangladesh are birth asphyxia (23%), prematurity and low birth weight (19%), pneumonia (13%), serious infections (12%) and undetermined causes (10%). The neonatal mortality rate is 30 per 1000 live births, that accounts for 67% of all under-5 deaths in the country annually (Bangladesh Demography and Health Survey 2017–2018).

In July 2013, the Government of Bangladesh renewed its commitment to reduce child deaths by an additional 108 000 annually, through the national launch of the “A Promise Renewed (APR)” initiative. On 21 July 2013, the Government of Bangladesh officially declared its commitment to end preventable child deaths in the country by 2035.

Under the target area of “Ending Preventable Child Deaths by 2035”, the Ministry of Health and Family Welfare, UN agencies, development partners, civil society and professional associations together announced the “Bangladesh Call for Action”. The goal of this Call for Action is to reduce child deaths to 20 per 1000 live births, with a focus on substantially bringing down the neonatal mortality rate to 7 per 1000 live births by 2035 (Bangladesh Every Newborn Action Plan, 2015).

Facility-based newborn care

The scale-up of full supportive care of sick newborns at facilities for pre-term newborns, including for conditions such as sepsis, jaundice and others, have had a positive effect in reducing neonatal mortality in high-burden countries. The Special Care Newborn Unit (SCANU) is an effective model of full supportive care for managing sick newborns with serious complications such as asphyxia, prematurity, low birth weight, sepsis and jaundice, established in district and medical college hospitals (*National Strategy of scaling up special care newborn unit SCANU in Bangladesh, 2014*). SCANU is a neonatal unit closer to the labour room that provides care to all sick newborns, except for those requiring

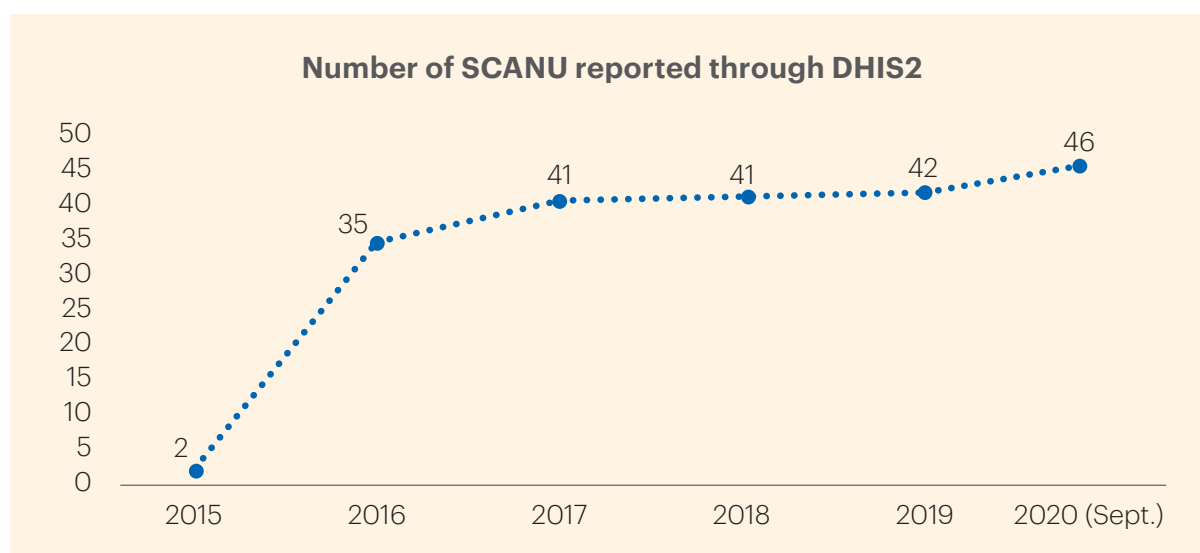
assisted ventilation or major surgery (*SOPs for newborn care services at primary- and secondary-level hospitals, 2011*).

According to the Fourth Health Population and Nutrition Sector Programme (HPNSP), all 64 districts of Bangladesh will be covered by the initiative by 2022. The Ministry of Health and Family Welfare (MoH&FW) has developed a generic layout design and standard operating procedures (SOP) for renovation of SCANUs in the secondary- and tertiary-level hospitals.

The first SCANU was installed and made operational in 2012 in Cox's Bazar district with support from UNICEF, though online reporting started in 2015. Till September 2020 a total of 48 SCANUs had been established in 42 districts, covering 68.28% of the targeted population (<https://www.citypopulation.de/Bangladesh-Mun.html>).

Among the 42 districts (out of 64), UNICEF supported the project to establish SCANUs in 30, the SAARC Development Fund (SDF) in 10, JICA in one and Save the Children Bangladesh provided support in one district. The Government of Bangladesh will cover the remaining 17 districts by 2022. Hospital Services Management (HSM) of the Director-General of Health Services took the lead to establish SCANUs in collaboration with other relevant departments of MoH&FW, development partners and professional bodies. The Health Engineering Department (HED) of MoH&FW provided support in establishing and renovating infrastructure for the SCANUs. All the SCANUs are operational with service provision, though online reporting is available from 46 SCANUs (as of September 2020).

Fig. 21. Number of SCANUs over the years, reported in National Health Information System (DHIS2)



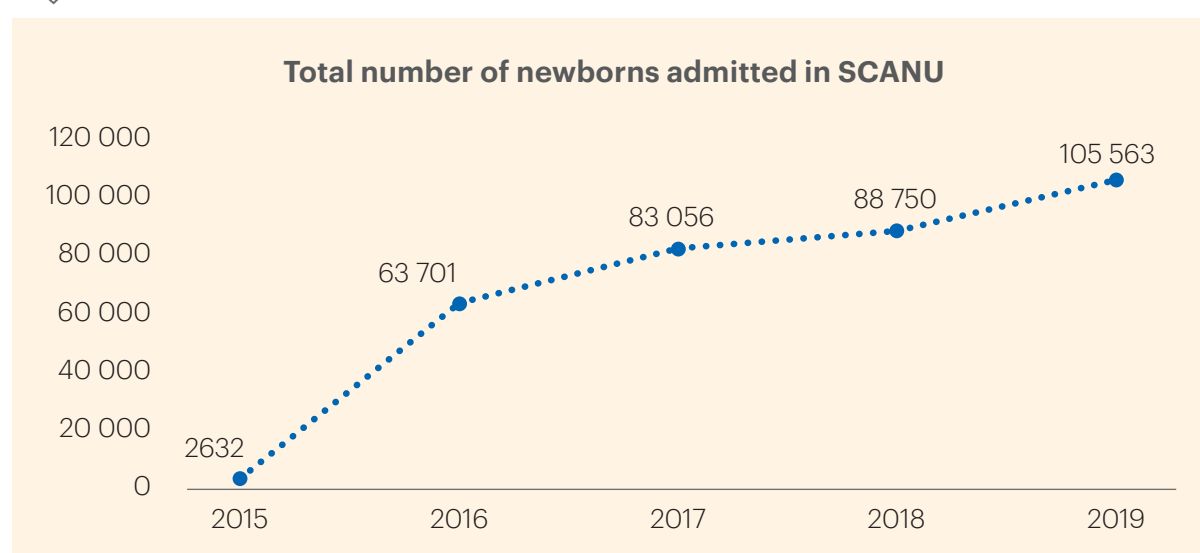
Through the Hospital Services Management (HSM) Operation Plan (2017–2022), there was a provision of capacity-building of the National Electro Medical Equipment Maintenance, Workshop and Training Centre (NEMEW&TC) for troubleshooting, repairing and maintenance of maternal and newborn equipment. A quality improvement system for SCANU has been established through the regional roaming team (RRT) and routine

quality initiative (QI) assessment for accreditation conducted as per the criteria of national standards, along with a monitoring dashboard for SCANU within DHIS-2.

Furthermore, UNICEF is providing technical assistance to MoH&FW on capacity-building, establishment of new SCANUs with effective referral systems, and developing a default tracking system for tracking of post-discharge newborns in community/households (Hospital Services Management Operation Plan: 2017–2022, MoH&FW). Similarly, Save the Children in Bangladesh is also supporting the MoH&FW in different priority newborn interventions, including the management of sick babies at SCANU.

The National Newborn Health Programme (NNHP) of DGHS will ensure capacity-building for doctors and nurses on the management of sick newborns at SCANU by

Fig. 22. Number of sick newborns served in SCANUs (2015–2019), reported in National Health Information System (DHIS2)



emergency triage and treatment (ETAT) and sick newborn care training (MNCAH Operation Plan: 2017–2022, MoH&FW). Over the last five years (2015–2019) in Bangladesh, a total of 343 702 sick newborns were served in the SCANUs. Fig. 22 shows the gradual increase in patient load over time. Data also shows that male sick newborns (59%) were admitted in SCANU more than female sick newborns (41%) over the same period (Fig. 23).

Fig. 23. Newborns admitted in SCANU (2015–2019) by gender, reported in National Health Information System (DHIS2).

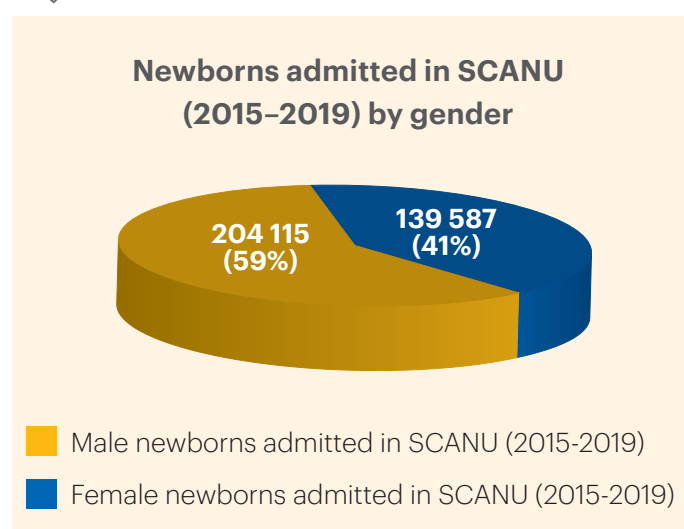


Table 6 shows that an average of 68 740 sick newborns were served in the SCANUs each year, and 13.07% of them died. The remaining sick children survived with this intervention. It also shows that the average bed occupancy rate was 103.08, which indicates that the optimum resource was utilized. Each sick newborn spends an average of 6.18 days in SCANU.

Table 6. SCANU service information (2015–2019)

SI No.	Elements	2015	2016	2017	2018	2019	Average (2015–2019)
1	Total number of newborns admitted in SCANU	2 632	63 701	83 056	88 750	105 563	68 740
2	% of deaths in SCANU	12.77%	14.31%	12.90%	13.20%	12.18%	13.07%
3	Bed occupancy rate (%) as per hospital records	118.5	105.5	99.6	91.1	100.7	103.08
4	Average length of stay (days) in SCANU	4	6.3	6.5	5.3	8.8	6.18

Source: Various, including WHO 2019.

Quality services are being ensured with the mechanism of “Regional Roaming Team (RRT)” along with regular mentoring visits and on-the-job training. Table 6 also shows that the newborn mortality rate in percentage remains below 15% whereas another study shows in 2018 that newborn deaths at a selected SCANU in Bangladesh was 41% of the study population (<http://dx.doi.org/10.4269/ajtmh.abstract2019>). This also illustrates that newborn deaths decreased slightly from 14.31% out of 63 701 admitted newborns (2016) to 12.18% out of 105 563 admitted newborns (2019).

The Bangladesh National Newborn Health Strategy has incorporated SCANU and its scale-up within the operational plans for hospital services management (HSM) and maternal, newborn, child and adolescent health (MNCAH) under the DGHS, and this includes the issue of procurement of equipment. The programme managers for HSM and NNHP-IMNCI (National Newborn Health Programme and Integrated Management of Childhood Illness) are the focal persons. Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, is rendering technical support on SCANU scale-up, including quality care. SOPs developed for SCANU and related training have been incorporated into the ETAT training module.

SCANU has also been integrated in the hospital layout plan of MoH&FW, along with capacity-building for the Public Works Department (PWD) to design and renovate older ones and construct new SCANUs. Divisional and district-level managers have also been sensitized about SCANU services.

Bangladesh began its journey with SCANU in 2012, and it is too early to estimate the long-term benefits and successes. The following strategic actions taken by the MoH&FW for the functioning of SCANUs have led to success:

- » Scale-up of SCANU in phases during the 3rd (2011–2016) and 4th (2017–2022) health sector programmes.
- » Deployment, skill development and retention of human resources.
- » Capacity-building of the National Electro Medical Equipment Maintenance Workshop and Training Center (NEMEW&TC) for repair, trouble-shooting and preventive maintenance of equipment.
- » Implementation of quality improvement initiatives for improved service delivery in the SCANU as per standards.
- » Establishing individual case-tracking system for all SCANU cases through DHIS2.
- » Establishing referral linkages between the primary, secondary and tertiary levels for referral compliance and post-discharge follow-up.
- » Knowledge sharing, cross-country learning and regional collaboration for the management of excellence and evidence generation.

This programme revealed that combined efforts of the government and development partners, and a positive working environment, will lead to its successful operation. With the guidance of the MoH&FW and the tremendous efforts of health-care professionals and policy-makers, a standardized SCANU layout has been achieved. This includes the National Neonatal Health Strategy, SOPs, ETAT module, a dedicated trainers' pool and an effective monitoring mechanism.

Challenges

The Government of Bangladesh is facing many challenges at every step while implementing the services. Though the benefits of care for small and sick newborns in units such as SCANU are based on evidence of newborn survival, this concept is resource intensive. The following challenges were faced during the implementation of the programme:

- » Installation of SCANUs as per standard layout in the existing hospitals.
- » Dedicated human resources for SCANUs.
- » Skill retention for a rapid turnover.
- » Repair and maintenance at the local level.
- » Effective referral linkages.

The MoH&FW has displayed concerted efforts in the establishment of the SCANU in line with its commitment to ending preventable child deaths. Despite many limitations, the Hospital Services Management (HSM) and the NNHP and IMCI programmes, part of the MNCAH operational plan, are running the SCANU services in coordination with professional bodies and partners.

The SCANU service is an effective intervention in routine health systems to combat newborn mortality due to sepsis, prematurity and low birth weight (LBW). For further scale-up and sustenance of the service, some other initiatives should be adopted. These include inclusion of private hospitals, retention of skilled service providers, updating service datasets within DHIS2, strengthening of the monitoring systems and instituting a performance award for the service providers.

Strong commitment of the MoH&FW, involvement of all stakeholders, and adequate support from development partners and professional bodies make this programme successful.

Further reading

SOPs for newborn care services at primary and secondary level hospitals

http://nnhp.dghs.gov.bd/?page_id=49843

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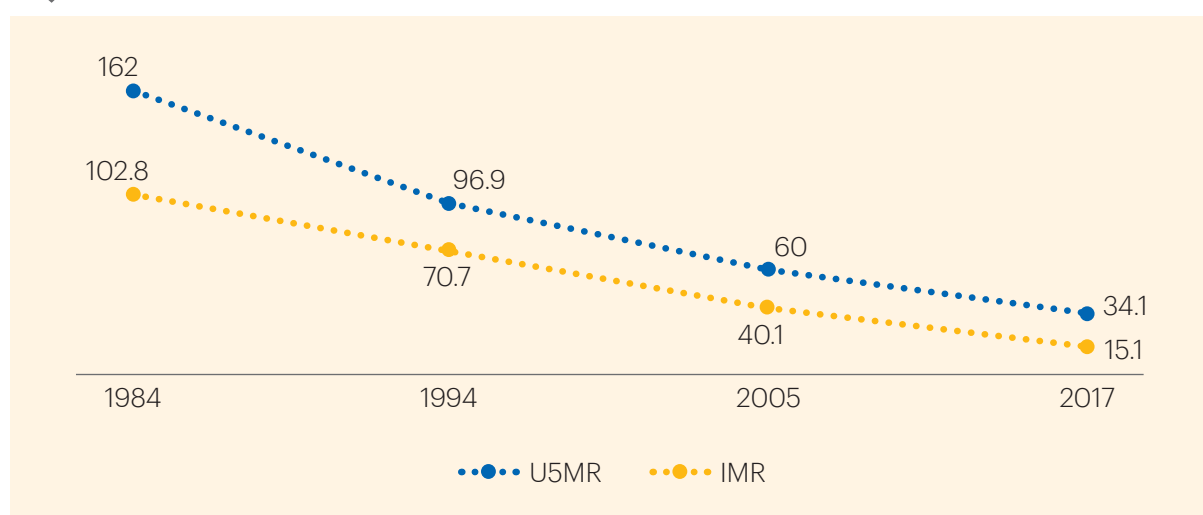
Ensuring every newborn a healthy start: Case study in delivering quality newborn care in district hospitals

Introduction

Since the introduction of safe motherhood and child survival programmes in the late 1970s, the coverage of maternal and child health services considerably improved across the Kingdom of Bhutan. This resulted in multifold reductions in infant mortality rates between 1984 and 2017. The infant mortality rate as of 2020 stands at 15.1 per 1000 live births, which is about seven times lower than the 1984 figures. Though the overall child health outcomes improved beyond measure, neonatal deaths, albeit largely preventable and treatable, continue to pose a formidable challenge.

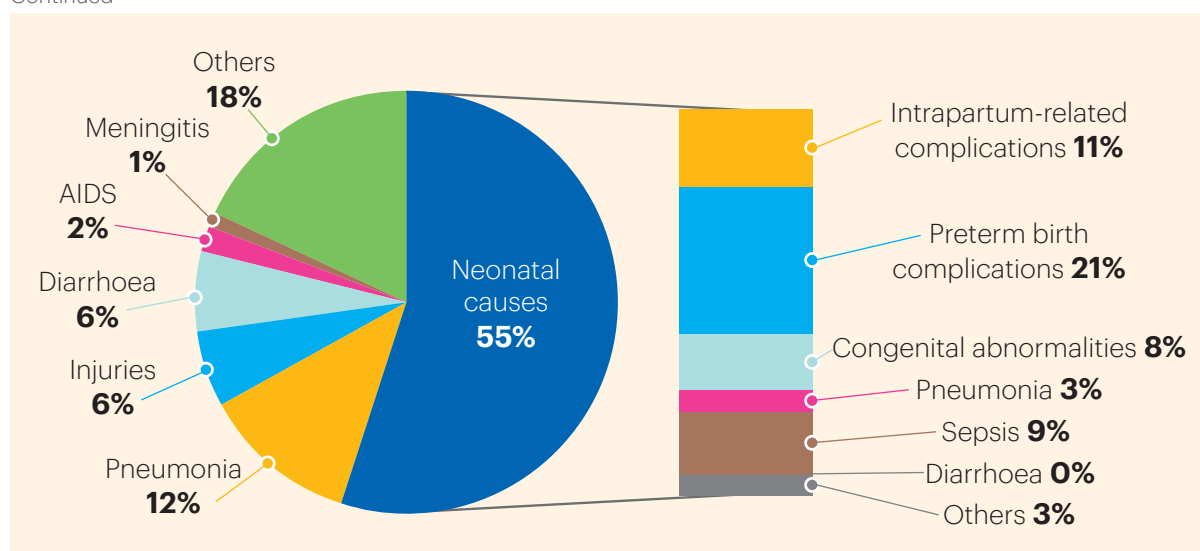
The neonatal mortality rate reduced from 21 per 1000 live births in 2012 to 18 per 1000 in 2015. More than half of all under-5 mortality is due to neonatal causes, of which preterm birth, sepsis and birth asphyxia constitute the leading causes. According to the maternal and neonatal death review reports (2012–2016), most neonatal deaths (70%) happened within the first week of newborn life and took place primarily in health facilities (over 80%).

Fig. 24. Under-5 and infant mortality rates (1984–2017) and causes of child mortality



Continued

Continued



Source: Annual Health Bulletin, 2020, and Bhutan Every Newborn Action Plan, 2016–2023

More than 60% of all neonatal deaths have taken place in the national and regional referral hospitals. This evidence makes a strong case for improving the quality of care for newborn infants in health facilities.

Aiming at ending preventable child deaths, including newborn deaths, the government's National Health Policy 2011 specifically assured support to programmes and interventions that promoted the healthy growth and development of Bhutanese children. In the past decades, several versions of child health strategies and standards had been formulated and implemented across the district health facilities, focusing on service delivery, capacity-building, referral mechanisms and infrastructural development.

Bhutan managed to achieve the Millennium Development Goal for child health and is now making unparalleled efforts to attain the health targets of the Sustainable Development Goals, including newborn health. In tandem with the developments taking place in newborn health around the world, and closely aligning with global goals and approaches, the Royal Government of Bhutan developed the Bhutan Every Newborn Action Plan (BENAP) in 2016.

This aimed to enhance the survival of newborn infants through the provision of improved access to quality maternal care and newborn care using a continuum-of-care approach. Bhutan aspires to achieve a neonatal mortality rate of 13.4 or less by 2023, and 10.2 by 2030, with its renewed vision of “no newborn deaths and stillbirths”. The strategic interventions outlined in the BENAP are: (i) care during labour and childbirth, (ii) care of small and sick newborns, (iii) care of healthy newborns, (iv) immediate newborn care, (v) preconception and antenatal care, and (vi) care beyond newborn survival.

In 2017, reinforcing the strategies of BENAP and recognizing the effectiveness of the new approach worldwide, the Ministry of Health with support from WHO and UNICEF introduced “Early Essential Newborn Care (EENC)” to 10 hospitals, including one national and two regional referral hospitals. One year into its application, an assessment at these three hospitals revealed that over 90% of all newborn infants had received EENC, including for both term and preterm births.

Implementation of EENC has been successful, particularly at referral and large district hospitals where necessary infrastructure, skilled health-care professionals, and other resources required for it to operate, are available. However, EENC would have become unsustainable and remained unattainable if not for the competent health-care providers, especially nurses of newborns and midwives, who were able to deliver quality maternal care and newborn care to mothers and neonates. The Ministry of Health is planning to expand EENC interventions to all district health facilities in the country.

Implementation of the practice

Bhutan is currently promoting the WHO EENC package that ensures quality of care to mothers during childbirth and neonates during the first 24 hours of life. Basically, EENC is a package of cost-effective and evidence-based interventions targeting all newborn babies, whether healthy or sick, which are proven to reduce newborn deaths particularly from prematurity, birth asphyxia and sepsis.

In 2017, experts from WHO and UNICEF supported the Ministry of Health in conducting a training of master trainers and coaching on EENC for nurses, midwives and doctors of the national and regional referral hospitals using WHO training methods and materials.

The Ministry of Health adopted the EENC approach to address the issues of quality newborn care in health facilities. EENC mainly consists of well-defined interventions, which are as follows: (i) immediate skin-to-skin care, (ii) prevention and care of preterm and low-birth-weight babies, and (iii) prevention and care of sick newborn babies.

Table 7. Core interventions of Early Essential Newborn Care

TARGET		MATERNAL CARE	NEWBORN CARE
All mothers and newborn infants	Immediate newborn care for all newborns at birth	Labour monitoring (partograph)	<ul style="list-style-type: none"> » Immediate drying » Immediate skin-to-skin contact » Appropriately timed clamping and cutting of the cord » Exclusive breastfeeding » Routine care – eye care, vitamin K, immunizations, weighing and examination
At-risk mothers and newborn infants	Preterm and low-birth-weight infants	Preterm labour <ul style="list-style-type: none"> » Elimination of unnecessary inductions and caesarean sections » Antenatal steroids » Antibiotics for premature rupture of membranes 	<ul style="list-style-type: none"> » Kangaroo mother care » Breastfeeding support » Immediate treatment of suspected infection
	Sick newborn babies	Obstructed/prolonged labour fetal distress <ul style="list-style-type: none"> » Assisted delivery » Caesarean section 	Not breathing at birth <ul style="list-style-type: none"> » Resuscitation Suspected sepsis <ul style="list-style-type: none"> » Antibiotic treatment

The core activities of EENC include immediate drying of the newborn, a prolonged skin-to-skin cuddle between mother and baby, early initiation of breastfeeding, routine care for all newborn infants and kangaroo mother care and breastfeeding support for preterm and low-birth-weight infants, and prompt care for sick newborns.

With the introduction of EENC, previously used substandard practices – such as unnecessary medical procedures during childbirth, not using partographs for decision-making, separation of newborn infants from mothers right after birth, pre-lacteal feeding, etc. – have been discarded. The EENC has conspicuously improved quality maternal care and newborn care.

In the last decade, Bhutan has made tremendous progress with institutional deliveries (94.5%) as well as childbirths attended by skilled health-care providers (96.3%). However, this was not enough to save the lives of all newborn babies. Ensuring quality maternal and newborn care during the intrapartum and immediate postpartum period by health-care providers was key to preventing neonatal deaths and promoting the accelerated growth and development of newborn babies.

One of the best ways to guarantee quality newborn care was by building capacity of health-care providers (nurses, midwives and doctors), and making them competent to deliver EENC ensuring quality of newborn care. With support from the development partners, the Ministry of Health has initiated EENC in 10 hospitals to spearhead the task of providing quality care to newborns through an EENC approach.

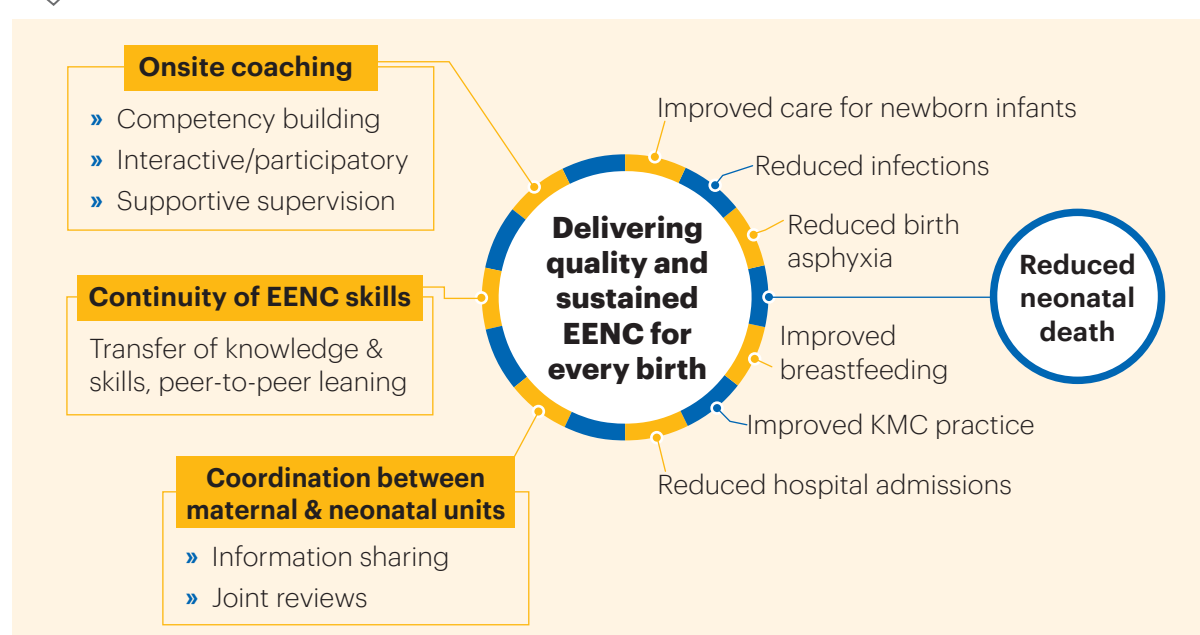
Instituting EENC in the hospitals gave health-care providers an opportunity not only to learn, acquire and practise new skills but also to redirect their attentions to the critical moments with newborns as they pass through the phases of childbirth and the postpartum period. Hence, EENC became the life-saving tool for protecting, promoting and maintaining good newborn health by preventing any adverse outcomes because of birth complications and poor management of newborns during the postpartum period.

Within the milieu of robust political commitment, supportive policies, and adequate resources, the delivery of EENC fundamentally entails considerable coaching for maternal and newborn nurses, midwives and doctors. The first batch of master trainers, mainly comprising neonatal nurses and midwives, from the national and regional referral hospitals were provided a two-day coaching session by WHO experts. Following this, cascade training/coaching had been conducted for the health-care providers in district hospitals responsible for childbirth and newborn care.

But what kept the operation of EENC synergistic, efficient and sustained were the core characteristics of EENC delivery framework led by the Ministry of Health. The onsite coaching programme facilitated on-the-job skills-building at the workplace, and enhanced peer-to-peer learning among health-care providers. Moreover, the coordination mechanism set up for EENC within a hospital brought maternal and newborn units together to coordinate and work jointly on improving care during labour, delivery, and the first 24 hours after childbirth.

- (a) **Onsite coaching:** An EENC-trained health-care provider assumes the role of a facilitator and coaches a small group of untrained midwifery and newborn care staff on EENC either in a delivery room or neonatal intensive care unit. Generally, there are no lectures; instead the trainees are taught directly with the actual onsite, hands-on skill-building demonstrations, aided only by some summary handouts. That is why the coaching is more participatory, interactive and spontaneous and not didactic with complexly structured sessions. The trainees are made to perform sequential newborn care steps repeatedly until they become competent. They are assessed to evaluate their proficiency with EENC skills at the end of a two-day coaching. This is a cost-effective, simple and powerful method of training EENC care-providers in a hospital setting.
- (b) **Continuity of EENC skill-building:** Maternal and newborn care providers are encouraged to promote peer-to-peer learning, and pass the EENC knowledge and skills to newcomers or untrained staff so that such everyday practices become a part of their routine childbirth and newborn care. Such a peer-based learning environment motivates health-care providers to openly discuss issues, exchange information and ideas, and strive collectively towards ensuring successful adoption of EENC. Sustaining these practices among health-care providers is the main objective of EENC.
- (c) **Coordination mechanism:** A hospital team is established to ensure close collaboration and transparency among the team members, consisting primarily of paediatricians, obstetricians, clinical doctors, midwives and nurses, in the areas of continuous quality improvement for EENC. They jointly identify gaps and constraints and discuss solutions for appropriate follow-up actions. The team holds joint reviews such as maternal and newborn death investigation, where the causes of newborn deaths are ascertained, inappropriate clinical practices identified, and relevant recommendations put forward for action. Further, there is free flow of information among the maternal and newborn health-care providers, which is imperative for making informed decisions regarding EENC practices at their hospitals.

Fig. 25. Framework for delivering quality newborn care



Though Bhutan started small by adopting and implementing EENC in only 10 hospitals in 2017, it is nonetheless proceeding well. When three tertiary referral hospitals were assessed in 2018, over 90% of newborn infants received EENC and 50% of preterm babies received KMC in just about a year of its introduction. EENC coaching is provided even to the newborn health-care providers in district hospitals and community health centres through an “attachment” programme. What urgently remains to be done now is another round of comprehensive facility assessment to check the progress made since the introduction of EENC interventions.

ENC training sessions for neonatal nurses in progress



Source: WHO Bhutan

Results of the practice – outputs and outcomes

Implementation of EENC has strengthened the national newborn health programme and the Bhutan Every Newborn Action Plan as it contributes to the same national outputs and outcome indicators, which are of high importance to the government and international communities to achieve the health-related SDGs. Since EENC interventions are simple, cost-effective, non-resource intensive, and covering both healthy and high-risk newborn infants, hospitals are readily adopting and pursuing EENC practices as they understand what and how much the benefits these interventions are going to bring to the lives of newborn infants. In addition, the EENC programme grabs the much-needed attention of the health system for support in mobilizing resources such as basic infrastructure, essential drugs, staff capacity, and other commodities concerning newborn care, since preventing neonatal deaths is a national priority.

In the absence of facility-based assessments or population-based surveys, it is difficult to determine either the hospital-level impact indicators or the overall effect of EENC interventions at this point of time. Nevertheless, successful implementation of the EENC service package in the ongoing 10 hospitals, and scaling it up to other health facilities at the subnational and community levels in the near future, will inevitably improve access to newborn care and, eventually, drive nationwide momentum towards eliminating preventable newborn deaths in Bhutan.

Best practices in action



Direct breastfeeding



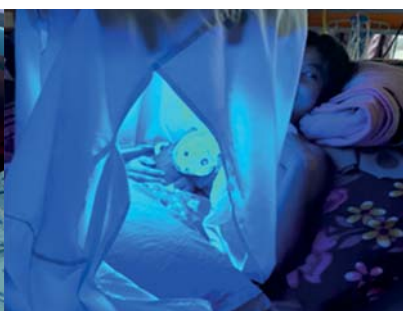
Expression of milk



Spoon-feeding



OG tube feeding



Newborn infants on phototherapy lying in a KMC position



Health education for mothers on EENC



Mothers practising KMC

Source: WHO Bhutan

Lessons learnt

As the EENC coverage expands, there is a need to have national EENC standards adapted from the WHO guidelines and protocols. It is vital for all health facilities to follow one standard uniformly across the country, since there is a likelihood of the delivery of quality care to newborns getting jeopardized in the absence of national standards that all health-care providers must adhere to.

Currently, hospitals implementing EENC do not have facility-level indicators drawn out, which can help them record and measure their outputs and outcomes. Keeping close tabs on EENC implementation will require hospital-level data generation by using facility observation tools, exit interviews and medical data recording systems.

Conclusion

EENC interventions, sustained through coaching and training using WHO tools, significantly enhanced competencies of health-care providers in maternal and newborn care. This ensured quality care for newborn babies in hospitals.

Further reading

- » MoH (2016). Bhutan Every Newborn Action Plan (2016–2023). Thimphu: Reproductive Maternal and Newborn Health Programme, Ministry of Health.
- » WHO-WPRO (2016). Coaching for the first embrace: Facilitator's Guide (Early Essential Newborn Care, Module 2). Manila. World Health Organization Regional Office for the Western Pacific.
- » WHO-WPRO (2016). Introducing and sustaining EENC in hospitals: managing childbirth and postpartum complications. Manila. World Health Organization Regional Office for the Western Pacific.
- » WHO-WPRO (2016). Introducing and sustaining EENC in hospitals: routine childbirth and newborn care (Early Essential Newborn Care, Module 3). Manila. World Health Organization Regional Office for the Western Pacific.
- » WHO-WPRO (2018). Introducing and sustaining EENC in hospitals: Kangaroo mother care for preterm and low-birthweight infants (Early Essential Newborn Care, Module 4). Manila. World Health Organization Regional Office for the Western Pacific.

BHUTAN

Care for preterm and low-birth-weight babies: Case study of kangaroo mother care

Introduction

Bhutan, due to its high rates of skilled birth attendance (96.3%) and institutional deliveries (94.5%), has managed to reduce maternal and infant mortalities significantly in the last decade. Still, more than 270 newborn babies continue to die every year from preventable and treatable causes. One of the major causes of neonatal death in the country is preterm birth complications (21%). On average, over 370 babies with low birth weight were reported annually in the last five years (2015–2019). The highest number recorded was in 2018, with 505 cases.

In response to a high number of deaths of newborn babies, the Royal Government of Bhutan is currently implementing the Bhutan Every Newborn Action Plan (BENAP) 2016–2023. The new targets aim to reduce newborn deaths to 13.2 per 1000 live births and neonatal mortality and stillbirth rate to below 10.2 per 1000 live births by 2030.

As a part of the Early Essential Newborn Care (EENC) package, kangaroo mother care (KMC) was introduced in selected health facilities in 2017 as an approach to manage preterm and low-birth-weight (LBW) infants. This was not only intended to improve healthy growth and development in newborn infants but also to prevent neonatal deaths. Between 2017 and 2018, over 90% of all newborns in three regional referral hospitals received EENC. However, only 50% of preterm babies received KMC.

Owing to the shortage of nursing and medical staff who often lacked special skills to provide care to preterm and LBW newborn babies, district-level health facilities lagged in KMC implementation. Nevertheless, the KMC unit of Jigme Dorji Wangchuck National Referral Hospital (JDWRH) in Thimphu and the neonatal units of the Eastern Regional Referral Hospital (ERRH) in Mongar and Central Regional Referral Hospital (CRRH) in Gelephu, Sarpang, have been intensely promoting the practice of KMC for the last three years.

Scientific literature available on KMC suggests that the practice, mainly consisting of prolonged skin-to-skin contact (STS), exclusive breastfeeding and monitoring signs of neonatal illness, can significantly reduce hypothermia, infections and deaths in preterm and LBW babies in addition to improving weight gain, neonatal health and emotional attachment

between the mother and the neonate. The World Health Organization regards KMC as a cost-effective and appropriate intervention for managing preterm and LBW babies. It is recommended particularly for low-income and developing countries such as Bhutan.

Implementation of the practice

Bhutan initiated KMC in 2017 as an intervention for preterm newborns in 10 hospitals across the country with technical and financial assistance from WHO and UNICEF. Adoption and practice of KMC took off smoothly and effectively at the national and two regional referral hospitals where nurses, midwives and doctors trained in EENC and other paraphernalia required for managing medical conditions in preterm and LBW infants were available.

These three tertiary hospitals have been implementing a well-rounded and family-centred KMC practice. Although only half of the preterm and LBW infants in these hospitals received KMC in 2018, no assessment was carried out recently to find out the trends and progress in KMC. However, hospital records show encouraging signs of KMC being adopted, accepted and practised by mothers and fathers of preterm and LBW infants who sought neonatal care at these referral hospitals.

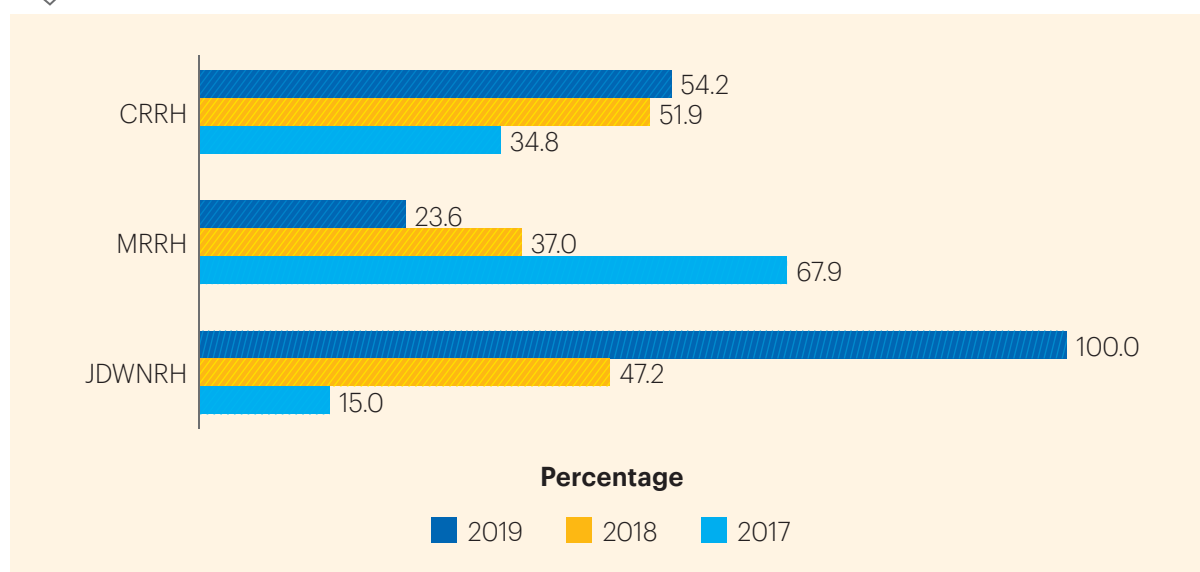
Today, KMC is ensured for every preterm/LBW infant at JDWNRH. Hospital records of JDWNRH showed a significant jump in the provision of KMC to preterm/LBW infants – from merely 17% in 2017 to 100% in 2019. This was a laudable achievement of the KMC unit of JDWNRH. Similarly, CRRH improved its KMC practice rate by over 80% between 2017 and 2019.

However, CRRH and MRRH do not have a separate KMC unit. Instead, it is appended with the neonate unit or neonatal intensive care unit (NICU). Not having space of its own to operate at MRRH and CRRH has created a barrier for mothers and fathers to practice KMC in a comfortable manner, plausibly owing to which the adoption and practice of KMC is comparatively lower in these hospitals than JDWNRH.

One of the best advantages of implementing KMC is its cost-effectiveness as it does not require any complex equipment or facilities to operate. All it requires is a mother or father, skilled health workers, and a convivial environment to carry it out. KMC can be performed in infants born preterm or full-term. Carrying a newborn baby in skin-to-skin contact on the chest of a mother or father helps stabilize vital signs and closely monitors its health conditions.

As part and parcel of the KMC ritual, exclusive breastfeeding is promoted, and this not only improves the duration of feeding but also supports healthy growth of the infants in the long run. In order to increase the level of acceptability of KMC among mothers and fathers, and continue to encourage them to practise it when a preterm or LBW baby is

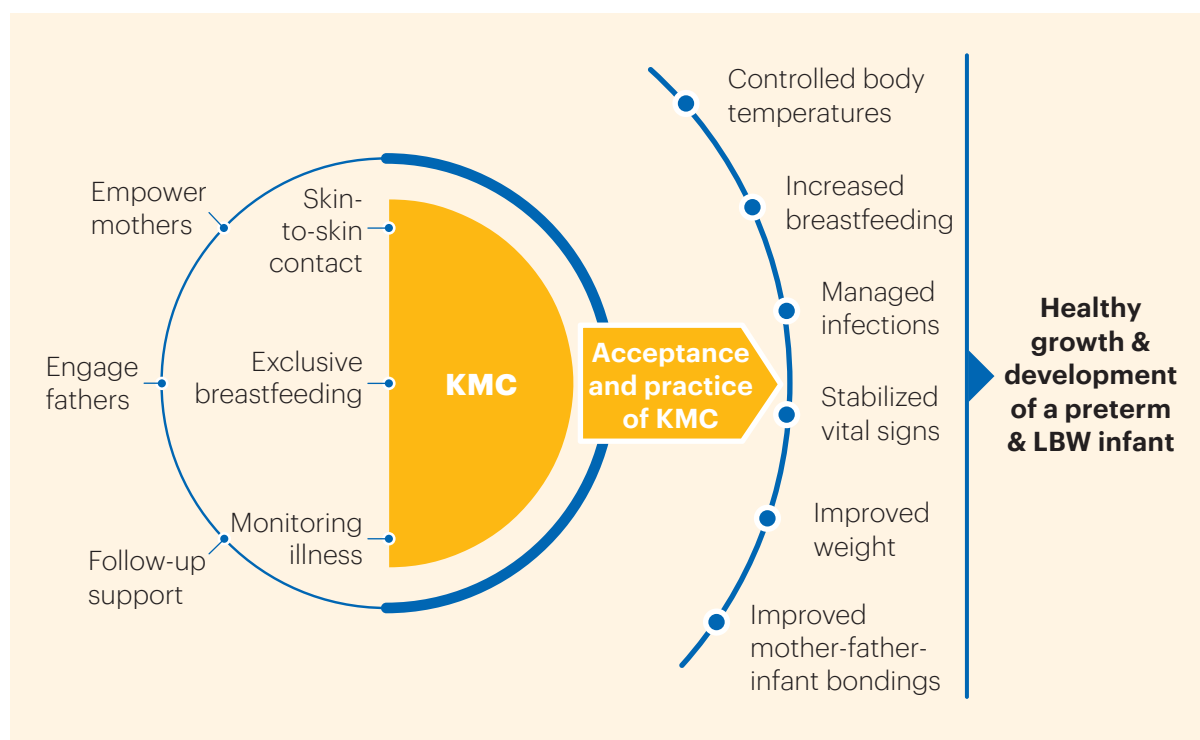
Fig. 26. Implementation of EmONC programme



Source: Data from National Referral Hospital (JDWNRH) and regional referral hospitals (CRRH and MRRH)

born to them, they need to first understand the values and benefits of KMC, and how to participate in it. Implementation of KMC in Bhutan is aided by three approaches, which are aimed at increasing the acceptability of its practice as well as promoting it as routine care that all births must receive, be it in a health facility or home setting.

Fig. 27. Framework for implementing KMC, and outputs/outcomes



Empowerment of mothers

Regardless of educational background, age, culture and socioeconomic status, any mother can learn about and perform KMC. What is more important than any other aspect of KMC is the empowerment of mothers with comprehensive knowledge, values and skills about the practice. This is how a typical mother-empowering process begins.

A KMC-trained neonatal nurse starts with health education, highlighting the importance of hygiene and newborn care, and then deliberates on KMC and its beneficial effects on preterm and LBW infants, including the bonding that grows between them and binds them together. Neonatal nurses explain all aspects of KMC to mothers, including neonatal care, options for feeding, and the do's and don'ts while performing KMC. They demonstrate the KMC procedures and the correct position to hold the infants.

Mothers are given hands-on practice. They are allowed to practice KMC on their own after the second or third time with guided assistance from the nurses. They are also provided counselling based on their willingness to adopt and practice KMC on a full-time basis. Since the adoption of KMC is not obligatory but undertaken as a consequence of informed decisions made by parents, nurses also inform them of the availability of conventional methods of infant care should they choose to switch due to unavoidable circumstances (e.g. a sick mother with little or no support from her family members). Once mothers get well acquainted and become confident about the KMC technique, and fully understand its long-term benefits, they not only tend to accept it readily but also stay motivated to continue and sustain the practice at home.

A hospitable environment is all that mothers need to carry out KMC with ease and comfort. Currently, there is no separate KMC room in any health facility in the country except for the national referral hospital (JDWNRH). KMC is instead carried out in the neonate unit, or neonatal intensive care unit. All neonatal rooms have comfortable beds and chairs with bathroom facilities. They are warm, and have curtains to ensure privacy, particularly when mothers are breastfeeding or are in a KMC position.

Most hospitals provide nutritious food to mothers or allow family members and friends to bring home-cooked food for them. In addition, mothers can move around freely and talk to their peers who have also come for KMC, to lighten their mood while staying away from their homes. Moreover, even though this is not always entertaining, nurses keep the mothers engaged in discussions on health education and newborn care and maternal health. So as not to fix responsibility solely on mothers, family members – particularly and preferably fathers – are encouraged to take up KMC wholly or partly. This gives the mothers not only time to rest and prevent exhaustion but also makes them feel being loved and supported by their husband and family members.

Empowered "KMC-mothers" showed a high level of acceptance of the practice not because it was delegated to them but more so because they gained confidence about the task and felt its positive effects through first-hand experience. For instance, all infants receiving KMC had exclusive breastfeeding, passed through a KMC period in good health, spent abundant time with their mothers facilitating mother-baby bonding, and recorded

improvement in their weights (between 10 and 20 gram per day). The number of KMC hours increased from 4 hours per day in 2017 to 21 hours per day in 2019 at JDWNRH, while the increase was by 3 hours for CRRH over the same period. Therefore, empowering mothers inevitably improves KMC practice among them, and is an effective tool to sustain it in a health facility setting.

ENC training sessions for neonatal nurses in a facility in Bhutan



Source: WHO

Engagement of fathers in KMC

Years ago, involving fathers in KMC was a rare event, and considered only relevant in cases where mothers had not recovered from a caesarean or no other female family members were available. However, that is changing nowadays. A father's role in neonatal care and KMC has become pivotal not only when a mother is unable to provide KMC for her baby due to her medical conditions following childbirth or medical procedure, but also more so because it is a husband's moral duty and emotional obligation to support his wife and newborn baby. Participation of the father in KMC reflects shared family responsibility and teamwork, and an opportunity for deepening the relationship between partners as well as fostering bonding among family members, especially with the newborn babies.

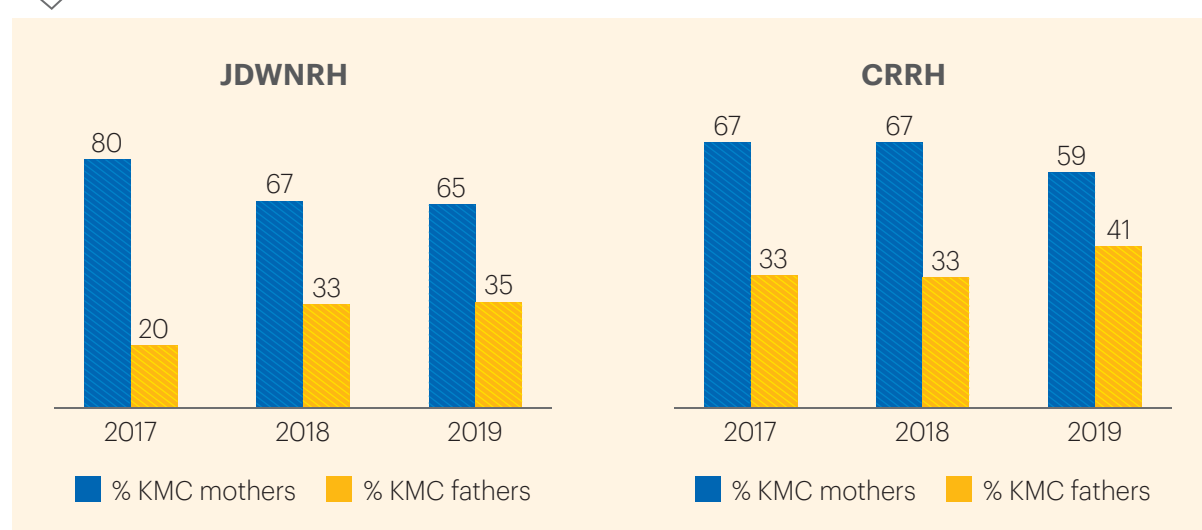
Increasingly, the referral hospitals (JDWNRH, MRRH and CRRH) in Bhutan are actively encouraging and promoting KMC among fathers to share responsibility with their partners. The importance of paternal participation in nurturing their preterm and LBW infants is also reiterated. KMC empowers fathers as it strengthens their confidence in newborn care and helps them to form close bonds with their newborn infants at a very early stage.

As with mothers, nurses take KMC tutorials with the fathers, and make them skillful in the craft. Fathers are made aware of the benefits of KMC. These include an opportunity to feed their infants exclusively with mother's milk, better emotional bonding, becoming

more knowledgeable about the infant's health needs, inculcating a sense of responsibility as a father, etc. Through this process, fathers are made to realize how valuable their support is to their tiny infants who are struggling to breathe or feed as a result of their preterm birth.

Over the last three years, the referral hospitals have seen a high level of acceptance of, and receptiveness about, KMC among fathers who are embracing a new role as a KMC provider to their newborn babies. The most promising result was observed at JDWNRH. The proportion of fathers sharing the responsibility of KMC with mothers jumped from 20% to 35% between 2017 and 2019. Likewise, CRRH maintained fathers' participation in

Fig. 28. Percentage of fathers sharing responsibility of KMC with mothers



Source: Hospital records of JDWNRH and CRRH

ENC training sessions for neonatal nurses



Fathers actively taking part in KMC, allowing mothers to get some rest

A husband sharing the responsibility with his wife of performing KMC for their twin babies

Source: WHO

KMC at consistently high levels of 33% in 2017 and 41% in 2019. As a result, fathers are progressively engaging in KMC and newborn care, which is a big boon to both mothers and infants.

KMC is recommended to both mothers and fathers for practice at home post-hospital discharge. Before leaving a hospital, fathers are given lessons on changing nappies, giving a bath and massage to the baby, and how to cuddle it to sleep. However, it is not certain whether fathers who performed KMC in a hospital setting continue to do so at home.

Provision of follow-up support

Delivery of KMC as a part of EENC makes follow-up work easier. Infants requiring medical care after discharge have to make several visits to a paediatrician – the first visit within three days of discharge, the second visit in a week, the third in two weeks, and subsequently monthly visits for a year. During these follow-up visits, tagged along with other treatments, doctors and nurses educate mothers/fathers about the implications of continuing KMC at home, and how to sort out obstacles and find solutions collectively to make KMC completely feasible at home.

Doctors and nurses also provide additional information on newborn care to mothers/fathers to prepare them gradually to provide the necessary care for the healthy development of their infants. Even though mothers and fathers are reminded during every follow-up visit about their continual practice of KMC at home, it is still difficult to assess whether they perform the care at home. Currently, there is no mechanism in place to monitor KMC at home.

Results of the practice – outputs and outcomes

KMC is a type of developmental care that is highly beneficial to preterm and LBW infants. This practice is vastly acceptable to and gaining popularity among Bhutanese mothers and fathers in a health facility setting. Both the empowered mother and the responsive father are increasingly engaging in KMC at three referral hospitals (JDWNRH, MRRH and CRRH) to nurture their preterm and LBW newborn infants. Most of them have found it an appropriate method for effective body temperature control for their infants, and to stabilize vital signs, increase breastfeeding rates, speed up growth, promote bonding, and decrease or prevent infections. In effect, all of these factors improve the infant's developmental outcomes and reduce newborn deaths.

Lessons learnt

In the beginning, most mothers and fathers hesitate to perform KMC because they are apprehensive about hurting their fragile and small babies and lack confidence in themselves. There is also inadequate knowledge about the benefits of KMC for preterm babies. Nonetheless, with earnest and reassuring support from the health-care providers and health facilities, it is possible to sustain the impetus of KMC in hospitals when mothers or fathers are made capable of making informed decisions to take responsible actions for their preterm infants.

Conclusion

If parents are empowered with knowledge and information, provided hands-on training on KMC skills, and supported with an enabling environment at a health facility, practising KMC by all mothers and fathers as a normal part of neonatal care for preterm and LBW babies in a hospital setting is feasible, scalable and attainable. Bhutan is looking forward to expanding this practice to district hospitals in the near future.

Further reading

- » JDWNRH (2017). Standard operating procedure in Thimphu: KMC Unit, Jigme Dorji Wangchuck National Referral Hospital.
- » MoH. (2016). Bhutan Every Newborn Action Plan (2016–2023). Thimphu: Reproductive Maternal and Newborn Health Programme, Ministry of Health.
- » WHO-WPRO (2018). Introducing and sustaining EENC in hospitals: Kangaroo mother care for preterm and low-birthweight infants (Early Essential Newborn Care, Module 4). Manila. World Health Organization Regional Office for the Western Pacific.

INDIA

Comprehensive lactation management centres for improving breastfeeding practices

Introduction

Breastfeeding by the mother stimulates all five senses of the baby – sight, hearing, smell, taste and touch. Breast milk is the best food for a baby because it provides optimal nutrition, promotes normal growth and development, and reduces risk of illness and diseases. WHO recommends continuation of breastmilk feeding even in situations where breastfeeding is not feasible, for example, if a baby is born sick or extremely preterm or with very low birth weight and, as a result, is admitted to hospital.

There is a need to provide continuous supply of safe breast milk to all babies admitted at health facilities for improved chances of survival and well-being. However, if for any reason the mother is not able to feed or express breast milk, the next best alternative is donor human milk. Since donor human milk is not readily available, the babies are usually fed with infant formula milk, which is associated with high risk of sepsis and necrotizing enterocolitis and comes at a high economic cost, thus impacting sustainability as well as survival of babies.

India has an annual birth cohort of 24.1 million (United Nations Population Division 2019) and thus the largest numbers of preterm and low-birth-weight babies globally. Many of these babies are born compromised at birth and require special care and medical attention. India has massively and expeditiously scaled up the facility-based newborn care programme across the country with more than 900 special newborn care units (SNCU) and 2500 newborn stabilization units (NBSU) operational across the country. These SNCUs provide level-II care for small and sick babies, and also incorporate the practice of kangaroo mother care as an integral part of the services.

The mothers of sick babies are encouraged to participate in taking care of their babies and also called to the units to breastfeed or provide expressed breast milk to their child. The relatively stable babies weighing below 2000 gm are also provided KMC by their mothers. However, it has been estimated that still about 10–15% of 1.1 million annual admissions are in need of donor human milk (DHM) because of either lactation failure in

mothers or causes such as sickness or death of the mother. The number is even higher when the newborns and young children admitted to the intensive care units other than SNCUs are taken into account.

Taking cognizance of this fact and building on already existing guidelines for infant and young child nutrition, kangaroo mother care and optimal feeding for LBW infants, and the fact that WHO recommends donor human milk for cases where mother's milk is not available, the Ministry of Health and Family Welfare of the Government of India developed national guidelines for the operationalization of comprehensive lactation management centres in public health facilities in India in 2017.

The aim is to establish lactation management centres at secondary- and tertiary-level public health facilities to provide lactation support for mothers to breastfeed, and to implement appropriate procedures for the collection, processing, storage and dispensing of donor human milk and mother's own milk. The lactation management centres' vision is to reinforce the promotion and support of breastfeeding as an extension of the existing breastfeeding promotion interventions to cover babies not getting the benefits of breastfeeding due to inescapable reasons, and is in no way intended to lessen the importance of feeding mother's own milk or the practice of natural breastfeeding.

This is complemented by the "Mother's Absolute Affection" programme (MAA), which targets training and capacity enhancement of health staff, including medical officers and staff nurses at all delivery points and auxiliary nurse midwife (ANMs) stations of the sub-centres, for promoting optimum infant and young child feeding (IYCF) practices. In addition, all ANMs and accredited social health activists (ASHAs) provide information and counselling support to mothers for early initiation of breastfeeding, including supporting exclusive breastfeeding in community settings.

This integrated approach would result in a powerful mechanism of breastfeeding promotion at community and facility level by the health workers, along with improving access to life-saving human milk through availability of facility-based lactation management centres.

Implementation of the practice

The first human milk bank in India as well as Asia was established in 1989 in Mumbai (then Bombay) under the name "Sneha". But the initiative took a long time to scale up because of intense advertising and competition from corporate giants promoting and pushing for formula feeds. There is unequivocal evidence in favour of breast milk. Initiatives such as the establishment of facility-based newborn care units in the districts, strict implementation of the Infant Milk Substitutes Act 1992 (as amended in 2003), fresh updated guidelines on establishing infrastructure and SOPs to collect, pasteurize, test and store safe DHM from lactating mothers and provide it to infants in need will ensure that even if babies cannot breastfeed, they still receive human milk as soon as possible after birth.

The Government of India has come up with a Comprehensive Lactation Management Strategy guidelines that envisions the establishment of the following:

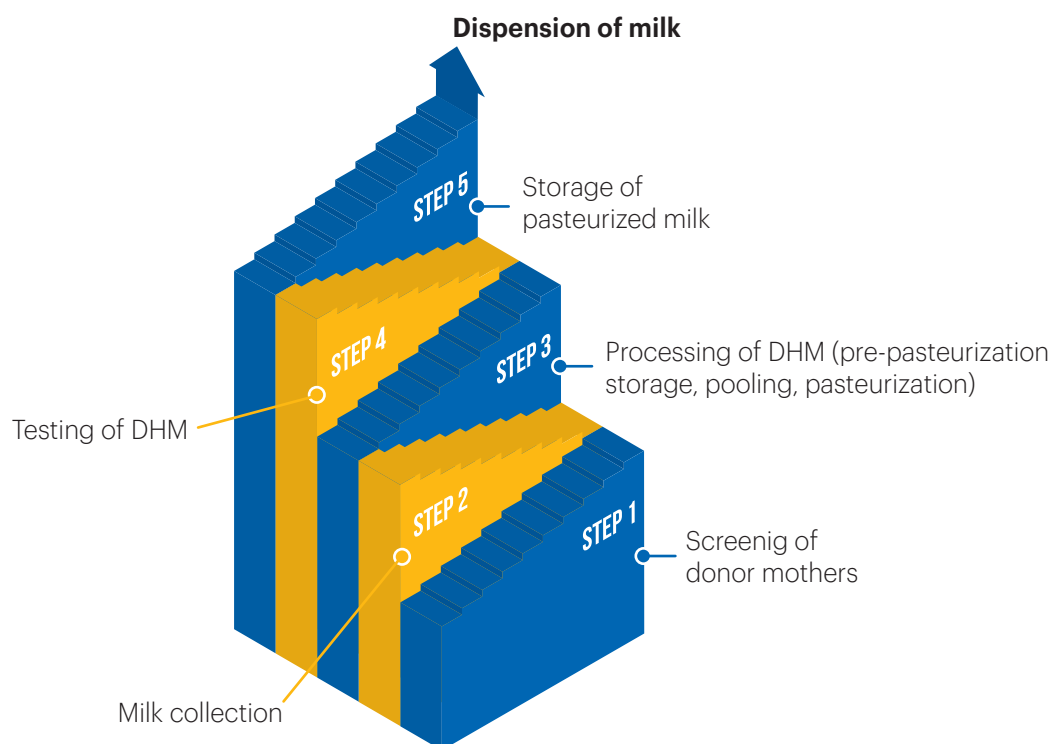
- » *Comprehensive lactation management centres (CLMCs)* for donor human milk collection, storage, processing and dispensing for babies admitted in health centres to be established at facilities with at least 20-bedded NICU along with SNCU.
- » *Lactation management units (LMUs)* for collecting, storing and dispensing mother's own milk expressed and stored for consumption by her own baby to be established at 12-bedded SNCUs.
- » *Lactation support units (LSUs)* for providing lactation support to mothers-to-be established at all delivery points by forming a dedicated team trained in infant and young child feeding (IYCF) to provide round-the-clock breastfeeding and lactation support including appropriate counselling.
- » For further support, an intensified programme called "Mother's absolute affection" is an attempt to bring undiluted focus on promotion of breastfeeding by building an enabling environment, generating awareness and reinforcing lactation support services at public health facilities through trained health-care providers and skilled community health workers.

These guidelines were developed based on consultations with multiple stakeholders and involved discussions among experts and organizations working in the field of breastfeeding promotion, infant and young child feeding and human milk banking.

The guidelines also envisage the re-designation of well-performing CLMCs as reference centres (RCs) in each zone – north, east, west, south and central as zonal resource centres (ZRCs) – to provide technical resource. These technical resource centres would provide training, quality assurance support and technical guidance for establishing new CLMCs and LMUs. The guidelines provide prequalification criteria for selection of units as CLMCs or LMUs.

Infrastructure details and required equipment for a model layout of each unit that has the provision of a private and relaxing area for mothers to express breast milk are also stipulated. Human resource requirements, technical specifications and SOPs for donor selection and milk processing in these units are also enumerated in the guidelines. The one-time establishment cost of a CLMC is around Indian Rupee (INR) 3.3 million (excluding civil works), and the cost of running a unit is approximately INR 1.5 million per annum, including essential human resources. Automated pasteurizer and electric breast pumps account for a bigger part of the capital costs that can be potentially brought down with local and cheaper production.

For a lactation management unit where mothers express milk for their babies only and which do not require the paraphernalia for pasteurization of milk, the capital expenditure is approximately INR 1 million and operational cost is INR 0.5 million per annum, including essential human resources.

Fig. 29. Process in lactation management units

Results of the practice

The Government of India has thus bridged a huge gap to address the need for standardized protocols to set up facilities for human milk collection, processing and dispensing. Prior to this, there were no standard guidelines even for the floor area required for the operationalization of the unit. A landscape analysis of the human milk banks in India conducted in 2018 revealed that most banks that were established in the private sector had full-time neonatologists but lacked other important support staff such as lactation counsellors, laboratory technicians and unit managers, while the public sector units had the required staff.

With the guidance now in place, the details can be easily accessed by all stakeholders across the public and private sectors. This will lead to standardized protocols and improved quality of care. One important aspect of lactation management is providing a relaxed and private area to mothers and the presence of support staff to facilitate expression of breast milk. The National Health Mission is supporting the setting up of CLMCs and LMUs across the states of Gujarat, Goa, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Haryana, Delhi and West Bengal. Funds have been allocated for operationalizing these units following the release of guidelines, which provided clear rationale, infrastructure and technical specifications.

Lessons learnt

There is a need to provide continuous supply of safe breast milk to all babies admitted at health facilities for improved survival and well-being. If for any reason the mother is not able to feed or express breast milk, the next best alternative is donor human milk to avoid complications and costs.

Lactation management centres provide a sustainable and cost-effective solution by not only serving as depots and dispensers of human milk but also provide counselling and breastfeeding support services and boost the promotion of appropriate breastfeeding practices at health facilities. However, all these steps should be taken in conjunction with a strong community component of breastfeeding support and counselling to help mothers sustain breastfeeding for a longer period in the life of the neonate.

Conclusion

The scale-up of lactation management centres in India under the National Health Mission, MoHFW, through the release of “National Guidelines on lactation management centres in public health facilities” provide an excellent example of how programmes can build upon the success of the existing facility-based systems of newborn care, by introducing newer interventions for improving quality of care.

Of the 24 million babies born in India annually, nearly 5 million vulnerable babies can be helped through donor human milk and mother’s own expressed breast milk. The comprehensive guidelines produced by the MoHFW can serve as a great technical and operational resource for countries of the Region, especially in low- and middle-income settings, to develop their own national strategies and protocols.

Further reading

- a. National Guidelines on lactation management centres in public health facilities. Child Health Division. Ministry of Health & Family Welfare, Government of India. June 2017 (Accessed from www.nhm.gov.in on 01 August 2020).
- b. Programme for promotion of breastfeeding, mothers’ absolute affection (MAA), operational guidelines 2016
- c. Infant and Young Child Feeding Chapter, Indian Academy of Pediatrics, Bharadva K, Tiwari S, et al. Human milk banking guidelines. *Indian Pediatrics*. 2014;51(6):469–474. doi:10.1007/s13312-014-0424-x
- d. Sachdeva, Ruchika & Mondkar, Jayashree & Shanbhag, Sunita & Sinha, Minu & Khan, Aisha & Dasgupta, Rajib. (2019). A landscape analysis of human milk banks in India. *Indian Pediatrics*. 56. 663–668. 10.1007/s13312-019-1590-7

Annexures

1. Selection of donor

A lactating woman who is willing to donate her surplus expressed breast milk (EBM) should be considered as potential donor. Potential donors are screened verbally and in writing. The donors must be in good health as ascertained by history and physical examination.

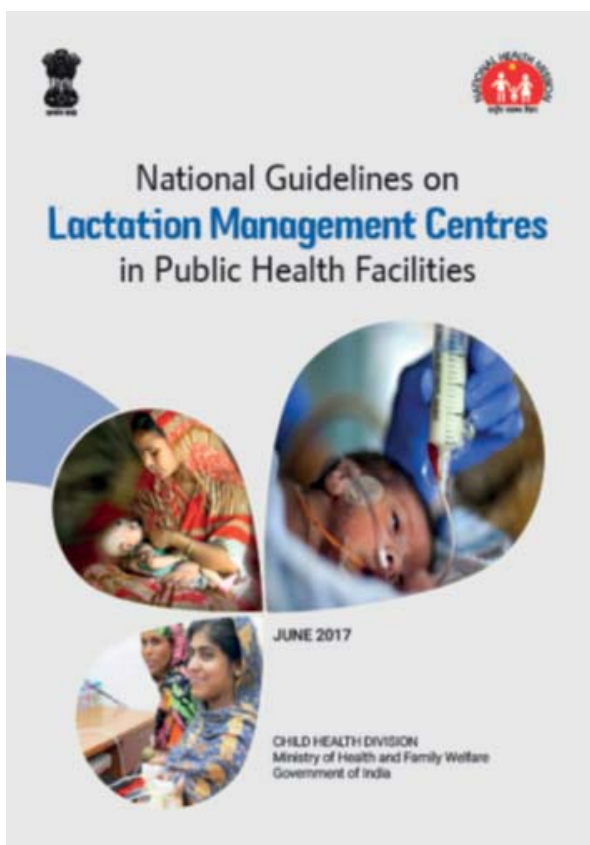
For recruiting donors, the following points must be adhered to:

- » There should not be compromise on satiety for her own baby.
- » Breast milk donation should be voluntary, and no incentive should be provided to the mothers.
- » Mother should fulfil all donor eligibility criteria, as stated in the guidelines.
- » The donation is to be done only at health facility and not promoted in community settings.

2. National Guidelines on lactation management centres in public health facilities

<https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=1182&lid=364>

National Guidelines on Lactation Management Centers in Public Health Facilities



INDIA

Improving newborn health outcomes through family-centred participatory care at special newborn care units

Introduction

India, the second most populous country and home to the largest annual cohort of newborns in the world, has put in place a well-defined system for the care and improved survival of newborns that provides continuum of care from home to facility and back.

The estimated neonatal mortality rate in India is 23/1000 live births (SRS 2018) and small and sick newborns are major contributors to this mortality. India aims to attain single-digit newborn mortality by 2030, as enunciated in its ambitious India Newborn Action Plan (INAP). INAP provides a clear roadmap for the country to do so and also enlists care beyond survival as an important pillar for this implementation.

The facility-based newborn care system consists of special newborn care units (SNCU) that manage small and sick newborn babies. These facilities are mostly located at the district level. Currently there are more than 900 such units in place admitting about 1.1 million newborns annually, with a more than 78% successful discharge rate from these units. Most of these babies are either preterm or born with low birth weight, further compounded by sickness and, therefore, require essential care for a longer period of time and even after discharge.

The parents face a double whammy of sorts in the form of separation anxiety while the baby is admitted in the hospital, and then a feeling of helplessness when it gets discharged from the hospital owing to lack of confidence and heightened anxiety due to its sickness. On the other hand, it is common for these units to be overcrowded and the staff overworked, resulting in compromised quality of care. All these have a cumulative effect on the newborn, whose health status is already fragile and who also does not get the nurturing care required for optimal growth and development.

The concept of family-centred participatory care for newborns admitted to the newborn care units has, therefore, been introduced in India based on the understanding that the family is the child's primary source of strength and its participation in the care of the

admitted newborn is important in decision-making and long-term care. Family-centred care and family-centred participatory care provides a setting in which the family is empowered, encouraged and supported as the constant care-provider, in addition to available nursing staff to complement the care of their sick newborn in nursery from the time of admission until discharge. However, the primary responsibility of care still rests with the doctor and nurse.

Encouraging parents to assume non-medical aspects of their baby's care, which is family-centred and participatory care, through this work-sharing reduces some of the burden of the staff and thus improves quality of care. Engaged as a constant caretaker from admission until discharge, parents can make a difference not only to the survival but also the overall growth and development of the baby. The Government of India launched this intervention across the country in 2017 with the release of the Operational Guidelines for improving newborn health through family participatory care.

India chose to rename family-centred care with the term, family participatory care to underline that the primary responsibility of the neonate admitted in SNCU is with the health providers and families are participating in that process.

Implementation of the practice

The Family Participatory Care Guidelines adopted by India had its basis in the evidence emerging out of implementation research in the neonatal intensive care unit of a teaching hospital in India in 2010–2012, which demonstrated a positive outcome in terms of improved breastfeeding rates and no increase in nosocomial infections. Following this, MoHFW in collaboration with the Norway India Partnership Initiative (NIPI) and the Ram Manohar Lohia Institute of Medical Sciences, New Delhi, facilitated the implementation of this practice in five model family participatory care sites at SNCUs of three states with a high neonatal morbidity and mortality burden – Madhya Pradesh, Odisha and Rajasthan – in 2015–2017.

Family participatory care has two distinct interventions:

- » Building capacities of parents-attendants in essential newborn care through a structured programme.
- » Continuous supervision and support to parents-attendants providing care to their babies in the newborn care unit.

The parents of newborns are trained through a training package that consists of an audiovisual module structured into four sequential sessions and a training guide. Each of the four sessions are spread over 60–75 minutes depending on the number of parents-attendants and number of skills to be taught. There are ample opportunities for discussion. These training videos have been prepared by RML Hospital and are freely available on YouTube (link in the annexure).

The four sessions are:

Session 1: Skill of handwashing, importance of infection prevention, and protocol for entry to the nursery.

Session 2: Developmentally supportive care (cleaning, sponging, positioning, nesting, handling and engaging in interactions with the baby through the sickness, period, techniques of breastfeeding, expression of breast milk and assisted feeding).

Session 3: Kangaroo mother care.

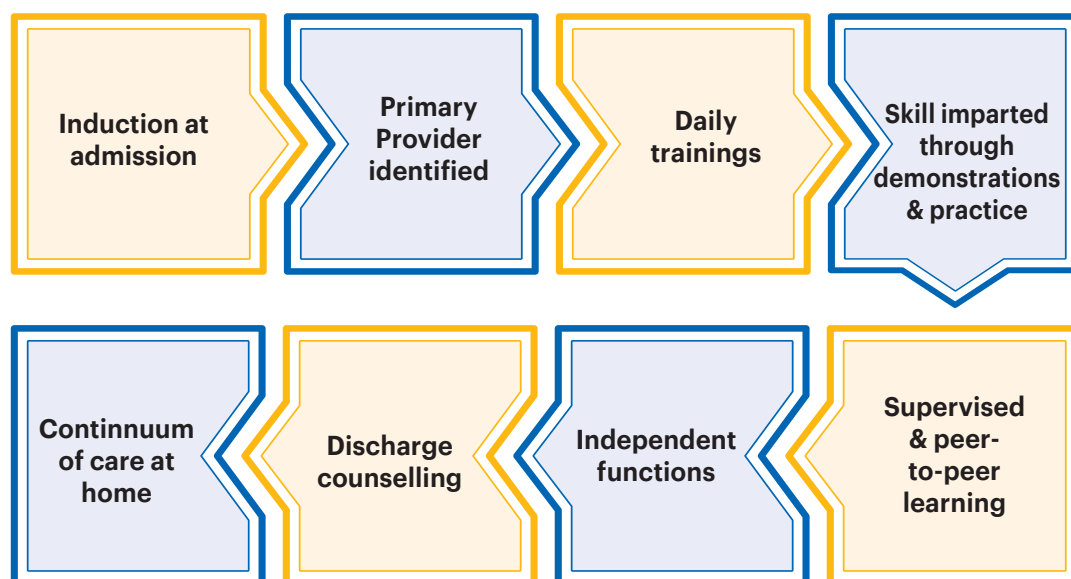
Session 4: Preparation for discharge and care at home.

After being trained in FPC (2 days' training), the providers are enabled to impart training to family members. A training calendar is prepared, and structured training sessions are organized daily. The parents practice the skills on their own babies under the supervision of the nursing staff. The equipment and supplies, including training area and AV equipment, are already part of the SNCU budget and the additional costs for printing of guidelines and IEC activities is INR 150 000 (US\$ 2000) per unit.

Developmentally supportive care being provided to a newborn



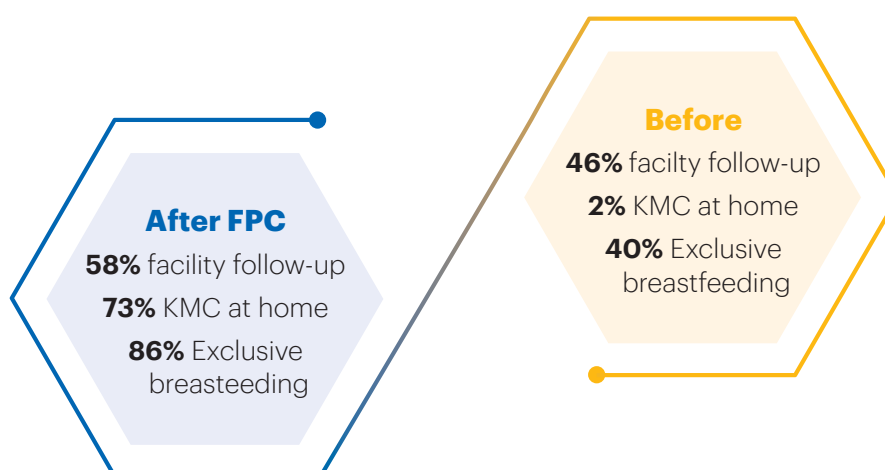
Fig. 30. Process of care



Results of the practice – outputs and outcomes

The evaluation of the scale-up of the practice to 85 SNCUs revealed that rates of exclusive breastfeeding had improved to 86%, and continuation of kangaroo mother care at home to 75%. The facility follow-up increased from 46% to 76%. Notably, the post-discharge mortality reduced to less than 3% in the implementing districts.

Fig. 31. Care outcomes



Lessons learnt

This model proved beyond doubt that involving parents in providing care to their relatively stable and less sick newborns when admitted to special care units is a mutually beneficial proposition. The parents feel more empowered and confident about their child and they

also get an opportunity to bond with the baby, which is lacking in traditional hospital settings. The benefits of exclusive breastfeeding and kangaroo mother care are well known and this approach also caters to providing developmentally supportive care to the newborn.

Evidence to this end was shared with the providers through academic papers and also through identified champions who helped in allaying the fears and anxiety of the health-care providers to initiate FPC in their units. The model was gradually scaled up from five units to 85 units and is now gradually being implemented across the country. This helped in generating evidence and also defining the contours of the programme.

This model also successfully proved that involving parents in the care of their sick babies doesn't add to the work of the health-care workers; instead it provides them with a helping hand in activities such as cleaning and feeding the baby. On the provider side, another important learning was that the eligibility criteria should be strictly adhered to, including willingness of the parent, the baby being off IV fluids or oxygen therapy, and the baby being relatively stable. Family participatory care also acts as a bridge between the service providers and the parents, improves communication, and builds mutual confidence and trust, thus leading to improved quality of care and better outcomes.

Conclusion

The idea of family participatory care is meant to reinforce the fact that involving the parents as stakeholders in taking care of their small and sick babies admitted to hospitals is doable and leads to positive outcomes for the baby while also improving patient/care-provider experience and satisfaction. The model requires some basic infrastructure and local champions in the implementing units who are willing to accept and propagate the new paradigm. The Nurturing Care Framework and early childhood development measures cannot be complete if the most vulnerable and at-risk neonates are denied parental love and affection in the riskiest period of their lives.

The adoption of this concept at the national level and dissemination of the Operational Guidelines for family participatory care by the Government of India in 2017 paved the way for this to be scaled up as a best practice throughout the special newborn care units in the country. The framework for family participatory care has also inspired the idea of introducing mothers' beds in the step-down care unit of the SNCU.

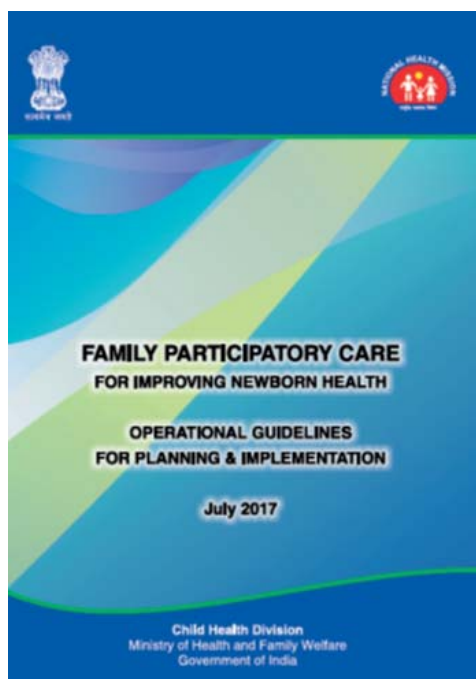
The concept has been named "Mother newborn care unit", which goes even beyond family participatory care to ensure that the mother stays round-the-clock with the relatively stable babies. The concept is being scaled up across the well-functioning SNCU and heralds a new era in the provision of developmentally supportive care for the neonates and gender-sensitive facilities for the mothers of sick babies. This approach is especially useful in limited-resource settings as it does not cost much. Combined with the home-based care for children, family participatory care provides the perfect opportunity to empower parents to provide nurturing care, warmth and affection to their babies and become partners in improving their health and overall development.

Further reading and references

- » Ramezani T, Hadian Shirazi Z, Sabet Sarvestani R, Moattari M. Family-centred care in neonatal intensive care unit: a concept analysis. *Int J Community Based Nurs Midwifery*. 2014;2(4):268–278.
- » Cooper, L., Gooding, J., Gallagher, J. et al. Impact of a family-centred care initiative on NICU care, staff and families. *J Perinatol* 27, S32–S37 (2007). <https://doi.org/10.1038/sj.jp.7211840>
- » Child Health Division, Ministry of Health and Family Welfare. Government of India. Family participatory care for improving newborn health. Operational guidelines for planning and implementation. July 2017.
- » Verma A, Maria A, Pandey RM, et al. Family-centred care to complement care of sick newborns: a randomized controlled trial. *Indian Pediatr* 2017. 54:455–459. <http://indianpediatrics.net/june2017/455.pdf> (accessed 1 August 2020).
- » www.nurturingcare.org. India case study– Family participatory care. Accessed 31 July 2020.
- » World Health Organization, United Nations Children’s Fund, World Bank Group. Nurturing care for early childhood development: a framework for helping children survive and thrive to transform health and human potential. Geneva. World Health Organization; 2018.

Annexures

- » FPC Guidelines and other child health guidelines of the Government of India <https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=1182&lid=364>
- » FPC sessions (1-4) videos uploaded by RML Hospital New Delhi on YouTube https://www.youtube.com/channel/UCMr09em_3RedbH1XctOQ36g



CHAPTER 3

INFANT AND CHILD HEALTH



BANGLADESH

Integrated management of childhood illness (IMCI) programme

Introduction

Bangladesh has successfully reduced the death toll of under-5 children to below the MDG-4 target well ahead of the deadline. Over the last two decades, data have confirmed a steady downward trend in childhood mortality. Under-5 mortality has been reduced by 66% from 133 per 1000 live births in 1993–1994 to 45 per 1000 live births in 2017–2018. Similarly, the infant mortality rate has also decreased from 87 deaths per 1000 live births to 38 deaths per 1000 live births (Fig. 32) over the same period.

Overall, 86% of all children aged 12–23 months in Bangladesh have received all recommended vaccines before their first birthday. Under-5 deaths due to diarrhoea have reduced significantly over the past few years and was only 3% of all under-5 deaths (BDHS 2017–2018). According to BDHS 2017–2018 the main causes of under-5 deaths in Bangladesh are sepsis (9%), preterm birth (13%), birth asphyxia (16%) and pneumonia (18%). Congenital abnormalities (6%) and drowning (9%) also have a significant share (Fig. 33) of cause of death. BDHS 2017–2018 also revealed that seeking care for pneumonia and

Fig. 32. Trends in infant and under-5 mortality in Bangladesh (1993–2017; BDHS)

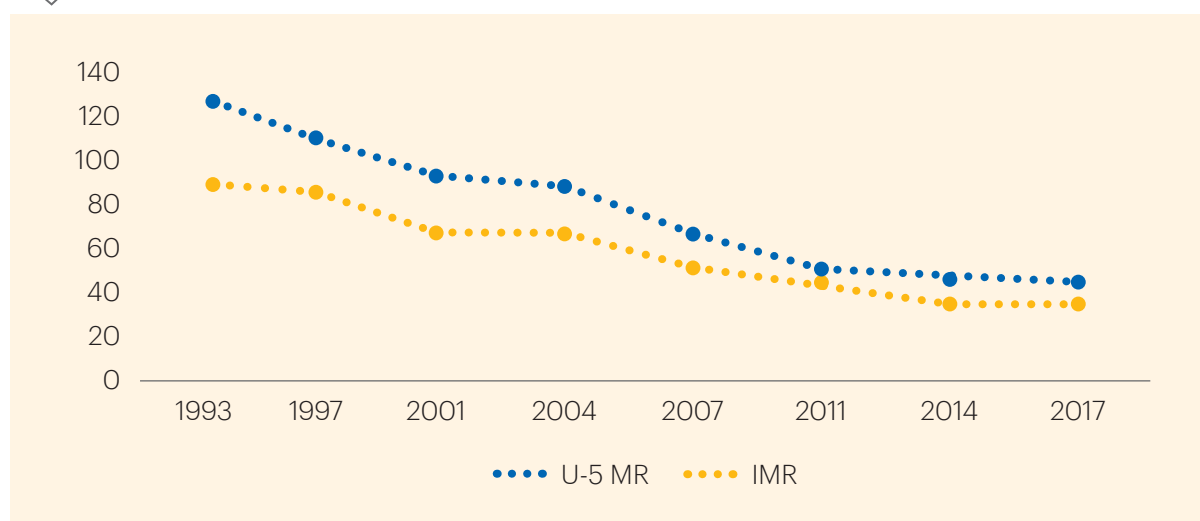
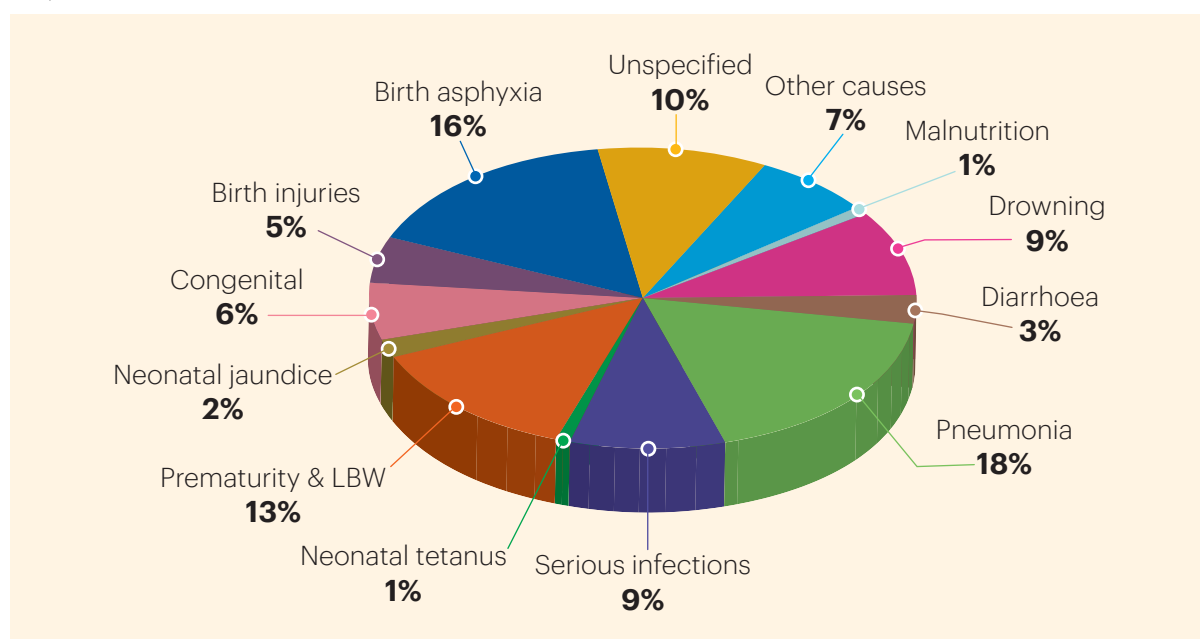


Fig. 33. Causes of under-5 deaths in Bangladesh (BDHS 2017–2018)



diarrhoea from trained health-care providers has increased. Between 2014 to 2017 the use of oral rehydration therapy (ORT) for diarrhoea management has increased from 84% to 85%; and coverage of exclusive breastfeeding from 55% to 65%.

National commitment

The Government of Bangladesh has committed to ending preventable child deaths and accords maximum importance to reducing the under-5 mortality rate to 25 per 1000 live births by 2030. To address child health issues, a separate IMCI section of the DGHS was established in 1998 to implement the Integrated Management of Childhood Illness (IMCI) programme. Bangladesh decided to pilot the IMCI Strategy in 1998. A National Steering Committee was formed, and a functional Secretariat established under the umbrella of a Deputy Programme Manager for Communicable Diseases Control.

Implementation began in 2001 in three *upazilas* after the adaptation of the generic guidelines. A formal review meeting in February 2003 concluded that the IMCI Strategy was feasible and effective to address the needs of children, and recommended it for rapid scaling up. Accordingly, in December 2003, the National Working Team (NWT) developed a plan for scaling up of the IMCI programme in Bangladesh with technical assistance from the World Health Organization.

The NWT has also developed a community IMCI Strategy, and the government endorsed this document in 2004. The IMCI programme has been included in the curriculum of undergraduate medical, nursing and medical assistant courses. The IMCI programme has been implemented in two ways, namely facility IMCI and community IMCI (IMCI Newsletter 2017, DGHS).

Implementation at scale

To make this programme a success a national trainers' pool was developed under the leadership of the Programme Manager, IMCI Section of DGHS. A local-level resource pool was also developed through cascade training. Several regional training venues were established as centres of excellence. All the frontline health workers were trained in both facility IMCI and community IMCI. Strong political will, robust coordination among the government and development partners, commitment from the service providers, and regular monitoring and supportive supervision made this programme a success. As a result, Bangladesh achieved the Millennium Development Goal 4 before the deadline.

The IMCI programme was incorporated within the Directorate General of Family Planning's (DGFP) Maternal & Child Health Services programme. Community IMCI was also incorporated within the community-based health care (CBHC) operational plan. Looking ahead at the Sustainable Development Goals regime, the IMCI programme was renamed the "National Newborn Health Programme (NNHP) and IMCI" in the 4th Health Population and Nutrition Sector Programme (HPNSP) to emphasize newborn health care. To redesign this major shift, development partners and professional bodies were working closely with the Ministry of Health and Family Welfare. Over time, the Government of Bangladesh took appropriate steps for the IMCI programme and merged it with the existing health system. This also helped sustain the programme.

Table 8. Progress in implementation of IMCI programme

Year	Implementation progress
1995	IMCI was adopted as the main strategy
1998	IMCI was adopted in the Health Population and Nutrition Sector Development Programme
2000	Integration workshop on strategy and ToT on IMCI
2001	National Steering Committee and Core Committee formed; IMCI training commences
2002	Primary implementation of facility IMCI (F-IMCI) launched. Technical review of community IMCI (C-IMCI), and formation of national working group and national working team
2003	Review of facility IMCI. Implementation plan at the national level and laying out of IMCI partnerships. Commencement of pre-implementation training and supervision of community IMCI
2004	Decentralizing training through centres of excellence. Approval and implementation of national community IMCI programme
2005	Expansion of community IMCI commences
2007	Multinational appraisal
2009	Introduction of IMCI case management training guidelines. Implementation of National Neonatal Health Strategy. Inauguration of referral care and community health worker (CHW) training. Online data capture via DHIS2 started. Emphasis on dissemination of pre-referral treatment

Year	Implementation progress
2010	Full scale-up of facility IMCI throughout the country
2013	Nutrition services incorporated within IMCI programme
2014	Scaling up of community IMCI programme
2017	IMCI programme renamed 'National Newborn Health Programme (NNHP) & IMCI' in 4th Health Population and Nutrition Sector Programme (HPNSP) to emphasize newborn health care. The IMCI programme incorporated within the Directorate General of Family Planning's (DGFP) maternal and child health services. Community IMCI incorporated within the 'community-based health care (CBHC)' operational plan
2018	IMCI protocol updated according to WHO's IMCI guidelines (2014) and 'possible serious bacterial infection (PSBI)' introduced within the IMCI programme. The child eye care part was also incorporated and recommended by the National Working Team. IMCI case-recording form and online reporting form in DHIS2 updated
2019	IMCI module for basic health workers updated for community IMCI services, including early childhood development with nurturing care. IMCI student's handbook and IMCI teacher's guide also updated.

Results of IMCI implementation

There has been continuous progress with the IMCI caseload over the years. In 2019, over 8 million under-5 children were served in the facilities. During 2009–2019, a total of 51.1 million under-5 children were treated at the IMCI and nutrition centres at the district, sub-district and below facilities (see Fig. 34). Among these were 25.82 million boys and 25.32 million girls. Among the cases from facilities, most were classified as “no pneumonia/cough or cold” (33%), “fever” (20%), “diarrhoeal diseases” (11%), “pneumonia” (7%), “ear problem” (4%) and “very severe disease” (3%) (see Fig. 35).

On the other hand, a significant number of under-5 children were also served in the community. An average of 8.4 million children were served through community IMCI services (Fig. 36). Among the cases from the communities, most of them were classified as “no pneumonia/cough or cold” (38%), “fever” (23%), “diarrhoeal diseases” (13%), “pneumonia” (3%) and “ear problem” (3%) (Fig. 37).

Fig. 34. Trends in under-5 children receiving IMCI services from the facilities (2009–2019)

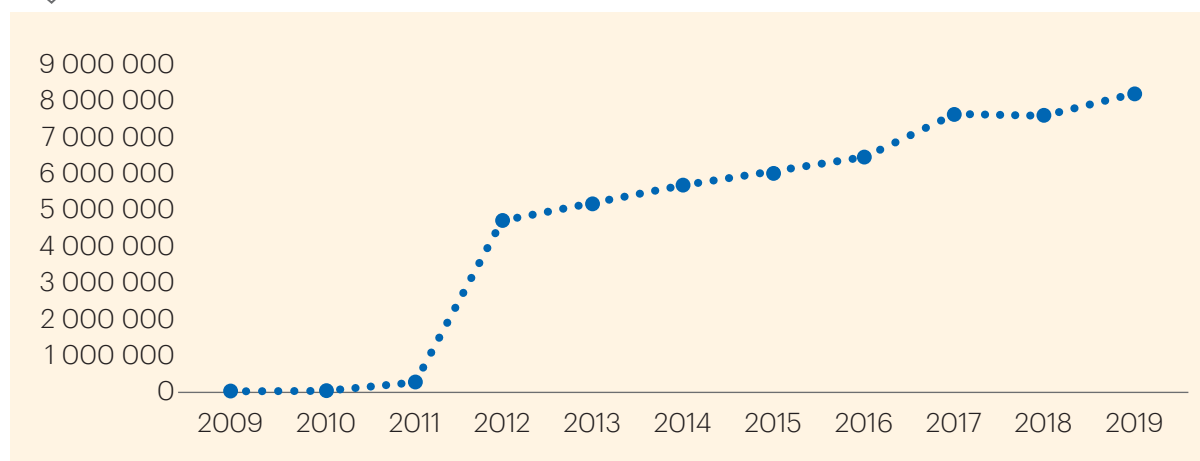
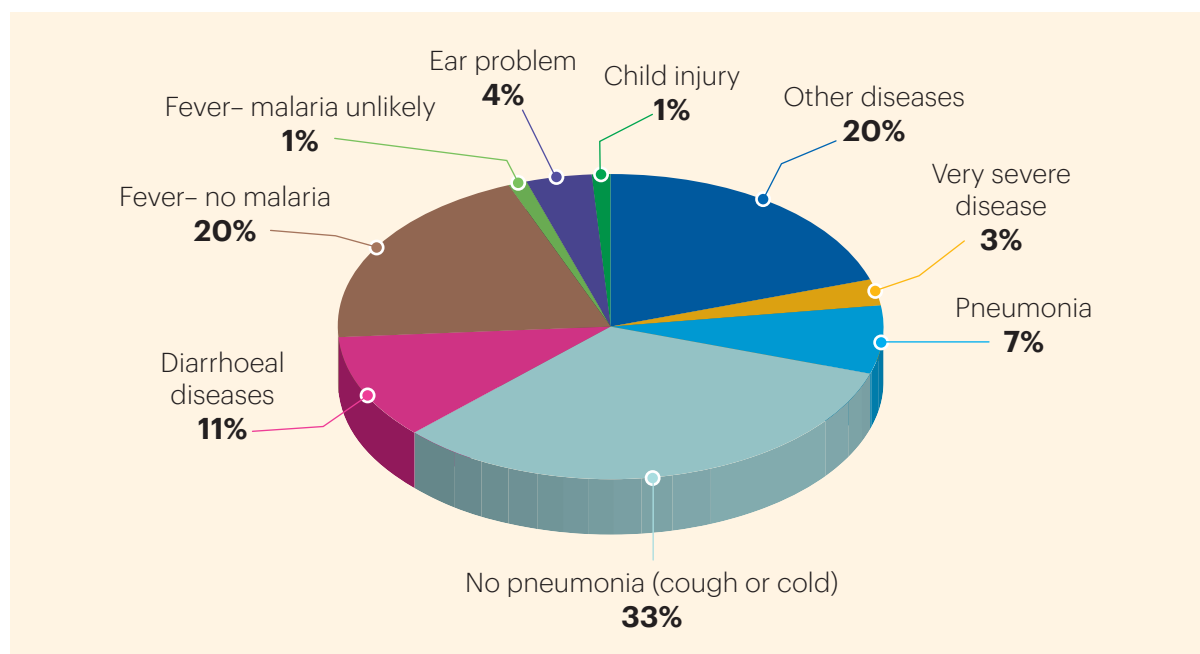
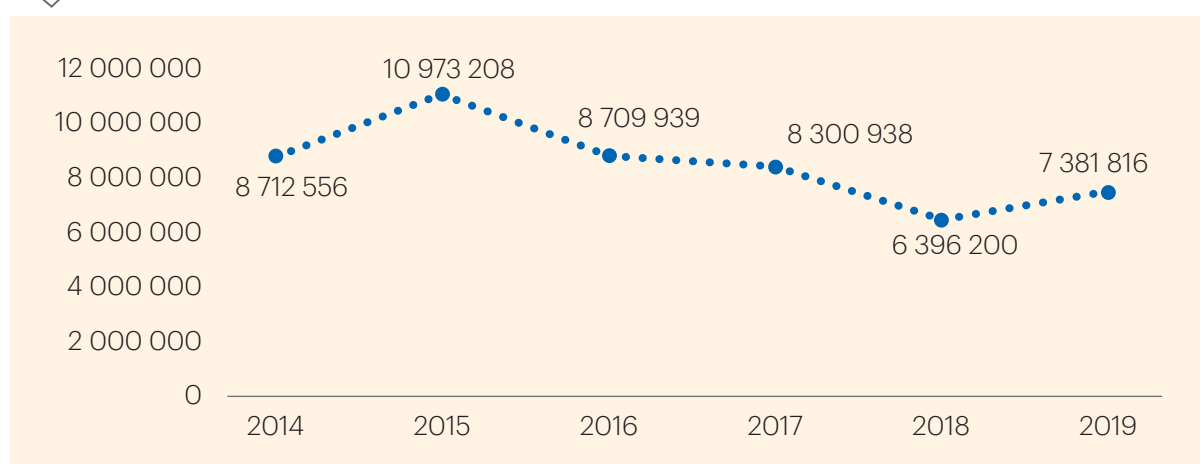


Fig. 35. Percentage of IMCI caseload in facilities classified by disease (2009–2019)



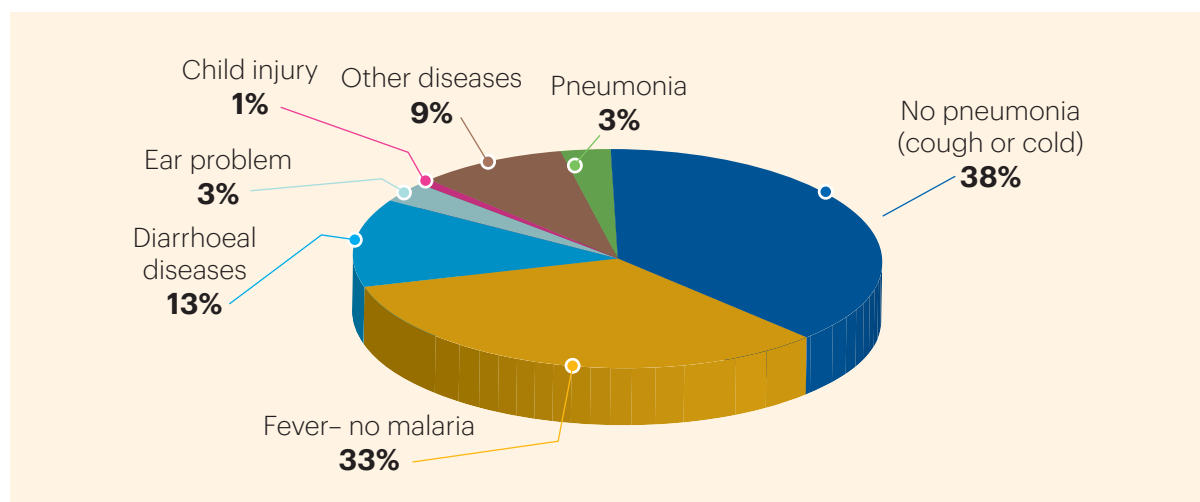
Both facility IMCI and community IMCI services are equally acceptable among the local communities and helped to improve well-being and early childhood development, including nurturing care, for the under-5 population in Bangladesh.

Fig. 36. Trends in under-5 children receiving community IMCI services (2014–2019)



About 15.47 million under-5 children received both community and facility IMCI services across the country in 2019. All the major causes of under-5 death were addressed through this integrated approach. The IMCI programme played a vital role in the continuous reduction of under-5 mortality over the last two decades. High-level political commitment, community participation, capacity-building for service providers, uninterrupted medicine and logistic support, continuous monitoring and supportive supervision, and coordination

Fig. 37. Percentage of IMCI caseload in the community classified by disease (2014–2019)



with different departments of the Health & Family Planning Directorate, development partners and professional bodies, collectively played a key role in implementing the IMCI programme successfully in Bangladesh.

Challenges

Despite the huge success, there are several challenges to sustain this service. Currently, newborn health is more focused in Bangladesh than child health. Rapid turnover of trained staff, facility readiness, and an unstructured referral system hamper the quality of care. The allocated budget for the IMCI programme is not enough and there is still a gap in IMCI services within urban settings.

Despite these, the integration of “possible serious bacterial infection (PSBI)” and “child eye care” services strengthen the IMCI programme and facilitate coordination among different agencies in field-level services operations. There has been notable improvement in the prevention of under-5 deaths in the past few years. The IMCI programme seems very effective to reduce child mortality in Bangladesh to achieve the SDGs and can be replicated in other countries in resource-constrained settings. Strong and effective collaboration among the government and development partners, facility readiness, monitoring, and supportive supervision make this programme successful.

IMCI services should continue to be able to achieve the Sustainable Development Goal and reduce the under-5 mortality to at least as low as 25 deaths for every 1000 live births. The IMCI programme should be redesigned and the age group of 5–9 years added to ensure complete child health services for children of this age group within the programme.

Further reading

IMCI managers’ toolkit: http://nnhp.dghs.gov.bd/?page_id=49837

INDIA

First 1000 Days Initiative' in home-based care programmes – Implementation of early childhood development practices

Introduction

It is now well recognized that investing in the early years holds the key to unlock immense human potential. Until very recently, most of the early child development services focused around early education. However, considering the fact that the first 1000 days of a child's life, beginning from conception to the age of two years, are the period of most rapid development of neurons, neuronal connections and cognitive skills, thus laying the foundation for the rest of life, certain beneficial actions need to be taken from the pre-pregnancy period that must continue till at least two years of age to give the best start to each child's life.

India faces a double burden of high child mortality (under-5 mortality rate of 36 per 1000 live births) and high undernutrition, with evidence suggesting that malnutrition is a risk factor in almost 65% of child deaths (*Lancet*). Only 10% of children in the age group of 12–23 months receive an adequate diet (NFHS-4). This high burden of child mortality, morbidity and undernutrition severely impacts the growth and development of children.

The Government of India has time and again reiterated its resolve to address child survival and development issues in the National Health Policy and through targeted intervention programmes such as the National Nutrition Mission.³⁴ Guided by these, the Government of India launched the home-based care programme in 2011 for all neonates till 42 days of life. Later, in 2018, home-based visits were extended till 15 months of age covering critical periods when contact with the child is important. These visits were carried out under the home-based young child care (HBYC) programme in 2018 to reduce child mortality and morbidity and improve nutrition status, growth and early childhood development of young children through additional home visits by community health workers (known as ASHAs or accredited social health activists).

³¹ <https://niti.gov.in/poshan-abhiyaan>

The programme builds on the success of the home-based newborn care programme that was already being implemented throughout the country. During these visits, ECD interventions are suitably incorporated to address overall survival, growth and development of children.

Implementation of the practice

Till very recently, neonates were being visited by ASHA workers. Structured and incentivized home visits were also made during the first 42 days of life, and included days 3, 7, 14, 21, 28 and 42. These visits aimed at reinforcing messages around essential newborn care and early identification and timely referral of newborn babies showing danger signs.

An ASHA is a performance-based community worker and is assigned to a village where she serves an average population of 1000. Under the HBYC programme an ASHA will undertake additional five quarterly visits for children between the ages of 3 and 15 months in order to plug the gap between the health and development recommendations and family practices. This would improve child nutrition, immunization, development and hygiene practices, and reduce common childhood illnesses such as diarrhoea and pneumonia. This is a collaboration between the Ministry of Health and the Ministry of Women and Child Development to converge actions in the domains of health, nutrition, water sanitation and hygiene (WASH) and early childhood development. The actions cover the following domains:

- » Growth monitoring
- » IYCF
- » Presumptive ORS
- » ECD
- » IFA supplementation
- » Immunization
- » Handwashing
- » Care-seeking in sickness

Fig. 38. Developmental signs and tips and tricks for parents

What most babies do (parents to ✓ tick as per age)		Parenting tips	
<p>By 4-6 months</p> <p>Page 14</p>	<p><input type="checkbox"/> Keep head steady when held upright and can sit with support</p> <p><input type="checkbox"/> Turn head towards direction of sound</p>	<p><input type="checkbox"/> Attempt to reach and grasp an object</p> <p><input type="checkbox"/> Laugh aloud or make squealing sounds</p>	<p>Communicate with babies; imitate their sounds and praise them when they imitate yours</p>
	<p><input type="checkbox"/> Begin to babble "ah, ee, oo" other than when crying</p> <p><input type="checkbox"/> Like to look at self in a mirror</p>	<p>Put interesting things on the floor for babies to reach out and explore</p>	<p>Take children outdoors, and introduce them to the outside world</p> <p>Children suck on their fingers and thumb for comfort. It is not a cause for concern. Do not stop this at an early age</p>

ASHA/AWW please examine and mark ✓ or ✗ on the card as per the age of the child

Fig. 39. HBYC age-appropriate interventions

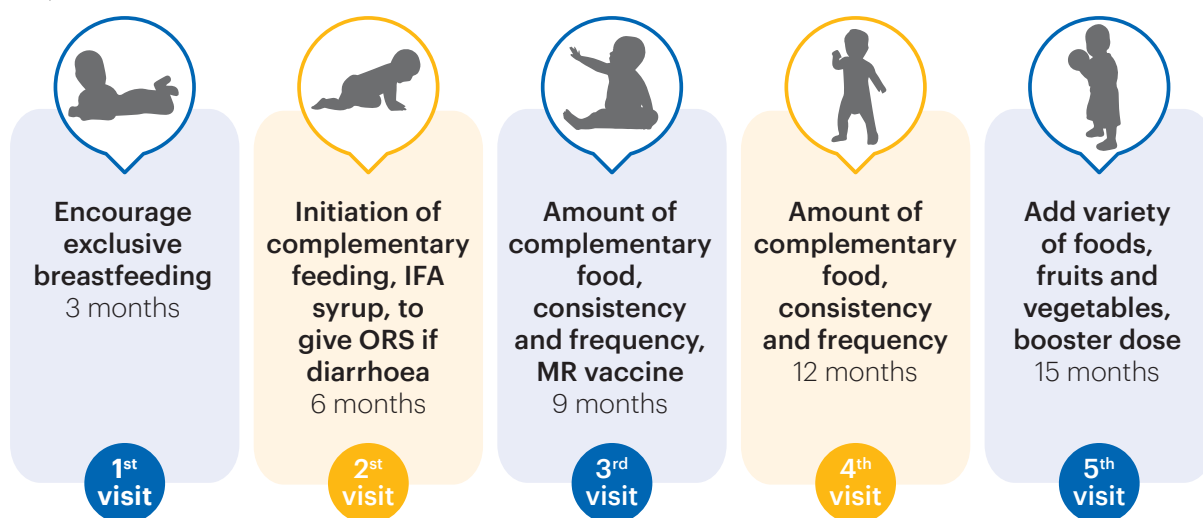
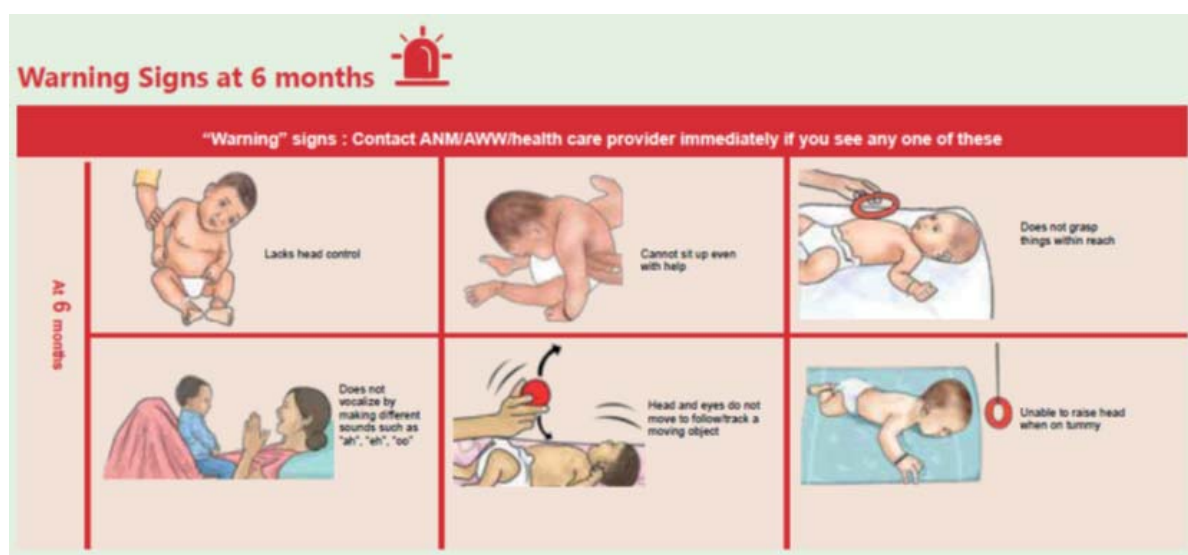


Fig. 40. Warning signs at 6 months



Specific tasks to be carried out during each visit in the 3rd, 6th, 9th, 12th and 15th month have been enumerated. In order to facilitate the visits, the existing "Mother and child protection card" was also updated to include tracking of growth and development milestones and appropriate play and communication activities for each age group. The card also has a unique feature of a warning sign, whereby if a child has not attained a milestone by the defined age or shows some other cause for concern, the parents are counselled to consult the auxiliary nurse midwife of the area at the earliest. The children so identified are then linked with the district's early intervention centre under the Rashtriya Bal Swasthya Karyakram for interventions and corrective actions, including surgery, physiotherapy and other rehabilitative therapies such as speech therapy, etc. as needed.

Furthermore, to enable parents to provide developmentally supportive care to their children, a booklet on growth and care during the first 1000 days has been developed by

the Ministry of Health and Family Welfare. The booklet provides simple, user-friendly and relevant information for parents on the period from pre-conception to the first two years of life. This information is also being fitted into a mobile phone application to reach out to the huge number of smartphone users in India.

The nutrition workers employed by the Ministry of Women and Child Development (MoWCD), called the anganwadi worker, support ASHAS during these home visits through growth monitoring, providing take-home rations, and additional counselling on infant and young child feeding. For each completed visit schedule, the ASHA receives an incentive of INR 250 (US\$ 3.5). This is calculated at the rate of INR 50 per home visit after validating age-appropriate immunization, growth chart plotting and screening for development milestones in the mother and child protection card. The programme also has the provision of 30% of the visits being conducted by the ASHA supervisor and ANM. This serves the dual purpose of validating the visits as well as hand-holding and on-the-job mentoring of the ASHAs.

This initiative was developed based on the successful innovations and proof of concept presented by the Norway India Partnership Initiative through their Home-Based Newborn Care Plus (HBNC+) programme, piloted across four states of India during 2013–2017. The encouraging results in terms of improved IYCF practices, improved immunization status and a huge uptake in IFA supplementation provided the much-needed evidence to scale up the programme across the country.

Currently, the Government of India is scaling up the programme in a phased manner and has targeted more than 112 low-performing districts, termed “aspirational districts”, for its implementation in 2019–2020. Structured training modules for ASHA workers have been developed by the MoHFW in partnership with the National Health Systems Resource Centre, which is also conducting state-level training of trainers to prepare a roste of master trainers. A cascade model of training is followed; these state-level trainers will in turn train the district-level trainers and then the ASHAs.

These modules are in addition to the two modules already being used to train ASHAs for home-based newborn care, thus providing them with a comprehensive knowledge and skill base for conducting quality home visits for newborns and young children. Additional support in the form of IEC activities, monitoring and supervision is also provided.

Results of the practice – outputs and outcomes

The HBNC programme has been scaled up across the country and 14 million newborns out of the total birth cohort of 24 million are receiving HBNC home visits till the first 42 days of life every year by a workforce of about 1 million ASHAS. The HBYC programme extended the home-based care programme whereby home visits are carried out till the age of 15 months. This was rolled out in 242 districts by the end of March 2020. Training for ASHAs on HBYC has been initiated in 188 districts spread across 27 states/Union Territories. The extended home visits have begun in 67 districts and 183 000 children have been visited under this programme. The target for 2020–2021 was to expand the programme to 517 districts in the country.

An ASHA on a home visit



As mentioned earlier, the HBYC had extended the home visits programme on the basis of a successful implementation project carried out by the Norway India Partnership Initiative (NIPI) during 2013–2017 in four states of India. In 2013–2017, an increase in exclusive breastfeeding rates from 72% to 85%, timely initiation of complementary feeding doubling to 90%, age-appropriate immunization status rising to 76% compliance, and the increase in IFA supplementation to 34% from 10% combined to bolster the success of this practice. Another very important finding was that more parents and ASHAs than before were aware of age-appropriate child-rearing practices, including the role of nutrition and play and communication, and felt empowered to take better care of their children.

Table 9. Progress in child care practices (2013–2017)

Childrearing practices	2013	2017
% exclusive breastfeeding rate	72%	85%
% ORS use rate	41%	84%
% age-appropriate immunization	60%	76%
% timely initiation of complementary feeding	45%	90%
% biweekly iron supplementation	0%	56%

Lessons learnt

The visits made by the ASHA worker to the home of the child are appreciated by the parents and forms the basis of establishing their trust and faith in the health-care system. Harmonized and augmented service packages to deliver continuum of care from the antenatal period to the newborn/postpartum stages through the early years have been developed to optimize the home visits under the existing service delivery framework as well.

The frontline workers are being oriented and trained to deliver quality ECD services. Caregivers are being educated on positive parenting and early stimulation. For the ASHA, this opportunity of home visitation not only provides a chance to visit the child and caregiver but also to talk about other pertinent issues such as family planning and spacing between births, seasonal illnesses, WASH and issues of social awareness, in addition to the mandated messages on child health and development.

The role of other health functionaries such as the ANM and ASHA supervisor who also provide onsite support and supervision is deemed to be an important step to help build the confidence of ASHAs in providing quality home-based care to children. However, basic coordination with the workers from partner ministries needs to be improved to the desired level.

Conclusion

Overall, it can be said that India has successfully scaled up the home-based newborn care programme and used that platform to extend home visits till the infant reaches the age of 15 months. This helps fill the critical contact gaps and improve coverage of key life-saving interventions such as IYCF, immunization, ORS and IFA.

The approach of integrating the components of the nurturing care framework into existing interventions by systematically leveraging all strategic contact points (facility-based, community-based and home-based) across the continuum of service delivery has helped to expand equitable access to quality ECD services in a short span of time. Strengthening coordination and convergence for effective implementation and monitoring across ministries by preparing common frameworks for action has also enabled and bolstered this access.

This strategy serves well to provide holistic care to the child and support to the family in the provision of such nurturing care. The intervention also brings to focus a very important aspect of early childhood development, i.e. play and communication and milestone tracking, through an easy and client-centric approach.

The way forward

- » Expand equitable access to quality ECD services by integrating components of the nurturing care framework into existing interventions by systematically leveraging all strategic contact points (facility-based, community-based and home-based) across the continuum of service delivery.
- » Optimize home visits under the existing service delivery platforms by a harmonized and augmented service package to deliver continuum of care from the antenatal period to

the newborn/postpartum period and through the early years of life.

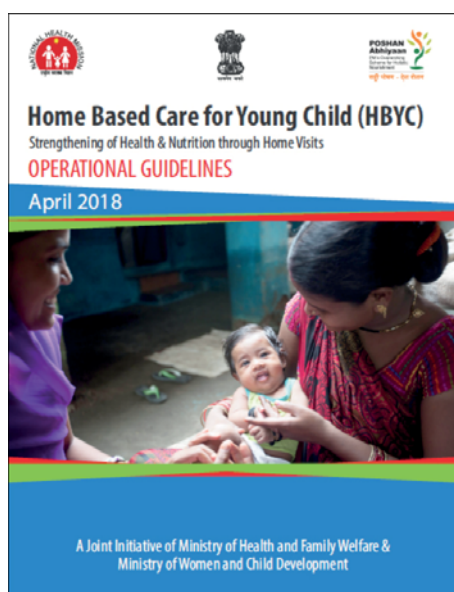
- » Build capacities of frontline functionaries, and deliver ECD services with quality, including education of caregivers on positive parenting and early stimulation.
- » Strengthen coordination and convergence for effective implementation and monitoring across ministries, and leverage strategic partnerships by preparing common frameworks for action with clear accountabilities.
- » Generate evidence to inform future policies and programmes and disseminate well-documented research materials.

Further reading

- » Improving early childhood development: WHO guideline. Geneva. World Health Organization; 2020.
- » World Health Organization, United Nations Children's Fund, World Bank Group. Nurturing care for early childhood development: a framework for helping children survive and thrive to transform health and human potential. Geneva. World Health Organization; 2018.
- » Government of India. Ministry of Health & Family Welfare. Ministry of Women & Child Development. Guidebook for mother-child protection card 2018 for ANM, ASHA, AWW
- » Government of India. Ministry of Health & Family Welfare. Home-based care for young child (HBYC): strengthening of health & nutrition through home visits. Operational Guidelines, April 2018

Annexures

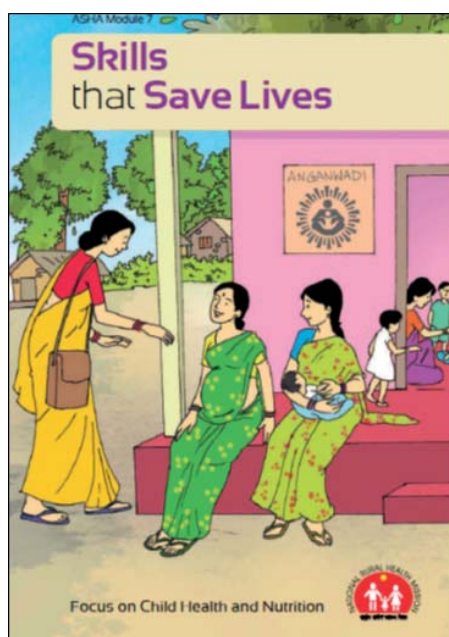
1. HBNC and HBYC guidelines and other child health guidelines of the Government of India: <https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=1182&lid=364>



2. 1000 days booklet: <https://nhm.gov.in/index1.php?lang=1&level=5&sublinkid=1197&lid=371>



3. Link to Mother Child Protection Card: <https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=944&lid=378>
4. Link to ASHA resource material: <http://nhsrcindia.org/category-detail/training-and-tools/MTg=>



CHAPTER 4

ADOLESCENT HEALTH



INDONESIA

Reproductive health services for premarital couples

Introduction

The premarital programme of Indonesia is a family preparation programme specifically aimed to assist the life-cycle-based interventions for would-be brides and grooms to screen and manage health problems before marriage and act as comprehensive preparation to secure physical and mental readiness for a healthy married life. This programme has been executed collaboratively by the Ministry of Health (MoH), focusing on reproductive health services, and the Ministry of Religious Affairs (MoRA).

The programme has been extended to support the development of human resources and builds upon one of the Government of Indonesia's main objectives of long-term socio-economic development. Beginning 2020 the collaborative work also involved the National Family Planning Coordination Board. The main objective of this programme is to decrease maternal and infant mortality rates, while still addressing other health problems such as control of communicable and noncommunicable diseases.

Implementation of the practice

There are two main activities in this programme: i) reproductive health education, and ii) reproductive health services at the primary health centre (PHC). The reproductive health education component aims to improve the knowledge of future brides and grooms around reproductive health, prepare them for a healthy pregnancy, promote healthy lifestyles and prevent diseases, as well as to equip couples with all necessary information needed on married life.

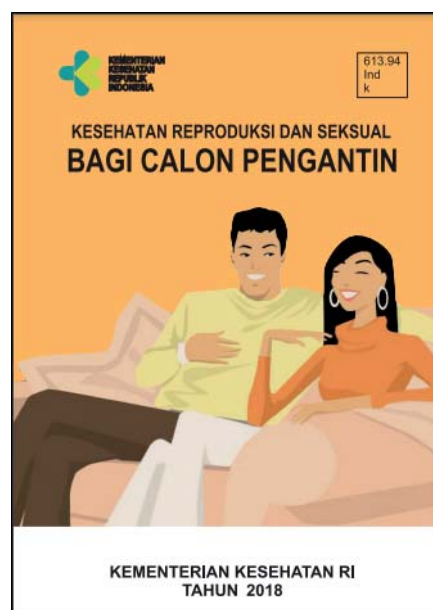
The health services are aimed to provide information about the health status of the bride and groom (includes screening on HIV, hepatitis B and tuberculosis), manage all the health issues detected, prepare for a healthy pregnancy and healthy married life (including prevention of domestic violence), and to provide tetanus-diphtheria (Td) immunization for the bride so that she and her newborn are protected from maternal and neonatal tetanus and diphtheria.

The education component is conducted by two institutions: the Office of Religious Affairs and the Primary Health Care. The education programme implemented by the Office of Religious Affairs comes under MoRA and covers five 5 topics – family well-being, building healthy relationships in the family, providing for the family's needs, reproductive health, and preparing a better generation. This entire premarital programme should be completed by all couples at least three months before their wedding. The wedding can be held only if the couple obtain a certificate stating that they have successfully participated in this premarital programme.

Premarital reproductive health education flipchart³⁵ pocketbook³⁶



Premarital reproductive health



This programme was first initiated on a small scale in 2008, and in 2016 it was decided to expand it. The programme is mentioned in the Ministry of Health's Decree No. 97 of 2014 and the regulation of the Director-General of Islamic Community Counselling (MoRA No. DJ/II of 2013) on pre-marital courses. Implementation at the provincial and district levels was funded collaboratively through the national and local government budgets. The percentage of the national Budget for local implementation varies across provinces depending on the amount of funds available locally.

Some districts/provinces have developed innovative and creative methods to deliver the programmes. For example, some districts have specific pre-conception health posts at the community level and some other districts have organized some festival or contest around their pre-marital programme. DKI Jakarta province has issued a Governor's regulation and allocated a specific budget for this programme. As a result, this programme has reached all their subdistrict PHCs with the complete package of laboratory tests. Additionally, this programme has also been implemented through the one-stop integrated public service office to encourage all couples to go to the PHCs and receive the reproductive health service.

³⁵ Available at <http://kesga.kemkes.go.id/images/pedoman/Lembar%20Balik%20Kespro%20Catin.pdf>

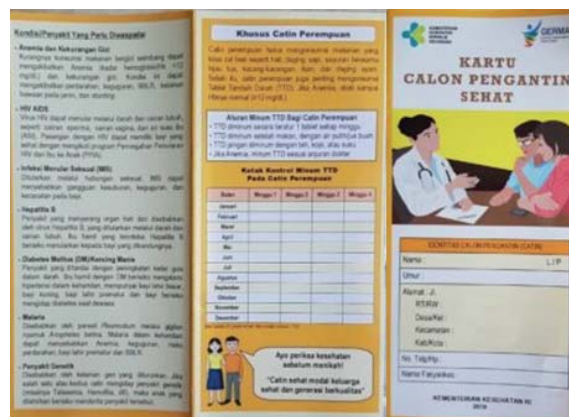
³⁶ Available at <http://kesga.kemkes.go.id/images/pedoman/Buku%20Saku%20Kespro%20Catin.pdf>

³⁷ Daerah Khusus Ibukota (DKI) Jakarta

Provision of pre-marital counselling in primary health care

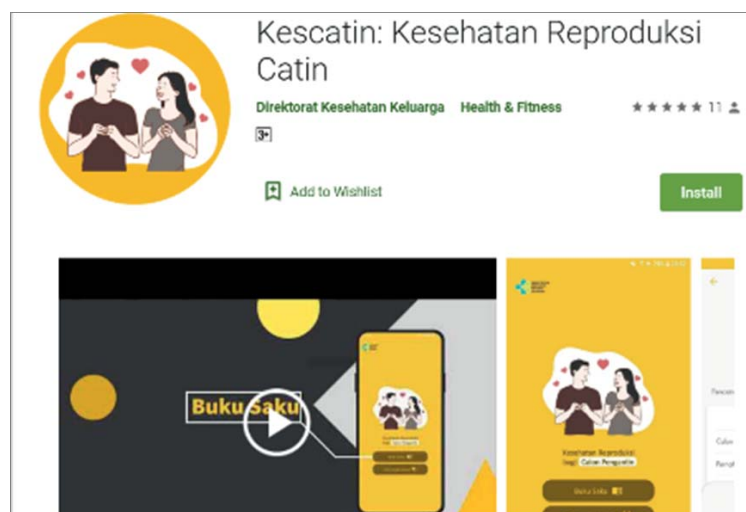


Healthy premarital programme card



In September 2020, Kescatin, a free digital application for reproductive health services of the premarital programme, was launched to overcome the limited budget for information materials at provinces and the district level. The application contains two items – the reproductive health pocketbook and pregnancy readiness tool. In line with this effort, MoRA also launched an online marital preparedness education programme at the website <http://bimbinganperkawinan.com/>.

Kescatin app in the Google play store



Results of the practice – outputs and outcomes

The status of reproductive health represents itself through a wide range of indicators including maternal and under-5 mortality, pregnancy-related morbidities, gender-based violence, total fertility rate, age-specific fertility rate, unmet needs of family planning, prevalence of child marriage, and the prevalence of various female and male cancers and HIV/AIDS.

The number of primary health centres providing the reproductive health service every year has increased significantly; in 2018 there were 3865 PHCs providing the services in 23 provinces, and in 2019 the number increased to 5165 PHCs in 34 provinces (50.9% of total PHCs) (source MoH internal report, unpublished). Td vaccination brides has boosted Td immunity, and Indonesia was validated for the elimination of maternal and neonatal tetanus (MNTE) in 2016.

The monitoring and evaluation activity of this programme is integrated with the monitoring and evaluation activity of the maternal and child health (MCH) programme. Yet, there is a specific form for recording and monitoring of service coverage within this integrated MCH monitoring and evaluation set-up.

Table 10. Kohort pelayanan kesehatan usia reproduksi (form)

Ref	No	Nama/ Nama Pasangan	Catin/ PUS	NIK	Jenis Kelamin	Alamat	Umur (th)	Golongan Darah	Jml Anak	4T (Y/T)	Pasca Persalinan (Y/T)	Tgl
1	2	3	4	5	6	7	8	9	10	11	12	

Recording and reporting form

There are some locally published studies on the effectiveness of this programme. Several recent studies (2018–2020) done in West Sumatra,³⁸ Lampung³⁹ and East Java⁴⁰ provinces found that there was significant increase in the level of knowledge of the bride and groom about reproductive health through this programme. Moreover, a different study in 2019 in East Java⁴¹ also showed an increase in the rate of antenatal care among those who had participated in this marriage preparedness programme.

While the study in East Java revealed the willingness of the bride and groom to check for premarital health at the local health service, a similar study in Aceh province,⁴² however, showed that only 23.8% couples there were willing to check for their premarital health. Adding to this, a qualitative study done in Surabaya, East Java,⁴³ also found that the programme was not yet well delivered and was underestimated by some couples planning to marry.

Lessons learnt

Premarital preparedness is a multisectoral issue. Indonesia has been successful in placing the premarital programme on the national development agenda with the ministries concerned working together on this. Indonesia now has a countrywide policy on this

³⁸ Susanti D, Doni AW, Rustam Y. Pengaruh Pendidikan Kesehatan Pranikah terhadap Pengetahuan dan Sikap Calon Pengantin di Lubuk Begalung Padang Tahun 2017. *Jurnal Sehat Mandiri*. 2018 Dec 28;13(2):18-25. <http://jurnal.poltekkespadang.ac.id/ojs/index.php/jsm/article/view/72>

³⁹ Qurniasih N, Kristianingsih A, Kusumawardani P. Pengaruh Penyuluhan Kesehatan Reproduksi Terhadap Tingkat Pengetahuan Calon Pengantin. *Jurnal Maternitas Aisyah (Jaman Aisyah)*. 2020 Sep 30;1(3):182-8. <http://journal.aisyahuniversity.ac.id/index.php/Jaman/article/view/119>

⁴⁰ Umami R. Upaya Peningkatan Kesehatan Reproduksi Calon Pengantin Melalui Bimbingan Pranikah Di KUA Kaliwates Kabupaten Jember. *Jurnal Idaman (Induk Pemberdayaan Masyarakat Pedesaan)*. 2019 Oct 30;3(2):77-81 <http://ojs.poltekkes-malang.ac.id/index.php/idaman/article/view/1373>

⁴¹ Anisafitri D. Hubungan Antara Mengikuti Penyuluhan Kesehatan Reproduksi Dan Seksual Bagi Calon Pengantin Dengan Frekuensi Antenatal Care Dan Luaran Kehamilan (Doctoral Dissertation, Universitas Airlangga) 2019 <http://repository.unair.ac.id/83873/>

⁴² Ike N. Kepatuhan Calon Pengantin Dalam Pemeriksaan Laboratorium Dan Konseling Pranikah Di Wilayah Kerja Puskesmas Mutiara Barat Kecamatan Mutiara Kabupaten Pidie Tahun 2019 (Doctoral Dissertation). <http://repository.unmuha.ac.id:8080/xmlui/handle/123456789/1072>

⁴³ Azzulfa FA. Analisis masalah terhadap pelaksanaan pemeriksaan kesehatan dan penyuluhan kesehatan reproduksi calon pengantin di KUA Kecamatan Sawahan Kota Surabaya (Doctoral dissertation, UIN Sunan Ampel Surabaya). 2019 http://digilib.uinsby.ac.id/31699/3/Fatihatul%20Anhar%20Azzulfa_C91215124.pdf

programme and has allocated a specific budget. Following this, some provinces and districts even published their local regulations and allocated local budgets to fund this programme. Several provinces and districts made their own innovations to implement the programme better in their local contexts. In only four years since this became one of the country's priorities, the programme has reached all provinces and involved more than half of the PHCs in the country.

However, there are still challenges in implementation. First, there are challenges related to the flow of various services at the district level. Some districts provide all public services through a one-stop integrated public services office. This set-up helps this intersectoral programme perform better. In some other districts, the would-be bride and groom are required to initially come to the local office of the MoRA and are then sent to the PHC. But some such offices do not send the bride and groom to PHCs. For this, coordination at the district level needs to be improved.

Secondly, this programme has not reached out to those practising religions other than Islam in Indonesia. Thirdly, the funding issue may impact the availability of the facility to perform screening for some specific diseases such as HIV and thalassaemia. Some provinces have provided specific budgets for specific diseases such as HIV through their HIV programme. Thus, inter-programme coordination needs to be improved to overcome this obstacle.

The issue of quality of counselling at the PHC level also poses a challenge. Providing comprehensive counselling is challenging due to the time constraints, the workload of the health staff, and their counselling capacity. There is no specific training for premarital counselling yet. On the other hand, as the programme is offered during working hours some brides and grooms cannot always attend. MoH is coordinating with the Ministry of Manpower on this issue.

Conclusion

Overall, this programme has been accepted as important by society in general. This programme clearly generates more awareness and knowledge among the future brides and grooms. The number of participating PHCs has been increasing to more than 50% of the total over a short period of time, since it became one of the national development goals. However, more coordination and improvement at the implementation level need to be achieved for greater reach and expansion.

The programme is considered a best practice to achieve one of the nation's priority development goals and involves multisectoral collaboration. To develop a programme that provides support on many issues in life, it needs to be made a national priority to win financial and multisectoral support and approval.

As the next step, a formal independent evaluation needs to be conducted to validate this programme and document the lessons learnt.

INDONESIA

Adolescent Integrated Health Post (Posyandu Remaja)

Introduction

Indonesia is home to 46 million adolescents aged 10–19 years.⁴⁴ With a quarter of the population being in the “youth” category, there are significant challenges as well as opportunities to harvest a demographic dividend by 2030. Preparing for this in terms of health and capacity is essential for the country’s future economic growth, development and social justice for all.

However, Indonesian adolescents are disproportionately exposed to some specific risks compared with other age cohorts on issues such as smoking habits, unhealthy diet, lack of physical activity, inadequate hygiene and sanitation, mental health problems, drug abuse and other addiction behaviours, and various forms of violence. Moreover, many adolescents do not have adequate access to health care.

The 2017 Indonesian Demographic Health Survey⁴⁵ revealed that more than half of adolescents (50.7%) aged 15–19 years had at least one problem in accessing health care due to various reasons, such as the need to obtain permission to seek health care, the inability or unwillingness to go for health care alone, and problems with distance or the lack of funds to do so. The Government of Indonesia and other stakeholders such as civil society organizations (CSOs), academia, the private sector and communities have placed more focus on and called for more investment in adolescent health.

Posyandu Remaja or “Adolescent Integrated Health Post” is a community-based health effort to empower the community and facilitate access to basic health services aiming to improve adolescent health status and increase adolescent healthy life-skills. It is part of the outreach service of the adolescent friendly health services (AFHS) provided by the primary health centres, called the *puskemas*.

According to 2018 figures from the Central Bureau of Statistics, almost 78% and 60% of adolescents are enrolled in junior and senior high school respectively. This means these adolescents received some health education through the School Health Programme.

⁴⁴ <https://www.bps.go.id/publication/2018/07/03/5a963c1ea9b0fed6497d0845/statistik-indonesia-2018.html>

⁴⁵ <https://promkes.net/2018/10/19/laporan-survei-demografi-dan-kesehatan-indonesia-sdki-tahun-2017/>

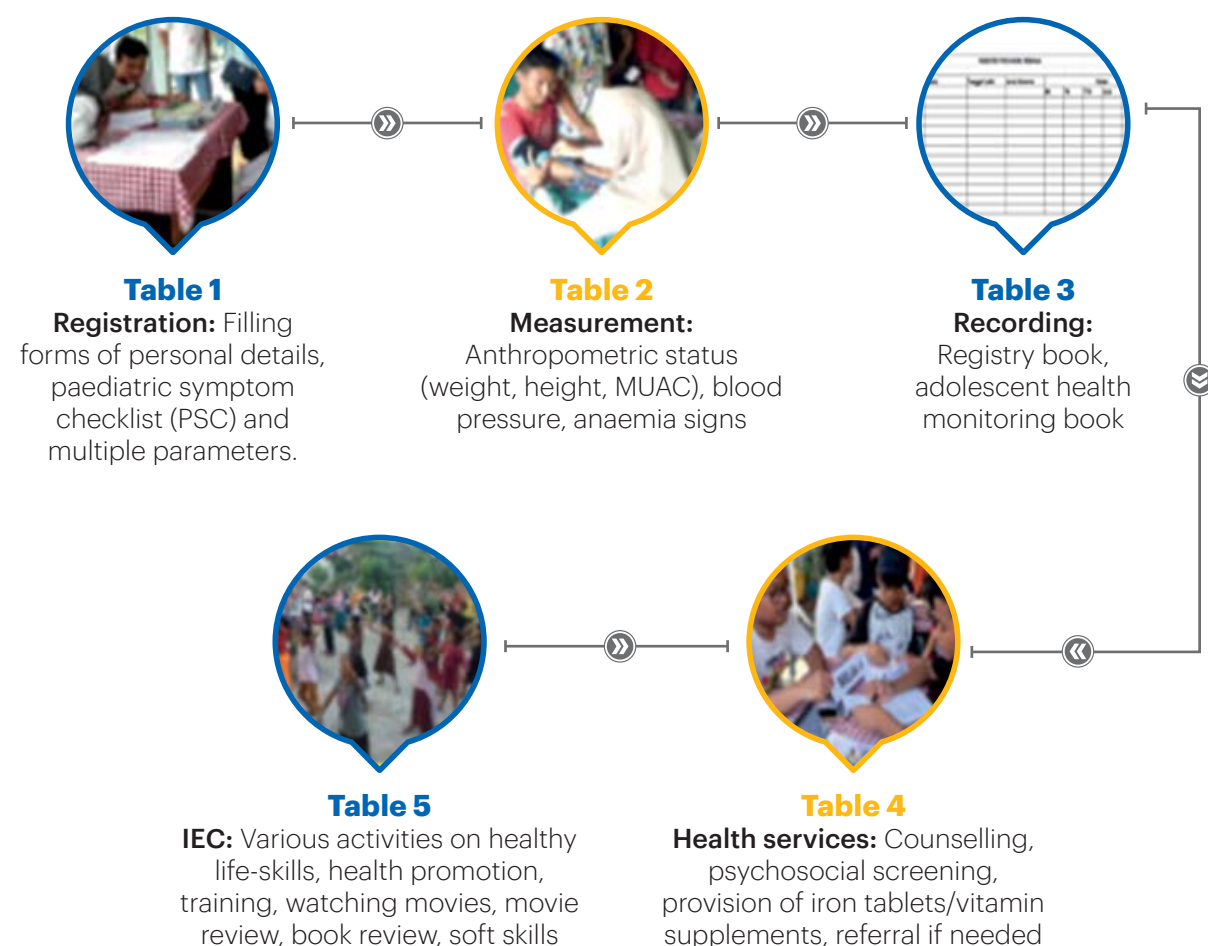
The School Health Programme is a health promotion and prevention programme targeted at primary and secondary school students and focusing on three main activities: health education, health services, and maintaining a healthy school environment. However, there were 22% and 40% of secondary school-aged children who were not enrolled in junior and senior high school respectively. Thus, there is a need to provide health programmes in the community whereby all adolescents can have access to them and be involved.

Implementation of the practice

Posyandu Remaja involves the active participation of the adolescent in planning, implementing and evaluation. The activities in Posyandu Remaja cover the areas of healthy life-skill education, reproductive health, drugs, mental health, nutrition, physical activity, early detection and prevention of noncommunicable diseases, and prevention of violence.

The initiation of Posyandu Remaja mostly draws from the community itself, involving AFHS at the PHCs and with local authorities. However, this initiation can be from any department, yet the community's active participation is the key to success with many Posyandu Remaja. For every post, the maximum number of members is 50; if there are more than 50 adolescents then another post is developed. Posyandu Remaja meets every month with five main tables of activities as follows:

Flow chart: Posyandu Remaja activities



Tasks mentioned in the Tables 1–4 are conducted by voluntary adolescent health cadres. These cadres are adolescents aged 10–18 years who were trained at the PHCs. Every month different activities may be held under Table 5 based on a consensus between the adolescent cadre and health worker and the availability of resources. In some Posyandu Remaja, the activity in Table 5 is dedicated for different specific needs or groups of adolescents, for example those with a certain disability, those living on the street, and the like. Third-party participation such as from the National Body of Narcotics, the National Population and Family Planning Board, the government Tourism Office, Child Protection Office, HIV/AIDS local commission or from the private sector may support Table 5 activities. This participation varies in terms of providing facilities, expertise and funding.

Height measurement at Posyandu (MoH)



Leadership training at Posyandu (MoH)



Adolescent monitoring health book



Guidance for Integrated Health Post cadres



Posyandu Remaja is held at the village or subdistrict level in any available communal space. The initial funding is mostly from the local primary health care centre, but once it runs well and usually in less than a year, it will attract other parties such as the local government or private sectors to participate. Some local governments also may allocate a specific funding for its Posyandu Remaja, for example, through the Village Fund with various amounts of money. The Ministry of Health has specific funding allocations for the health staff dedicated for the adolescent health programme through the routine operational funding of PHC.

Moreover, the MoH also provides a specific budget for the promotion of Posyandu Remaja and has been actively promoting them at many national and intersectoral meetings. Adolescents who are actively involved as adolescent health cadres in Posyandu Remaja play a very important role in influencing other territories to form their own Posyandu Remaja.

In addition, several social media accounts have been developed either by MoH or adolescents themselves to highlight the implementation of their activities and to share experiences among adolescents and health workers. The website www.posyanduremaja.com and the Instagram account #posyanduremajaindonesia are examples. Local Posyandu Remaja also have their own Instagram and Facebook accounts.

Screenshot of Instagram account of Posyandu Remaja

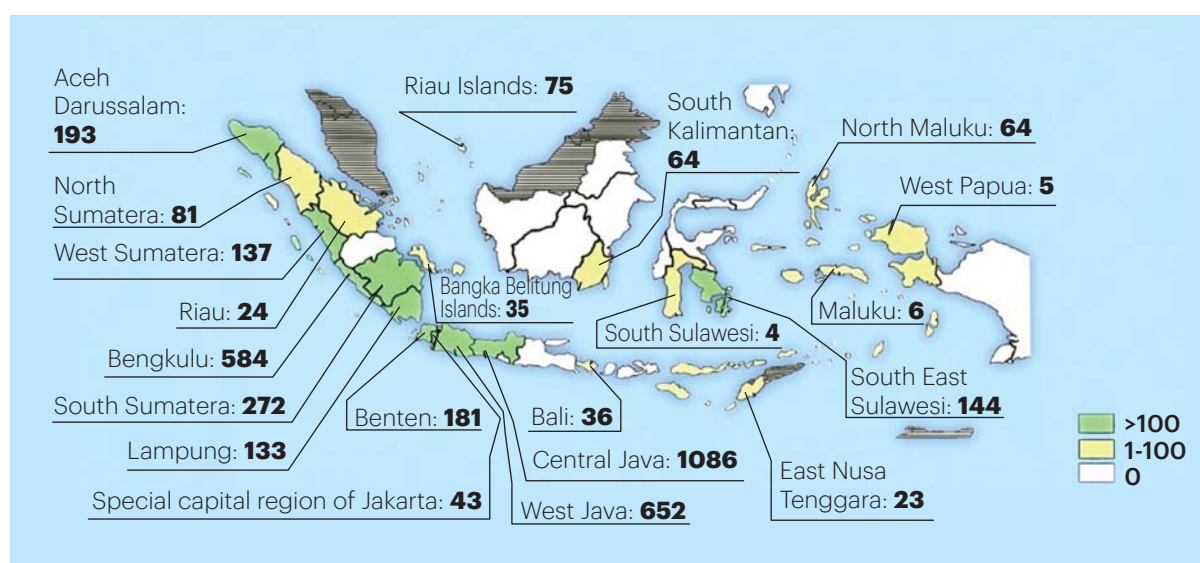


Results of the practice – outputs and outcomes

Since its launch in East Java province in 2016, there are currently 3585 adolescent health posts in 22 of the 34 provinces, and concentrated mainly in Java, Sumatra, Sulawesi, Bali and Nusa Tenggara.

The national guidelines on Posyandu Remaja were published to assist their development, implementation and monitoring evaluation, including the involvement of all related stakeholders. This guideline was published in collaboration with relevant sectors at the national level along with of adolescent health workers, including the pioneers of Posyandu Remaja from various community health centres and districts.

Fig. 41. Posyandu distribution across the country



Starting 2020, each PHC with an AFHS clinic is obligated to establish at least one Posyandu Remaja. Currently there are 6651 AFHS at the PHC level, and the number of Posyandu Remaja will thus be expected to grow in the near future.

National technical guideline on the Integrated Adolescent Health Posts



Local authorities sign a pledge to support the Integrated Adolescent Health Posts



Local working groups may be formed consisting of local government staff, AFHS staff from the PHC, adolescent cadres and other stakeholders to support the implementation of their Posyandu Remaja and its monitoring and evaluation. Several local publications⁴⁶ have mentioned the significant achievements of these posts. These achievements include knowledge improvement, attitude and skill development towards a specific issue discussed at Posyandu Remaja, identifying a number of adolescents with malnutrition and psychosocial problems and rate of adolescent participation.

In addition, several social media accounts on Instagram, WhatsApp and Facebook have been created on Posyandu Remaja activities including its innovations, challenges and local impact as well as to share individual testimonies of adolescents and health workers.

Lessons learnt

The local community's initiative, including that of adolescents, and enthusiasm were the most successful factors responsible for the development and implementation of Posyandu Remaja. This enthusiasm could drive active involvement from the PHC, local government, any related government bodies and even private sector participants. On the other hand, if the initiative is only from the PHC with no active participation from the communities, many challenges will arise. The implementation of Posyandu Remaja requires local innovations with more engaging and interesting activities.

Monitoring and evaluation is mostly done at the local level as it is a community-based empowerment programme. However, there is a lack of good documentation about the programme and its monitoring and evaluation. Though the national guidelines are available, its implementation at the level of Posyandu Remaja has been of variable quality. There are three recurring constraints observed at the implementation level: i) commitment of cadres and local authorities, ii) capacity to conduct interesting and engaging programmes at the Posyandu, and iii) regeneration among the adolescent cadres.

However, within three years of the national launch there has been significant expansion. At least 20 publications in Bahasa Indonesia language on studies around Posyandu Remaja activities, its challenges and benefits, and impact, have been brought out. These have covered subjects and gains such as improved knowledge and attitude around reproductive health, anaemia, nutrition, number of adolescents screened for malnutrition, knowledge on self-development, character-building, adolescent engagement on positive activities, improved life-skills, and soft skills such as entrepreneurship and public speaking. These are mostly written by the adolescents themselves indicating their active participation and interest in promoting this programme nationwide.

⁴⁶ <https://jurnal.unimus.ac.id/index.php/psn12012010/article/view/2917> | <http://www.ojs.iik.ac.id/index.php/JCEE/article/view/323>
<http://www.ejournal.arrum.ac.id/index.php/JIKA/article/view/58> | https://e-journal.unair.ac.id/JAKI/article/view/4940/pdf_1
<http://jurnal.syedzasaintika.ac.id/index.php/abdimas/article/view/560>

Conclusion

This health development initiative has benefited the local population because of active participation from the community, especially the adolescents themselves. There is significant adolescent participation in health promotion and prevention programmes that contributes to their development. In addition to the activities held in Posyandu Remaja, the active participation of adolescents and youth contributes directly to reduce known health risk behaviours in them.

The primarily community-led initiative has made this programme special from its inception and merits to be considered a best practice. It provides an influential example for other community-led activities as well. A community-based empowerment programme such as Posyandu Remaja fits very well with Indonesian culture and social norms.

By adopting a community-based approach, Posyandu Remaja has been able to address any sensitivities related to adolescent health in local culture and community values. It is providing considerable opportunities for meaningful adolescent and youth participation.

Publications

Until recently there was no publication in English on Posyandu Remaja, but there are many publications in Bahasa Indonesia language from different sub-districts explaining the development or the impact of Posyandu Remaja. There is no publication yet at the national level on implementation or evaluation of Posyandu Remaja.

THAILAND

Adolescent pregnancy prevention and solution initiative

Introduction

Public health burden of adolescent pregnancy

Early pregnancy and unwanted abortions affect the socioeconomic and health status of female teenagers/women in the reproductive age. It decreases the quality of life among teenage mothers and their families, and is responsible for reduced access to education and career opportunities, increased health risks, increased chances of domestic violence and increased inequality, among others.

In Thailand, the number of births among adolescents aged 10–19 years continued to increase in the last decade until the interventions were implemented. The percentage of births among adolescents aged 10–19 years (out of total pregnancies in all age groups) increased from 12.9% in 2003 to 16.2% in 2014. Similarly, the birth rate among adolescent girls (ABR–Adolescent Birth Rate) aged 15–19 years increased from 39.2 per 1000 in 2003 to 53.4 per 1000 in 2012. Pregnancy was also reported in younger adolescents (10–14 years), with ABR for ages 10–14 years increased from 0.7 per 1000 adolescent girls in 2003 to 1.8 per 1000 adolescent girls in 2012.

Adolescent pregnancy decreases the quality of life among teenage mothers and their families, for example, the lack of opportunity to continue their studies and get a career in the future, increased inequality, health risks and complications from unsafe abortion, mental health problems, and increased domestic violence, unwanted pregnancy, and social problems, etc.

A research by the Department of Health (DoH) in 1999 had revealed that 40% of the 13 107 women who sought abortion from public health hospitals had major complications such as septicemia, pelvic inflammatory disease, uterine bleeding and perforation. An Abortion Surveillance Report (2015) showed that 26.3% of women who had abortion were younger than 20 years. The rate of death from unsafe abortion was 300 per 100 000 women. Abortions among adolescents affected the country's economy because of the cost of treatment and unpaid leave or unemployment during treatment, and the cost of long-term effects such as mental health damage in the deceased's family, etc.

Country response to adolescent pregnancy

A national initiative on adolescent pregnancy was implemented by the government in Thailand. It was a multisectoral and multidimensional programme that had the commitment from the highest level of the government percolating down to provincial and local levels. This was implemented under the leadership of the government with provision of adequate financial and other resources and close monitoring. The percentage of repeated births among adolescents aged 10–19 years dropped to 12.2% in 2015 and 9.0% in 2018. This was due to the implementation of the 1st National Reproductive Health Development Policy (2010–2014) and the Prevention and Solution of the Adolescent Pregnancy Problem Act, B.E. 2559 (2016), that included implementation of specific activities and interventions to address adolescent pregnancy as described below.

Goal, aims and targets of adolescent pregnancy prevention and solution initiative

The overall goal of implementing this practice is in line with achieving SDG 3 of ensuring healthy lives and promoting well-being for all by 2030, specifically, ensuring universal access to sexual and reproductive health-care services (Target SDG 3.7) and the integration of reproductive health into national strategies and programmes.

Aims

- » Reducing the adolescent birth rates among women aged 10–14 and 15–19.
- » Reducing the complications from unsafe abortion among adolescent girls and women aged 20 and over.
- » Reducing repeat pregnancy percentage among adolescents aged 10–19.
- » Increasing access to sexual reproductive health (SRH) services among Thai adolescents.

Targets

- » By 2026, adolescent (aged 10–14) birth rate is below 0.5 per 1000 women in that age group.
- » By 2026, adolescent (aged 15–19) birth rate is below 25 per 1000 women in that age group.

Objectives of the initiative

- » Adolescents are equipped with comprehensive sexuality education.
- » Families possess positive attitudes about sexuality and parents are able to engage in sexuality communications with their children to prevent and alleviate adolescent pregnancy.
- » Pregnant adolescents make an informed decision about continuing their pregnancy, or on termination of pregnancy, and receive comprehensive services.

- » Adolescent parents receive advice and support on parenting, foster care arrangement in case they are not ready to care for the child, as well as appropriate social welfare, job skill training and employment.
- » A mechanism is established to integrate the implementation by all key sectors in database management, research and effective knowledge management.

Key strategies implemented for the initiative

Legal and policy support

The Prevention and Solution of the Adolescent Pregnancy Problem Act was announced in 2016. An action plan has been enforced since 2017 to grant adolescents aged 10–19 years the right to make their own decision to get information and knowledge, receive RH services, maintain privacy and receive social welfare, without discrimination. This Act clearly outlined key support from **six ministries** to improve the status of adolescents:

- » Ministry of Education: to provide comprehensive sexuality education, train teachers, provide counselling and protection for pregnant students to continue their education, and establish a referral for RH and social welfare services.
- » Ministry of Higher Education, Science, Research and Innovation: same as Ministry of Education.
- » Ministry of Public Health: to provide information and services to prevent adolescent pregnancies based on adolescent's rights, and establish a referral system for social welfare services.
- » Ministry of Labour: to provide information to adolescent employees to prevent adolescent pregnancies, support access to RH counselling and services, and establish a referral system for social welfare services.
- » Ministry of Social Development and Human Security: to provide occupational training and employment opportunities to pregnant adolescents, provide alternative families for adolescents who are not capable of raising their own children, set up youth networks at the provincial and district levels to monitor and take action to prevent and alleviate problems associated with adolescent pregnancies, and encourage state agencies and the private sector to provide support to pregnant adolescents and their families.
- » Ministry of the Interior (local administrative organizations): to issue local regulations to ensure that adolescents can exercise their rights in accordance with this Act, and prevent and alleviate adolescent pregnancy problems at the local community level.

National strategies

MoPH has been updating the national reproductive health strategies in different phases to address adolescent pregnancy.

In 1997, the **RH policy** was implemented by MoPH in line with the International Conference on Population and Development (ICPD 1994), which stated that “all Thai citizens, at all ages, must have good RH throughout their entire lives”.

- » In 2010–2014, the **1st Policy and Strategy** on National Reproductive Health Development was announced and implemented by MoPH countrywide.
- » In 2017–2026, the **2nd Policy and Strategy** on National Reproductive Health Development: Quality of Birth Promotion was announced and has been implemented by MoPH countrywide.
- » In 2017–2026, the **National Strategy on Prevention and Solution of Adolescent Pregnancy** was implemented under the Prevention and Solution of the Adolescent Pregnancy Problem Act.

Youth-friendly health services (YFHS)

Thailand implemented YFHS based on the WHO recommendation across the country for providing comprehensive SRH services among young people. Service models have been upgraded progressively:

- » 1999: The first version was launched as "Friend Corner" model.
- » 2003: "To Be Number One" model has been supported by HRH the Princess of Thailand.
- » 2006: The 1st YFHS version was implemented by DoH (Department of Health), through the Bureau of Reproductive Health.
- » 2014: Integrated YFHS version was implemented in collaboration with the Department of Mental Health, Department of Disease Control and Department of Health.
- » 2020: YFHS was updated based on the National YFHS standards in line with the Global Standards for Quality Health-Care Services for Adolescents (WHO, 2015) to improve quality of health-care services for adolescents.

Safe abortion services

As per the Safe Abortion Policy and prevention of unsafe abortion under the Universal Health Coverage scheme (UHC), the Department of Health has continued promoting safe abortion services in every hospital across the country. Following a pilot study in 2011–2014, the Thai Food and Drug Administration (FDA) approved the combination therapy containing two medicines called mifepristone and misoprostol in 2016, and added it to the National List of Essential Medicines in 2018.

Further, between 2014 and 2016, the DoH provided training to doctors, nurses, public health officers, Bangkok Metropolitan officers, and counsellors in service units to effectively provide abortion services. Adolescents are eligible for receiving these services. The Referral System for Safe Abortion (RSA) network of medical doctors and multidisciplinary professionals was developed in 2015 under the PPP model.

The RSA teams include doctors, nurses and health-care providers who volunteer to take care of pregnant women and adolescents with unintended pregnancy with respect and without any discrimination or stigmatization. The NSHO has also been subsidizing the service fee for safe abortion under UHC since 2017.

Adolescent contraception services

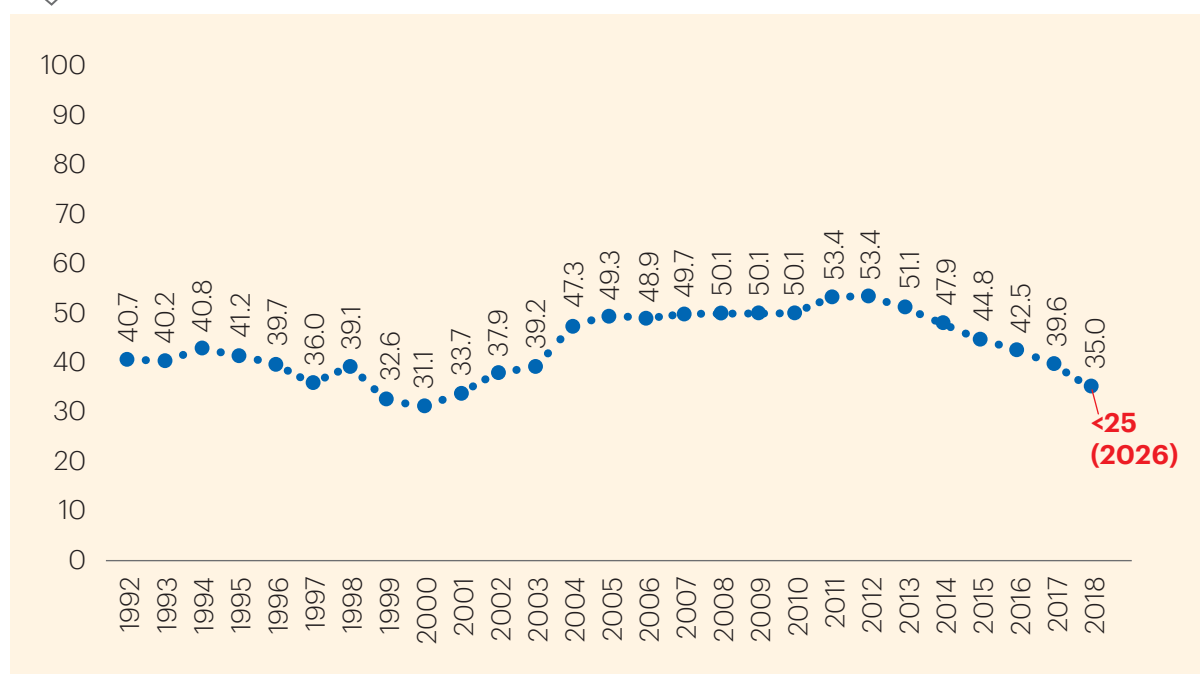
The National Health Security Office (NHSO) since 2014 has also been supporting the long-acting reversible contraceptive services (LARCs) such as IUD and implants for women who are in the post-partum period, have miscarried, or want to prevent pregnancy. The NHSO pays the services fees for hospital that provide semi-permanent services at a constant rate of 800 Thai Baht (US\$ 25) for IUD insertion and 2500 Baht (US\$ 80) for implants. In 2018, LARC services were extended to include women aged 20 and over after utilizing medical abortion services at the service units under the NHSO. These provisions also cover adolescent clients.

Outputs and outcomes of the national initiative

The adolescent birth rates among women aged 10–14 and 15–19 have decreased significantly following these interventions (Fig. 42 and Fig. 43).

The percentage of repeat pregnancies among adolescents aged 10–19 years has fallen gradually from 10.7% in 2003 to 9.0% in 2018 (Fig. 45), which is already lower than the national targeted percentage (less than 10% in 2029). Death cases from abortion also dropped significantly (Fig. 44) with only 3 cases in 2016 and no case of illegal abortion since 2017.

Fig. 42. Teen birth rate in age group 10–14 (1992-2018)



The number of YFHS clinics promoting SRH services have improved and in February 2020 there were 790 clinics (90.3%) that have received MoPH accreditation, almost a four-fold increase from 2013 (24.5%). In terms of LARC services among women aged under 20,

Fig. 43. Teen birth rate in age group 15–19 (2003–2018)

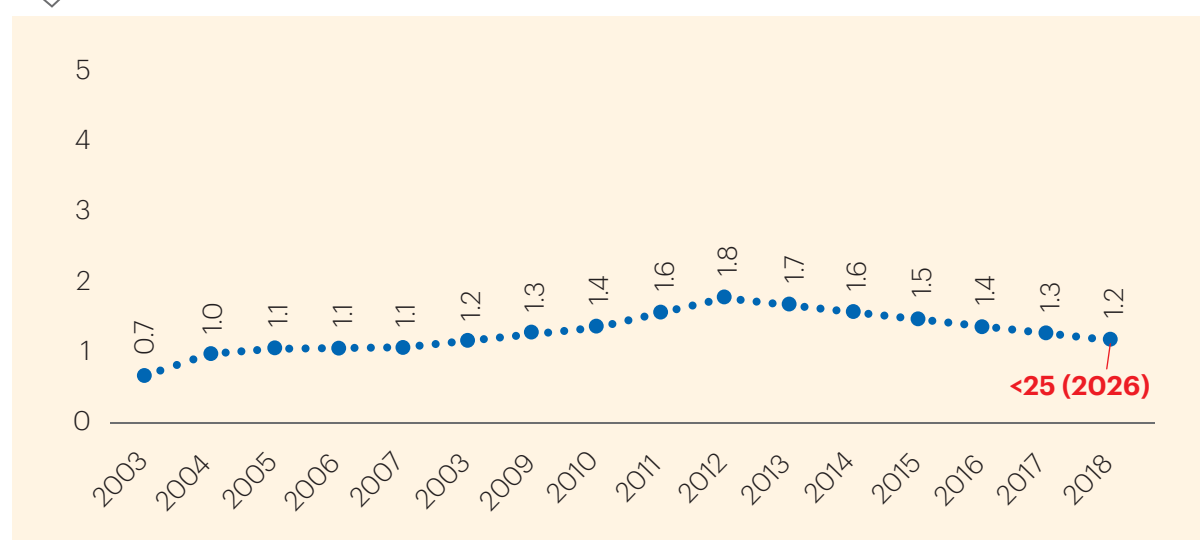
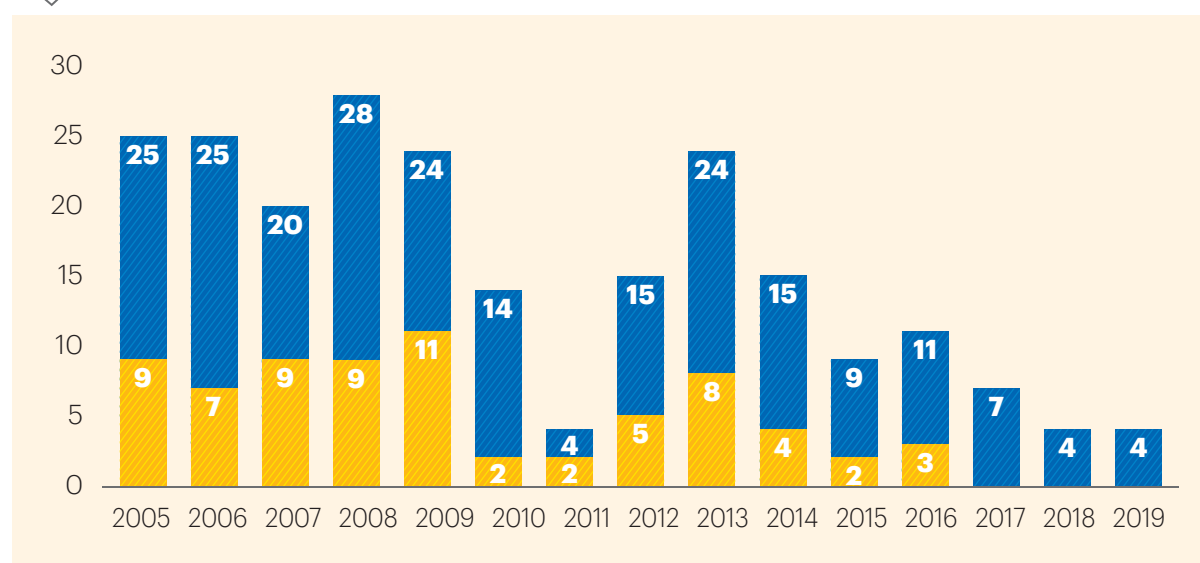
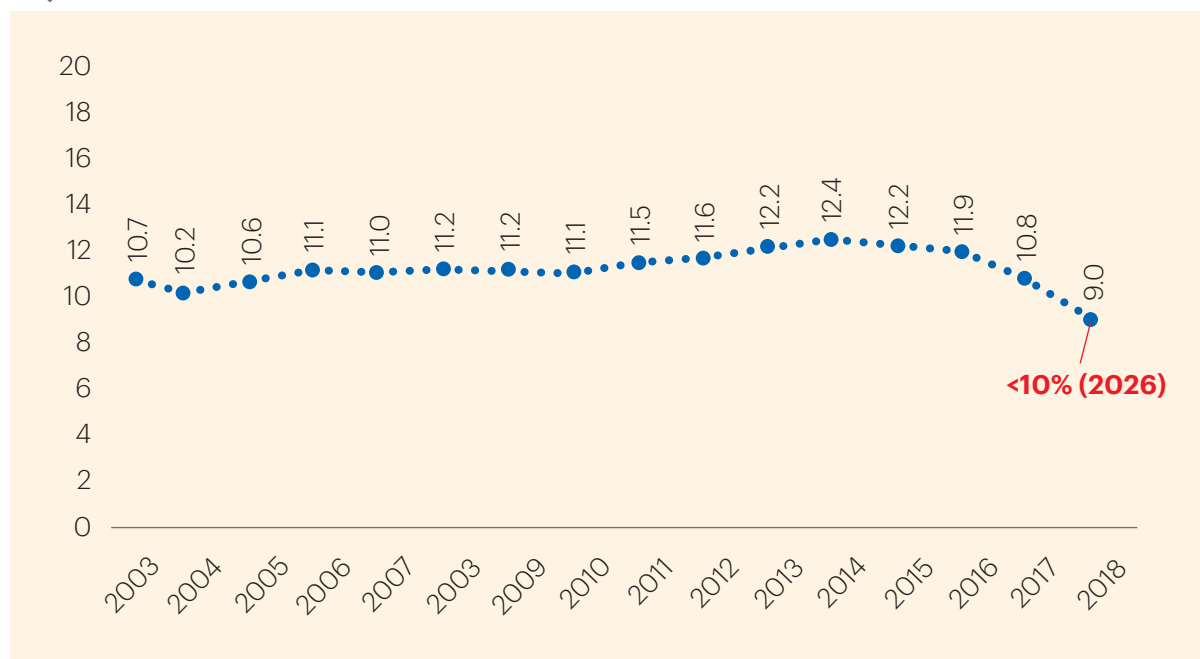


Fig. 44. Death cases from abortion in UHC scheme (2005–2019)



the use of implant as preferred method of contraception increased (from 4525 in 2014 to 44 069 in 2019). The RSA network has also expanded from 61 health-care units in 2015 to 383 in March 2020. Furthermore, the number of physicians has risen dramatically from 30 in 2015 to 145 in March 2020 (additionally, there are 525 professionals from multidisciplinary professions).

Fig. 45. Percentage of repeat pregnancy among women aged 10–19 (2003–2018)



What worked – facilitating factors

- » **National leadership:** The national government at the highest level has taken leadership and passed the Act that specified the role of six ministries for multisectoral and multidimensional plans. MoPH responded with progressive national RH strategies and action plans.
- » **National Committee and provincial subcommittees:** The National Committee is chaired by the Deputy Prime Minister and has appointed three subcommittees—the Law Committee, the Committee for Policy Implementation, and the provincial subcommittees. The National Committee was instrumental in the adoption of national policies, strategies and action plans for addressing adolescent pregnancy. Provincial subcommittees have been formed in 57 out of 77 provinces (74%) and are chaired by Vice-Governors, executives of the Public Health Office, and by the Governors too.
- » **Engagement with parents, community and business establishments:** Parents have been involved in the programme as their role is important for prevention and solution of the problem. Family development centres in communities have been supported by the administrative organizations – municipalities and sub-district administrative organization centres are engaged but some of the executives are still not aware of their role. Business establishments have made provisions in accordance with the Act. However, there is a gap in implementation by establishments that have less than 50 employees.

What needs to improve

- » Some people are not aware of their rights provided under UHC and the project on prevention of unintended repeat pregnancy among adolescents.
- » Adolescents have misconceptions and different views on birth control.
- » Some hospitals cannot purchase semi-permanent contraceptive supplies (IUD and implant) due to high cost.
- » Health personnel still lack the knowledge and expertise on providing service on semi-permanent contraceptive supplies because of insufficient budget for training and building capacity.
- » Physicians, health personnel and colleagues as well as local people still harbour negative attitudes towards safe abortion services because it is a sensitive issue in Thai society.

Lessons learnt

- » The implementation has benefited from strong leadership to bring out a special Act, National Policy, strategies and action plan, budget provision and setting up of national and provincial committees as well as inclusion of the RH&FP services into the UHC package.
- » Cooperation between six main ministries and other related agencies was critical to increase access to SRH and support services.
- » Implementation of policies at regional levels by organizing a learning exchange meeting with provincial representatives (the provincial subcommittee representatives in each region are randomized to participate in the meeting).
- » Monitoring of progress and taking corrective actions, as required.
- » Strong collaboration of multiple sectors, stakeholders and community.

Conclusion

Strong advocacy coupled with improved availability of services is the key to achieving the desired programme outcomes. However, stronger targeted communication campaigns are still needed to make people aware of their medical rights and utilize the services under UHC. Providing knowledge on correct contraception methods, promoting comprehensive sexuality education among adolescents and encouraging young people to access SRH services through YFHS clinics, hotlines and digital platforms will go a long way in benefiting the young people.

The focus on services availability such as ensuring supply of contraceptives through a strong logistics management system is much needed. Empowering and building capacity for health-care personnel on semi-permanent contraceptive supplies, raising awareness and changing attitudes among physicians, health-care personnel as well as people in society to enhance their understanding of the importance and value of safe abortion services is vital to ensure the provision of high-quality services at all levels of hospitals.

CHAPTER 5

SEXUAL AND REPRODUCTIVE HEALTH / FAMILY PLANNING



BANGLADESH

Task-sharing in the family planning programme

Introduction

Bangladesh is Asia's fifth and the world's eighth most populous country, with an estimated population of 164.6 million (Sample Vital Registration System 2018), with a population density of 1116 per sq. km. The current population growth rate is 1.37% and the total fertility rate is 2.3 (Bangladesh Demographic and Health Survey 2017–2018). The population is expected to grow by another 40% by the middle of the century to 222 million.

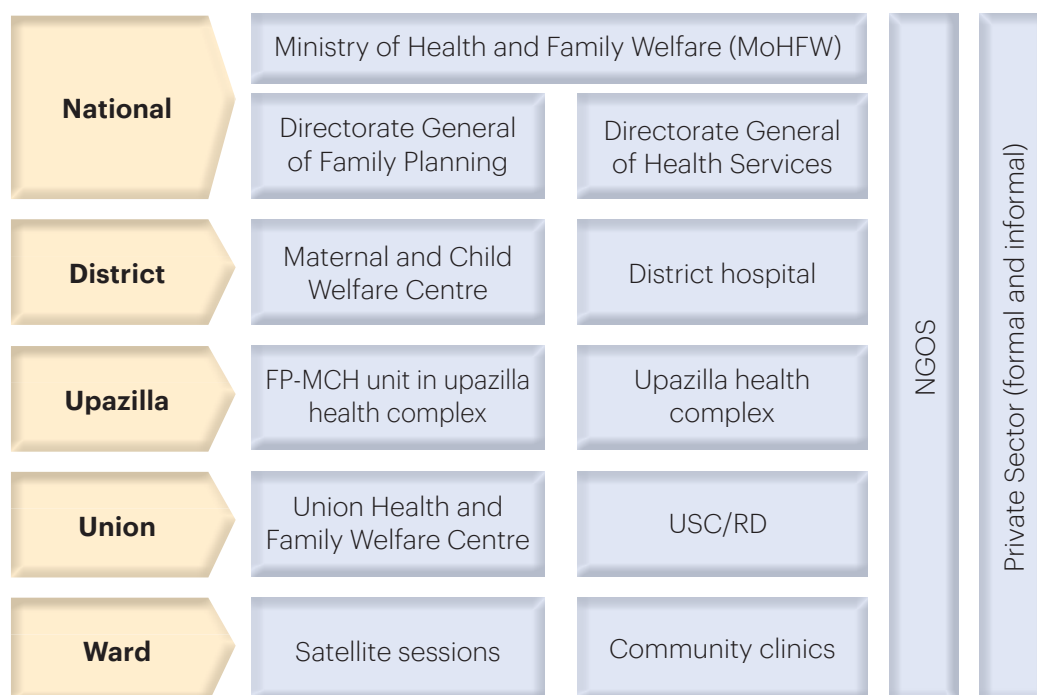
Bangladesh has achieved success in its family planning programme despite the backdrop of low literacy rate, poor status of women, inadequate income and the like. Despite this, one must note that due to past high fertility and falling mortality rates, Bangladesh's population has a tremendous growth potential built into its age structure. Therefore, population continues to remain one of the most pressing challenges on the road to development as well as elimination of poverty in Bangladesh.

Maternal and neonatal mortality reduction in Bangladesh has been achieved through robust government commitment to its Health and Population Sector Programme (HPSP), Health Population Nutrition Sector Programme (HPNSP) and other national policies and programme implementation, notably the successful implementation of information, education and communication and behaviour change communication (IEC/BCC) interventions together with comprehensive emergency obstetric and newborn care (CEmOC) services, CSBA training, family planning service coverage, the provision of safe MR services, piloting of maternal voucher schemes, expansion of private sector services, and rise in female education levels.

In order to reduce TFR, MMR, NMR and IMR further, and thereby to achieve the development goals, strategic and targeted interventions have been undertaken by the MoH&FW and Directorate General of Family Planning in association with the development partners and NGOs. This is reflected in the different operational plans (OP) such as Clinical Contraception and Service Delivery Programme (CCSDP), Field Services Delivery Programme (FSDP), maternal, child, reproductive and adolescent health (MCRAH), and information, education and motivation (IEM) in the 4th Sector Health Population and Nutrition Sector Development Programme (HPNSDP) (2018–2022) as well as with the achievement of the SDG 2030 targets.

Bangladesh has eight administrative divisions, 64 districts, 492 *upazillas* (sub-districts), 4554 unions and more than 87 000 villages. Bangladesh has robust and widespread health and family planning infrastructure at the tertiary, secondary, primary and community levels under both DGHS and DGFP.

Fig. 46. Structure of the health services delivery system



Bangladesh is fortunate to have political commitment at the highest level, and clear targets for achieving HSP (4th Health Sector Programme 2017–2021) and the SDG goals related to family planning, including the following:

- » Meet the Sustainable Development Goal 2030 Target 3.7 – Universal access to sexual and reproductive care, family planning and education.
- » Meet 75% of the demand for contraception by 2030.

To meet the HSP goal, national programmes are needed to bring together many components such as trained health providers, commodities, quality service provision, social awareness and behaviour change, a gender and rights perspective, etc. However, Bangladesh has certain gaps/barriers towards achieving the goals of family planning. They include a dense and large population, sustained and largescale migration due to urbanization, diverse geographical dispersement of population (hill areas, the wetlands and remote/hard-to-reach areas), several vacancies in the service provider cadre, especially community health workers (CHWs), prevalence of less-skilled and untrained health workers, uneven distribution of service providers, especially at the community level, and high demand for and inadequate access to health services.

Bangladesh lacks an adequate number of properly trained health and family planning care providers to address the need for contraceptives and their distribution, especially in rural, remote and hard-to-reach areas. Shortages of human resources in this sector are widely acknowledged as a tangible threat to the attainment of SDG goals.

WHO recognizes task-sharing as a promising strategy to address the critical lack of health and family planning workers to provide family planning, reproductive health, maternal health and newborn care in low-income countries such as Bangladesh.

Task-sharing is undertaken to create a more rational distribution of tasks and responsibilities among the service providers to improve cost-effectiveness. Task-sharing is the process of enabling lay and mid-level health-care professionals such as nurses, midwives, clinical officers and community health workers to safely provide clinical services and procedures that would otherwise be restricted to higher-level cadres. Within the health facility, this is achieved by an expansion of the types of health-care providers who can deliver appropriate health services, among specialist doctors, non-specialist doctors, nurses and midwives, as required. This involves task sharing with CHW or other provider platform such as community-based skilled birth attendants, CSBA, CHCP, family welfare assistants, FWA, private (BSP)/NGO and others.

Fig. 47. FP Services and methods offered by different cadres of providers

Contraceptive services	Gynaecologist/obstetrician	General practitioners – specially female doctor (GO, NGO, private)	Paramedics (SACMO), midwives, nurses, FWVs	FWA, CHCP, CSBA, community volunteers, pharmacists
Informed choice, counselling	✓	✓	✓	✓
COP, POP, ECP, Injectables	✓	✓	✓	✓
Implant	✓	✓	✗	✗
IUD	✓	✓	✓	✗
Male sterilization	✓	✓	✗	✗

Results of task-sharing

The Ministry of Health and Family Welfare strongly emphasizes the mitigation of service disruption of emergency health services, including family planning, caused by the COVID-19 pandemic.

The Ministry formed a Task Force headed by a Joint Secretary. Responsibilities of the Task Force were to:

Identify appropriate strategic priorities to strengthen and maintain the continuity of FP services during the COVID-19 pandemic situation:

- » map stakeholders that are active in FP during COVID-19 and advocate for FP data collection and dissemination periodically to support better understanding of the current contexts;
- » conduct advocacy for national-level implementation of the proposed strategies;
- » coordinate with the MoHFW, DGFP, DGHS and DGNM while identifying the suggested activities; and
- » coordinate with the ministries and development partners for additional resources.

Mitigate service disruptions and restore services to pre-COVID levels. For this, the Task Force accords priorities for providing essential family planning services to:

- » Leadership and governance
- » human resources, including task sharing
- » commodities and equipment
- » information management, supervision and monitoring
- » community engagement and demand generation.

Due to the coordinated efforts led by MoH&FW and its directorates, Bangladesh could continue its MNCAH and FP services at all tiers during the COVID-19 pandemic. All UN agencies, development partners, international NGOs and other organizations joined the Government of Bangladesh's initiatives and worked relentlessly to mitigate the service disruptions in emergency health services in Bangladesh during the pandemic.

Providers at private pharmacies Training of nurses in progress



Private providers provide short-acting FP methods and refer client to the facility



Challenges

Task-sharing has been adopted at facility levels and among different levels of providers, but strong commitment is needed. This is an ad hoc arrangement, and there is no strategy for task sharing/task-shifting at the national level or directorate level under MoH&FW. There is a need to have a plan to develop the capacity of the cadres as a part of task-sharing, since lack of required knowledge and skills among lower-level service providers leads to lack of confidence.

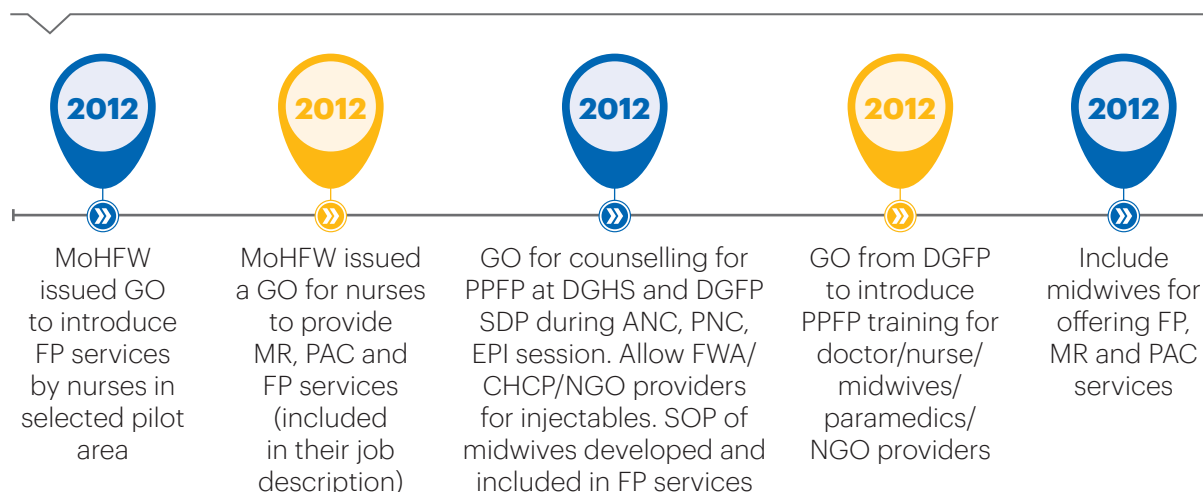
For this purpose, adequate coordination between the Directorate General of Health Services, Directorate General of Family Planning, and Directorate General of Nursing and Midwifery is necessary. Monitoring and supervision are other challenges, which could be addressed by joint monitoring through professional associations, government organizations and NGOs to maintain quality and safe services. Adequate appreciation and encouragement mechanisms should be instituted to motivate the health workers and sustain their performance. Lack of appreciation demotivates them.

The way forward

To achieve the national and global targets there is need to increase the uptake of long-acting reversible contraceptives (LARCs) and permanent methods by utilizing the existing and diverse group of service providers. There is a need to engage more obstetricians and gynaecologists for LARC and permanent methods, and engage the new cadre of midwives for postpartum family planning (PPFP).

The frontline health workers (HA, CHCP, FWA, CHW) and nongovernmental providers should be engaged to expand the coverage of Intrauterine devices (IUD) and injectable contraceptives. NGO/private sector (profit/non-profit) players must be encouraged to increase investment for commodities production (long-acting and permanent methods/LAPM) of supplies to sell in the open market, and for strategies to increase demand and reduce stigma. To take it forward, a public-private partnership (PPP) model may be encouraged to ensure contraceptive security among the eligible population.

Fig. 48. Bangladesh Government Schemes



Further reading

1. Programme Implementation Plan of 4th HPNSP, MoH&FW, Bangladesh
2. Operational plan of CCSDP, 4th HPNSP, MoH&FW, Bangladesh.
3. WHO recommends optimize MNH: optimizing health worker roles to improve access to key maternal and newborn health interventions through task-shifting. Geneva: World Health Organization; 2012 ([http:// www.optimizemnh.org/](http://www.optimizemnh.org/), accessed 12 June 2015).
4. Classifying health workers: mapping occupations to the international standard classification. Geneva: World Health Organization; undated ([http://www.who.int/hrh/statistics/Health_workers_classification. pdf?ua=1](http://www.who.int/hrh/statistics/Health_workers_classification.pdf?ua=1), accessed 12 June 2015).
5. Technical notes – global health workforce statistics database. Geneva: World Health Organization; undated ([http://www.who.int/hrh/ statistics/TechnicalNotes.pdf](http://www.who.int/hrh/statistics/TechnicalNotes.pdf), accessed 12 June 2015).
6. WHO recommendations: optimizing health worker roles to improve access to key maternal and newborn health interventions through task-shifting. Annex 1: Cadre definitions used in the project. Geneva: World Health Organization; 2012 ([http://www.who. int/reproductive health/ publications/maternal_ perinatal health/Annex_1_Cadre_ definitions. pdf](http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/Annex_1_Cadre_definitions.pdf), accessed 12 June 2015).
7. Task-shifting to improve access to contraceptive methods [http://www.who.int/reproductivehealth/publications/family_planning/task_ shifting_access_contraceptives/ en/](http://www.who.int/reproductivehealth/publications/family_planning/task_shifting_access_contraceptives/en/) (accessed 7 Feb. 17)
8. Task-shifting: Global recommendations and Guidelines. http://www.who.int/healthsystems/task_shifting/en/ (accessed 07 Feb. 17).

INDIA

Model comprehensive abortion care (CAC) centres

Introduction

Maternal mortality ratio in India is 113 per 100 000 live births (2018) and among the causes of deaths, unsafe abortions contribute to almost 8% of maternal deaths in India. Most of these deaths can be prevented if safe abortion care is available to women who need them. The Medical Termination of Pregnancy (MTP) Act promulgated in 1971 paved the way for legalizing abortions in India up to the gestation age of 20 weeks and provides a regulatory framework for its implementation. The Act clearly spells out criteria such as conditions when pregnancy can be terminated, and who can terminate and where, and has a provision that the consent of a woman is sufficient for pregnancy termination if she is a major (>18 years). The Act was later modified in 2002 to improve private sector participation through decentralization of the process of empanelling and approving the private sites at the district level.

The Ministry of Health and Family Welfare of the Government of India has been providing the necessary regulatory as well as technical directions to implement the MTP Act from time to time. Considering that MTP services should include aspects of care beyond just the clinical procedure and with an aim to have holistic approach to abortion care, the MTP Guidelines of the MoHFW were modified into the Comprehensive Abortion Care (CAC) Guidelines. These Guidelines address issues and concerns regarding medical and psychological aspects, women's status and rights, confidentiality, legal implications, and the like. The Guidelines are based on a review of the international and national best practices and global standards to assist the framework for implementation in India and detail how to strengthen women-centric abortion care services by promoting optimum standards of care. The updated CAC Guidelines form the basis of the model CAC centres.

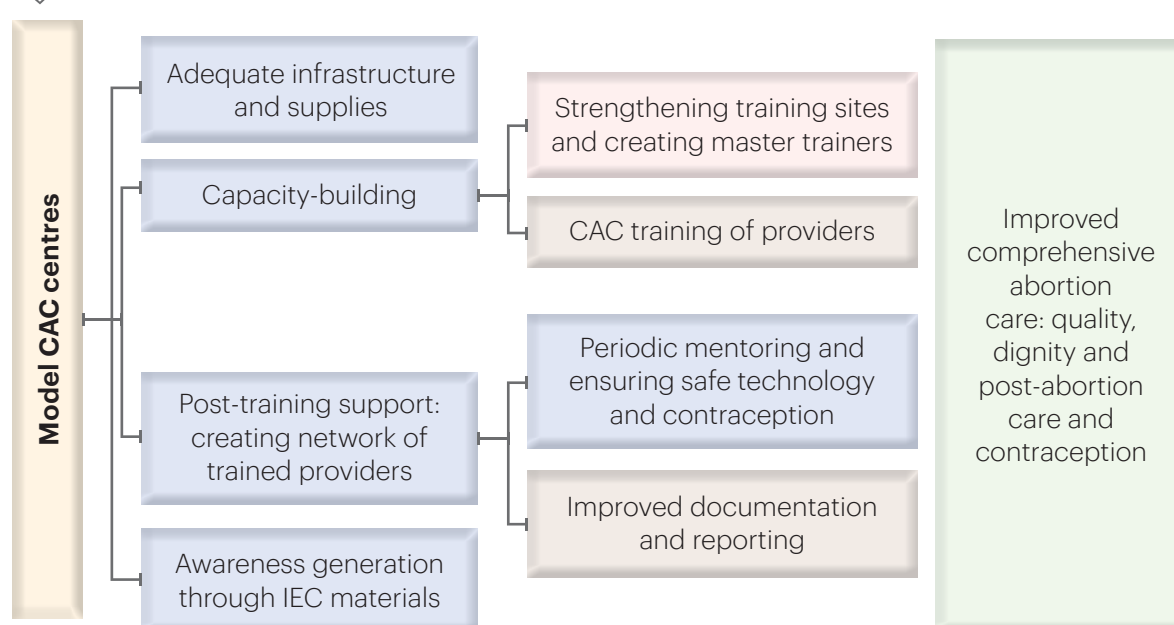
Implementation of the practice

To develop facilities providing high-quality abortion care services and impactful CAC trainings, selected facilities were strengthened as "Model CAC training and service delivery centres". These centres were envisioned to demonstrate recommended and standardized protocols for CAC services including providing respectful CAC services and effective trainings. Potential facilities in the chosen states were screened for eligibility through a

standardized screening and assessment tool. The identified gaps were addressed to bring each identified facility to a desirable level of quality of care. The adherence to quality norms for the CAC services and trainings achieved through this intervention is monitored continuously during the review meetings at district, state, and national level. Quantitative assessment is done on a six-monthly basis with the help of a monitoring tool. A total of 14 centres, across nine states, have been developed as model CAC centres.

Currently WHO, together with MoHFW and NHM Chandigarh, is setting up another model CAC training centre to help this centre to incorporate dedicated CAC training through the SAMARTH initiative (Box: SAMARTH).

Fig. 49. The conceptual framework for the model CAC centres



A Model CAC centre



Source: MOHFW

To provide quality services, these centres have addressed the following essential components:

- » adequate and clean seating in OPD,
- » counselling room with privacy and a trained counsellor,
- » contraceptive corner for display of various contraceptive methods and their takeaway,
- » well-equipped examination room with desired privacy,
- » IEC materials for display and takeaway,
- » well-equipped, separate CAC procedure room,
- » recovery room with contraceptives and emergency drugs, and
- » adequate stock of instruments for CAC procedure, vacuum aspiration equipment including MVA kits, medical methods of abortion (MMA) drugs, contraceptives.

The CAC programme has also focused on dissemination of the IEC resource package that aims to bust misconceptions around abortions and create awareness of the fact that abortion is legal; is a choice that a woman can exercise; and that safe and confidential abortion services are available free of cost at the empanelled public health facilities. The awareness material also provides information about post-abortion contraception as it has been observed that a woman is most sensitive and keen to adopt a contraceptive method when she is opting for an abortion because of an unintended pregnancy.

Special leaflets and flipbooks were used by community health workers (ASHA) to conduct one-to-one or small-group meetings with women to sensitize them about safe abortion issues through storytelling.

A QA (quality assurance) committee was formed at each centre, which included the facility in-charge as well as staff from all the service cadres, for continuous monitoring of the activities.

SAMARTH “Sustain–accelerate–mainstream access to reproductive health through health systems” is a new comprehensive health systems approach that is being supported by WHO in collaboration with MoHFW.

The initiative aims to mainstream SRHR under the UHC and brings four inter-related interventions under a common implementation framework:

- » comprehensive abortion care
- » family planning
- » midwifery
- » adolescent SRHR

Results of the practice – outputs and outcomes

The result is visible on various aspects of CAC service provision as well as on CAC trainings at these centres. The service quality indicators which improved over time are adequate counselling time, procedures being done with appropriate technology, ensuring post-abortion contraception and respectful care to all women coming for abortion care. In addition, all the centres have adequate IEC materials in the form of posters and signage on CAC.

The CAC trainings have been strengthened through creation of dedicated CAC training rooms that are equipped with all training aids and materials required to ensure quality training to the medical officers. Improved training quality translates into improved post-training service provision once the trainees return to their facilities.

Lessons learnt

The revised CAC training and service delivery guidelines and the evidence presented by the model CAC centre is a good practice that can be replicated. It have successfully showcased that comprehensive abortion care services can be improved through:

- » clear policy guidelines and legal framework,
- » timely capacity-building and ensuring that trained workforce is available,
- » IEC activities and materials,
- » counselling and non-judgmental services that ensure privacy and confidentiality,
- » contraception as an essential component of the abortion services (should not be missed but there should be no coercion either), and
- » regular meetings of the QA committee helps assess the situation on all service aspects periodically.

Conclusion

India, despite having a considerably liberal abortion policy, records a high number of unsafe abortions that have led to huge maternal morbidity and mortality. Over the years, experience has shown that abortion care services should address all aspects of quality, equity and dignity, and should be well-rounded with the provision of post-abortion care and availability of contraceptive services. Developing model CAC centres is an effort in that direction.

Further reading

- » Comprehensive Abortion Care Training and Service Delivery Guidelines. Second Edition, 2018. Ministry of Health and Family Welfare. Government of India
- » Handbook on medical methods of abortion to expand access to new technologies for safe abortion. Government of India, New Delhi 2016

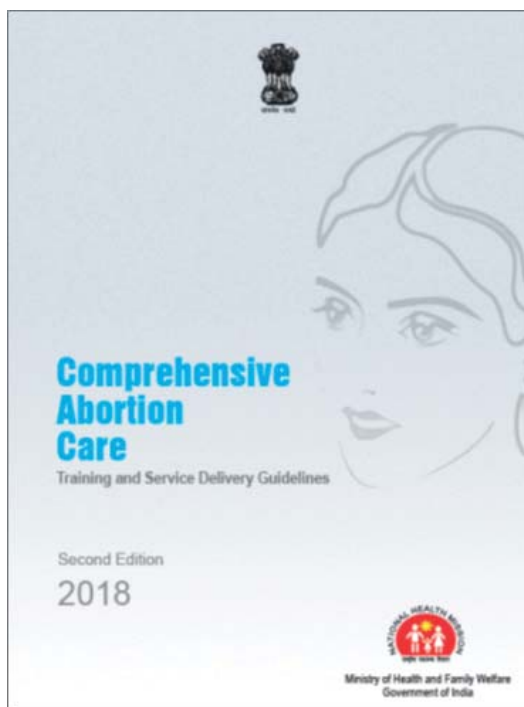
Annexures

1. E Module: Medical methods of abortion
2. Handbook on medical methods of abortion
3. ASHA guidebook on abortion (in Hindi) for frontline workers

Link to the above documents

<https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=839&lid=377>

Comprehensive Abortion Care booklet



INDIA

Antara programme – Expanding the basket of modern contraceptive methods

Introduction

The National Family Planning Programme in India has evolved since its launch in 1952. It has shifted focus from population stabilization in the earlier years to improving the health of mothers and children through adequate spacing and preventing unwanted pregnancies, and is now targeted towards achieving the Sustainable Development Goals 2030. The SDG target 3.7 calls on countries “by 2030, to ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes”.

Until 2017, the “spacing” contraceptives available within the Family Planning Programme in India were limited to oral contraceptive pills, condoms, and intrauterine devices. Experience of the use of the contraceptive method mix indicates that the addition of a contraceptive method can translate into a linear increase in mCPR (modern method couple protection list) by 3–4%. Therefore, the Government of India (GoI) responded to the need to introduce additional methods of contraception.

In 2016, it included injectable medroxy progesterone acetate (DMPA) in its Family Planning Programme to enhance the basket of contraceptive choices in the public health system which was rolled out across all the states in 2017. This inclusion was based on global evidence and practice. Globally, injectable hormonal contraceptives are a widely used contraceptive method and are approved for use in more than 130 countries. It has been proved that initial reservations about the safety of injectable contraceptives were unfounded (WHO, Family Planning: A Global Handbook for Providers).⁴⁷ It is now the fifth most popular family planning method worldwide, after female sterilization, male condom, intrauterine contraceptive device, and oral contraceptive pills.⁴⁸ National experiences

⁴⁷ World Health Organization Department of Reproductive Health and Research (WHO/RHR) and Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP), Knowledge for Health Project. Family Planning: A Global Handbook for Providers (2018 update). Baltimore and Geneva: CCP and WHO, 2018

⁴⁸ United Nations, Department of Economic and Social Affairs, Population Division (2019). Contraceptive Use by Method 2019: Data Booklet (ST/ESA/SER.A/435)

confirm that injectable contraceptives, when offered with quality counselling, especially regarding side-effects and follow-up care, are acceptable to women and they continue to use the method for a long duration.

Implementation of the practice

Injectable contraceptive methods and norethisterone enanthate (Net-En) were approved for use in India as early as 1993 (for private providers and NGOs). However, they were not covered under the National Family Planning Programme and were, therefore, offered only by the private providers. In 2016, the Government of India introduced injectable MPA under the “Antara programme” to strengthen programme.

This enhanced the basket of contraceptive choices in the public health system. Under the brand name of the “Antara Programme”, the injectable MPA was rolled out in a structured and phased manner.⁴⁹ It was made available to the public at medical colleges and district hospitals in Phase I, at subdistrict hospitals in Phase II, and at primary health centres (PHCs) and subcentres (SCs) in Phase III, free of cost. However, in 146 identified high-TFR districts (≥ 3), also known as Mission Parivar Vikas (MPV) districts, the injectable MPA was rolled out up to the subcentre level after rigorous training of health workers.

The decision to add injectable MPA in the National Family Planning Programme expanded the approaches for clients to adopt a safe, effective, and hassle-free contraceptive method in privacy with full confidentiality. The benefit of injectable MPA is that it is available free of cost in a single-dose vial to be administered every three months. To orient and train the service providers on the Antara programme, the government ensured availability of the “Reference Manual for Injectable Contraceptives” in all districts.⁵⁰

A structured cascade model of training was ensured wherein national experts developed a pool of master trainers across all states, which further developed district-wise trainers for the training of service providers. Doctors including indigenous system practitioners, also known as AYUSH, and nursing personnel (staff nurse, lady health visitor and auxiliary nurse midwife) are authorized to administer injectable contraceptives to the clients after obtaining the required training and skills. However, the first shot of injection to the client must be administered under the guidance of a trained medical doctor following proper screening.

Key areas and standards of quality were emphasized, which included availability of essential human resources, provider information leaflets, availability of client-focused IEC materials, protocols for infection management, parameters of FP counselling, and follow-up or management of clients showing side-effects. Inputs on MPA service delivery

⁴⁹ https://nhm.gov.in/images/pdf/programmes/family-planing/guidelines/Injectables/Roll_out_of_Injectables.pdf

⁵⁰ https://nhm.gov.in/New_Updates_2018/NHM_Components/RMNCHA/Family_planning/Schemes_&_Guidelines/Injectable_Contraceptive_MPA.pdf

parameters/indicators are reported regularly into the Health Management Information System portal, which is reviewed periodically by the state and national officials. The MPA card was also introduced. It captures the details of the client and timing of the next injection along with instructions for clients and providers.

In the same year, the supply chain system was also strengthened through a Family Planning Logistics Management Information System (FPLMIS). Programme managers, in consultation with the various service delivery centres in their region, were asked to identify the demand for MPA injection. Information on stocks is regularly updated at the facility level in FPLMIS.

Provider leaflet under Antara programme



Results of the practice – outputs and outcomes

Injectable use among currently married women in India has remained low at less than 0.05% in 1992–1993, 0.1% in 2005–2006, and 0.2% in 2015–2016 (IIPS, 1995⁵¹; IIPS and Macro International, 2007⁵²; IIPS and ICF, 2017⁵³). This is understandable because the method

⁵¹ International Institute for Population Sciences (IIPS). 1995. National Family Health Survey (MCH and Family Planning), India 1992-93. Bombay: IIPS

⁵² International Institute for Population Sciences (IIPS) and Macro International. 2007. National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Mumbai: IIPS

⁵³ International Institute for Population Sciences (IIPS) and ICF. 2017. National Family Health Survey (NFHS-4), 2015-16: India. Mumbai: IIPS

was not available under the National FP Programme. However, according to the recently available annual report (2018–2019) of the Family Planning Division of the Ministry of Health and Family Welfare (MoHFW), GoI, a total of 971 000 doses of injectable MPA have been administered all over the country till March 2019. The state of Bihar has reported the highest number of injections (240 759), followed by Rajasthan, Uttar Pradesh and West Bengal.

Lessons learnt

Demand generation: The role of the accredited social health activists (ASHAs) in increasing demand and disseminating the right messaging about potential side-effects of the injectable is critical. It has been shown that training frontline health workers to continue visiting recent injectable adopters, with the right counselling skills, can help women continue using contraception. Therefore, in 2016, the MoHFW developed an orientation material for ASHAs, in consultation with the national nodal agency for ASHA training. State programme managers were oriented on this before rolling out the injectable contraceptives. This was also included as an activity in the annual Programme Implementation Plan (PIP) under the National Health Mission.

Service delivery: Counselling is an integral component of successful FP services. Injectable contraceptives being a recent introduction required more rigorous information sharing with the client and skill development of providers. This helps in ensuring continuation and addressing concerns more effectively. Special emphasis was placed on counselling in all the training, including pre-service training of providers and frontline health workers, which focused on the quality of care including respectful care, appropriate counselling skills to choose a method, efficiency of the method chosen, and information on continuation of the contraceptive use. The providers were also instructed to ensure that the injectable contraceptive method is an informed choice for the women by informing them about the potential side-effects and alleviating any concerns related to overall fertility.

Uninterrupted supplies: An effective and efficient supply chain management is critical to the successful implementation of the injectable contraceptive programme. To facilitate an uninterrupted supply and to avoid stock-outs of injectable contraceptives at state, district and sub-district levels, maintenance of buffer stocks at each level is ensured. The introduction of the family planning logistics management information system (FP-LMIS) in the same year as the Antara programme helped in streamlining the supply chain and build the capacity of logistics personnel.

Financing: FP commodities such as injectable contraceptives are procured by the Central Government and supplied to the states. To address the delay in transportation at sub-state and sub-district levels, budgetary provision was introduced in the PIPs. Simultaneously, the budget was approved in PIPs for the effective roll-out of training and demand generation activities, especially in the MPV districts.

Capacity-building: Appropriate monitoring of the Programme is essential for success. Regular review of performance, desk review to identify any issues, and supportive supervision visits along with technomanagerial capacity-building workshops at the

national and state level as part of the Antara Programme resulted in strengthening the quality of services and data reporting.

Information system: Monitoring indicators are incorporated in the Health Management and Information System (HMIS) for facility-wise reporting of the injectable contraception services, which were triangulated with the manual reports in the initial years of rollout. This has resulted in correct and timely reporting leading to effective monitoring and implementation.

Conclusion

An increase in the availability of contraceptive methods improves the ability of a woman to access a wider range of contraceptives and choose a method of her choice, which is every woman's reproductive right. The inclusion of more methods that have relatively low side-effects and can be continued over a long period may help women use spacing methods correctly and consistently and ensure healthy timing and spacing of pregnancies.

Notwithstanding the delay in the introduction of a new method, the Government of India has developed a detailed operational plan to scale up injectable contraceptives across the country. Though the initial focus was on high-fertility districts and higher-level facilities, with successful implementation since 2016, injectable contraceptives have been made available at the peripheral level in most of the states of India. A robust supply chain system that helped in demand forecasting and avoiding stock-outs was crucial for maintaining uninterrupted FP services, especially those provided only in facility-based settings.

Counselling on the regularity of injections and their side-effects is an important aspect that should be supplemented through adequate and targeted information, education, and communication (IEC)/behaviour change communication (BCC) activities. GoI media campaigns on injectable contraceptives, IEC/BCC materials, and technical support from the national development partners were some of the constant efforts that were made to educate not just the users but also the service providers in every aspect of a newly introduced method so that the user can appropriately choose and misconceptions are addressed. The core of any successful family planning programme will continue to be its ability to uphold the rights of its women and enable them to make more informed choices.

Further reading

- a. Ministry of Health and Family Welfare. 2016. Mission Parivar Vikas. National Health Mission, Ministry of Health and Family Welfare, Government of India, New Delhi.
- b. Ministry of Health and Family Welfare. 2016. Reference Manual for Injectable Contraceptive (MPA). National Health Mission, Ministry of Health and Family Welfare, Government of India, New Delhi.
- c. World Health Organization. 2015. WHO Statement on depot-medroxyprogesterone acetate (DMPA). World Health Organization, Geneva.

Annexures

- » Manual on Injectable Contraceptives of the Government of India
<https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=963&lid=470>
- » Annual reports of Family Planning Division, MoHFW, Government of India
<https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=957&lid=405>

NEPAL

Task-sharing for safe abortion services (SAS)

Maternal mortality due to abortion

Unsafe abortion is a major contributing factor for maternal mortality and morbidity around the world. After the legalization of abortions in 2002, Nepal started providing safe abortion services by trained physicians at designated facilities. First-trimester surgical abortions were made available throughout the country in 2004. Second-trimester abortion training began in 2007, and medical abortions were introduced in 2009.

However, access to safe abortion was limited due to the shortage of trained physicians and designated facilities, and many other barriers. As a result, deaths related to unsafe abortions contributed to 6–7% of the maternal mortality rate. To address this shortage of trained physicians, the Government of Nepal (GoN) took a pathbreaking decision of training mid-level providers (nurses and ANMs) as providers of safe abortion services (SAS). Since 2006, trained staff nurses have been providing manual vacuum aspiration (MVA) services up to eight weeks of gestation. Introduction of medical abortions in the year 2009 further expanded the base of SAS providers by allowing skilled birth attendants (SBAs) and trained auxiliary nursing midwives (ANMs) to provide medical abortion (MA) services up to a gestation period of nine weeks.

Pregnant woman residing at a distance from health facility

Among the many barriers that limit access to safe abortion care, lack of trained providers is one of the most critical. It is estimated that the global deficit of skilled health-care professionals will reach 12.9 million by 2035. Such shortages are especially critical in low- and middle-income countries (LMICs) that also have a high burden of unsafe abortion and related mortality.

Prior to the introduction of task-sharing, safe abortion service providers were limited and generally concentrated in the urban areas, which compelled women to travel long distances and over difficult terrain to receive abortion services. Furthermore, the availability of abortion services was also limited to district hospitals or primary health care centres in the major part of the country. Restricted availability of services

affected vulnerable women the most. They included women living in far-flung, rural, hilly and mountainous areas, or those with low literacy levels and belonging to the lower socioeconomic stratum and from the minority ethnic backgrounds.

Impact on the population

Before the legalization of abortion services in 2002 in Nepal, the maternal mortality ratio was a high 539 per 10 000 (1996). The figure saw a substantial decline to 281 per 100 000 live births in 2006. However, it is not clear as to how much of this decline could be attributed to the legalization of abortions. But studies are available which corroborate the association of high mortality and other complications with unsafe abortions.

A study in 1984 in five hospitals in urban areas of Nepal reported that abortion-related consequences accounted for more than 50% of the maternal deaths in those hospitals. Also, during 1998, more than 54% of the gynaecological and obstetrics hospital admissions were due to unsafe abortion. A survey of eight districts in 2009 found that abortion contributed to 7% of maternal deaths and was the third leading cause of maternal mortality. Pregnant women had no option but to undergo clandestine abortion practices as the services were unavailable at the nearest health facility. Though abortions were legalized, women were not able to access safe services due to limitations in accessibility, high costs, and the out-of-pocket payments involved.

Objectives of the programme

Nepal is committed to attaining the Sustainable Development Goals. These include specific targets focused on reproductive health, such as:

- » achieving universal access to sexual and reproductive health-care services (SDG 3.7);
- » achieving universal access to sexual and reproductive rights (SDG 5.6);
- » reducing maternal mortality (SDG 3.1).

The Government of Nepal has been striving to achieve these targets by aligning its legal and policy framework. The National Health Sector Strategy (NHSS) 2015–2020 aims to move towards universal health coverage through persistent emphasis on the four pillars of “Equity and access”, “Quality”, “Reform”, and “Multisectoral approach”. The Right to Safe Motherhood and Reproductive Health Act of 2018 is another promising milestone on the road to ensure universal access to SRH services inclusive of safe abortions in Nepal.

Implementation of the practice

Once abortions were legalized in Nepal in 2002, the Family Welfare Division of the Ministry of Health formed an “Abortion Task Force” to draft the procedural order, and the related policy and strategy documents, for the implementation of this new abortion law. This was a multisectoral task force with representation from both public and private stakeholder groups, national and international nongovernmental organizations and civil society to develop policy and strategies for training and implementation. In 2004, this task force was

dissolved and the Technical Committee for Implementation of Comprehensive Abortion Care (TCIC) was formed to provide technical support to develop standardized protocols and guidelines based on public health and scientific evidence.

In the beginning, the Government trained only medical doctors and started first-trimester surgical abortion services in 2004. These trained doctors were neither adequate in number nor distributed equally in all the geographical areas, resulting in a high number of unsafe abortions in the country. To address this issue, the Technical Committee proposed the idea of task-sharing for abortion services.

The Government started to enrol staff nurses who were already involved in Nepal's Safe Motherhood Initiative and were providing post-abortion care (PAC) at that time. Their familiarity with manual vacuum aspiration and post-abortion care justified their enrolment for specific abortion training to become potential SAS providers.

Thereafter, in 2008 the Government started including staff nurses from the maternity hospitals into this programme on a pilot basis. This way, the Government of Nepal could generate in-country evidence on successfully engaging nurses to provide safe abortion services. Following that, the Government also allowed auxiliary nurse midwives (ANMs) who had undertaken training on post-abortion care, insertion of intrauterine contraceptive devices or skilled birth attendance, to be SAS providers after a mandatory training.

This task-sharing initiative to engage mid-level providers helped in expanding the pool of service providers and improved access to abortion services. Other implementing partners from NGOs and the private sector, such as Marie Stopes International Nepal, Family Planning Association of Nepal (FPAN), private hospitals and clinics joined the initiative and expanded service delivery by engaging their staff nurses and ANMs.

The Government of Nepal conducted a feasibility study on introducing medical abortion. A national scale-up strategy was then developed to improve access to safe abortion services among women in underserved areas. Following this, in 2009, mifepristone and misoprostol and MA combipacks were registered by the Department of Drugs Administration. ANMs were trained to provide medical abortion services specifically to women living in hard-to-reach areas. Various organizations such as IPAS Nepal, Family Planning Association of Nepal, Marie Stopes International Nepal and Population Services International Nepal supported this initiative and trained the skilled birth attendants and ANMs to provide medical abortion services.

Results of the practice – outputs and outcomes

The Government of Nepal has gradually expanded the services to 77 districts, including remote mountainous areas in the country. This has ensured safe abortion services through 1516 health-care facilities, both public and private. A total of 4521 health-care workers have been trained till 2019–2020 and are providing the services at all administrative levels. Subsequently, the proportion of serious complications from unsafe abortions, including septic abortions, relative to all abortion-related complications has declined, and this was

most markedly observed during 2007–2010. A study done in 2008 revealed that abortion-related complications dropped from 54% to 28% of all the complications when compared with 1998. Furthermore, maternal mortality in Nepal has decreased from 548 deaths per 100 000 live births in 2000 to 258 deaths per 100 000 live births in 2015.

Lessons learnt

Task-sharing between obstetricians and gynaecology/medical doctors and the nurses and ANMs has shown promising results by helping increase the accessibility of safe abortion services at the subnational level in the country. This was done in a planned and regulated manner. At first, the strategy was adapted to include only those staff nurses who were familiar with providing post-abortion care. They were trained and involved in providing SAS. Later, the introduction of MA and engaging ANMs helped expand service delivery to the peripheral facilities of the country.

The gradual process of task-sharing with mid-level providers, supported by encouraging results from in-country pilot studies and government commitment, has been crucial in the expansion of abortion care in Nepal. Coordination with stakeholders including NGOs, facilitating evidence-backed policy dialogue, and training and facilitative supervision have been the keys to successful task-sharing with mid-level providers to improve quality abortion services.

Key messages

Planned and regulated task-shifting and task-sharing can ensure rational optimization of the available health workforce, address health system shortages of specialized health-care professionals, and improve equity in access to health care. Nepal's experience of task-shifting and sharing in scaling up SAS has emerged into a successful model to improve access and address the issue of limited and uneven distribution of health-care providers in low-resource settings. The Government's leadership and commitment along with meaningful contributions by stakeholders, including the nongovernmental sector and professional bodies, have bolstered this success.

SRI LANKA

Package for newly married couples to build a happy family

Introduction

Sri Lanka is considered a model country for provision of maternal and child health services. In Sri Lanka, services are delivered to the community via a well-developed Maternal and Child Health (MCH) Programme. The MCH Programme comprises several packages with evidence-based interventions aimed at improving maternal, newborn, child and adolescent health and well-being.

The MCH Programme provides a continuum of care that spans across pregnancy, childbirth, infancy, childhood, adolescence and adulthood. As a result, a steady decline in the maternal, newborn and infant mortality trends has been observed in the country, leading to maternal and child health indicators that are comparable with developed countries.

However, a stagnation of these indicators has been apparent in the recent past, necessitating a meticulous analysis of the circumstances related to maternal and child mortality. This analysis has revealed an emergence of indirect causes such as cardiac diseases, respiratory diseases and other medical conditions to be prominent causes of maternal mortality. Congenital anomalies, low birth weight and prematurity also contribute to perinatal and neonatal mortality. Furthermore, causes that were earlier overshadowed by direct factors are emerging as important contributory factors. These include nutritional deficiencies, existing chronic diseases and domestic violence. An analysis of these conditions revealed the necessity of addressing those factors before the woman gets pregnant, either in the pre-conception period or even earlier during the adolescent period.

Early detection of these conditions during the preconception period may facilitate the prevention of complications not only in pregnancy but also thereafter, and directly impact the reduction of adverse maternal and newborn outcomes and help achieve the Sustainable Development Goal indicators by 2030.

Though the MCH programme was attempting to provide a continuum of care across the life stages from pregnancy to the adolescent period, a gap exists in relation to care provision between the adolescent period and the first antenatal period due to various reasons, including difficulties in reaching out to the target population.

Global evidence reiterates that antenatal care should start before conception to alleviate negative obstetric outcomes. Maternal and child health programme planners, policy-makers and stakeholders are cognizant of the importance of preconception care to attain the SDG targets in relation to maternal, neonatal and child health.

Long-standing stagnant MCH indices and the need to achieve the set SDG targets guided the Ministry of Health of Sri Lanka to work towards expanding MCH care services to the preconception period. A new preconception care programme (PCCP) with a “Service package for newly married couples” was introduced in 2010 with the objective of optimizing the health status of both partners prior to pregnancy. The MCH Programme aimed to support married couples to lay a strong foundation for a healthy and happy marriage through this package.

The World Health Organization defines preconception care (PCC) as “the provision of biomedical, behavioural and social health interventions to women and couples before conception that aims at improving their health status, and reducing behaviours and individual and environmental factors that can adversely impact the maternal and child health outcomes”.

In line with the WHO concept on PCC, the “Service package for newly married couples” was developed to promote and enhance physical, psychosocial and spiritual well-being of the couple through a series of biomedical, behavioural and social health interventions. The specific objectives of the programme were to improve the knowledge and awareness of the couple on reproductive health and minimize unhealthy lifestyles; create conducive behavioural changes in the couple; optimize the health status of women by providing services before conception; identify, and correct or minimize, existing health problems of the couple before they reach parenthood and, by doing so, minimize overall maternal and infant mortality and morbidity.

Implementation of the practice

The Family Health Bureau of the Ministry of Health along with the World Health Organization designed the programme components, including the training manuals, guidelines and protocols.

The programme communication materials include:

1. An invitation card for clients.
2. A handbook for health staff on health care for the newly wedded.
3. A booklet for the clients.
4. Health screening tool.
5. BMI calculator.

Tools of the PCCP package



Training session



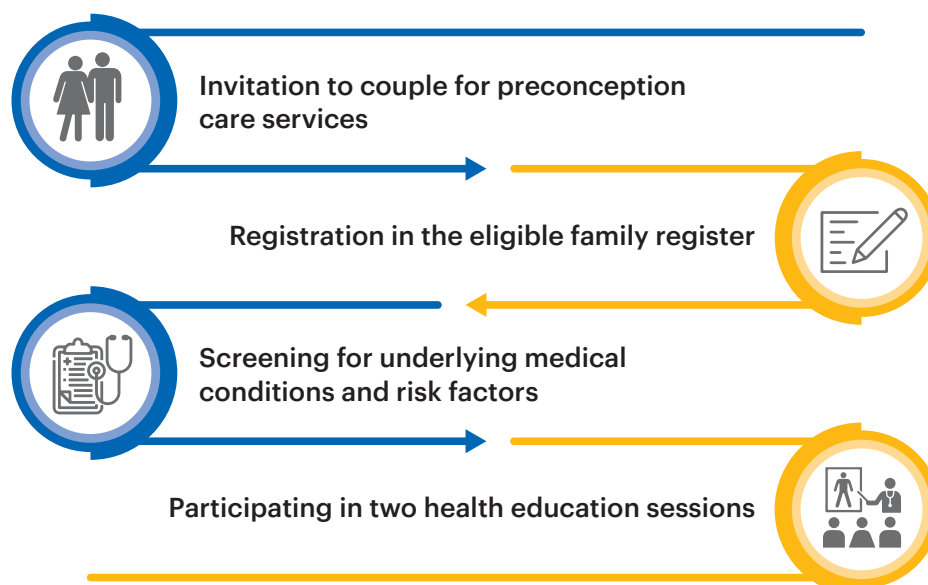
A PCCP training of trainers' session in progress

Source: MoH, Sri Lanka

The Family Health Bureau of the Ministry of Health carried out training of trainers sessions for district-level public health staff and Medical Officers of Health to facilitate implementation. The services package was delivered collectively by the team of the Medical Officer of Health (MOH), PHNS (Public Health Nursing Sister), PHI (Public Health Inspector), and PHM (Public Health Midwife) play a significant role in providing this service package.

A “Handbook to guide health staff on health care for the newly wedded” was developed to update the knowledge of service-providers on the subject areas discussed in the care package, and was disseminated following the training programme.

Fig. 50. The care pathway

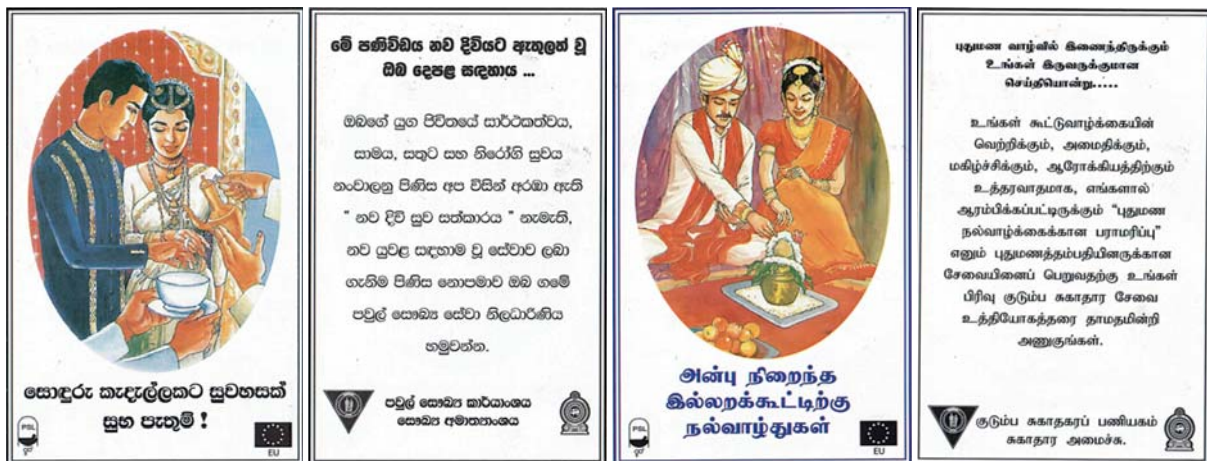


Invitation for preconception care services

Marriage registration levels in Sri Lanka are very high as the marriage certificate is needed to claim ownership to family assets, pension, etc. Cohabitation is not a socially accepted practice. According to the last census in 2011, nearly 97% of all marriages in Sri Lanka were legally executed and marriages according custom were less than 4% of the total number of marriages.

The invitation cards to participate in the preconception care programme were designed in Sinhala and Tamil languages (the two official languages of Sri Lanka) and the cover picture sought to incorporate the cultural uniqueness of these two main ethnic groups. The marriage registrars were requested to distribute the invitation cards to all couples at the time of registering their marriage. The invitation card contains a brief description of the available services and explains the importance of getting themselves registered with their local PHM.

Invitation card given to newly married couples at the time of marriage registration



Registration in the eligible family register

A PHM serves a designated population of around 3000–5000. The PHM is supposed to register all persons who are eligible for various sexual and reproductive health (SRH) services delivered in the eligible family register.⁵⁴ As most PHMs reside in the same village where they work, all married as well as live-in couples are brought to her notice during her field visits. When a PHM registers a newly married or cohabiting couple in her register as an eligible couple, she briefs the couple on the preconception package.

⁵⁴ Eligible family is defined as: family either legally married or living together where the woman is between 15 to 49 years of age and/or having a child aged under five years. A family with a pregnant or cohabiting woman irrespective of marital status and age and single women (widowed, divorced or separated) are also considered as eligible families.

Screening for underlying medical conditions and risk factors

At the time of registration in the eligible family register, PHM provides the “Preconception screening tool” to the couple to complete and return. The couple is assured that the information provided by them will be kept strictly confidential.

The PHM reviews the completed screening tool to identify any problems/risk factors or conditions related to past and current medical conditions, medications and risk factors. These may include family history of select medical conditions, sexual and reproductive health risk factors, nutrition issues, lifestyle risk factors (use of alcohol, tobacco and narcotic substances), environmental risk factors, psychosocial concerns (history of depression/subjected to violence), rubella vaccination status and folic acid intake. These are referred these to the Medical Officer of Health accordingly.

A PHM conducting the first session for a couple on the preconception screening tool



Source: MoH, Sri Lanka

Participating in two health education sessions

At the first consultation, the PHM will register the couple in the eligible couple register; brief them about the importance of the preconception period; introduce the risk screening tool and issue appointments for them to attend two health education sessions.

Group awareness sessions for newly married couples at the office of the MOH in Sri Lanka



Source: MoH, Sri Lanka

At these sessions, the couple will be subjected to a general medical examination, breast examination (for the female partner), and lifestyle risk screening by the Medical Officer, BMI assessment and nutrition counselling, and family planning counselling, and undergo basic investigations including blood grouping. They will also be provided the necessary micronutrients and supplements, and imparted basic health education. If a couple is found to have some health problem the necessary treatments/referrals are carried out.

Several vital topics are discussed during these health education sessions. These include sexuality issues, marital relationships and reproductive health issues, prevention of domestic violence, and life skills. These discussions are very popular among the couples.

At the end of the session at the clinic, if no significant risk factor or health condition needs to be followed up, the preconception screening tool is returned to the couple to be reviewed again at the first antenatal clinic visit after the woman gets pregnant. If there is a need to review or counsel the couple again, a follow-up date is arranged accordingly.

Screening sessions in progress at the office of the MOH



Source: MoH, Sri Lanka

Following completion of the two sessions, a booklet titled “*Sonduru kedellakata suwahasak subha pathum*” (literally, “Our best wishes for your blissful home”) is provided to the couple. The booklet contains essential information and key messages that are of importance to married life.

Fascimile of pages from the booklet given to newly married couples



Results of the practice – outputs and outcomes

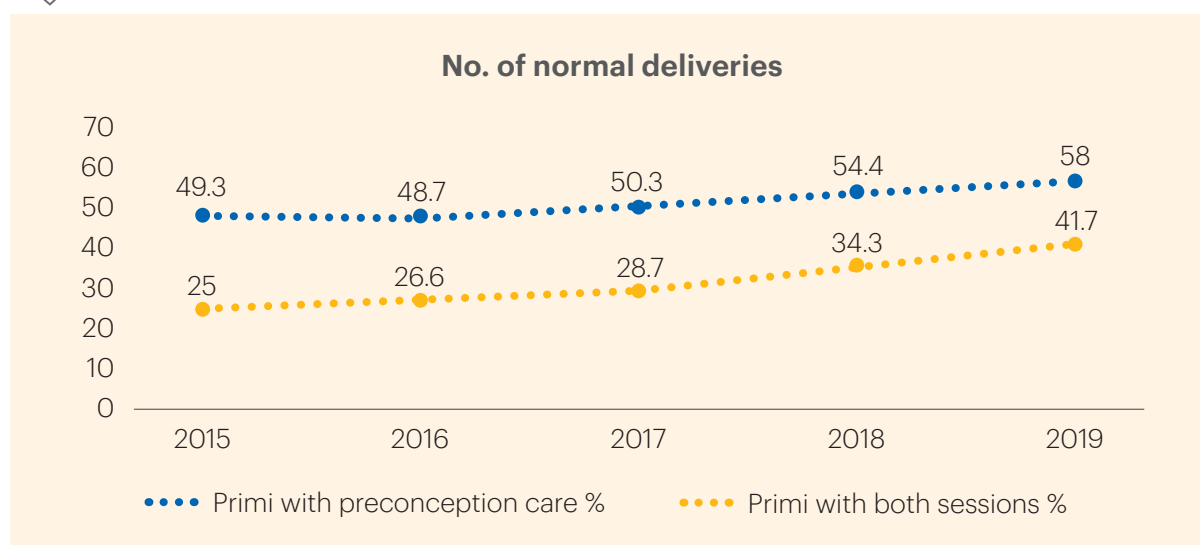
This programme was first piloted in 2010 in two districts – Kandy and Ratnapura. It was scaled up to the whole country by 2014 and selected information was integrated into the existing Reproductive Health–Management Information System (RH–MIS) in 2015.

The following data from the RH–MIS reflects the evolution and coverage of the practice:

Table 11. Intervention coverage of the preconception care package (2015–2019)

	2019	2018	2017	2016	2015
% of mothers who have received preconception care	58	54.4	50.3	48.70	49.3
% of mothers who have attended both sessions	41.7	34.8	28.7	26.60	25

Fig. 51. Coverage of the pre-conceptional care programme (2015–2019)



Lessons learnt

A service delivery package for newly married couples was a novel concept. Sri Lanka was the first country to embark upon such a measure to reduce maternal and child morbidity and mortality. However, in addition to optimizing a woman's physical health before she becomes pregnant, this package also offered several added benefits. It was proven that the screening tool and the two health sessions by MOH could identify and correct many physical and psychological risk factors of couples. More importantly, the PCCP package engaged men in an appealing manner, addressing the long-felt need of enhancing male participation in improving the sexual and reproductive health of women and children.

'We take a good history when registering the couple. This enables me to identify social issues and possible psychiatric problems. With the help of our MOH, I have identified several couples with psychiatric issues and referred them appropriately. Looking back at them makes me feel so good about myself too.'

A public health midwife

'Compared with a few years back, husbands generally help their wives with household work and childrearing nowadays. I think this is a result of what we had been trying to educate and empower them with through programmes such as the preconception care package.'

A public health midwife

'From the very early days of our marriage my wife and I wanted to have a child soon. But she was not even taking folic acid. These sessions helped us to learn how we could become more fit and responsible to be good parents. I recommended the programme to all my friends.'

A client

At the initial phase, the training of health staff was challenging, especially on nonconventional topics such as sexuality and sexual behaviours, as staff were not used to discuss these sensitive and somewhat culturally taboo issues in group awareness sessions. However, with continuous and repeated training, the field staff became more skillful about delivering such sessions. Clients also find it appealing to learn about these taboo subjects from credible sources such as public health staff.

'I usually start the sessions by giving an introductory remark and welcoming them. Then I discuss about the topics such as sexuality and also provide some insight into sexually transmitted diseases. The clients are very receptive. Sometimes they talk to me personally after the sessions and ask about issues such as dyspareunia, and thank us for the information provided.'

A Medical Officer of Health

'There was an incident wherein a couple thanked me sincerely for demonstrating the correct use of a condom. Although we think these issues are known to married couples, these young boys and girls need someone to assist them and clarify their doubts.'

A public health nursing sister

There is room for improvement of the coverage of the invitation cards to couples through the marriage registrars. Continuous advocacy with and awareness sessions for marriage registrars can overcome this.

'It is quite challenging for me to secure the involvement of the marriage registrars. I go to the Divisional Secretariat Office about twice a year and go through the marriage registry to see whether we have attended to all the newly wedded couples registered in the area.'

A Medical Officer of Health

The current opening hours for services rendered by the MOH are not client-friendly, especially for working couples. Lack of a youth-friendly approach has also created significant barriers in improving intervention coverage among newly married couples.

‘The most difficult target group is where the male works outstation, such as men serving in the armed forces. We try to get the husbands to attend the sessions as much as we can, failing which there have been instances where I encouraged the mother-in-law to participate along with the newly married wife.’

A public health midwife

‘The success of the programme largely depends on the enthusiasm of our team. I include this at the beginning of the year in my annual action plan and give them targets. The registration of the eligible families and providing them necessary care at the outset is the backbone of our public health system for reproductive health. And the eligible family register serves as the denominator for most of our MCH indicators.’

A Medical Officer of Health

Monitoring of the achievement of targets by the national-level focal point and the district-level supervisors can be considered to reinforce the better practices. Currently, the Family Health Bureau is developing a web-based package and a mobile application for newly married couples considering the low service coverage, especially among working couples. The Bureau also expects greater acceptance by the newly married couples from the new generation of a mobile-based App rolling out this service.

Conclusion

The PCCP is an important health intervention targeting newly married couples in Sri Lanka, but it is still at its early stage. Optimizing the health of a couple, especially the health of the woman before conception, would always result in better maternal and child health outcomes. The PCCP will contribute to achieving SDG3 by improving lifestyles with potential impact on preventing communicable and noncommunicable diseases. This will eventually contribute to achieving SDG2 by improving nutrition and SDG5 by raising women’s empowerment as well.

Focusing on important and interesting topics for clients, addressing their identified and unidentified health issues in a confidential manner, and delivering the service package using the same MCH caregivers were the main reasons for the success of the PCCP that made it as one of the best practices in the Sri Lankan context.

Further reading

1. Annual Health Bulletin (2017). Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka. Available at http://www.health.gov.lk/MoH_final/english/public/elfinder/files/publications/AHB/2020/AHB_2017.pdf
2. Annual report, Family Health Bureau, 2015, 2016 and 2017. Available at <https://fhb.health.gov.lk/index.php/en/resources/publications>
3. Department of Census and Statistics (2013). Census of Population and Housing, 2012. Available at <http://www.statistics.gov.lk/PopHouSat/CPH2011/Pages/Activities/Reports/District/Colombo/A10.pdf>
4. World Health Organization. Preconception care: maximizing the gains for maternal and child health. Geneva: World Health Organization; 2013
5. Family Health Bureau, Ministry of Health (2016); Our best wishes for your blissful home! Booklet for newly married couples. Available at <https://fhb.health.gov.lk/index.php/en/technical-units/gender-women-s-health-unit>
6. Family Health Bureau, Ministry of Health (2018); Review of Perinatal Death Surveillance in Sri Lanka (2014–2017)

Annexure 1

The public health midwife in Sri Lanka

The public health midwife (PHM) is the grassroots-level primary health care worker in the Medical Officer of Health team. Traditionally these health workers focused only on midwifery, but now PHMs have evolved into a professional cadre, playing a role in preventive health covering many aspects other than midwifery. Their services are immensely valued in rural settings where health resources are scarce.

On average, one PHM is appointed for a population cohort of 3000 and she is responsible for providing the package of sexual and reproductive health-care services to all eligible families under her preview. This bouquet of services includes reproductive, maternal, newborn, child, adolescent, youth and women's health, and also covers nutrition, family planning, immunization and care for survivors of gender-based violence. She provides domiciliary care to women and children within the community and is the link between the community and institutional health care. Each PHM has an established geographical area including a population ranging from 3000 to 5000, and maintains information in registers for all females of reproductive age and families with children aged less than five years.

The Government of Sri Lanka has adopted a number of strategies to encourage these health professionals to work in rural settings, such as giving preference to recruit PHMs from remote rural areas and preferential deployment to areas with poor health indicators. Another strategy is to establish a minimum of one regional training centre in each province to provide basic training for the PHMs recruited to ensure that they have an appropriate level of technical knowledge to deliver quality health-care services.

They are also given access to continuous professional development opportunities after they are deployed in their posts. PHM trainees are required to serve a “bond period” of five years of service once they have qualified and have to be prepared to work anywhere in the province in which they are trained. Financial incentives are also in place to encourage PHMs to serve in rural areas. For this, there are various benefits offered such as office allowances, pension schemes and subsidized mobile communication facilities.

PHM basic training and selection criteria

This is a full-time course spanning across 18 months. Only Sri Lankan females aged between 18–30 years are eligible to enter the PHM basic training programme. The minimum educational qualification needed is 3 passes in subjects in the General Certificate (Advanced Level) Examination.

The current basic training of PHM consists of two parts. The first part of one-year midwifery training (Part I) is conducted at nurses training schools, which is followed by (Part II) of six months of field training to make them skilled in grassroots health care for the Family Health Programme of Sri Lanka. This second part is conducted at the National Institute of Health Sciences as well as in the regional training centres. PHM duties are stipulated in the “Circular of Duties of the Public Health Midwife” issued by the Ministry of Health. A monthly allowance is paid to the trainees during the training period. PHMs who satisfactorily complete the training programme and pass the final examinations have to register with the Sri Lanka Medical Council to practise as a licensed midwife.

References

- » <http://nihs.gov.lk/nihs/index.php/32-uncategorised/65-basic-training>
- » <https://fhb.health.gov.lk/>
- » <https://medicine.yale.edu/news-article/17500/>
- » <https://www.who.int/workforcealliance/forum/2011/hrhawardscs28/en/>

CHAPTER 6

MISCELLANEOUS



INDONESIA

Maternal and child health book

Introduction

According to the 2015 Inter-Census Population Survey (ICPS),⁵⁵ the maternal mortality rate in Indonesia was 305 per 100 000 live births, still far removed from the SDG target of 70 per 100 000 live births by 2030. According to the 2017 Indonesian Demographic Health Survey,⁵⁶ the newborn mortality rate (NMR) is 15 per 1000 live births and under-5 mortality rate is 32 per 1000 live births. About 47% of child mortality is contributed by newborn mortality and the remaining is caused by preventable diseases such as diarrhoea and pneumonia.

Efforts to reduce these mortalities include empowering families and improving the quality of care of mother and child. A part of these efforts were directed at developing a maternal and child health (MCH) book⁵⁷ that can be used as a practical guide to address health promotion, prevention, maternal health, child health and growth, and development monitoring.

MCH book cover



⁵⁵ <https://www.bps.go.id/publication/2016/11/30/63daa471092bb2cb7c1fada6/profil-penduduk-indonesia-hasil-supas-2015.html>

⁵⁶ <https://dhsprogram.com/publications/publication-fr342-dhs-final-reports.cfm>

⁵⁷ <http://kesga.kemkes.go.id/images/pedoman/BUKU%20KIA%20REVISI%202020%20LENGKAP.pdf>

This MCH book has four main objectives: 1) serve as a mother-and-child guidebook that contains maternal health information (maternity, postpartum and childbirth, family planning) and child health information from newborn to the age of six years; 2) help health workers to provide good quality MCH services; 3) serve as a documentation of health status during pregnancy, childbirth and the postpartum stage, and of immunization and growth of infants; and 4) provide a medium of communication between mothers or families and health workers and cadres. All these objectives are geared to improve the coverage and quality of MCH care and services.

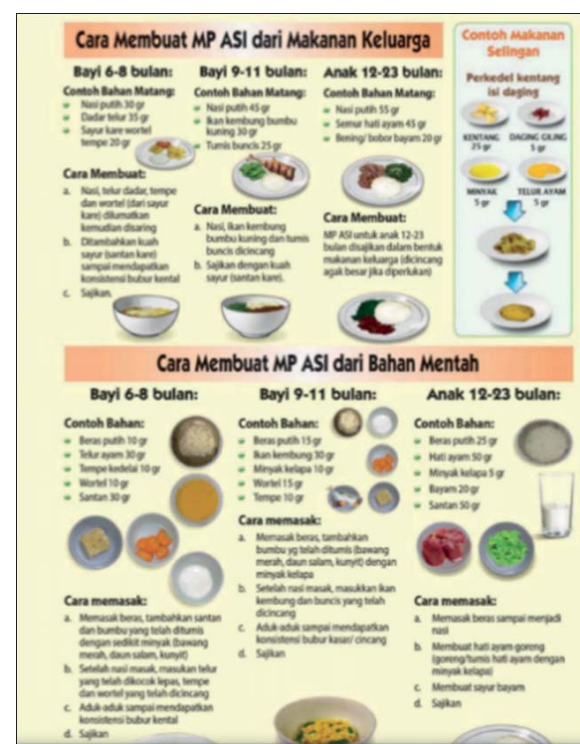
Implementation of the practice

The MCH book contains important information for mothers and families to maintain, monitor and improve the health of pregnant women and children, including some information on the prevention and early detection of birth defects – also including the issues of healthy maternal nutrition, folic acid supplementation and newborn TSH screening for congenital hypothyroid – and to recognize early danger signs in pregnant women and sick children. The book thus enables timely treatment and prevention of child deaths.

Information on danger signs during pregnancy

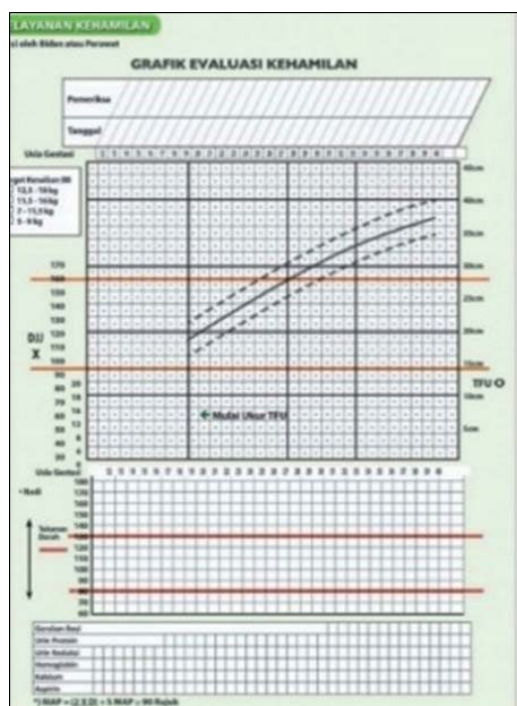


Information on complementary feeding



Records in the MCH book are filled in after receiving the care. Along with aspects of continuous development, immunization schedules, growth monitoring, developmental stimulation and early detection of developmental problems, the protection of children from sexual violence is also included in the current MCH book.

Pregnancy monitoring chart



Immunization recording chart

UMUR	BULAN											
	0	1	2	3	4	5	6	7	8	9	12	18 2+
Jenis Vaksin												
Hepatitis B (< 24 jam)												
No Batch:												
BCG												
No Batch:												
Polio tetes 1												
No Batch:												
DPT-HB-Hib 1												
No Batch:												
Polio tetes 2												
No Batch:												
DPT-HB-Hib 2												
No Batch:												
Polio tetes 3												
No Batch:												
DPT-HB-Hib 3												
No Batch:												
Polio tetes 4												
No Batch:												
Polio suntik (IPV)												
No Batch:												
Campak - Rubella (MR)												
No Batch:												
DPT-HB-Hib lanjutan												
No Batch:												
Campak - Rubella (MR) lanjutan												
No Batch:												

This handbook is mainly used by the those who are responsible for implementing MCH programmes, and nutrition, immunization and health promotion programmes, at primary health care centres. These can be various kinds of health workers such as nurses, nutritionists, midwives and doctors. Health workers use the MCH book to monitor the health of pregnant women, detect early pregnancy risks and provide standard treatment. The MCH book is provided to each pregnant woman starting at first antenatal visit during every pregnancy. Thus, a mother of two will have two MCH books.

The MCH book can be optimally used if health workers and cadres ensure that the mother and the family understand its contents. Increased knowledge of the MCH book can be achieved in various ways, for example through appropriate counselling to pregnant women both in the health services and in the community.

There is commitment at the national level to provide enough budget to produce the MCH handbook for the number of pregnant women recorded each year. The availability of the MCH handbook is a collaboration between the Central and local government using shared national and subnational budgets. The standard contents of the MCH book are provided by the Central government while the procurement and distribution are the responsibility of the local government. Many divisions and programmes of MoH are involved in the development of the MCH handbook, including the family health, public nutrition, occupational health, environmental health, health promotion, mental health, surveillance and infectious disease control, and noncommunicable diseases directorates.

Health cadres enter growth monitoring data and update the developmental monitoring checklist in the MCH handbook at an Under-5 integrated health post⁵⁸



The contents of the MCH book are updated every five years to meet the needs of mothers and children according to the updated health programmes based on currently available evidence-based national guidelines. This process of updating the document is led by the family health directorate (Under-5 health division) involving related professional associations (obstetricians, paediatricians, general practitioners, midwives, nurses, nutritionists, dentists and health facility associations), provincial and district health offices, health cadres, pregnant women and the mothers of under-five children themselves.

The interest of professional associations in supporting the MCH book has been growing recently. For the 2020 edition, the association of primary health care, the health offices association, the clinics and primary health services as well as hospital associations joined hands to support the utilization of the MCH book by their members. For private hospitals or clinics, it is not mandatory to give the standardized MCH book to their patients; usually they have their own health book. For instance, if a pregnant woman visits an obstetrician in a private clinic, she will receive a maternal health book only. When the child is born and then later brought to a paediatrician in a private clinic, she will be given a separate child health book.

This book is used at all levels from family, community (integrated health post), primary to referral health facilities, which provide services catering to maternal, newborn and under-5 children. Training for health workers on the MCH book is imparted through "mother classes" (classes for pregnant women and mother of under-five children) and is integrated with other existing trainings such as training on the integrated management of childhood illnesses and on growth development monitoring. Following this, health workers conduct "mother classes" at the village level to discuss the information provided by the MCH book.

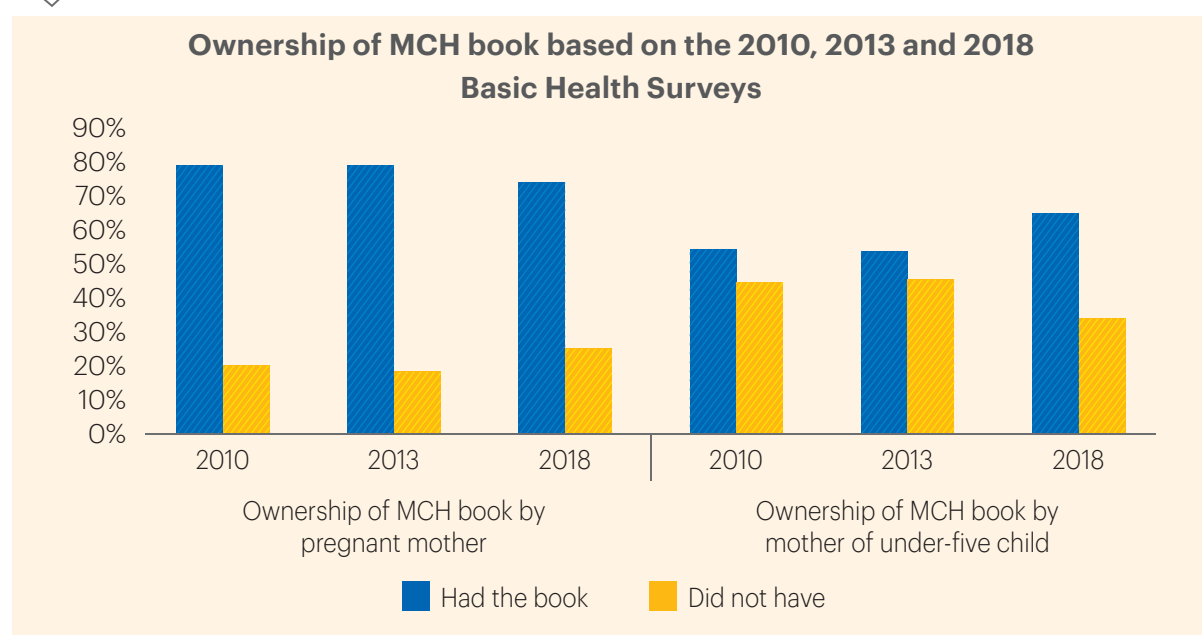
⁵⁸ <http://banyuresmi.desa.id/2018/10/23/kegiatan-posyandu-mawar-mekar-kp-banuherang-ii>

The utility of the MCH book is promoted by various means. For instance, it is included in the national minimum standards of MCH care, promoted and used as a tool for health education in pregnant women and mothers of under-5 children, and used in various intersectoral activities (in collaboration with other ministries) such as the Integrated Health Post Programme of the Ministry of Home Affairs, the marital preparation programme of the Ministry of Religious Affairs and the early child education programmes of the Ministry of Education.

Results of the practice

The Ministry of Health developed the MCH book in 1993 with the support of the Japan International Cooperation Agency (JICA) and piloted it in 1994. By 2001 almost all provinces were using the MCH book and a specific decree on the book was issued by the MoH in 2004.⁵⁹ Based on the data of the Basic Health Surveys^{60,61,62}, the status of retention of the MCH book over the years is shown in Fig. 52.

Fig. 52. Ownership of MCH book



⁵⁹ <http://kesga.kemkes.go.id/images/pedoman/KEPMEN%20284%20buku%20kia%202014.pdf>

⁶⁰ https://labmandat.litbang.kemkes.go.id/images/download/laporan/RKD/2010/lp_rkd2010.pdf

⁶¹ https://labmandat.litbang.kemkes.go.id/images/download/laporan/RKD/2013/Laporan_riskesda_2013_final.pdf

⁶² https://labmandat.litbang.kemkes.go.id/images/download/laporan/RKD/2018/Laporan_Nasional_RKD2018_FINAL.pdf

Data on the use of the MCH book from the surveys is a proxy indicator to evaluate the MCH handbook utilization. Additionally, there is routine evaluation and monitoring every three months in health facilities. Effective use of the MCH book promotes the uptake of multiple services from pregnancy to the early childrearing stage. Secondary data analysis from the 2016 National Health Indicator Survey revealed a relationship between MCH book ownership and an increase in maternal health services utilization as shown in Table 12 below.⁶³ Pregnant women who have the MCH book are 2.3 times more likely to complete four antenatal visits compared with pregnant women who do not have the MCH book.

Table 12: Relation between MCH book ownership and maternal health services

	Odds ratio	95% CI	p-value
4 x ANC visits	2.31	1.84–2.89	0000
Skilled birth attendant	4.49	3.22–6.28	0000
Delivery at health facility	2.71	2.07–3.55	0000

Further analysis of the 2018 Basic Health Survey⁶⁴ data shows that the utilization of the MCH book decreases the number of low-birth-weight newborns, increases immunization, feeding practices and home care for common childhood illnesses, and encourages husbands to undertake roles in MCH care. An intervention study done in rural Java in 2007–2009⁶⁵ found that the utilization of the MCH book lowered the number of stunted and underweight children. There were also consistent findings on the degree of knowledge about MCH among those who used the book and those who did not.⁶⁶

Lessons learnt

The MCH book has achieved national coverage because of the strong national will to improve health-care services for pregnant women and under-5 children through community participation. A national regulation and commitment from various related stakeholders reiterate this will and commitment. Thus, there has been no rejection and the rate of ownership is high. However, data from the 2018 Basic Health Survey (Fig. 51) shows that about 25% of pregnant mothers and 34% of mothers of under-5 children did not have the MCH book. The provincial data in the Basic Health Survey 2018 showed that the lowest ownership rate was found in remote islands, which may due to distribution and access issues.

⁶³ Suparmi, Ika Saptarini, Anissa Rizkiyanti. 2019. The relation of MCH handbook ownership to increase maternal health services utilization in Indonesia. Balitbangkes.

⁶⁴ https://labmandat.litbang.kemkes.go.id/images/download/laporan/RKD/2018/Laporan_Nasional_RKD2018_FINAL.pdf

⁶⁵ Osaki K, Hattori T, Toda A, Mulati E, Hermawan L, Pritasari K, Bardosono S, Kosen S. Maternal and Child Health Handbook use for maternal and child care: a cluster randomized controlled study in rural Java, Indonesia. *Journal of Public Health*. 2019 Mar 1;41(1):170–82.

⁶⁶ Purbowati N, Sari DN, Masitoh S. Effectiveness of Counseling Using MCH Handbook 2017ed to The Knowledge and Attitudes of Mothers About Monitoring Toddler Growth. *Jurnal Ilmu Dan Teknologi Kesehatan*. 2020;7(2):162–71

At the implementation level, some studies revealed an improvement in knowledge levels of pregnant women from reading the information in the MCH book. The interest in reading also correlates with the utility of the MCH book.⁶⁷ Nevertheless, many pregnant women and families do not understand and do not apply the health information contained in the MCH book.^{68,69} This becomes an obstacle in the development of the family's health behaviours and their understanding of the importance of health promotion, prevention and early detection of danger signs for mother and child illnesses that are all outlined in the book. Thus, the strategy to increase utilization of the MCH book may be more feasible if the book is used as counselling material both in community settings (through various health sector and intersectoral activities) and in the health-care services.

From the health worker's perspective, this MCH book is often considered a health record book by them. Some districts use innovative strategies such as use of the MCH book being made a prerequisite for children to enrol with the early-child education programme or using the MCH handbook to obtain the immunization certificate. Since many related professional organizations formally support the MCH book at the national level, stronger commitment will help implementation.

Conclusion

The book is a means to ensure continuum of care for MCH and to empower families to be the owners of information and the managers of their own family's health. It is the only nationwide home-based record and ready-to-read comprehensive information that aims to improve community participation and health-care services for pregnant women and the health, growth and well-being of children.

There is a national policy and commitment on the utilization of the MCH book as well as its integration and collaborative work with various related stakeholders, intersectoral programmes and initiatives of other ministries (the Ministry of Education and Ministry of Home Affairs in particular) and professional organizations. Adding to this, the MCH handbook is incorporated into other related programmes too. Furthermore, creative and innovative strategies that are appropriate for the local context may improve use of the MCH book.

⁶⁷ Ainiyah NH, Hakimi M, Anjarwati A. The use of Maternal and Child Health (MCH) handbook improves healthy behavior of pregnant women. *Majalah Obstetri & Ginekologi*. 2017;25(2):59-62. Purbowati N, Sari DN, Masitoh S. Effectiveness of Counseling Using MCH Handbook 2017ed to The Knowledge and Attitudes of Mothers About Monitoring Toddler Growth. *Jurnal Ilmu Dan Teknologi Kesehatan*. 2020;7(2):162-71.

⁶⁸ Osaki K, Hattori T, Toda A, Mulati E, Hermawan L, Pritasari K, Bardosono S, Kosen S. Maternal and Child Health Handbook use for maternal and childcare: a cluster randomized controlled study in rural Java, Indonesia. *Journal of Public Health*. 2019 Mar 1;41(1):170-82.

⁶⁹ Irawati D, Syalfina AD. Utilization of MCH handbooks and attitudes of pregnant women regarding pregnancy and childbirth complications. *Majalah Obstetri & Ginekologi*. 2019;27(2):71-5.

Further reading

- » Ministry of Health of Indonesia. Maternal and Child Health Handbook, rev. 2020. 2020
- » Irawati D, Syalfina AD. Utilization of MCH handbooks and attitudes of pregnant women regarding pregnancy and childbirth complications. *Majalah Obstetri & Ginekologi*. 2019;27(2):71-5.
- » Ainiyah NH, Hakimi M, Anjarwati A. The use of maternal and child health (MCH) handbook improves healthy behaviour of pregnant women. *Majalah Obstetri & Ginekologi*. 2017;25(2):59-62.
- » Agustina TD, Rully R. Factors related with the compliance of filling the mother and child health handbook in postpartum care of privately practising midwife (PPM). *Journal of Midwifery*. 2018;3(1):33-40
- » Osaki K, Hattori T, Toda A, Mulati E, Hermawan L, Pritasari K, Bardosono S, Kosen S. Maternal and Child Health Handbook use for maternal and childcare: a cluster randomized controlled study in rural Java, Indonesia. *Journal of Public Health*. 2019;41(1):170-82.

MALDIVES

National birth defect surveillance

Introduction

Birth defects (BDs) are structural or functional anomalies present at birth. Maldives has achieved MDG target 4 and has made remarkable progress in most SDGs. In 2015 the maternal mortality rate was 72 per 100 000 live births, Neonatal and under-5 mortality were at 5 and 11 per 1000 live births respectively (SDG report, 2018). Infant deaths contribute to 81% of under 5 mortality, 66% of infant deaths are neonatal deaths, and 75% of neonatal deaths occur in the first week of life (Maldives vital registration, 2016). BDs cause 30% of neonatal deaths and two thirds of neonates referred abroad are due to BDs (Birth Defect Annual Report, IGMH, 2019).

Maldives is an archipelago of 1190 islands; 187 islands are inhabited, with a total population of 366 000. Each island has a health facility with doctors and nurses. There are 13 atoll hospitals, 6 regional hospitals, and 3 tertiary care hospitals (public and private) where almost all deliveries take place. Indira Gandhi Memorial Hospital (IGMH) is the main tertiary referral hospital. Home deliveries are not allowed. Annual births count between 6500 to 7000.

Objectives

The first BD report from Maldives (Farzana, 2014) reported birth defect prevalence of 11.9–20.5 per 1000 live births. Over the last two decades, an epidemiological transition occurred in aetiology of mortalities from infection to BDs, demanding priority shift towards BDs calling for better data that paves the way for prevention, timely intervention, and advocacy. BD surveillance data is the cement for all this foundational data.

Method

This document is based on information provided and entered by focal points and data officers in atoll/regional/tertiary hospitals and programme managers. Regional guidelines for BD surveillance, annual birth defect reports from IGMH (from 2018 to 2020), guideline for data officers, and relevant, published international documents were reviewed. The focal point in the Health Protection Agency (HPA), Ministry of Health, coordinates all activities among the hospitals.

Implementation of BD surveillance

Maldives started working in the field with recommendations, training, technical and financial support from the Regional Office. Existing data on the neonatal intensive care unit admissions in IGMH between 2008 to 2014 were analysed and used as a base line to start surveillance. The Regional Office also developed an online data system for entry and analysis of newborns and birth defects.

Qualified persons (medical officers and paediatricians) to detect structural anomalies under the ICD-10 Q Code are already working in all birth facilities. Cardiologists and radiologists are available in regional hospitals. Computers and internet access are accessible in all health facilities. There were few arrangements needed to start surveillance.

BD surveillance was started in November 2015 in IGMH. The online platform of SEARO for newborn and BDs (with technical support from WHO) was the main driver in this endeavour. A focal point from IGMH was identified and the paediatric team assisted in data entry. In 2016, a data officer was allocated by the WHO Country Office, whose responsibility was to enter newborn forms from IGMH and coordinate with other hospitals performing surveillance.

Trainings were held at the start of surveillance, and then every one or two years, for all data officers and clinicians. Guidelines and BD manuals were distributed. Each defect is described by the doctor attending the newborn. Printed and online forms were made available in delivery rooms and postnatal wards. Team members send filled forms and photos to the focal point as it is or by phone. All queries are discussed timely via a social media forum (Viber app).

Analysis is done monthly and shared among clinicians. Missing forms are identified monthly. Monthly denominators are required to be entered into the online database before the 15th of the following month, before proceeding to enter fresh data for that month. Those who contribute most to data collection are awarded a monthly recognition as "King" or "Queen" of surveillance. The focal person in the Health Protection Agency coordinates all activities among the hospitals.

Table 13. Implementers and collaborators

Implementers	Station	Role
Clinical focal point	IGMH	Provides technical support in classification of BDs. Ensure all BDs in IGMH are entered into online system. Supervise the programme, receive feedback, implement changes and analyse data monthly.
Clinicians	Hospitals	Identify and report BD with forms and pictures.
Programme focal point	HPA	Building advocacy between national and international partners and ensure funding.
Data officer	HPA	Enter data, coordinate between national focal points in islands and with SEARO.

Table 14. Characteristics of birth defect surveillance in Maldives

Coverage	Hospital-based (national)
Year of implementation	2015
Type of surveillance	Active
Source	Newborn, birth defect and IUFD forms
Coding system	ICD-10 Q Code
Coding process	Coded by clinicians and verified by SEARO
Case description	Verbatim and check box
Pregnancy outcome	Includes all live births, added defects in IUFDs since 2019
Follow-up of cases	None
Data on maternal risk factors	Yes
Data on healthy control	Yes
Dissemination of data	Yes

Table 15. Main activities during setting up of national birth defects surveillance

Year	Activity
2011	Maldives expert from IGMH attended the first Regional Expert Group Meeting organized by WHO-SEARO in 2011 in New Delhi, to discuss the action plan on the World Health Assembly resolution of 2010
2012	Maldives MoH official participated in the Regional Programme Managers' Meeting on Birth Defects organized by WHO-SEARO in March 2012 in Bangkok, Thailand. The Regional Strategic Framework for prevention and control of birth defects was discussed for finalization.
2012	WHO-SEARO Regional Training Workshop on Birth Defect Surveillance was conducted in April 2012 in Colombo, Sri Lanka. The global training package on birth defects surveillance was discussed and plan prepared for the regional training package.
2013	Regional Training for Birth Defects Surveillance was organized by WHO-SEARO in July 2013 in Bangkok. Maldives experts were trained in birth defects surveillance.
2014	Participation in SEARO Regional Review Meeting for surveillance of BDs.
2015	Analysis of BD data from admission records of NICU, IGMH, from 2008 to 2014.
	National Planning Meeting on Birth Defect Prevention Control held in Maldives.
	Birth defect surveillance data entry to SEARO database was initiated in IGMH.
2016	National training programme for BDs supported by SEARO. About 50 staff from hospitals were trained in the SEA Region NBBD system for birth defects surveillance. National Strategic Plan for Birth Defect Prevention and Control was endorsed by the Ministry of Health.

Year	Activity
2016–2019	Annual participation and sharing of experience of Maldives in SEARO Programme Managers' meeting on Prevention and Surveillance of BD. Data on birth defects analysed and annual reports prepared and shared with MoH.
2018–2019	Annual activities to mark World Birth Defects Day (WBDD) on March 3.
	Training done in all except two small atolls, as a part of newborn care training.

Since 2018, many activities including release of surveillance data reports have been conducted to mark World Birth Defect Day. Stakeholders including the Ministry of Health, HPA, WHO Country Office, UNICEF Country Office, hospitals, NGOs, universities and media were involved.

Results of birth defects surveillance

Initiated in one hospital in 2015 with only live births, today the surveillance has expanded to include all the hospitals and intrauterine deaths (Table 16). Annual BD reports are compiled in IGMH and released on World Birth Defects Day every year.

Data were used to persuade the government to initiate newborn screening, newborn hearing screening, and critical congenital heart disease screening in IGMH. The same data were also used in congenital rubella syndrome elimination, for which Maldives was awarded rubella elimination status.

Table 16. Progress of birth defect surveillance

Year	2015	2016	2017	2018	2019	2020
Number of hospitals enrolled	1	10	11	12	22	22
Number of hospitals reporting newborn and BDs for all inborns	1	10	10	11	22	22
Number of hospitals with complete and timely reporting of BDs	1	10	10	11	22	17
Number of hospitals reporting stillbirths	-	10	11	11	11	22
Number of hospitals analysing their data every 1–3 months	1	10	11	11	11	11

Assessment of birth defects surveillance

Every month, assessment is done locally and from WHO-SEARO (SEAR-NBBD database) to review performance of the hospitals, timeliness of reporting and missed forms for cases of birth defects. HPA coordinates with hospitals for feedback. Large hospitals assess their own data monthly and share among clinicians, awarding contributors, correcting errors and detecting missed cases.

Lessons learnt

It is a team effort and we need to find the right champions to lead. Start small and expand slowly. Take feedback, and do not collect data that is never going to be used. Some minor categories such as birth marks may have to be excluded.

The support from WHO in initial advocacy in the country, preparation of a national plan for birth defects and training in birth defects surveillance was crucial to create awareness and initiate public health actions for prevention and control of birth defects in the country.

SEAR NBBD portal has standardized the surveillance method and process. Ongoing support in monitoring and quality control from SEAR-NBBD is very useful. Use of the standard coding system and verification of coding ensures quality of data in terms of completeness, accuracy and timeliness.

Parents need to be onboard; and explain the diagnosis and take verbal consent for sharing newborn data and pictures. Everyone's contribution needs to be appreciated. Data needs to be shared using different platforms including public forums and media.

The national central team needs to be competent in coordinating among hospitals. Use of a social media platform that is popular in the country will be most convenient. Contact with partner agencies is key as there are people who are always ready to help. Timely technical support from SEARO regarding classification and coding of BD, and verifying the reported codes, built up the team's knowledge and experience. Regular trainings are key to drive surveillance.

Challenges

The initial process of starting the use of the NBBD surveillance system took some time as the formal process had to be approved by Ministry of Health to submit the data online to SEAR-NBBD. However, once the approval was given, data entry into the NBBD surveillance started and has been maintained since. As clinicians working in the islands have high turnover rate, often these programmes find it challenging to keep clinicians informed. Human resources get constrained in special situations such as pandemics, which interrupts timeliness. Incomplete reporting is a challenge.

Plans

The national coordinator needs to share the analysis of birth defects surveillance data with the MoH annually retrieved from the system. Follow up of patients will help in timely intervention and enable the best possible quality of life for patients and families. Once the data collection is harmonized through all atolls, it would be used beyond the neonatal period. Further, zero reporting could enhance surveillance.

Conclusion

Each surveillance system needs to be adapted accordingly to the country's political, social, geographical and historical context (Daniela, 2011). Maldives has adopted surveillance methods used in other countries such as Argentina and Mexico (Boris Groisman, 2019). Integrated health systems permit the programme to be workable.

Not only training in detection and reporting, but also making the stakeholders understand the importance of surveillance, is critical for motivation (WHO, 2008). Support from partner agencies is crucial for the development of such projects. We hope our experiences in this project can be beneficial to other countries, especially small island countries, in establishing a nationwide surveillance programme.

MYANMAR

The OSCC: A unique one-stop centre for services for victims of gender-based violence

Introduction

A 20-year-old unmarried university student (name withheld) who had become pregnant was rejected by her boyfriend. When the family heard this, she was persuaded to have an abortion, to which she refused. She sought assistance from her aunt who contacted a doctor at the one-stop crisis centre (OSCC) at Pindaya. The centre was providing timely and efficient medical, psychological, social and legal support under the same roof for such clients as a coordinated response.

The student was provided respectful service by assigned emergency department physicians, nurses and medico-social workers according to the treatment protocol as mentioned in the Guidelines on Health Care Response for Gender-based Violence (GBV) Survivors. This guideline was developed by the Ministry of Health and Sports (MoHS) of the Government of the Union of Myanmar by adapting WHO standards. The centre operates 24 hours a day every day of the year.

Her boyfriend was also contacted and explained about the legal implications and the kind of support needed. With the help of OSCC services a healthy baby girl was successfully delivered, bringing much joy to this single mother. Now she lives in a separate home near her parents' residence and is a shining epitome of a brave and graceful single mother of a newborn. The Pindaya OSSC continues its multidisciplinary coordinated efforts for one-stop services and offers care to survivors of gender-based violence (GBV) with competent doctors.

'The Myanmar Demographic Health Survey 2015–2016 revealed the alarming statistic that lifetime physical and/or sexual intimate partner violence was at 17% and physical and/or sexual intimate partner violence in the last 12 months was at 11% in the country.'

Dr Than Min Htut, Township Medical Officer of Pindaya township in Southern Shan State

Significant contributions

The beauty of the OSCC system is that supportive monitoring and supervision visits were conducted by the maternal and reproductive health (MRH) Division continuously. Feedback was mostly positive with some significant challenges. OSCCs empower and increase the confidence of the survivors to seek quality services without any judgmental attitudes or blame involved and in a fully confidential manner. Free 24-hour services are being provided according to standardized protocols and are linked with the existing services from hospitals including family planning and other RH programmes. Enhanced collaboration with the government and other stakeholders is maintained, and there is also no need to rely heavily on volunteers and external donors.

Current situation

Myanmar, as with other countries in the South-East Asia Region, experiences a wide array of gender inequality issues that most often affect women and girls. In Myanmar, social acceptance of or equanimity about violence against women is widespread. Domestic violence is regarded as a private family matter. There is a strong culture of victimization and blame. The proportion of ever-partnered women aged 15–49 years experiencing intimate partner physical and/or sexual violence at least once in their lifetime was as high as 17% and those experiencing this in the last 12 months was 11%, according to the Myanmar Demographic Health Survey 2015–2016.⁷⁰ Other qualitative assessments and surveys also indicate a high level of intimate partner violence.

In the national sexual and reproductive health (SRHR) Policy, which is ready to launch, the policy statement to create, fund, and implement “one-stop crisis centres (OSCCs)” for victims/survivors of gender-based violence in high-need areas, especially conflict settings, is stated in the “Gender” section.⁷¹ The main rationale for establishing or supporting the concept of OSCCs was to bring all critical GBV services under one roof so that GBV survivors could be attended to in a timely and efficient manner.

Alignment with national strategies, laws and policies

GBV is a matter that has received attention and found mention in high-level instruments and platforms, making the programme relevant at the international and national level. The international instruments that the country has ratified and implemented include the pioneering UN Declaration on Human Rights, the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and the Convention on the Rights of the Child (CRC). The OSCC is a priority intervention that is addressed in all the laws, policies, plans and programmes at the national level.

Among these laws, policies and plans are the National Plan of Action for the Advancement of Women, Section 358 and 359 of the National Constitution, National SRHR Policy, and other national and administrative instruments and mechanisms. The Myanmar Human

⁷⁰ Myanmar Demographic Health Survey, 2015–2016

⁷¹ Draft National SRHR Policy, Myanmar

Rights Body and the Myanmar National Committee for Women's Affairs have been carrying out awareness-raising programmes to protect women and girls from all forms of violence and trafficking.

One-stop crisis centre

The “one-stop crisis centre” for GBV is unique in the Myanmar health-care system because it offers medical, psychosocial and legal support to such victims under one roof as a coordinated response. It provides quality, comprehensive services in accordance with the guiding principles of safety, respect, non-discrimination and confidentiality through the effective linking with related sectors such as police, legal and social welfare. It is also an opportunity to provide other GBV information. It was set up by the Maternal and Reproductive Health Division in collaboration with WHO and was first established at Pindaya Township People's Hospital in Southern Shan State in 2018 and at the 1000-bedded hospital in Nay Pyi Taw in February 2019.

Structure and functions

The OSCC operates for seven days a week and 24 hours a day. The Emergency Department (ED) and medical social worker teams have been implementing OSCC since its establishment. Two physicians, four nurses and four medical social workers from the ED team received orientation training and were assigned as the focal persons for operating the OSCC with the administrative support of medical superintendents. The “Guidelines on Health Care Response for GBV Survivors” was developed by adapting WHO guidelines and were launched by the Ministry of Health and Sports in October 2018.

An orientation session in progress at an OSCC



Source: MoH Myanmar

Case management is conducted according to treatment protocols as mentioned in the guidelines for GBV patients who have been sexually assaulted. ED physicians and nurses provide medical care while medical social workers (MSW) offer support with psychosocial counselling and referral services within the hospital (e.g. laboratory examination,

HIV testing, etc.) and outside hospital (e.g. police, court for medico-legal cases, the Department of Social Welfare and NGOs for shelter), and also follow-up care if necessary. All cases are recorded in detail and in a confidential manner without violating any of the privacy and other rights of individual clients.

Table 17. GBV cases in past years

Year	Type of offense	Age 15–19	20–29	30–35
2018 Total 6	Sexual assault	4	0	0
	Any assault other than sexual	0	0	2
	Suicidal tendency	0	0	0
2019 Total 22	Sexual assault	5	4	1
	Assault	1	3	3
	Suicidal tendency	1	3	1
2020 (Jan.–Sept.) Total 25	Sexual assault	3	4	4
	Assault	4	2	2
	Suicidal tendency	4	2	0

To ensure quality of care, effective cooperation and sustainability of the OSCC, the management teams were organized in three levels as detailed below with terms of reference and the necessary administrative support:

- » Central-level OSCC management team.
- » Hospital interdisciplinary OSCC management team.
- » Inter-departmental OSCC management team (multisectoral team).

Monitoring and supervision

Supportive monitoring and supervision visits were made to OSCCs after five months of implementation in collaboration with the national gender programme managers and focal persons from WHO and by using quality assurance tools for monitoring gender-based violence. The feedback was positive, and some significant challenges concerned with the effective implementation, collaboration and sustainability were pointed out.

Lessons learnt on one-stop models of survivor services

The Maternal and Reproductive Health Division, Department of Public Health, present a promising one-stop model for addressing the problem of gender-based violence, particularly sexual violence, in Myanmar, in collaboration with WHO. The following best practices as well as lessons learnt have been identified to inform and improve the quality of future programming.

OSCCs are highly effective in high-resource settings. The centres are costly to set up and need financial and human resource support to achieve maximum effectiveness. The issues of sustainability, however, need to be addressed adequately through full integration into the national planning and budgetary framework, and local, national and global advocacy with governments and institutions needs to be sustained.

Inclusion of the OSCC concept in the curriculum training of service providers ensures that OSCC services are viewed as part of their normal duties rather than as an extra load that may call for other incentives.

Staff must receive ongoing and refresher training, mentoring and support to provide the best possible care to survivors. Staff must be informed of emerging issues and approaches to increase knowledge and reduce burnout.

To ensure quality of care in OSCCs, quality assurance mechanisms should be built and adapted or enhanced as necessary during implementation. Examples of quality assurance mechanisms include client satisfaction surveys, ongoing training and mentoring of counsellors, developing safety plans for survivors and the like.

To ensure the sustainability of future GBV programming, it is critical to engage the local focal ministry with the other ministries concerned as well as with national and international nongovernmental organizations, including UN agencies and community-based organizations, to integrate these activities into the national GBV response as mentioned in the SRHR Policy.

To create long-term sustainability, the coordinated response must incorporate new membership (this may include agencies beyond the criminal justice and victim/survivor service sectors, such as men's groups, faith groups and their leaders, businesses), and consolidate and diversify its activities as local conditions dictate.

Best practices of OSCC

The OSCC practices are aligned with national laws, policies and strategies and meets the practical needs. Capacity-building of local service providers on broad-based gender issues, including support and mentoring on specialized GBV, is essential.

The OSCC poses less risk of exposure and stigma for survivors than standalone sites that are located in government facilities and integrated into existing in-house services. Cases are treated with privacy without bias and in a welcoming environment. The services are free and these offer a safe zone that anyone can access without hesitation at any time since they run 24x7.

This inclusive and consultative service contributes towards the clients' feeling of being empowered. Strong institutional linkages within the focal ministry in providing key services bolsters the interplay with other key service-providers. These programmes do not need to rely heavily on volunteers and external donors as staff salaries are drawn from the government budget and other medical supplies and commodities are obtained from hospitals.

Significance of OSCC

- » Empowers and increases the confidence of survivors to seek quality services.
- » Reduces the possibility of labelling women and girls as being 'raped' and 'victim blaming'.
- » Handling cases with standardized flowchart in confidential and rights-based manner and providing consistent follow-ups.
- » Free 24-hour services that anyone can easily access.
- » Linkage to existing services from hospitals.
- » Enhanced collaboration with reproductive health programming.
- » Enhanced collaboration with the Government and other stakeholders concerned.

'One stop crisis centre is a very special place dedicated to supporting survivors of gender-based violence. We are supporting the national health authorities to pilot this pioneering approach in two hospitals in the country. This experience will be very valuable to plan ahead.'

Dr Stephan Paul Jost, WHO Representative to Myanmar

NEPAL

Integration of family planning and EPI services

Introduction

WHO recommends a two-year interval between births to reduce the risk of adverse maternal and child health outcomes.⁷² Pregnancies spaced less than 18 to 24 months apart have been associated with an increased risk of preterm birth, low birth weight, fetal, early neonatal and infant death, and adverse maternal health outcomes (Conde-Agudelo et al. 2012). Increased birth spacing is also an important intervention to reduce the fertility rate in high-fertility populations.

In Nepal, the use of modern family planning methods has stagnated at 43% for the last 10 years (2006–2016) with high unmet need (24%) including 8% for delaying and 16% for limiting childbirth. Almost 21% of births occur within 24 months and 48% within 36 months of a delivery (Nepal Demographic Health Survey 2016). This indicates both the need of and missed opportunities in providing family planning information, education, counselling and services to mothers. The Family Welfare Division (FWD) of the Ministry of Health and Population (MoHP) has identified the need to strengthen the quality of family planning counselling and services to postpartum mothers in the National Family Planning Strategy 2011 and the National Family Planning Costed Implementation Plan 2015.

Postpartum mothers bring their babies for immunization in the health facilities. This allows for a crucial opportunity to take advantage of every contact with postpartum mothers to offer them family planning counselling and related services. Therefore, integrating the two services can provide an opportunity to offer mothers a comprehensive package of services that could improve access to family planning methods with increased acceptance and utilization.

Piloting and implementing integrated family planning and EPI services

In Nepal, the Expanded Programme of Immunization (EPI) consistently sustains a high coverage rate of 73% (NDHS 2016). Taking opportunity of this platform for family planning, the FWD initiated the piloting of integration of FP with EPI from primary health care/ outreach centres (PHC/ORC) in Kalikot district in July 2012.

⁷² World Health Organization 2005. The World health report: 2005: make every mother and child count. WHO: Geneva (available from: https://www.who.int/whr/2005/whr2005_en.pdf).

Kalikot had a population of 140 000 in 2011 and contraceptive prevalence rate (CPR) among married women was 40% (national average of 43%). Among postpartum women (those with a child under one year of age) CPR was at 14.8% compared with the national average of 22.6%. About 32% of married women had an unmet need for FP, compared with 27% nationally.

This initiation included orientations for programme managers, training for service providers, demand generation and monitoring and evaluation of the implementation. For the pilot, the cost of running EPI clinics, training health workers, production and distribution of FP educational material and motivational/publicity material was managed by Nepal Health Sector Support Programme.

The key implementers at the district level were district health officers/district public health officers DHO/DPHO, FP and EPI focal persons, and those below the district level were FP and EPI service providers and female community health volunteers (FCHVs).

Training of trainers on family planning in progress



Source: MoHP Nepal

Process of providing FP services in EPI clinic

In all the health facilities where integrated FP/EPI services are provided (both static and outreach clinics), the six-step client flow is maintained.

Step 1: Before the start of the immunization session: Group health education is provided to all mothers who bring their child for immunization. This includes education on existing standard immunization schedules, timing of immunization and “Healthy Timing and Spacing of Pregnancy (HTSP)” using a flex chart.

The main objectives of this session are to:

- » Make mothers aware of HTSP and its advantages and disadvantages.
- » Provide information on available FP methods to enable mothers to make informed choices.

Step 2: During the immunization session: After the group health education, clients are asked individually about birth spacing and FP. In case they want more information about FP methods or want to accept a method, mothers are given the option to talk to the provider.

Step 3: After the immunization session: Interested mothers are provided further information and counselling on FP using the “need identification flowchart” and “family planning flipchart”.









Step 4: Based on their voluntary and informed choice, the chosen FP method is provided to the mothers. Those who are undecided are provided with a supply of condoms for 15 days and advised to visit the clinic after that. They are offered health education and counselling in the next visit also.




Step 5: Method choice: If the pregnancy status of the mother wanting to accept a FP method is not confirmed, she is referred to the nearest health facility for pregnancy test. Mothers wanting long-acting as well as permanent FP methods are referred to the nearest static clinic.

Step 6: Post method choice: Service providers are required to record every FP service provided (including FP counselling and referrals) in the PHC/ORC register, while FP methods provided are recorded in the FP service register and reported monthly in the health management information system (HMIS).

Fascimile of IEC materials for counselling

परिवार नियोजनका आधुनिक साधन र बिधिहरू

 पिल्स (खाने चक्की)	 तीन महिने सुई
 आई.यू.सी.डी. (कपर-टी)	 इम्प्लाण्ट (पाखुरामा राखिने साधन)
 महिला बन्ध्याकरण (मिनिल्याप)	 पुरुष बन्ध्याकरण (भ्यासेक्टोमी)
 कण्डम	 स्तनपान बिधि (LAM)








सुत्केरी पछि जन्मान्तरका लागि निम्न अवस्थामा आधुनिक परिवार नियोजनको बिधि तथा साधनहरूको प्रयोग बारे परामर्श सेवा लिनुपर्छ ।

- महिनावारी फर्किएमा ।
वा
- ६ महिना भित्रै बच्चालाई आमाको दुध बाहेक भोल वा ठोस खाने कुरा खुवाउनु शुरु गरेमा ।
वा
- बच्चा ६ महिना भन्दा बढि उमेरको भइ सकेमा ।

नोट:

- सुत्केरीपछि महिनावारी नफर्कंदै पनि गर्भधारण हुन सक्छ ।
- गर्भपतन भएको २ हप्ता पछि पुनः गर्भधारण हुन सक्छ ।
- सुत्केरी पछि स्तनपान नगराउने महिलाले ४ देखि ६ हप्ता भित्रै पुनः गर्भधारण हुन सक्छ । त्यसैले छिटै गर्भधारण हुन बाट रोक्न परिवार नियोजनका साधन तथा बिधिहरू प्रयोग गर्नुपर्छ ।

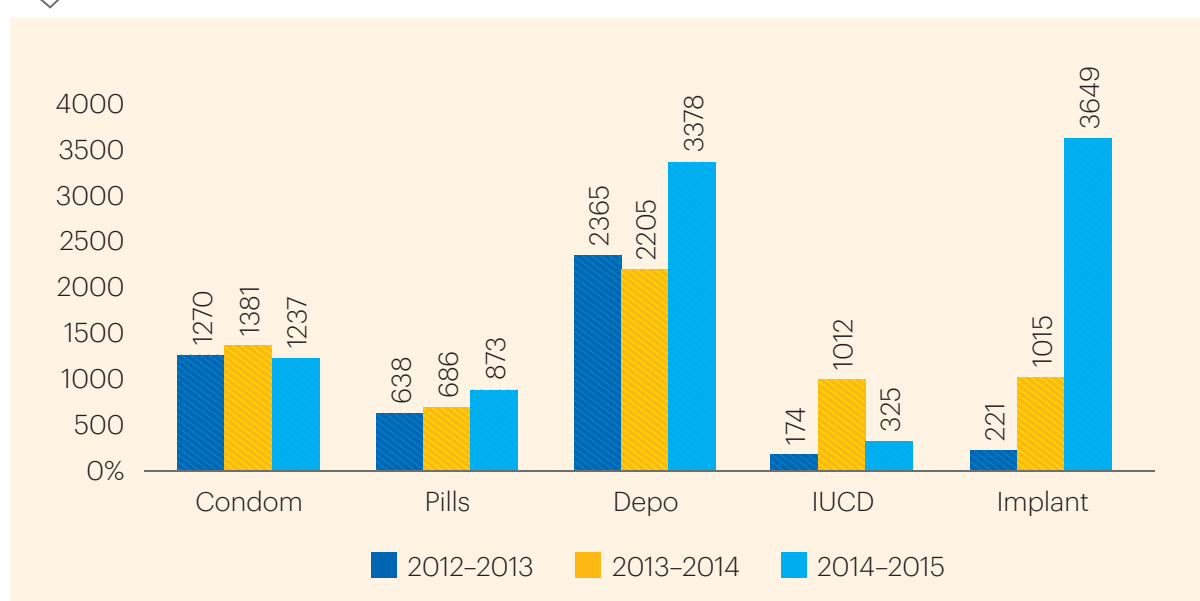




Results of the practice

Following the implementation, an assessment was done in 2016–2017 to analyse the efficiency of planning and implementation of the FP-EPI integration programme. Some of the key results were:

- » Increased opportunities for reaching mothers of children under two years of age for providing FP services through outreach EPI clinics.
- » Mothers who attended FP-EPI integrated clinics were happy to receive two services from one place (34%), and this also saved time (30%) for them.
- » Mothers acknowledged an increase in their knowledge and awareness about FP. They were particularly satisfied because they were able to discuss and decide on the FP method with friends (14%) during the FP group education and their information was kept confidential.
- » In Kalikot, over the first nine months of the pilot, 867 out of 2349 (37%) mothers attending an EPI-FP clinic received FP methods from the FP-EPI clinics, of which 572 (66%) were new users. There was no decline in immunization coverage. The integrated model has been found to be highly cost-effective in terms of DALYs averted, with an estimated 40.9 DALYs averted in one year of the pilot and 468 DALYs averted in 10 years (with 24% new users). Furthermore, cost-effectiveness can be further improved if the clinics are continued, it was observed.
- » The integrated model showed an increased access to FP: the number of FP clients increased, and more were found to utilize FP services from EPI outreach and EPI static clinics compared with static regular EPI clinics without FP sessions.

Fig. 53. Three-year trends in number of new users of FP (Sindhupalchowk-HMIS)



- » Data from FP registers including FP from FP-EPI PHC/ORCs in the study sites, nine months before and after the intervention, showed an increase in the number of FP clients in the four districts where FP-EPI integration was implemented and assessed.
- » The proportion of FP clients using injectable contraceptives and pills from regular static clinics declined while the proportion of FP clients at FP-EPI ORCs and EPI static clinics increased.
- » The family planning method mix was more balanced after the integration: Depo was the most popular FP method before intervention followed by pills, and it was found to increase even further after the intervention.

Fig. 54. Month-wise trends with FP (pills and depo) users through EPI clinics

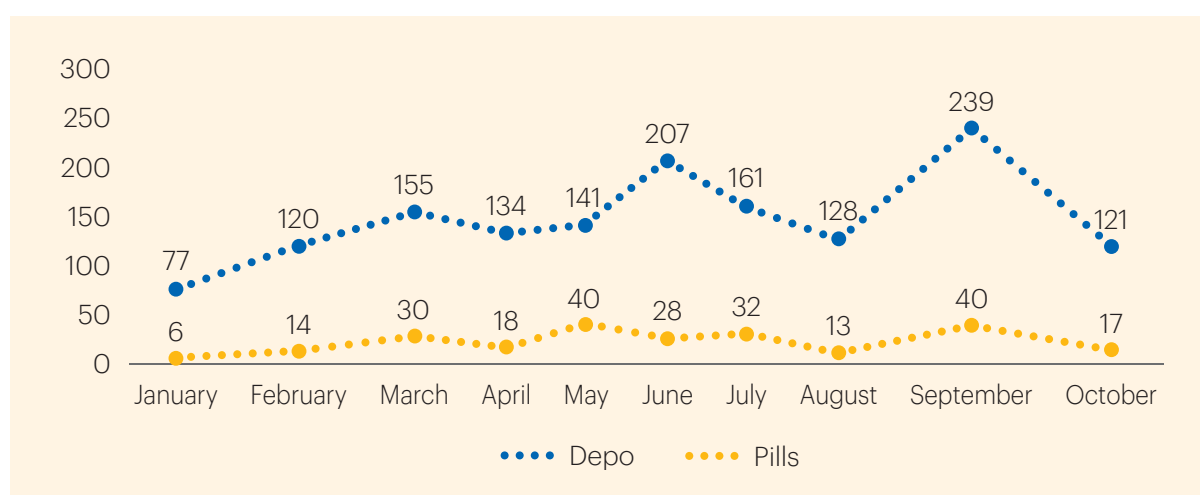
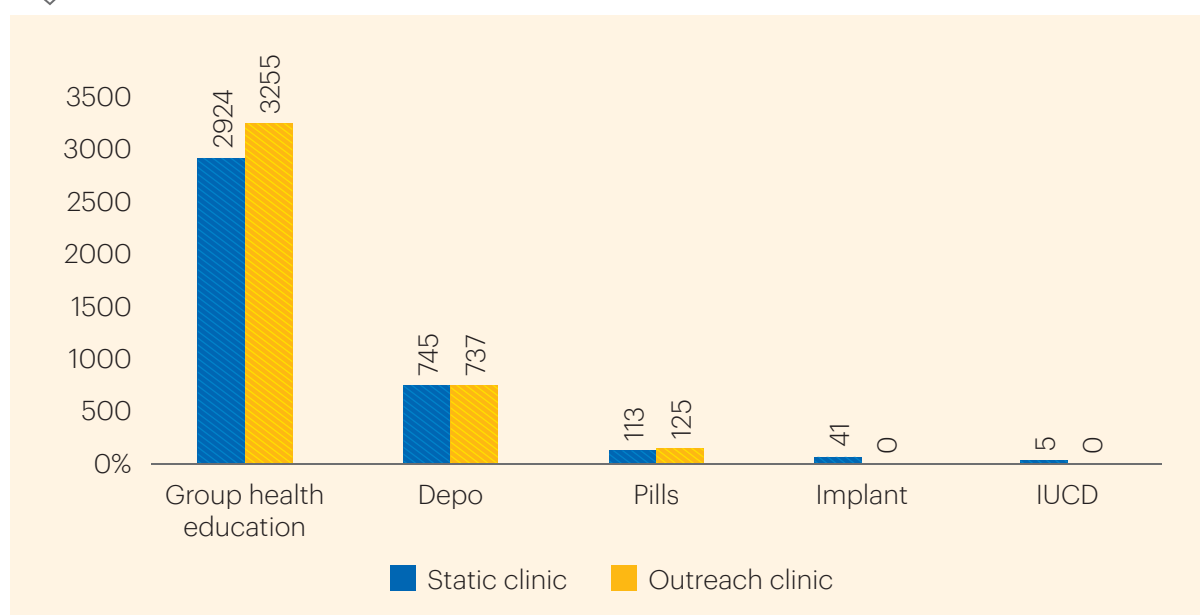


Fig. 55. FP users from static and outreach clinics



- » This model allowed an opportunity for marginalized population groups (27% acceptors) to benefit from FP.
- » Only about 5% mothers were found to accept FP during their first visit, while more mothers were found to accept it during their second visit to the EPI ORC. The non-acceptors were mostly those mothers whose menstruation has not resumed post-delivery and those with absentee husbands.
- » Mothers who were previously not accessing FP services from FP/MCH static clinics were found to be accessing FP/EPI clinics because of their proximity.
- » From the perspective of programme managers, district health officers/district public health officers (DHO/DPHO), EPI and FP focal persons, the FP-EPI integrated model was good for mothers with young children because many mothers did not know or realise that they needed family planning services.

‘Because clients get two services from one place it has become convenient for them. This has helped clients save time. Their knowledge levels have also improved as they get counselling on FP.’

Auxiliary Nurse Midwife (ANM), Sunkonda Health Post, Bajhang

‘At every EPI clinic FP counselling is given. The temporary FP methods that we carry with us are provided to clients who ask for them.’

Auxiliary Health Worker, EPI Focal Person, from Tilahar, Health Post, Parbat

‘Women come to the EPI site to immunize their children. At that time we inform them that family planning services are also available and if a woman is in need of FP we provide the service on the same day while some women get the service later.’ ANM, Sunkonda HP, Bajhang

‘Women can receive EPI services for their children and FP services for themselves from one place. Their knowledge increases with counselling. Health of both the child and the mother improves. Child mortality reduces. Service providers save time and coordination among staff is established.’

Acting DHO, Doti

‘Certainly, the FP-EPI integrated programme has benefits. It is easy to talk about FP when a mother comes to the EPI centre for immunization of her child. When administering vaccination, the vaccinator asks the mother about the number of children she has and can also talk about FP.’

DHO (Medical superintendent), Parbat

Expansion of the integrated services

The value addition of the integration of FP into routine EPI services was assessed periodically and showed encouraging increments in new family planning acceptors.

- » Following the success in Kalikot, the project was expanded to Bajhang, Doti, Parbat, Rukum and Sindhupalchowk districts. Financial support was initially provided by Nepal Health Sector Support Programme/Department for International Development (DFID) in Doti and Parbat, and by UNFPA in Bajhang and Rukum from 2015–2018. In 2018–2019, FWD provided the budget for further expansion to the provinces with the directive that provinces select two districts each as per their need. However, from 2019 onwards, FWD identified two districts per province and allocated the budget to implement the FP-EPI integration programme.

Group health education sessions in progress



Source: MPH, Nepal

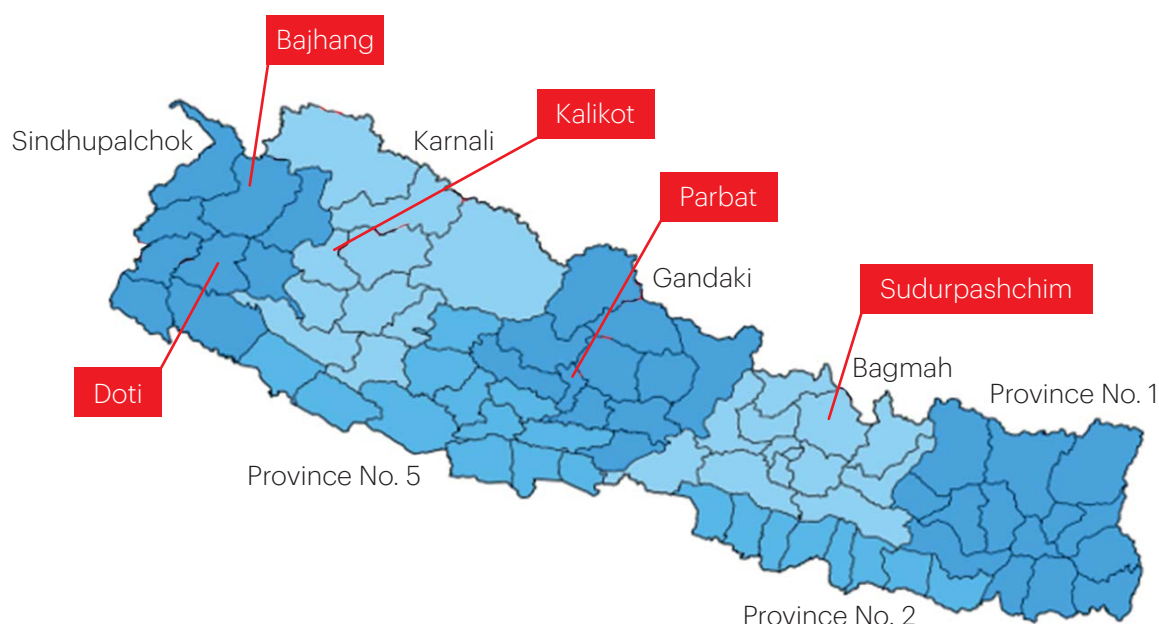
Individual counselling on FP in progress



Source: MPH, Nepal

- » About 25 districts have implemented the FP-EPI integration programme. In Sindhupalchowk, eight service providers were trained on implant services from NHTC approved training sites and health facility in-charges and service providers from 79 health facilities were oriented on integrated EPI-FP services. In addition, three service providers from Sindhupalchowk received coaching on intrauterine contraceptive device services.

Fig. 56. Map highlighting districts implementing FP-EPI project



- » Prior to implementation of the programme, a situation analysis of selected districts was also done. In these districts a two-day orientation was organized by FWD, HMIS, MoHP, NHSSP and the PHD groups for providers. They included EPI and FP service providers, the health facility in-charges, district supervisors, members of the Health Facility Operation and Management Committees (HFOMCs) and female community health volunteers (FCHVs). They were introduced to the integrated model and data systems and data management in health facilities and received basic training on organization and management of service provision. In Sindhupalchowk, selected service providers from static immunization clinics were further trained on providing long-acting reversible contraceptive (LARC) services (implant and IUCD). Some facilities with birthing centres were capacitated to provide LARC services during routine immunization.

Lessons learnt

- » Trained and adequate human resources are the key to successful implementation and service provision through the FP-EPI integrated model.
- » The FP-EPI integration was found to have increased acceptance of FP and even improved the method mix, with increased uptake of IUD, pills and implants, and further increase in uptake of depo.
- » Increased awareness and knowledge of many mothers who did not know that they needed to space births and use FP methods even though their children are of a very young age.
- » Sustained support, monitoring and supportive supervision – including onsite coaching – is required to expand and improve the quality of FP-EPI integrated services.

- » Some sites had a single health worker managing FP-EPI services, immunization and growth monitoring. This led to poor and untimely recording and reporting. Annual contracting of health workers was not sufficient to ensure regular service delivery and may require multi-year contracting of additional staff such as vaccinators.
- » FP-EPI pilot had good protocol, IEC materials and steps, but some service providers were not following it correctly. This could be attributed to lack of supportive supervision and monitoring.
- » Although all service providers were trained on group health education and FP counselling, many were found not to practise it in their workplaces. Regular supportive supervision and motivation of health workers may be needed to encourage them.
- » In case of injectable contraceptives, the schedule of the EPI session and the repeat dose did not quite match. Therefore, regular PHC/ORC clinics are needed to ensure that women can use Depo injection on time.

Key challenges for providing integrated services

- » Most of the facilities lack a separate space to conduct FP group counselling for mothers. Services such as OPD, EPI and FP counselling require separate rooms.
- » Stock-out of commodities sometimes restricts the provision of FP methods of choice to the clients. Permanent FP services were provided only on “seasonal” basis, which meant that mothers had to wait for these service/s.
- » Mothers do not make vaccination visits at the same time every time. Hence it is difficult to provide group health education. Some mothers can also be uncomfortable and hesitant about attending group counselling. The importance and advantages of FP-EPI need to be clearly and adequately communicated to mothers.
- » A higher proportion of male health workers in EPI clinics could be one of the barriers for mothers seeking timely FP services.
- » There are gaps in FP record-keeping due to lack of time or of understanding on the part of the service providers. Adequate human resources and separate recording registers are needed.

Conclusion

FP-EPI integration has been expanded to 25 districts as of now. The FP-EPI integration is a high-impact model which has yielded results in the districts where implemented. An increase in acceptance of FP methods and better balance of the FP method mix has been observed after FP-EPI integration and this could better address the unmet needs of mothers in the postpartum period.

However, system strengthening along with capacity-building of service providers, infrastructure, and adequate supply of FP methods and counselling materials are needed. Documentation of services provided needs to be improved or modified, and regular monitoring and supervision and a strong referral system must be in place.

In less developed and developing countries, FP-EPI integration could be a good start to increase acceptance of FP methods and address the unmet needs of mothers when they go to immunize their children. Well-trained adequate human resources, adequate stocks and regular supply of commodities along with sustained support and ownership by the Government are absolutely essential for the programme to be successful.

Further reading

1. Population, Health and Development (PHD) Group. Asar 20, 2074. Assessment of the Integration of Family Planning & Expanded Programme of Immunization (EPI) in Selected Districts of Nepal 2017.
2. Ministry of Health, Nepal; New ERA; and ICF. 2017. Nepal Demographic and Health Survey 2016: Key Indicators. Kathmandu, Nepal: Ministry of Health, Nepal.
3. Integration of Expanded Programme on Immunization and family planning clinics: Value for money study. Kalikot Operational Research Pilot 2012–2013. NHSSP. Kathmandu.
4. Ministry of Health and Population, GoN. Nepal Family Planning Project, Activity Completion Report FP PD10, 2015.

SRI LANKA

Evolution and expansion of the Reproductive Health Management Information System

Introduction

The Family Health Bureau (FHB) of the Ministry of Health, Nutrition and Indigenous Medicine of Sri Lanka takes pride in systematically collecting information on the Reproductive, Maternal, Newborn, Child, Adolescent and Youth Health (RMNCAYH) Programme, which evolved over many decades. The process was initiated with the collection of family planning (FP) new acceptors data in the late 1970s. The first publication of FP data in Sri Lanka was in 1982.

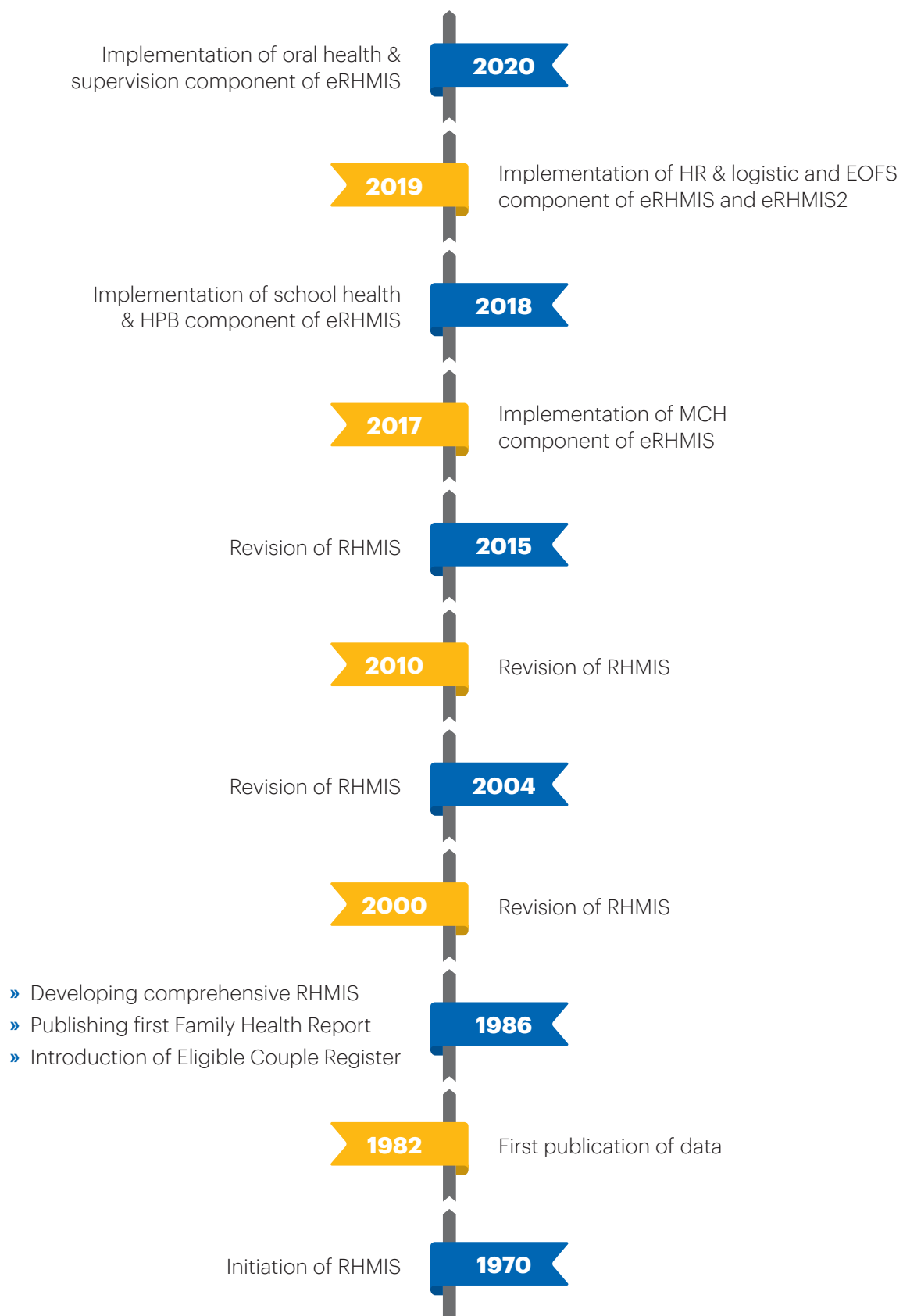
This system was later developed into a comprehensive Reproductive Health Management Information System (RH-MIS). A revised information system encompassing all maternal and child health (MCH) issues including family planning was introduced in 1986, and the first Family Health Report was published in the same year.

The same year, the FHB developed the Eligible Family Register⁷³ and this was introduced to the public health midwives (PHM), the grassroots health-care workers (Annexure 1) to register all eligible couples. This is considered the foundation of the MCH information system in Sri Lanka.¹ The School Health Programme was also incorporated into the Maternal and Child Health Programme and the collation of information from all schools began. A comprehensive guide on collecting and recording data was introduced for PHMs in 1986, and was revised in 2000, 2004 and 2010. The latest revision was in 2015 with the introduction of the Reproductive Health Management Information System (RH-MIS) [Fig. 57].

In the late 1980s, with the implementation of the 13th Amendment to the Sri Lankan Constitution, health became a devolved subject and the provinces were responsible for the implementation of all health services. Provincial health ministries made operational plans for their health needs to be based on and made available resources in line with national policies and strategies.

⁷³ The Eligible Family Register (EFR) is maintained by the PHM for all families with a female member of the 15–49-year age-group who are married (legally, by customary, or living together) or all families having a child under 5 years of age. Each family is given a unique number and all further records such as antenatal records, family planning records, etc. will carry the same number.

Fig. 57. Milestones in the evolution of RHMIS over the years



In the Sri Lankan health-care system, there are two parallel management structures overseeing the curative sector and the preventive sectors. Curative care is basically a patient-care service extending from small outpatient facilities to tertiary and specialized hospitals. The preventive sector consists of the Medical Officer of Health (MOH) units, introduced in 1926, which now had evolved into a network of 354 MOH areas across the country.

MOH offices deliver a plethora of services that include antenatal and postnatal care, immunization, child development and growth monitoring, school and adolescent health services, and women's health, including the prevention of gender-based violence. The MOH supervise the work of frontline health-care workers, PHMs and Public Health Inspectors (PHIs). Each MOH area is divided into 25–40 PHM areas, each serving a population of around 3000–5000, while each PHI serves around 10 000 people.

The MOH conducts field clinics catering to 2–3 PHM areas. A clinic attendance register is maintained at each field clinic and a PHM reports data from clinics in monthly dispatches to the MoH. In addition, PHMs must fill out daily and monthly reports on routine domiciliary RMNCAYH care activities provided to all eligible families and individuals. PHIs are responsible for executing school health, food safety and environmental and occupational health services and activities for the control of communicable diseases.

All the forms, registers and returns of PHMs and PHIs and the field clinic returns generated at the grassroots level are summarized at the local level and shared subsequently with the district and national authorities.

Dedicated supervisory staff in the MOH office and higher levels use these records and returns for performance evaluation of PHMs and MOHs as well as for programme monitoring and evaluation at various levels. The MOH evaluate the performance of grassroots-level health-care workers and monitor the key performance indicators monthly, quarterly and annually using the routine information collected in RHMIS.

This structure warrants a comprehensive integrated information system that will enable a complete understanding of internal dynamics within and between PHM/PHI and MOH areas and the interplay among various health interventions, thus assisting in informed decision-making at various levels.

It was observed that this information system captures a large volume of data at the grassroots level, but is inadequately utilized in the formulation of policies, preparation of plans, and in decision-making, especially at the divisional and district levels. Difficulties in information retrieval, processing and presentation using paper-based records and registries, and the lack of an “information culture” has also contributed to the said underutilization of existing data for action.

Implementation of the practice

WHO describes eHealth as “the transfer of health resources and health care by electronic means”, which encompasses e-applications relating to care during delivery, public health, medical education and research. While understanding the potential benefits of adopting

eHealth, in line with national policies and governance frameworks of digital health and information technology, FHB resolved to digitalize RH-MIS in 2017 to cover all 6765 PHM areas and 4292 field health clinics in 354 MOH areas in the country. This system was officially named as the electronic Reproductive Health Management Information System (eRH-MIS). This entire process of digitization was planned in three phases:

Phase 1: Transformation of the maternal and child health component.

Phase 2: Transformation of the school health component.

Phase 3: Individual data-capturing of pregnant mothers and children under five years of age.

FHB decided to use a free and open-source health information management platform (DHIS 2) for the digitization of RH-MIS. The newly developing web system was branded as the eRH-MIS: electronic Reproductive Health Management Information System. The entire process was conceptualized, designed, developed and piloted, and scaled up by FHB using its own human resources and technical knowhow with support from the Government of Sri Lanka.

With the devolution of the health administration, local-level decision-making has become a necessity. At the same time, accurate and real-time data were required for prompt decision-making in improving the quality of health services amidst the ever-increasing client demands. In this backdrop, a specially trained medical informatics cadre (of IT trained personnel with medical background) was introduced and domestic resources for IT infrastructure development increased by the government as well as developmental partners. This has created a positive atmosphere for the development and upgrading of e-health information systems in the health sector.

The first step in the development of eRH-MIS was a review and revision of the existing paper-based system. Data flow in the paper-based system was carefully studied, and necessary remodelling was done to improve efficiency by eliminating all intermediate-level data aggregations. Data elements that were duplicated were removed while some were further simplified by segregating the collection of data at different time intervals. Some data elements were added as per growing programme needs.

Phase 1 of eRH-MIS – the MCH component – was implemented in 2017 nationwide within a period of four months. Five staff members from each of the MOH offices were given hands-on training through regional-level training programmes in all 26 health districts (see photo below).

Phase 2 of the eRH-MIS was introduced in 2018 to include school health programme data and a similar extensive hands-on training was provided again to public health staff members. With system implementation of Phase 1 and 2, immediate discontinuation of paper-based forms was undertaken. By the end of 2018, complete data from all PHM areas and field clinics and schools were entered into the electronic system.

District-level trainings in progress



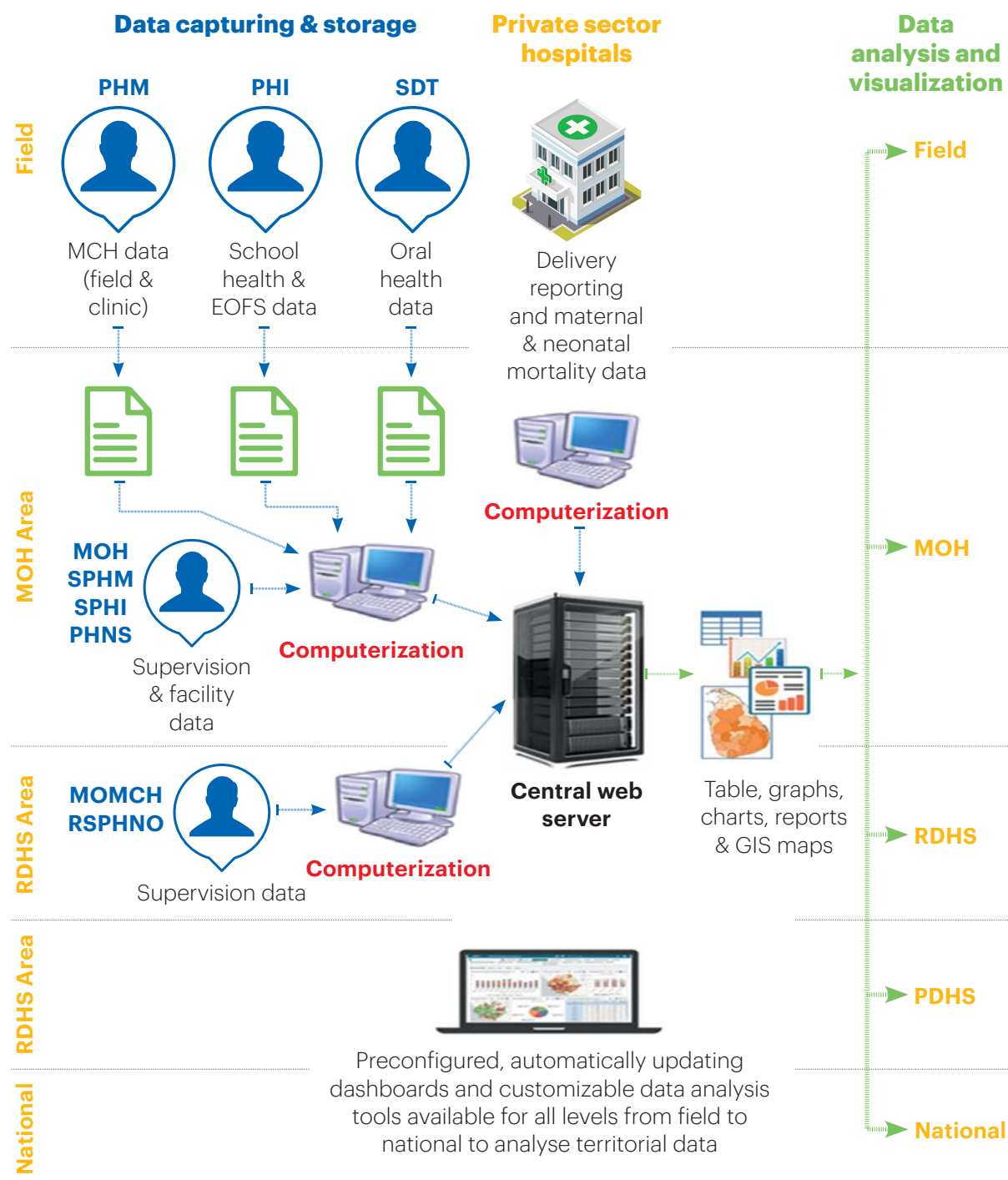
Source: MoH Sri Lanka

Currently, eRHIS has evolved into a complex system of databases and service monitoring tools (Fig. 58). At the central level, there are multiple institutions/vertical programmes responsible for monitoring and evaluation of various public health activities. Even though vertical public health programmes exist at the national level, field-level implementation of all these programmes are combined and vested with the same MOH team.

Public health programmes and management units have been established at different points in time based on the evolving national health needs and these operate vertically under designated directorates with a certain degree of autonomy. Many of the information systems of such public health programmes have also been developed independently. This invariably has created a considerable deterrent to information sharing and led to an additional burden on field staff with duplication of data collection, data entry and reporting to numerous data platforms with minimal interoperability. MOH staff had to spend a significant amount of time on understanding different data formats in the data entry, reporting and monitoring and evaluation (M&E) activities.

The National Policy on Health Information of the Ministry of Health, Nutrition and Indigenous Medicine, introduced in 2017, reiterates the importance of ensuring optimal data/information sharing and access to health information in relation to all data that can be shared in health information systems, while at the same time abiding with ethical standards and confidentiality issues.

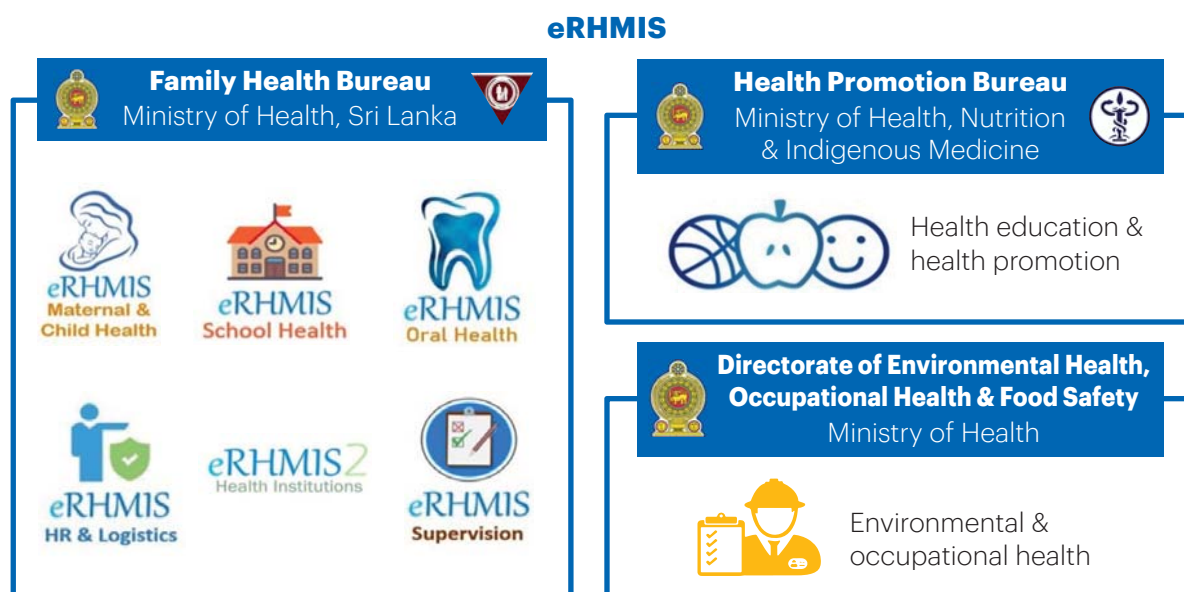
Fig. 58. Illustration of data capturing, visualization and utilization of eRH-MIS



Considering the above, the FHB has started facilitating access to e-RH-MIS for other public health programmes including of the Health Promotion Bureau and the Directorate of Environmental Health, and related to occupational health and food safety, enabling them to obtain grassroots-level information (Fig. 59).

With the objective of promoting information use for decision-making among the top and middle-level programme managers, dashboards were later introduced to the eRH-MIS. These dashboards consisted of indicators that are needed at the regional, district and national level to monitor the programmes effectively.

Fig. 59. Illustration of various components of eRH-MIS



Results of the practice – outputs and outcomes

eRH-MIS has evolved steadily with time, expanding its scope and capacity along with generating a greater level of acceptance by the health staff. Acceptability of the system improved with the ability to analyse their own data in a shorter time, as well as the capacity to visualize data as per local needs, increased user-friendliness with eRH-MIS and reduction in paperwork. During the training, users were trained to visualize their own data by creating graphs, tables and GIS maps. In addition, dashboards were created and shared with the MOH teams to monitor the performances of each PHM and PHI regularly at their monthly conferences. MOH staff are expected to analyse their data quarterly and present these at district MCH reviews, and their performance indicators at national MCH reviews, annually.

To assess the viability of the system, a study was conducted in 2018 among the users of the eRH-MIS system, which revealed that 52% claimed the system to be excellent, 6% considered eRH-MIS the best system that they could imagine, and 37% indicated that it was good.

In addition, at the Central level, rapid utilization of data for programme planning and impact assessment was evident with the introduction of e-RHMIS. Each component of eRH-MIS was designed, developed and implemented separately providing a platform for all different programme units to establish their own programme databases.

Given the overall acceptability, it could be inferred that the system enhanced the timely availability of quality data for efficient and informed decision-making at regional, district, provincial and national levels.

Lessons learnt

The evolution of the eRH-MIS process denotes a major leap from a labour-intensive, paper-based system to an electronic version that produces more elaborate, reliable and timely data that can be used to improve the MCH programme.

The success of the eRH-MIS project was due to the already available and well-established paper-based RH-MIS, committed field health staff, strong inbuilt supervisory mechanisms and visionary programme managers at all levels.

Challenges

Several challenges were encountered during the implementation of eRH-MIS. The most significant of these were inadequate IT literacy and rapid turnover of the staff. To meet these challenges, standard operating procedures were introduced with specific, simple and quick guides. Regular and repeated training programmes are being conducted and FHB is planning to introduce eRH-MIS data entry and analysis training through a distance learning platform. Interoperability with newer databases needs to be worked out based on a clear understanding of software usage by others to ensure the benefits to all the health programmes.

Future expansion of the programme will depend on the availability of resources, necessary hardware and Internet facilities for individual staff members and institutions. Continuous capacity-building of health staff, and availability of a dedicated team of experts to ensure proper maintenance and timely upgrades, are needed to improve efficiencies and sustenance.

Conclusion

Sri Lanka is privileged to have had a well-structured preventive health-care delivery system for decades. The preventive health-care service delivery is carried out using the health unit system introduced in 1926, as well as the Medical Officer of Health with well-defined division of labour among the PHMs, PHIs PHNSs and MOHs. The legal framework has also mandated the MOH staff to keep records of services and other activities they undertake as per statutory obligations.

The eRH-MIS has been helpful for the programme managers at all levels to visualize their data and analyse individualized needs. It facilitates researchers to use the available data, and planners for their resource mobilization and M&E purposes. The transformation of data visualization for decision-making — progressing from simple graphs to complex analyses — had also raised the interest levels of the key administrators and policy-makers and helped them appreciate and sustain the eRH-MIS.

Further reading

<http://www.rgd.gov.lk/web/index.php/en/about-us/history.html>

1. Annual Report of Family Health 1986, FHB
2. The National Policy on Health Information, Ministry of Health, Nutrition and Indigenous Medicine: http://www.health.gov.lk/moh_final/english/public/elfinder/files/publications/publishpolicy/NationalPolicyonHealthInformation.pdf
3. GGAK Kulatunga, PEKB Ranatunga, JJ Hariyaram, K Kasturiaratchi, System Usability Scale (SUS) on local language: A Sri Lankan case study, Sri Lanka Journal of Bio Medical Information, DOI: <http://doi.org/10.4038/sljbm.v10i3.8065>

The WHO South-East Asia Region has made a commendable progress in reducing maternal, neonatal and under-five mortality. This progress has been variable among the countries of the Region, with some countries already achieving selected SDG targets while others being in need of accelerating mortality reduction in order to reach the target by 2030.

It has been observed that Member States of the Region have diverse strengths and capacities, and have achieved progress in specific areas of reproductive, maternal, neonatal, child and adolescent health programmes by adopting effective and innovative approaches. The WHO Regional Office has collated a set of country experiences related to the RMNCAH programmes and services that have contributed to the improved access and coverage of essential health services.

This publication includes such 'success stories' from countries to disseminate what has worked well across the RMNCAH life-course. This could maximize the impact of translation of experiential knowledge from one country to another, and lead to further progress under the Regional Flagship on accelerating reduction in maternal, newborn and child mortality as well as in meeting the 'Thrive and Transform' objectives of the Global Strategy on Women's, Children's and Adolescents' health.