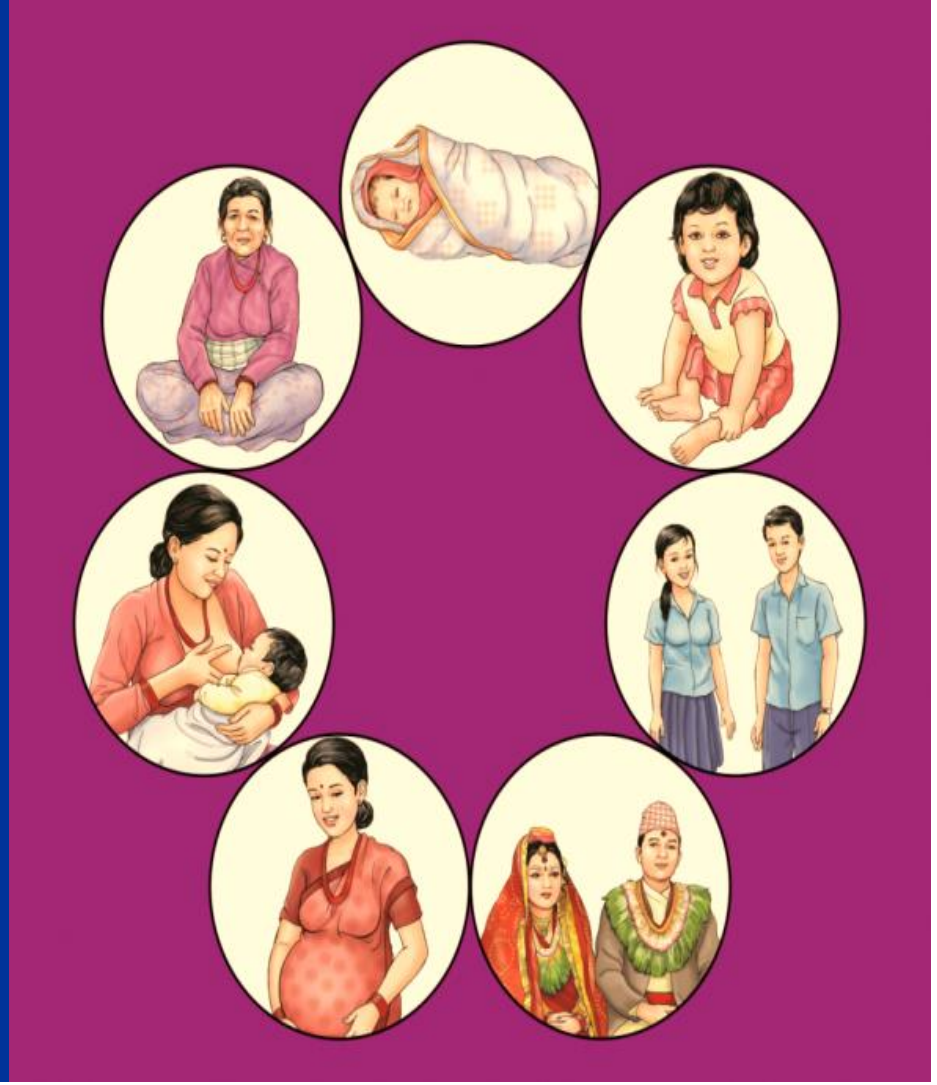
Maternal and Perinatal Death Surveillance and Response [MPDSR]

- Identifying Action Plans -



नेपाल सरकार
स्वास्थ्य मन्त्रालय
स्वास्थ्य सेवा विभाग
परिवार स्वास्थ्य महाशाखा

Objectives

By the end of session, the participants will be able to

- describe evidence based actions and prioritization based on the information from the filled MDR and PDR forms for improving quality of care,
- formulate action plans based on filled MDR and PDR forms and
- describe how the action plan will be implemented.

MPDSR: A Continuous Process of Learning

Information

Maternal death – who, where, how, when

Cause of Death (MDR + VA)

Avoidable factors (HF + Community)

Notification

MPDR at HF

Surveillance

Screening

Verbal Autopsy

Accountability

Actions – Policy, strategies, protocols, guidelines, programme, activities, management/administration etc.

Review

Action Plan

Response

Learning Learning Learning Learning Learning Learning Learning Learning

Response Mechanism

- Taking action to reduce avoidable maternal deaths is the reason for conducting MPDSR

  - Different people will raise different perspectives towards response
  - There is no definite right answer while selecting actions
  - Need to prioritize the actions which are simple, practical/doable, evidence based and cost effective
  - Link the response with quality

Response Actions

- Response should be culturally appropriate and should be able to address the problems
- The confidentiality of the deceased and their care providers should be maintained.
- Type of action will depend on the level at which decisions are made, findings of review and involvement of stakeholders.

Points to Consider While Selecting Responses

- Start with avoidable factors identified during review process
- Use evidence-based approaches
- Prioritize
- Estimate a timeline
- Decide how to monitor progress, effectiveness and impact
- Integrate recommendations within annual health plans and health-system packages
- Monitor to ensure that recommendations are being implemented

What are Evidence Based Actions

- Actions for which there is enough evidence that maternal mortality and morbidity will be prevented if they are followed
  - ✓ Usually refer to clinical actions, based on trials, researches & standard guideline
  - ✓ Individual cases should be assessed to see if "best practices" were carried out or not
  - ✓ If not, appropriate action should be taken to ensure these are implemented to prevent further deaths

Evidence Based Actions for Eclampsia

- Diagnosis and treatment of high blood pressure
- Magnesium Sulphate
- Timely delivery

Evidence Based Actions for Haemorrhage

- Active management for 3rd stage labour
- Misoprostol
- Blood transfusion (depend on environment)

Evidence Based Actions for Sepsis

- Clean delivery
- Antibiotics to mother for prolonged (> 18 hours) rupture of membrane
- Antibiotics for C/S
- Avoid prolonged labour

Evidenced Based Actions for Obstructed Labour

- Facility delivery after 12 hours of labour
- Use of Partograph
- Availability of C/S

Community-based actions

- Changing health seeking behavior
- Addressing transportation
- Reducing cost of accessing care
- Raise awareness on safe motherhood programs
- Mobilize "AAMA Samuha" to raise awareness and implement preventive programs

Community-based actions

- Health education to women, men, families, communities on SRH, self-care, family planning, consequences of unsafe abortion and violence, birth preparedness
- Social support during childbirth
- Identification and prompt referral
- Support for care for rest of the family

The actions are likely to be successful if they are innovative and come from community participation

Case Scenario

- A 21-year old had her 3rd baby at home. Her first baby died after a difficult delivery. Her second baby was premature and survived
- During this pregnancy, she attended antenatal care at the local health centre. She started bleeding 1 hour after delivery of a healthy baby
- The local skilled birth attendant (SBA) came within 1 hour. She found the woman very pale and collapsed and gave her oxytocin and then misoprostol
- The SBA suggested moving the woman to the local hospital , an hour away, as the bleeding continued
- The husband did not agree and the woman died

Possible Actions Include

- Ensure iron is available for pregnant women in Health Centre
- Encourage the SBA for her actions
- Ensure family planning is available in that community
- Make sure ANC are available in that health centre
- Check if EMOC training has been delivered and repeat if necessary
- Increase community awareness for institutional delivery

Possible Actions Should Not Include

- Increase the number of SBAs
- Punish the husband/family
- Make sure blood is accessible in that community

Prioritizing Actions

- When there are many options, how do you pick from among them?
  - Not all problems can be tackled simultaneously
    - Prevalence – how common is the problem?
    - Feasibility of carrying out the action
      - are there extra staff available? Is it technologically and financially possible?
    - What is the potential impact of the action?
  - If successfully implemented how many women would be reached and how many lives saved?

Prioritization Table

Action	Addresses most prevalent problem	Most feasible	Delivers maximum impact
Ensure availability of Iron			
Empower SBA			
Ensure availability of Family Planning Services			
Ensure availability of ANC guidelines			
Raise awareness for institutional delivery			
EMOC training for PPH management			

Exercise for Prioritization: Individual Activity

- Write the actions in row and criteria in column
- Use + to indicate your score for each criteria (minimum + ; maximum +++++)
- For each possible action, put a score against the criteria
- List the top 3 actions you would take according to your personal scoring

Group work

- Let us form MPDSR Review Committee
  - Review:
    - Maternal death review form
    - Perinatal death review form
    - The forms filled in Day 2 to be used
  - Develop possible actions for problems with prioritization
  - Presentation followed by discussion

Group work

- Divide into the groups with same participants as in MDR form group work
- Each group to discuss on the MDR and PDR form filled partially in the previous day.
- Discuss on the possible actions for the respective cases of maternal and perinatal death.
- Prioritize the actions using the prioritization table and develop the action plan using for both cases of maternal and perinatal deaths.
- Group work followed by presentations

Implementation of Action Plan

- Recommendations made by the different levels MPDSR committees should be carried out at each level of health care provision. This will ultimately lead to actions, which in turn will be responsible for improvement in patient care as well as improvement in health care at the community.
- The response at different level may be diverse due to authority, resources, capacity of the committees, socio-economic conditions of the community and population coverage.

Implementation of Action Plan

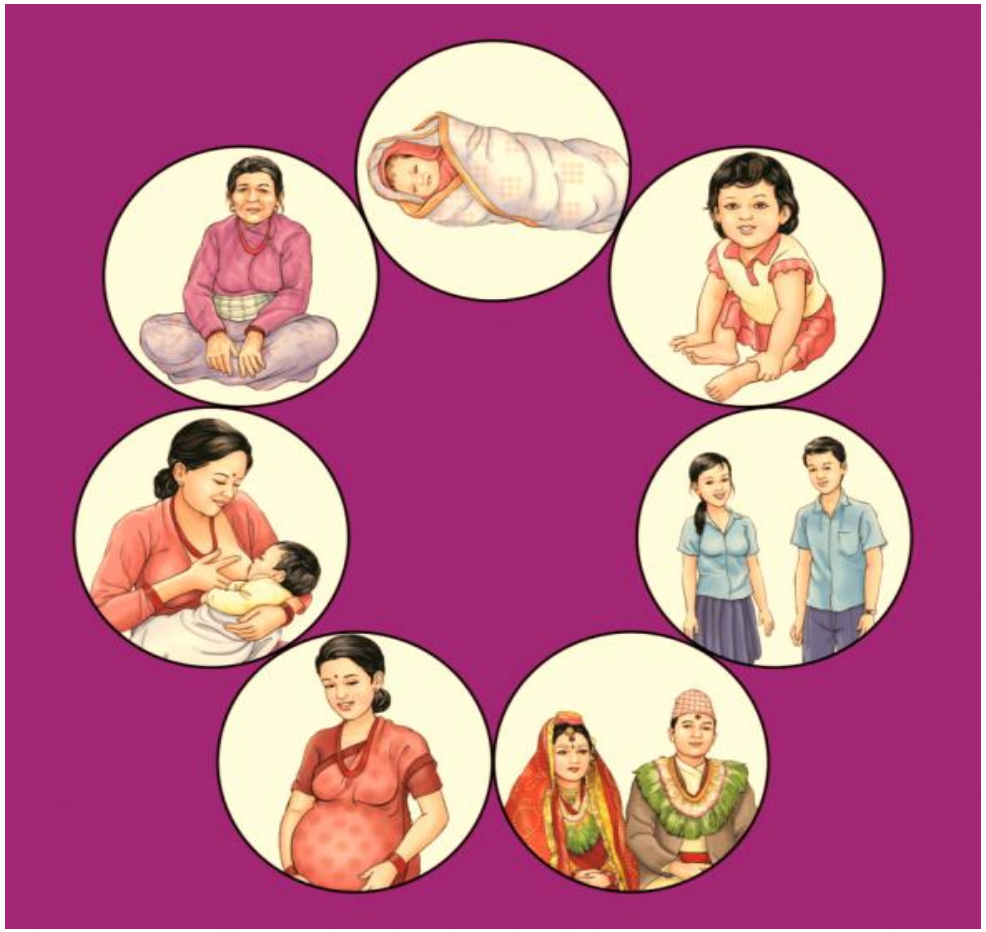
- Action plans developed after reviewing of each maternal death should be finalized and shared with the concerned authorities within 1 week.
  - Responsible authority
  - Supportive authority
  - DPHO
  - RHD
  - FHD

Implementation of Action Plan

- Responsible authority needs to coordinate and initiate the process of the action plan.
- Any support needed for implementation of the action plan should be timely communicated.
- The status of the action plan should be discussed and reported monthly to DPHO, RHD and FHD.
- Challenges while implementing action plans should be documented and communicated.
- Reporting should also include completed action plans.

मातृ मृत्यु निगरानी तथा प्रतिकार्य

नेपाल सरकार
स्वास्थ्य मन्त्रालय
स्वास्थ्य सेवा विभाग
परिवार स्वास्थ्य महाशाखा



Example of Final Cause of Maternal Death

- HYPOVOLAEMIC SHOCK
  - ✓Hypovolaemic shock following postpartum haemorrhage
  - ✓Hypovolaemic shock following antepartum haemorrhage
  - ✓Hypovolaemic shock following ectopic pregnancy

- SEPTIC SHOCK
  - ✓Septic shock following an abortion
  - ✓Septic shock following a viable pregnancy
  - ✓Septic shock following an incidental infection

Example of Final Cause of Maternal Death

- RESPIRATORY FAILURE
  - ✓Adult respiratory distress syndrome
  - ✓Pneumonia (including Tuberculosis)
  - ✓Acute respiratory failure
- CARDIAC FAILURE
  - ✓Pulmonary oedema
  - ✓Cardiac arrest
- RENAL FAILURE
  - ✓Acute tubular necrosis
  - ✓Acute medullary necrosis

Example of Final Cause of Maternal Death

- LIVER FAILURE
  - ✓Pneumonia (including Tuberculosis)
  - ✓Liver failure following drug overdose
- CEREBRAL COMPLICATIONS
  - ✓Intracerebral haemorrhage
  - ✓Cerebral oedema resulting in coning
  - ✓Meningitis / infection (including Malaria)
  - ✓Cerebral emboli
- METABOLIC
  - ✓Maternal ketoacidosis
  - ✓Thyroid crisis

Example of Final Cause of Maternal Death

- DISSEMINATED INTRAVASCULAR COAGULATION
  - ✓Disseminated intravascular coagulation
  - ✓Liver failure following drug overdose
- MULTI-ORGAN FAILURE
  - ✓Multi-organ failure
- IMMUNE SYSTEM FAILURE
  - ✓HIV / AIDS
- UNKNOWN
  - ✓Home death
- Other

Example of Final Cause of Neonatal Death

- IMMATURITY RELATED
  - ✓Extreme multi-organ immaturity
  - ✓Hyaline membrane disease
  - ✓Necrotizing enterocolitis
  - ✓Pulmonary haemorrhage
  - ✓Intraventricular haemorrhage
  - ✓Other
- HYPOXIA
  - ✓Hypoxic ischaemic encephalopathy
  - ✓Meconium aspiration
  - ✓Persistent fetal circulation

Example of Final Cause of Neonatal Death

- INFECTION
  - ✓Septicaemia
  - ✓Pneumonia
  - ✓Congenital syphilis
  - ✓HIV infection
  - ✓Congenital infection
  - ✓ Group B streptococcal infection
  - ✓Meningitis
  - ✓Nosocomial infection
  - ✓Tetanus
  - ✓Other

Example of Final Cause of Neonatal Death

- CONGENITAL ABNORMALITIES
  - ✓Central nervous system
  - ✓Cardiovascular system
  - ✓Renal system
  - ✓Congenital infection
  - ✓ Alimentary (excl. diaphragmatic hernia)
  - ✓Chromosomal abnormality
  - ✓Biochemical abnormality
  - ✓Respiratory (incl. diaphragmatic hernia)
  - ✓Other (incl. multiple & skeletal)

Example of Final Cause of Neonatal Death

- CONGENITAL ABNORMALITIES
  - ✓Central nervous system
  - ✓Cardiovascular system
  - ✓Renal system
  - ✓Congenital infection
  - ✓ Alimentary (excl. diaphragmatic hernia)
  - ✓Chromosomal abnormality
  - ✓Biochemical abnormality
  - ✓Respiratory (incl. diaphragmatic hernia)
  - ✓Other (incl. multiple & skeletal)

Example of Final Cause of Neonatal Death

- TRAUMA
  - ✓Subaponeurotic haemorrhage
- OTHER
  - ✓Isoimmunisation
  - ✓ Hydrops - non-immune
  - ✓Sudden Infant Death Syndrome (SIDS)
  - ✓Haemorrhagic disease of the newborn
- Other
  - ✓Aspiration pneumonia
  - ✓Hypovolaemic shock
  - ✓Hypothermia
- UNKNOWN CAUSE OF DEATH
- INTRAUTERINE DEATH

Example of Avoidable Factors

- PATIENT ASSOCIATED
  - ✓Never initiated antenatal care
  - ✓Infrequent visits to antenatal clinic
  - ✓Inappropriate response to rupture of membranes
  - ✓Inappropriate response to antepartum haemorrhage
  - ✓Inappropriate response to poor fetal movements
  - ✓Delay in seeking medical attention during labour
  - ✓Attempted termination of pregnancy
  - ✓Failed to return on prescribed date
  - ✓Declines admission/treatment for personal/social reasons
  - ✓Partner/Family decline admission/treatment
  - ✓Assault
  - ✓Alcohol abuse

Example of Avoidable Factors

- PATIENT ASSOCIATED
  - ✓Smoking
  - ✓Delay in seeking help when baby ill
  - ✓Infanticide
  - ✓Abandoned baby
- ADMINISTRATIVE PROBLEMS
  - ✓Lack of transport – Home to institution
  - ✓Lack of transport – Institution to institution
  - ✓No syphilis screening performed at hospital/clinic
  - ✓Result of syphilis screening not returned to hospital/clinic
  - ✓Inadequate facilities/equipment in neonatal unit/nursery
  - ✓Inadequate theatre facilities
  - ✓Inadequate resuscitation equipment

Example of Avoidable Factors

- ADMINISTRATIVE PROBLEMS
  - ✓Lack of transport – Home to institution
  - ✓Insufficient blood/blood products available
  - ✓Personnel not sufficiently trained to manage the patient
  - ✓Personnel too junior to manage the patient
  - ✓No dedicated high risk ANC at referral hospital
  - ✓Insufficient nurses on duty to manage the patient adequately
  - ✓Insufficient doctors available to manage the patient
  - ✓Anaesthetic delay
  - ✓No Motherhood card issued
  - ✓No on-site syphilis testing available
  - ✓No accessible neonatal ICU bed with ventilator
  - ✓Staff rotation too rapid
  - ✓ Lack of adequate neonatal transport
  - ✓Other

Example of Avoidable Factors

- MEDICAL PERSONNEL ASSOCIATED
  - ✓Medical personnel overestimated fetal size
  - ✓Medical personnel underestimated fetal size
  - ✓No response to history of stillbirths, abruption, etc.
  - ✓No response to maternal glycosuria
  - ✓No response to poor uterine fundal growth
  - ✓No response to maternal hypertension
  - ✓No antenatal response to abnormal fetal lie
  - ✓No response to positive syphilis serology test
  - ✓Poor progress in labour, but partogram not used
  - ✓Poor progress in labour, but partogram not used correctly
  - ✓Poor progress in labour, partogram interpreted incorrectly
  - ✓Fetal distress not detected intrapartum; fetus monitored
  - ✓Fetal distress not detected intrapartum; fetus not monitored
  - ✓Management of 2nd stage: prolonged with no intervention

Example of Avoidable Factors

- MEDICAL PERSONNEL ASSOCIATED
  - ✓Management of 2nd stage: inappropriate use of forceps
  - ✓ Management of 2nd stage: inappropriate use of vacuum
  - ✓ Delay in medical personnel calling for expert assistance
  - ✓Delay in referring patient for secondary/tertiary treatment
  - ✓No response to apparent post-term pregnancy
  - ✓Neonatal care: inadequate monitoring
  - ✓Neonatal care: management plan inadequate
  - ✓Baby sent home inappropriately
  - ✓No response to history of poor fetal movement
  - ✓Breech presentation not diagnosed until late in labour
  - ✓Multiple pregnancy not diagnosed intrapartum
  - ✓Physical examination of patient at clinic inappropriate
  - ✓Doctor did not respond to call
  - ✓Delay in doctor responding to call

Example of Avoidable Factors

- MEDICAL PERSONNEL ASSOCIATED
  - ✓Iatrogenic delivery for no real reason
  - ✓Nosocomial infection
  - ✓Multiple pregnancy not diagnosed antenatally
  - ✓GP did not give card/letter about antenatal care
  - ✓Fetal distress not detected antenatally; fetus monitored
  - ✓Fetal distress not detected antepartum; fetus not monitored
  - ✓Baby managed incorrectly at hospital/clinic
  - ✓Inadequate/no advice given to mother
  - ✓Antenatal steroids not given
  - ✓Incorrect management of antepartum haemorrhage
  - ✓Incorrect management of premature labour
  - ✓Incorrect management of cord prolapse
  - ✓Other

Example of Avoidable Factors

- INSUFFICIENT NOTES TO COMMENT ON AVOIDABLE FACTORS
  - ✓Insufficient notes
  - ✓File missing
  - ✓Antenatal care lost

मातृ मृत्यु निगरानी तथा प्रतिकार्य

नेपाल सरकार
स्वास्थ्य मन्त्रालय
स्वास्थ्य सेवा विभाग
परिवार स्वास्थ्य महाशाखा