Factsheet
FY 2078/2079
(July 2021–June 2022

Maternal and Perinatal Death Surveillance and Response (MPDSR)

Globally, about 3,00,000 women die every year due to maternal cause and 99% of such maternal deaths occur in less developed countries. In Nepal, the Post Census Maternal Mortality Study conducted in 2021 has calculated the MMR to be 151 per 100,000 live births while the Neonatal Mortality Rate has been stagnant at 21 per 1000 live births (NDHS 2022).

What is MPDSR?

Maternal and Perinatal Death Surveillance and Response (MPDSR) is a routine monitoring process that integrates the Health Information Systems and quality improvement processes from the local level to the national level.

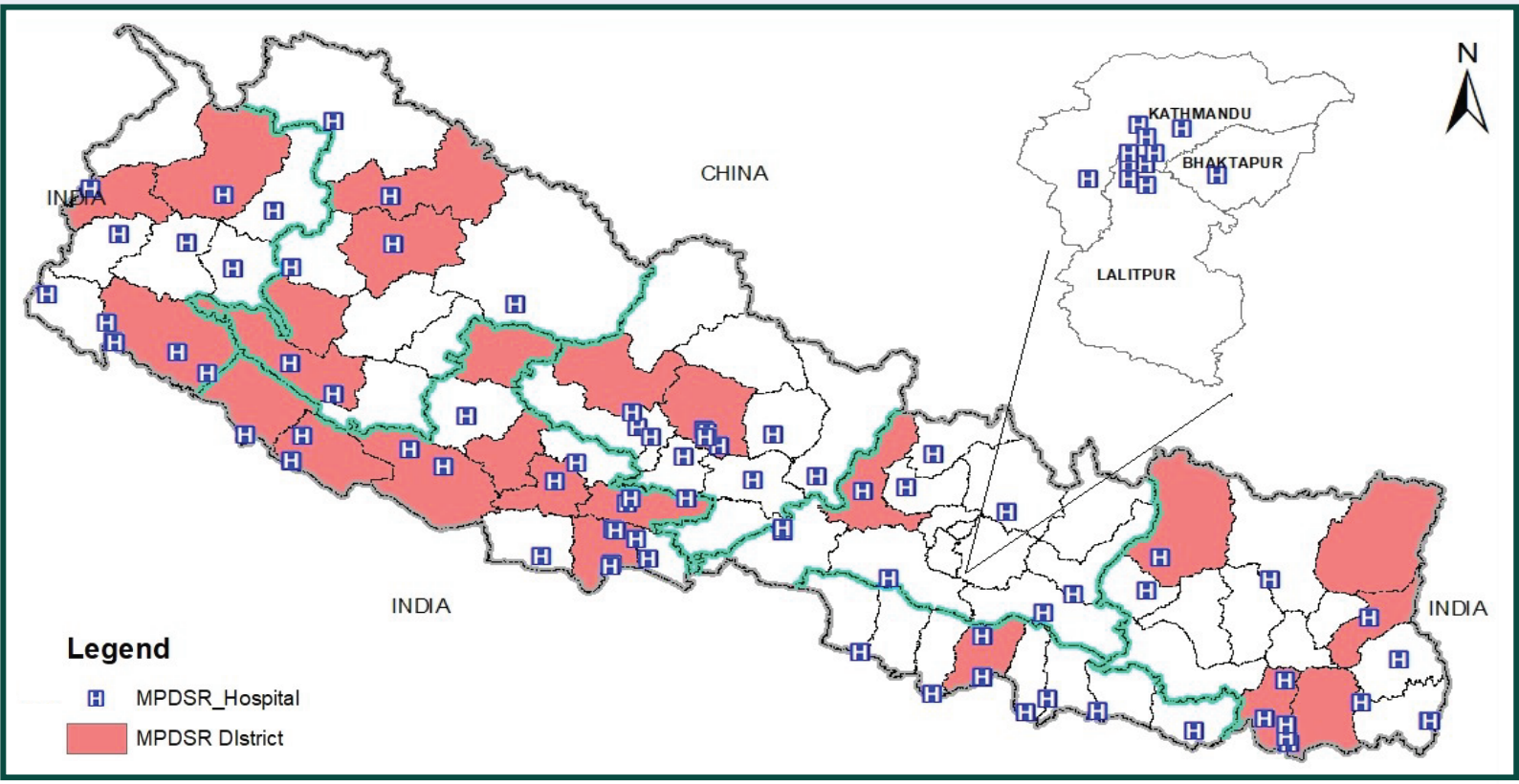
Reducing every maternal and perinatal death that can be prevented is the main goal of MPDSR.

Implementation Status

- The hospitals report both maternal and perinatal deaths, while the local levels report only maternal deaths.
- WHO has been providing technical as well as financial support in implementing and strengthening the MPDSR program.
- MPDSR has been implemented in 94 hospitals and 24 districts.

Components of MPDSR

MAP: MPDSR Implementing Hospitals and Districts as of 2078/79



World Health Organization
Nepal

Government of Nepal
Ministry of Health and Population
Department of Health Services
Family Welfare Division

Maternal Deaths

Figure 1: The figure shows the MPDSR implementing hospitals and the hospitals that reported maternal deaths in each province. Majority of hospitals from Karnali province reported maternal deaths including zero reporting.

Figure 2: The figure shows the MPDSR implementing districts and the districts that reported maternal deaths in each province. Maternal death was reported from all the MPDSR implementing districts from Madhesh and Sudurpaschim provinces.

Figure 3: Majority of maternal deaths have been reported from Lumbini province (31%).

Figure 1. Hospital MPDSR Implementing facilities and reporting status by Province (N=94)

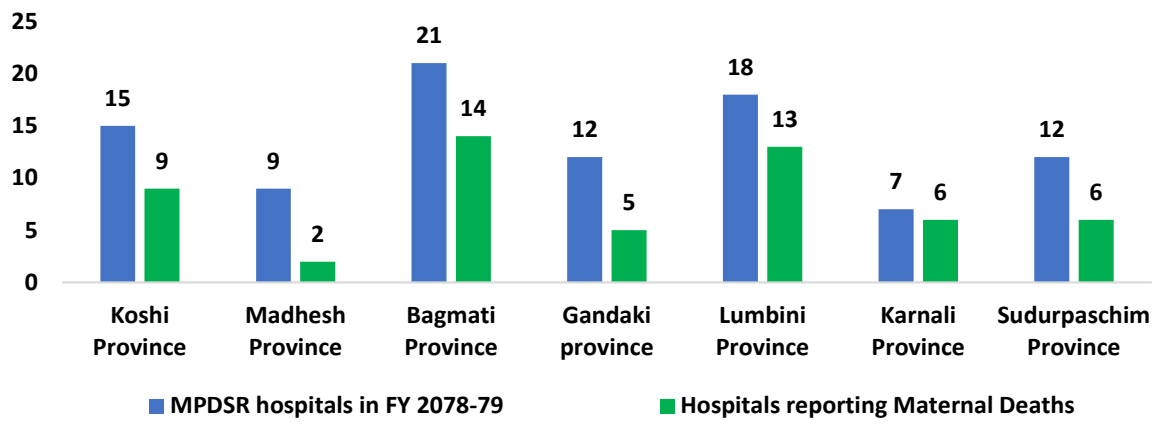


Figure 2. Community MPDSR Implementing Districts and reporting status by Province (N=24)

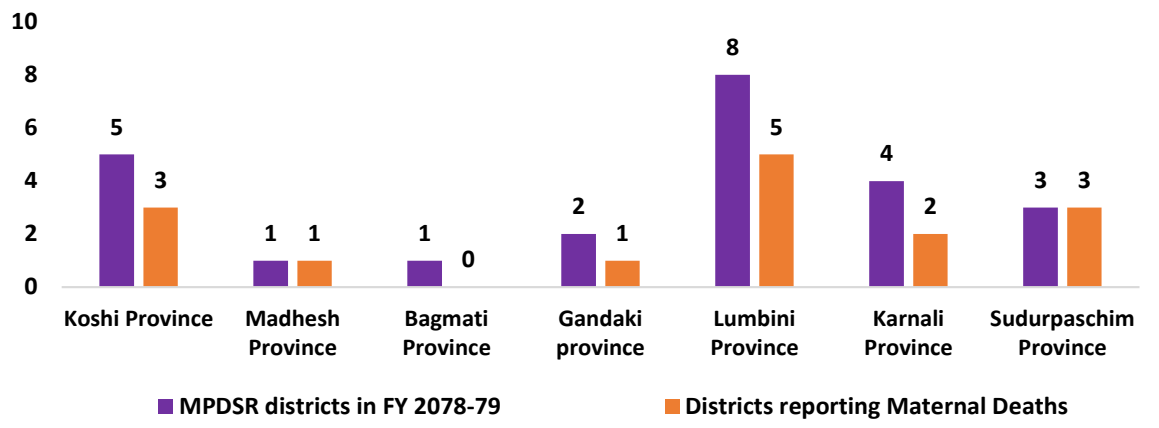


Figure 3. Distribution of Maternal Deaths by Province (N=178)

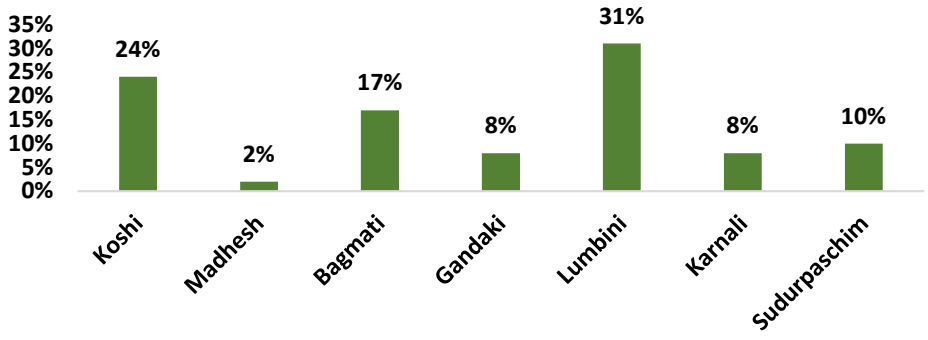


Figure 4: More than half of women had died in medical colleges followed by Government CEONC hospitals (33%) and six percent each had died on the way and at home.

Figure 5: Majority of deaths have occurred in the postpartum period (61%) upto 42 days after delivery / termination of pregnancy followed by antepartum period (34%).

Figure 4. Distribution of maternal deaths by place of death (N=178)

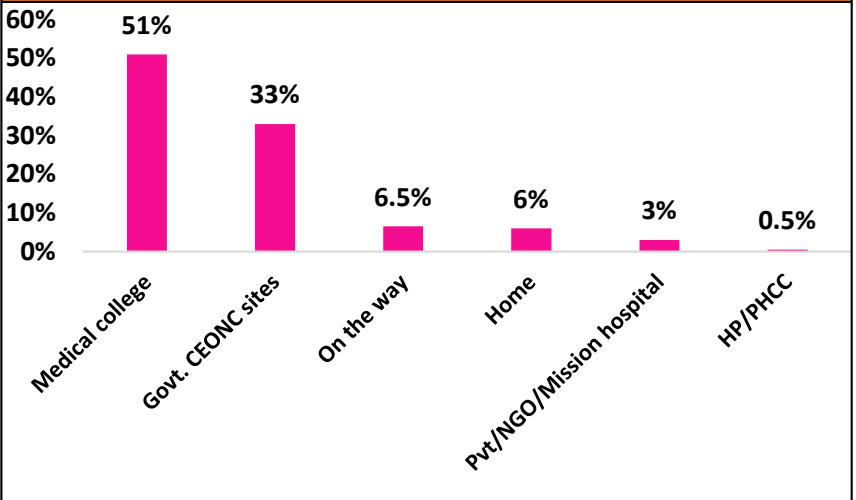


Figure 5. Distribution of maternal deaths by period of death (N=178)

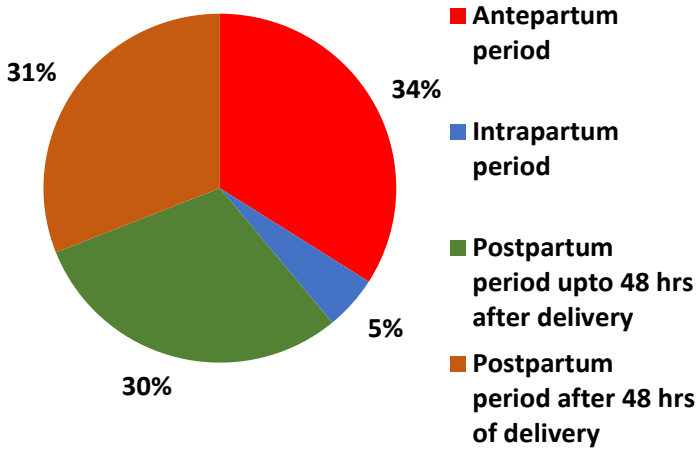


Figure 6. Distribution of maternal deaths by cause of death (N=178)

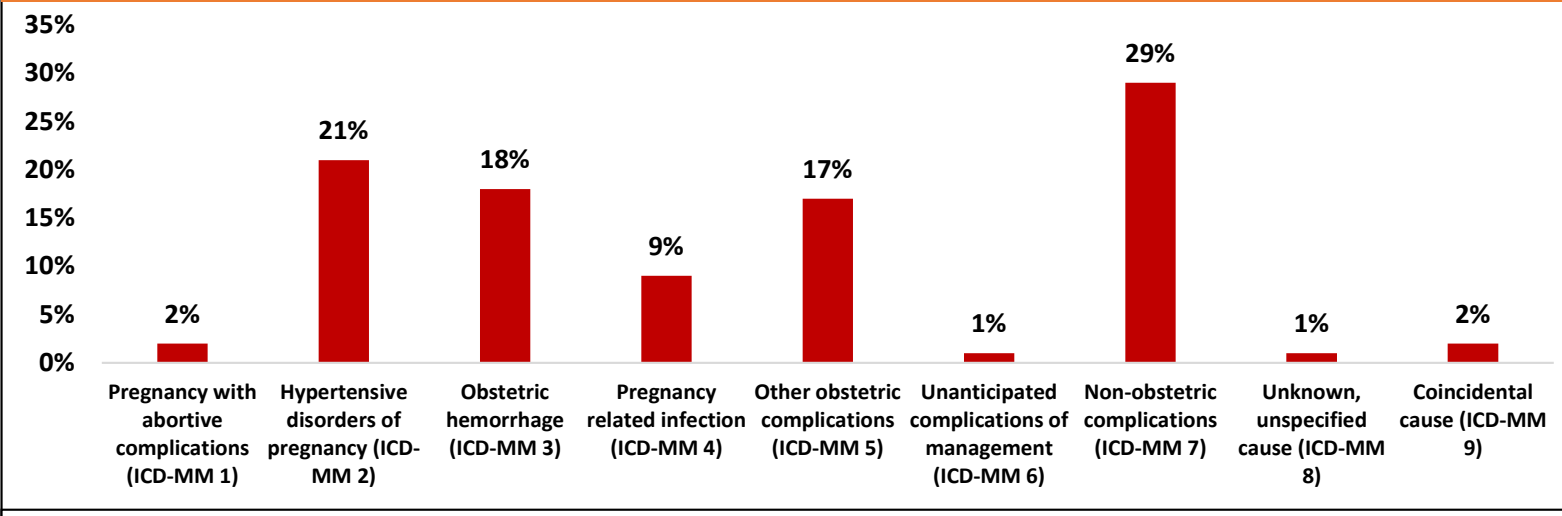


Figure 6: The leading cause of death was non-obstetric complications. Among the obstetrics complications, hypertensive disorders (21%) was the leading cause followed by Obstetric hemorrhage (18%) and other obstetric complications (17%).

Perinatal Deaths

Figure 7. Perinatal Death Reporting Status by Province (N=1646)

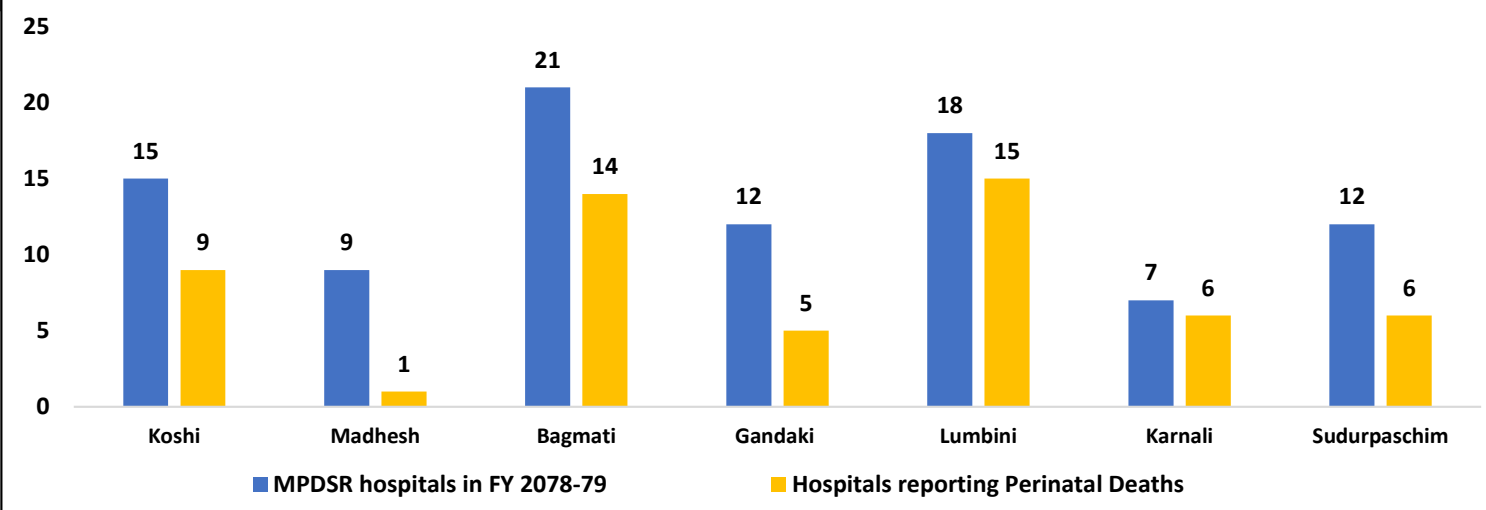


Figure 8. Proportion of delivery outcome (N=87365)

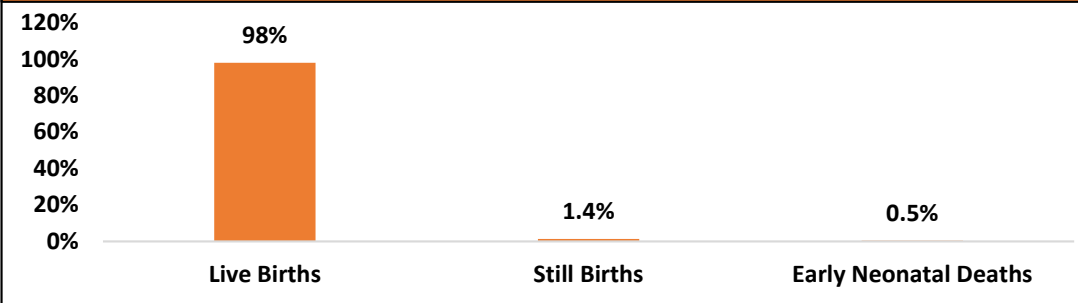


Figure 9. Perinatal Death Distribution (N=1646)

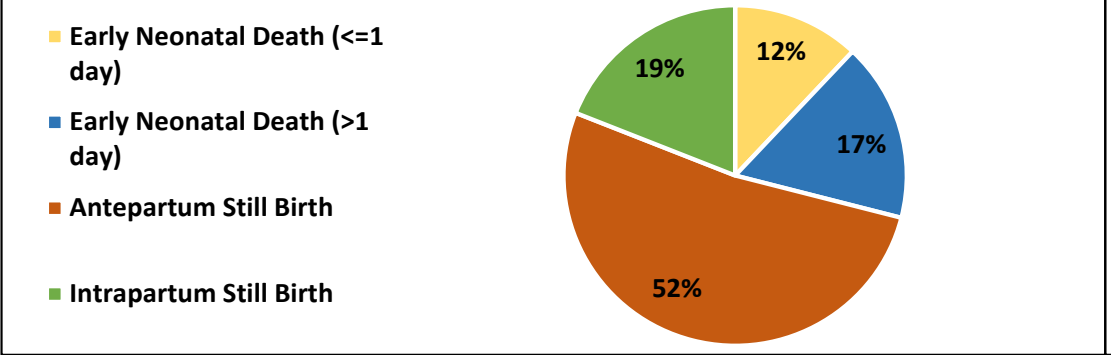


Figure 7: Out of 94 MPDSR implementing Hospitals, 56 hospitals reported perinatal deaths. More than 80% of hospitals from Lumbini and Karnali provinces reported perinatal deaths including ZERO reporting in the specified period.

Figure 8: Out of 87,365 total deliveries, 98% were live births, while 1.4% and 0.5% were Stillbirths and Early Neonatal Deaths respectively.

Figure 9: More than half of perinatal deaths reported had occurred in the Antepartum period (Macerated stillbirths).

Figure 10. Final cause of Perinatal Death (N=1646)

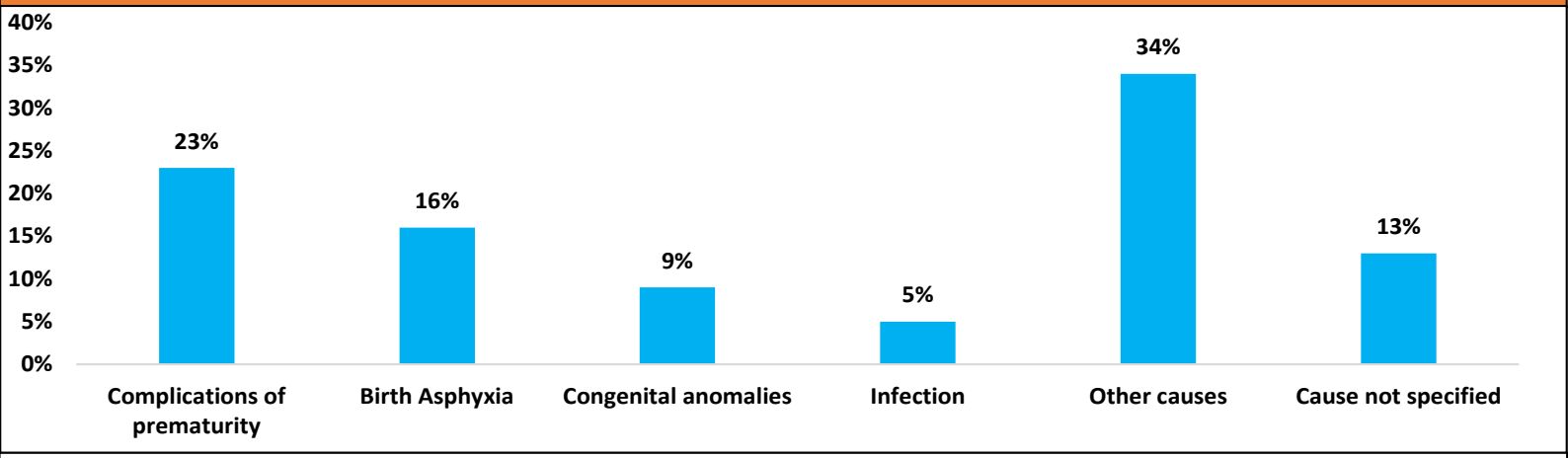


Figure 10: Complications related to prematurity were the main cause of death.

Actions taken in response to maternal and perinatal deaths review

Central level:

1. Strengthening of MPDSR in hospitals and districts through refresher orientations and onsite coaching
2. Expansion of MPDSR in hospitals and districts
3. Plan to update and develop PPH and Pre-eclampsia / eclampsia package

Hospital Maternal Deaths

Capacity building / Strengthening:

- MPDSR Orientation to resident doctors and nurses of different departments
- MICU with ventilator within Obstetrics and Gynaecology department
- Activation of infection prevention team with focus on handwashing and sanitization
- Increase in number of staff for ANC services
- Emphasis on counseling for mother during ANC visits
- To conduct regular CME on MNH for knowledge update

Management of duty roster:

- 24 hrs on floor duty for faculty doctors and additional nursing staff in labor room
- Mandatory 24 hrs duty for Obstetricians and Gynaecologists
- Mandatory 24 hrs duty for Medical Officers in maternity wards
- Induction of labour planned in the mornings for better monitoring

Infrastructure/equipment/medicines:

- Strengthen referral mechanism: circulate phone numbers of referral hospitals in all health facilities in the district/province
- Hospital Management to ensure availability of emergency medicines and necessary equipment

Change in Protocol:

- Revision of history sheets and other documents
- Mandatory ECG in all cases with high blood pressure and those requiring caesarean section

Referral:

- Mandatory to confirm bed/doctor availability in CEONC hospitals before referral
- Presence of a healthcare worker during referral- as far as possible

Hospital Perinatal Deaths:

Capacity building / Strengthening:

- All interns, junior residents and nurses trained in neonatal resuscitation
- Mandatory 24 hrs duty for Medical Officers in NICU
- Pediatricians to attend all deliveries

Infrastructure/equipment/medicines:

- Increased number of delivery tables, patient beds for neonatal care
- Plan to establish/upgrade infrastructure for birthing unit/SNCU in referral hospital

Change in Protocol:

- Improved infection prevention- high washing the wards, autoclaving linen for neonates
- NICU refurbished to prevent neonatal sepsis
- Regular fumigation of NICU/birthing unit/labor room
- Revision of history sheets and other documents to capture more relevant information

Local level:

- Free calcium to pregnant women in some local levels
- Established funds for MNH health services in some local levels
- Depending on economic condition, one side travel to CEONC site free of cost during referral
- Free ambulance for maternity cases in some local levels
- Initiated “Upa-mayor Koseli Karyakram”- hygiene kit/ nutrition package/ package for newborns and mothers
- Recruitment of Obstetrician and Gynaecologist at local level facility
- Initiated specialized mobile clinic every month
- Plan for establishment of birthing centre at wards with maximum maternal deaths
- To initiate “Khushaal pariwaar” program for high-risk group in some local levels: from conception till vaccination of children