



Maternal Death Review

GUIDEBOOK

For CLIC-CPHE
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(copies given to CLIC-CPHE, Madhavale)

This handbook has been developed to assist nodal officers of the states and districts in the implementation of Maternal Death Reviews (MDR), as per the policy of Government of India. It contains a more in depth explanation of the roles and responsibilities at different levels, how to conduct the trainings and orientation sessions of stakeholders and a detailed guide for trainers and interviewers who will conduct interviews with bereaved families in the communities.

A few revisions have been made based on the recommendation of the national core group on MDR to the questionnaires for both the community based and facility based MDR, as well as the other formats. The modified formats are included here.

All states will also receive a CD, in addition to this guidebook, which also contains PowerPoint presentations from the National Orientation Workshop in New Delhi December 10th and 11th 2010, as well as presentations that should be used while training the community interviewers. It also includes a role-play guide to be used during the same training.

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Abbreviations

ACMO	Additional Chief Medical Officer
ANC	Ante Natal Care
ANM	Auxiliary Nurse Midwife
AP	Ante Partum
APGAR	Activity Pulse Grimace Appearance Respiration
APH	Ante Partum Haemorrhage
ASHA	Accredited Social Health Activist
AWW	Anganwadi Worker
BMO	Block Medical Officer
BMNO	Block Medical Nodal Officer
BPHN	Block Public Health Nurse
CBMDR	Community Based Maternal Death Review
CHC	Community Health centre
CMO	Chief Medical Officer
CPD	Cephalo Pelvic Disproportion
CS	Civil Surgeon
CVA	Cardio Vascular Accidents
DH	District Hospital
DHS	District Health Society
DM	District Magistrate
DNO	District Nodal Officer
D&C	Dilatation & Curettage
EDD	Expected date of Delivery
EmOC	Emergency Obstetric Care
FBMDR	Facility Based Maternal death Review
FOGSI	Federation of Obstetric and Gynaecological Societies of India
FMDRC	Facility Maternal Death Review Committee
FNO	Facility Nodal Officer
GA	General Anaesthesia
GDM	Gestational Diabetes Mellitus
GoI	Government of India
HFWTC	Health & Family Welfare Training centre
HMIS	Health Management Information System
ICDS	Integrated Child Development Scheme
ICU	Intensive Care Unit
IEC	Information Education Communication
IMA	Indian Medical Association

IP	Intra partum
IV	Intra Venous
LHV	Lady Health Visitor
MAS	Meconium Aspiration Syndrome
MBBS	Bachelor of Medicine and Bachelor of Surgery
MDR	Maternal Death Review
MMR	Maternal Mortality ration
MO I/c	Medical Officer In-charge
MTP	Medical Termination of Pregnancy
MVA	Manual Vacuum Aspiration
N/A	Not Applicable
NGO	Non Governmental Organisation
NHSRC	National Health System resource center
NICU	Neonatal Intensive Care Unit
NRHM	National Rural Health Mission
OB/GYN	Obstetric & Gynaecology
OBC	Other Backward Class
OC	Other Class
OT	Operation Theatre
PE	Pulmonary Embolism
PET	Pre Eclamptic Toxaemia
PHC	Primary Health Centre
PHN	Public Health Nurse
PIH	Pregnancy Induced Hypertension
POC	Product of Conception
PP	Post partum
PPH	Post Partum Haemorrhage
PPROM	Preterm Premature Rupture of Membranes
PROM	Premature Rupture of Membranes
P&RD	Panchayat & Rural Development
QA	Quality Assurance
RCH-II	Reproductive & Child Health phase II
SC	Scheduled Caste
SDH	Sub District Hospital
SHC	Sub Health Centre
SHS	State Health Society
SIHFW	State Institute of Health & Family Welfare
SNO	State Nodal Officer
ST	Scheduled Tribe

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1. MATERNAL DEATH REVIEW GUIDELINES

1.1 Background Information

1.2 Community-Based MDR

1.3 Facility-Based MDR

1.4 MDR at District Level


1.5 MDR at State Level

1.6 MDR Orientation/Training

1.7 Training Schedule and Proposed Agendas

1.8 Data Analysis

1.9 Monitoring and Supervision



1. MATERNAL DEATH REVIEW GUIDELINES

1.1 Background Information

Each year in India, roughly 28 million women experience pregnancy and 26 million have a live birth. Of these, an estimated 67,000 maternal deaths and one million newborn deaths occur each year. In addition, millions more women and newborns suffer pregnancy and birth related ill-health. Thus, pregnancy-related mortality and morbidity continues to have a huge impact on the lives of Indian women and their newborns.

The maternal mortality ratio is the number of women who die from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births.

Maternal Mortality Ratio (MMR) in India has shown an appreciable decline from 398/100,000 live births in the year 1997-98 to 301/100,000 live births in the year 2001-03 to 254/100,000 live births in the year 2004-06 as per the latest RGI-SRS survey report, released in April 2009. However, to accelerate the pace of decline of MMR in order to achieve the NRHM and MDG Goal of less than 100 per 100,000 live births, there is a need to give impetus to implementation of the technical strategies and interventions for maternal health. Levels of maternal mortality vary greatly across the regions, due to variation in underlying access to emergency obstetric care, antenatal care, anemia rates among women, education levels of women, and other factors. About two-thirds of maternal deaths occur in a handful of states – Bihar and

Jharkhand, Orissa, Madhya Pradesh and Chhattisgarh, Rajasthan, Uttar Pradesh and Uttarakhand and in Assam, all these states being among the 18 high focus states under NRHM.

Maternal Death Review (MDR) as a strategy has been spelt out clearly in the RCH – II National Programme Implementation Plan document. It is an important strategy to improve the quality of obstetric care and reduce maternal mortality and morbidity. The importance of MDR lies in the fact that it provides detailed information on various factors at facility, district, community, regional and national level that are needed to be addressed to reduce maternal deaths. Analysis of these deaths can identify the delays that contribute to maternal deaths at various levels and the information used to adopt measures to fill the gaps in service. MDR has been conducted as an established intervention for the last few years by some states like Tamil Nadu, Kerala and West Bengal.

Different approaches to investigation of maternal deaths

- Community based maternal death review(Verbal autopsy)
- Facility based maternal deaths review
- Confidential enquiries into maternal deaths
- Surveys of severe morbidity(near miss)
- Clinical audit

Government of India has decided to take up Community based maternal death review (CBMDR) and the Facility based maternal death review (FBMDR) which would help in identifying the gaps in the existing health care delivery systems, prioritize and plan for intervention strategies and to reconfigure health services.

Guideline for Maternal Death Review (MDR)

Government of India has decided to take up Community based maternal death review (CBMDR) and the Facility based maternal death review (FBMDR) which would help in identifying the gaps in the existing health care delivery systems, prioritize and plan for intervention strategies and to reconfigure health services.

The objectives of the guidelines are:

1. To establish operational mechanisms/modalities for undertaking MDR at selected institutions and in community level.
2. To disseminate information on data collection tools, data/information flow, analysis.
3. To develop systems for review and remedial follow up actions.

1.2 Community-Based MDR

Community based MDR using a verbal autopsy format is a method of finding out the medical causes of death and ascertaining the personal, family or community factors that may have contributed to the deaths. The verbal autopsy consists of interviewing people who are knowledgeable about the events leading to the death such as family members, neighbors and traditional birth attendants.

Community based reviews must be taken up for all deaths that occurred in the specified geographical area, irrespective of the place of death, be it at home, facility or in transit.

Steps of community-based MDR

Notification

The ASHA/AWW/ANM will notify all women deaths in the age group of 15 to 49 years from her area by telephone to the BMO within 24 hour. The local panchayats and other relevant persons/ groups may also be encouraged to inform the BMO about women's deaths in their area.

The ASHA/AWW/ANM will notify all women deaths in the age group of 15 to 49 years from her area by telephone to the BMO within 24 hour.

The ASHA/AWW/ANM will fill up the format for primary informer (Annex 6) for all women's deaths (age 15-49) and send the format to the BMO within 24 hours. Format for primary informer gives information whether the death is a suspected maternal death or a non maternal death.

Line listing of maternal deaths should be submitted to the BMO by the ASHA, using annex 4, by the 5th of every month. In case no death has occurred during the month, the ASHA has to submit a nil report.

The ASHA/AWW/ANM should also ensure the availability of the respondents during the visit of the investigation team

Investigation

Investigation of the maternal deaths will be done using Verbal Autopsy Format (annex 2). In section 11 of the format, narration on the various events which led to the death of the mother, should be explained in detail.

Block Medical Nodal Officer

The Block Medical Nodal Officer (BMNO) is the MO in charge of the Block PHC. The BMNO is overall responsible for the MD review process at the block and will act as a supervisor for the investigation team.

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Responsibilities:

- Appoint the ANM/LHV to visit the family of the deceased to verify whether or not it is a maternal or non- maternal death, after receiving annex 6 from the notifier.
- Report all suspected maternal deaths to the district DNO based on the report from the primary informant (by phone and by sending Format for Primary Informer (Annex 6))
- Report suspected maternal deaths to the state nodal officer by telephone within 24 hours
- Maintain registers of all women deaths (15-49 yrs) (Annex – 5) & maternal deaths (Annex 4)
- Assigns interview team to investigate and fills the first page of the Format for Verbal Autopsy (Annex 2). The cause of the death in Page 1 of Annex – 2 can be filled based on the findings after the investigation is completed
- It is desirable that the BMO should be part of the investigation team. In his absence, he may nominate another medical officer from the block PHC to be a part of the team.

BMO must report suspected maternal deaths to the state nodal officer by telephone within 24 hours.

- Scrutinize filled up forms to ensure the form is complete and filled correctly.
- Prepare Case summary (Annex 3) for all the maternal deaths in consultation with the team which investigated and send it to the DNO along with the filled in investigation format (Annex 2), within a month of the date of notification. See box on Cause of Death on page 48 of the Interviewer Reference Manual.
- Conduct monthly meetings to review the whole process and take corrective actions at his level. Reporting system should be reviewed even if there are no cases in his block.
- The BMO would pay Rs. 50/- to the primary informant (only ASHA and AWW is eligible) and Rs 100/- per person for conducting the investigation in the field (subject to a maximum of 3 persons)

Investigators

The investigators could be the Block Medical Officer (BMO)/ other Medical Officers (MO), Lady Health Visitor (LHV), Block Public Health Nurse (BPHN), Sector Health Nurse, Health supervisor, Nurse tutor or Auxiliary Nurse Midwife (ANM). The investigating team should ideally comprise of 3 persons; one for conducting the interview, one for recording and the other to co-ordinate the process. The investigators must be properly trained to communicate with bereaved families.

Responsibilities:

- To investigate the maternal death using the format for Verbal Autopsy (Annex 2) within 3 weeks of notification.
- Make sure all relevant information is captured during interview. If not, a follow up interview may be required. If needed, with another respondent.
- Assist the BMO in preparation of Case summary (Annex 3)
- Hand over the filled up Format for Verbal Autopsy (Annex 2) to the BMO for onward transmission to the District Nodal Officer (DNO) who will prepare a compiled Line Listing for Maternal Deaths (Annex 4) of all maternal deaths from all blocks.

1.3 Facility-Based MDR

Facility Based Maternal Deaths Reviews will be taken up for all Government teaching hospitals, referral hospitals and other hospitals (District, Sub district, CHCs) where more than 500 deliveries are conducted in a year.

Steps of Facility-based MDR

Notification

All Maternal deaths occurring in the hospital, including abortions and ectopic gestation related deaths, in pregnant women or within 42 days after termination of pregnancy irrespective of duration or site of pregnancy should be informed immediately by the Medical officer who has treated the mother and was on duty at the time of occurrence of death to the Facility Nodal officer (FNO)

The FNO of the hospital should inform the maternal death to the District Nodal Officer (DNO) and state nodal officer by telephone within 24 hours of the occurrence of death. The Nodal officer of the hospital should complete the primary informant format Annex 6 and send it to the DNO within 24hrs of the occurrence of maternal death

Investigation

Any maternal death which occurred in the hospital should be immediately investigated within 24hrs by the Medical officer who had treated the mother and was on duty at the time of occurrence of death using the Facility Based Maternal Death Review (FBMDR) Format (Annex 1) The form would be submitted under the guidance and approval of the FNO. The FBMDR format should be filled in triplicate, one copy would be retained by the FNO, one would be sent by the FNO to the DNO within 24hrs and the other to the Facility Maternal Death Review (MDR) committee of the Hospital.

All medical officers in the facility must be aware about the MDR program and oriented on the use of the FBR form. All pregnant and postpartum women that were treated, and died, in other departments than the OB/GYN department, must also be reported and investigated.

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Facility Nodal Officer (FNO)

- Inform the District Nodal officer and state nodal officer on the occurrence of maternal death in the hospital within 24 hours.
- Send the primary informant format (Annex 6) duly filled to the District Nodal officer within 24 hours
- To review the FBMDR format filled by the medical officer and approve it.
- Retain one copy of the FBR format with him/her, send one copy to the Facility based Maternal Death Review Committee and the other to the DNO within 24hrs of the maternal death.
- He/ She have to prepare a case summary and send it to the Facility based Maternal Death Review Committee along with a copy of the case sheet.
- The case sheet should be numbered and have the patient name and registration number on each page.
- Will keep a register of all maternal deaths in the facility; line listing of maternal deaths (Annexure 4)
- Even if there is no death in a month, the facility should report that there was no death in that month. (Nil death report)
- He/ She will be the nodal persons for organizing the FBMDR Committee at the hospital
- He/ She will be attending the FBMDR Committee meeting at the District level and also the Review conducted by the District Magistrate (DM).
Another senior officer may be nominated in his/her absence.

FNO must inform the District Nodal officer and state nodal officer on the occurrence of maternal death in the hospital within 24 hours.

Facility Maternal Death Review Committee (FMDRC)

Members of the FMDRC may be the following:

Teaching hospital:

- Superintendent of the Hospital/ Other Administrative Head of the Institution
- Head Of Department (OBG dept)
- FNO (Obstetrician from the department)

- At least three members should be OBG specialists from the Dept
- One anaesthetist
- One blood bank MO
- Nursing representative
- One physician

District/Other hospitals:

- Hospital superintendent
- FNO (Obstetrician from the Dept)
- At least two obstetricians/MO in OBG department as members
- One anaesthetist
- One blood bank MO
- Nursing representative
- One physician

FBMDR committee:

- The FNO fixes the monthly meeting in discussion with the Hospital superintendent of the hospital
- Conducts monthly review meeting once in a month with the FBMDR format and case summary.
- Suggests corrective measures and steps to be taken to improve quality of care at the hospital
- Suggests steps to be taken at the District level and State level.
- Sends minutes of meeting to DNO along with the case summary prepared.

1.4 MDR at District Level

At district level there will be two review meetings, one under the chairmanship of the CMO, second led by the District Magistrate.

District Maternal Death Review Committee

The Chief Medical Officer (CMO) is mainly responsible for the Maternal Death Reviews at the District level. Both facility and community based reviews would be taken up at this level

The District CMO should form a Maternal Death Review Committee. Preferably, the District CMO can utilize existing quality assurance committee of the district or a new committee could be formed at the district level for MDR. The existing quality assurance committee or a newly formed committee should have following members:-

- CMO/CS (chairman)
- DNO (member secretary)
- ACO
- Head of Department of Obstetrics & Gynaecology (teaching hospital/district hospital)
- Anaesthetist
- Officer in charge of blood bank/blood storage centre
- Senior nurse nominated by the CMO/CS/DPHNO
- MO who had attended the case in the facility should be invited

The district level nodal officer convenes the meeting of the committee under the chairmanship of CMO/CS/ACO once every month and will put up for review by committee all maternal death reports received in the last month.

Responsibilities of CMO

- Ensure the reception of all formats (facility and community) every month
- Review all the maternal deaths from both facility and community
- Hold monthly review meetings and recommend corrective measures.
- Select a few cases for review by the DM. Ensure participation of the family members. Selection of cases for review by DM, based on specified criteria (more deaths in one particular place, same type of deaths, unwanted referrals) in consultation with DM
- Conduct quarterly review meetings with analyzed data and process indicators identified.
- Find means of sharing the district level data from the verbal autopsy with the communities to create awareness and initiate action at village level.
- Facilitate, through the DNO, the monthly review meeting with the District Magistrate (DM), and send minutes of both meetings (District MDR committee meeting and the meeting with DM) to state level.
- Facilitate the data entry and analysis at the district level (including HMIS).

- The minutes of the meeting will be recorded in a register. The corrective measures will be grouped into 3 categories with time lines:
 - Corrective measures at the community level
 - Corrective measures needed at the facility level
 - Corrective measures for which state support is needed

District Nodal Officer (DNO)

The nodal officer is responsible for taking up the entire review process and follow up at the district level. The CMO has to provide necessary support to the District Nodal Officer for taking up the process.

Responsibilities

- Supervise MDR implementation in the district - both at facility and community level.
- Receive notification of all suspected maternal deaths from the BMO and maternal deaths from the nodal officer of the hospital (by phone and by Annex 6)
- Receive investigation format and case summary of CBMDR from the blocks and FBMDR from the hospitals.
- Create a combined Line-listing of Maternal deaths (Annex 4) based on the case summary formats from both facility and community from all blocks
- Prepare a compiled case summary, when applicable
- Coordinate the District MDR committee meeting and the review meeting with the district magistrate (DM)
- Arrange to bring two relatives of the deceased to attend the review meeting with DM. Only relatives who were with the mother during the treatment of complications may be invited for the meeting.
- Paying Rs. 200/- per person to the relative of the deceased person who attends the DMs meeting. (subject to a maximum of 2 persons only)
- Ensure that the training of the block level interviewers and the BMO have taken place
- Ensure availability of funds for payment of incentives
- Facilitate the printing of formats by the District Health Society (DHS) (forms used at all levels) and ensure its availability at blocks and facilities.

DNO must supervise MDR implementation in the district - both at facility and community level.

- Represent the district in state level review meetings
- Prepare the minutes of the District MDR committee meeting and the meeting with the DM
- Follow up the recommendations/corrective actions at district, block and facility level
- Orientation to the Medical Officers of the hospital on use of FBMDR formats

MDR review meetings with the District Magistrate

All the Maternal Death Reports compiled by the District MDR Committee will be put up to the District Magistrate, who will have the option of reviewing a sample of these deaths, which will be representative of deaths occurring at home, at facilities and in transit.

This committee should have the following members:

- Chair: District Magistrate
- CMO
- DNO
- Facility based nodal officers
- FOGSI
- IMA

The close relatives/friends who were with the deceased mother during the time would be invited for the meeting, as well as the service providers who had attended on the case.

Process of the meeting

The relatives of the deceased will first narrate the events leading to the death of the mother in front of the DM and the service providers who attended the deceased mother. The case history of each of the selected maternal deaths will be heard separately. After the deposition and getting clarifications from the relatives they will be sent back. Then the various delay, the decision making at the family, getting the transport and institutional delays would be discussed in detail. The outcome of the meeting will be recorded as minutes and corrective actions will be listed with time line to prevent similar delays in future.

Outcome

- To institute measures to prevent maternal deaths due to similar reasons in the district in future
- To sensitize the service providers to improve their accountability
- To find out the system gaps including the facility level gaps to take appropriate corrective measures with time-line
- To allocate funds from the district health society for the interventions
- Take necessary actions both with health and other allied departments and review action taken
- Liaise with the state on the recommendation made by the District level committees.

Activity	Time line	Incentive/Transaction Cost payment suggested	Source of funding
Reporting death of women (15-49 years) by ASHA/other person to the Block PHC MO	Within 24 hours of occurrence of death by phone	Rs.50 per report	HSC untied fund
Reporting death of woman by Block MO to the DNO	Within 24 hours of occurrence of death by phone	No incentive	
Community based investigation	Within 3 weeks of occurrence of death	Rs.100 per person to a maximum of three persons	HSC untied fund
Submission of report by Block PHC MO/facility MDR Nodal MO to DNO in the prescribed form	Within 4 weeks of occurrence of death	No incentive	
Reporting deaths of women by Block MO/ Nodal Officer of Facility to the DNO	Within 24 hours of occurrence of death by phone	No incentive	
Conduct of facility based review meetings and preparation of district MDR report for all deaths in district by the District committee (chaired by the CMO)	Every Month for the deaths reported in previous month.	No incentive	
Conduct of MDR meeting chaired by District Magistrate/Dist. Collector	Once in a month	Incentive of Rs.200 each for two persons of the deceased family	District hospital RKS fund

1.5 MDR at State Level

The overall responsibility of the Maternal Death Review process lies with the state. The key steps to be taken by the state are I) nomination of the state nodal Officer (member of the Quality Assurance (QA) Cell/any other person), II) formation of a state level taskforce.

State Nodal Officer (SNO)

Responsibilities

- Collect relevant data on maternal death from the district and carry out detailed analysis
- Nominate the district level nodal officers
- Facilitate the preparation of an annual maternal death report for the state and organize a dissemination meeting to sensitize the various service providers and managers. The annual report may contain typical maternal death case studies which may be used during the training of medical and paramedical functionaries.

State Level Taskforce (SLF)

The State level task force will be formed headed by Principal Secretary Health and Family Welfare, Mission Director SHS, Senior Obstetrician of the Medical College Hospital, IMA/FOGSI and any other members nominated by Government.

Responsibilities

- The State Level Task Force will meet once in 6 months under the chairmanship of Principal Secretary Health and Family Welfare to review data and minutes sent from district level, discuss the actions taken on the minutes of the last state level meeting and make recommendations to Government for policy and strategy formulations.
- Share operational issues /feedback with GOI.

Figure 1: CBMDR information flow

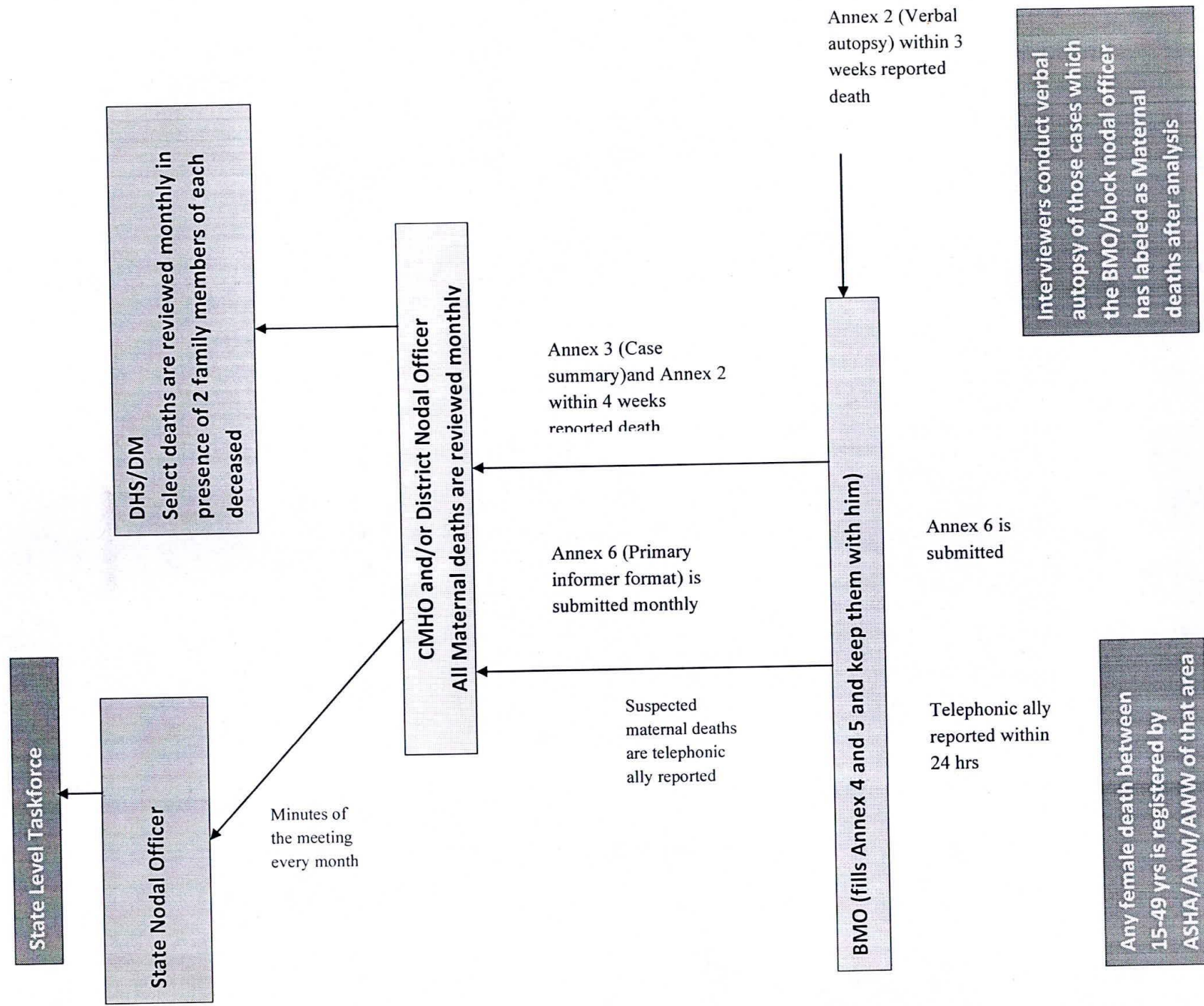
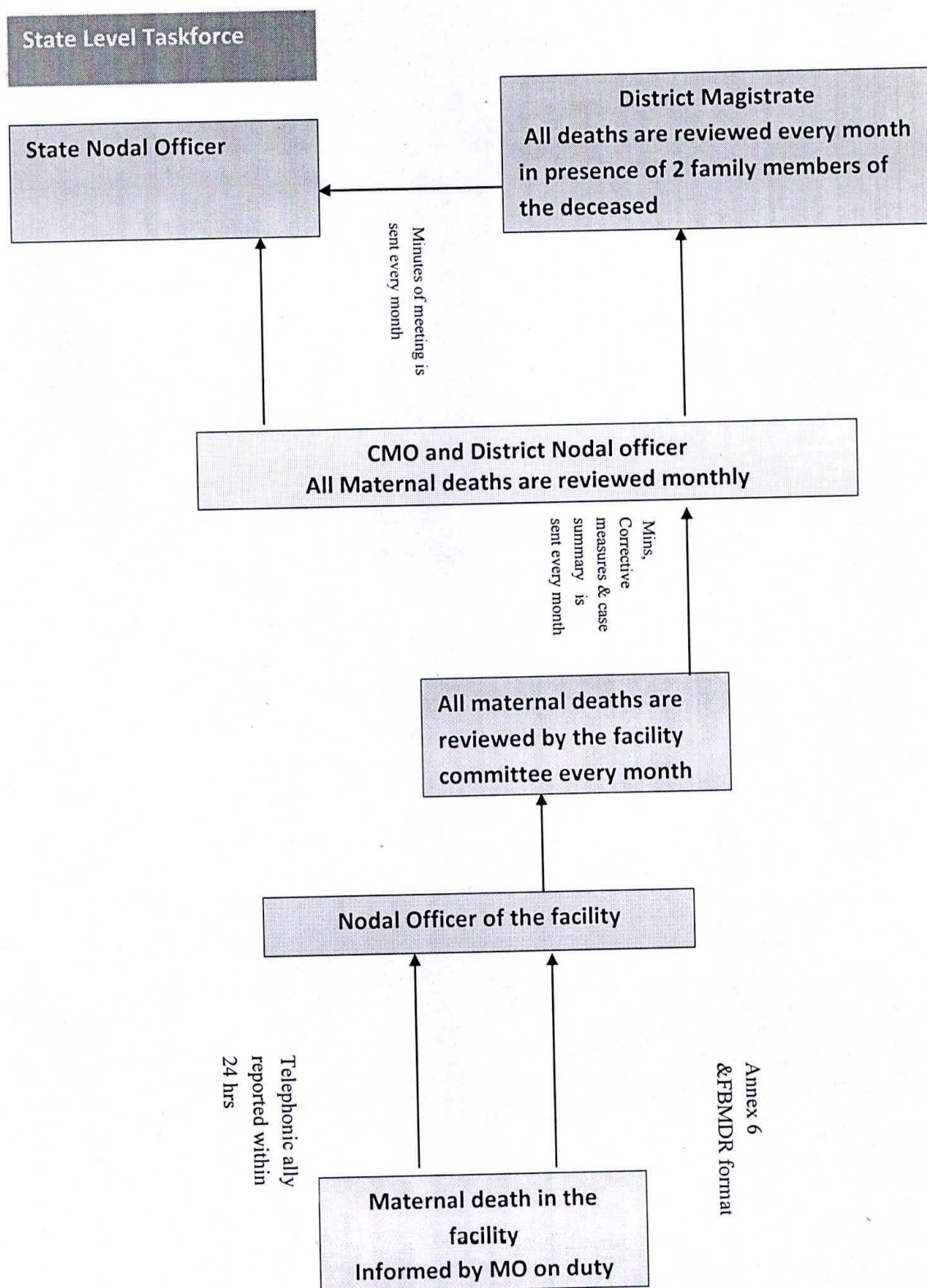


Figure 2: FBMDR information flow

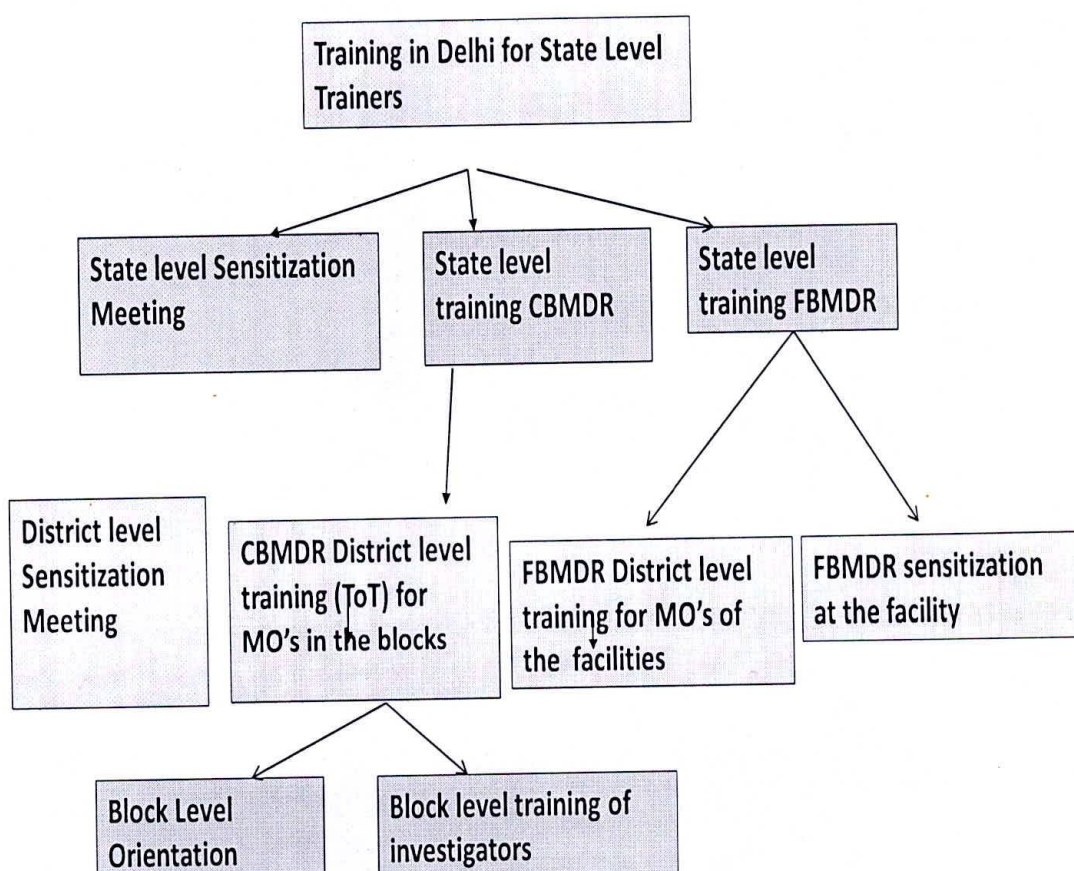


1.6 MDR Orientation/Training

Maternal Death Review being a new initiative in most of the states, the personnel involved will need some orientation/training on the objectives of MDR, the process, use of tools and monitoring & supervision. Community-based maternal death investigation will be conducted at the field level by public health nurses, LHVs etc and they will need a structured training on how to use the CB-MDR tool and interpret the data for developing the case summary. Facility-based review (FB-MDR) will be conducted by medical personnel and for them an orientation and a review of the FBMDR Review format (Annex 1) is required. In addition, the non-health personnel and stakeholders like the district administration, ICDS, Panchayat functionaries etc will also need to be sensitized on the issue because they will have an important role in the implementation of the process and subsequent action.

The orientation/training for state, district and block level personnel may be done in a cascade mode:

Training Cascade



1.7 Training Schedule and Proposed Agendas

CB and FBMDR: Training at Delhi for state trainers

Venue	National level
Duration	2 days
Facilitators	National Core group members
Batch size	36-40
Participants	State RCH Officials
Training materials	All formats (annexes) Case studies, Instructions/ Reference manuals, Facilitators manuals, Guidebook on MDR, filled up formats (if available)
Training procedures	Power-point presentations on the background: maternal mortality-causes, current status, rationale of MDR, process of CB-MDR, roles and responsibilities, data flow and analysis, monitoring & supervision, review process; Question by question training on filling up of the formats with help of the reference manuals; interpreting the filled up questionnaire to develop the case summaries. Best practices from other states/districts. Development of stat plan.

CB and FBMDR: State level sensitization meeting

Venue	State capital
Duration	1/2 day
Facilitators	State level trainers
Participants	State officers of Health, ICDS, P&RD, General Administration, Urban Local Bodies and other related departments. Heads of state & district level. Medical facilities selected for conducting FB-MDR, divisional level officers
Training materials	Guidebook on MDR
Training procedures	Initial power-point presentations on the background: maternal mortality-causes, current status, rationale of MDR, process of MDR, roles and responsibilities, data flow and analysis, monitoring & supervision, review process;

CB and FBMDR: District level sensitization meeting

Venue	District level
Duration	1/2 day
Facilitators	DNO, CMO and ACO
Participants	District officers of Health, ICDS, P&RD, General Administration, Urban Local Bodies and other related Departments. Head of district level Medical facilities. Panchayats.
Training materials	Guidebook on MDR
Training procedures	Initial power-point presentations on the background: maternal mortality-causes, current status, rationale of MDR, process of MDR, roles and responsibilities, data flow and analysis, monitoring & supervision, review process;

Proposed agendas for sensitization meetings (1/2 day)

½ day	
20 min	Background MMR / causes/current status
30 min	Introduction to two types of maternal death review. Need/purpose
60 min	Community based MDR – operational steps - Importance of early notification - how to interview families - Role of investigation team - Role of block MO - Reporting process
15 min	Committees at state and district level
15 min	Data analysis
15 min	Monitoring and supervision

CBMDR: State level training to develop district level trainers (ToT)

Venue	State capital
Duration	2 days
Facilitators	State level trainers
Batch size	24-30
Participants	District Nodal officer, Dy CMOs, ACOMO, HFWTC faculties,
Training materials	All formats (annexes) Case studies, Instructions/ Reference manuals, Facilitators manuals, Guidebook on MDR, filled up formats (if available)
Training procedures	<p>Power-point presentations on the background: maternal mortality-causes, current status, rationale of MDR, process of CB-MDR, roles and responsibilities, data flow and analysis, monitoring & supervision, review process;</p> <p>Question by question training on filling up of the formats with help of the reference manuals; interpreting the filled up questionnaire to develop the case summaries.</p>

CBMDR: District level training/ToT for Medical Officers

Venue	District level
Duration	2 days
Facilitators	DNO, CMO, ACOMO
Batch size	24-30
Participants	BMO, two additional Medical Officers from the block
Training materials	Interview format for CB-MDR, Case studies, Instructions or Reference manual, Facilitators manual, Guidebook on MDR
Training procedures	<p>Power-point presentations on the background: maternal mortality-causes, current status, rationale of MDR, process of CB-MDR, roles and responsibilities, data flow and analysis, monitoring & supervision, review process;</p> <p>How to approach the household/sensitivity issues</p> <p>Question by question training on filling up of the formats with help of the reference manuals; interpreting the filled up questionnaire to develop the case summaries.</p>

Proposed agenda for 2 days state/district level training

Day 1	
30 min	Introduction: The two types of Maternal Death Review
60 min	MDR – Operational steps - Roles and responsibilities - District level committees - State level Taskforce
15 min	The need for Community Based MDR
30 min	How to interview families
30 min	Sensitivity issues
60 min	Verbal Autopsy: Question by question
	LUNCH
90 min	Group work. Practice interview sessions
60 min	Presentation of group work and discussions
30 min	Training cascade
DAY 2	
15 min	Recap of day 1
30 min	Evaluation/comparison of the verbal autopsy formats filled on Day 1
60 min	Indicators and analysis
120 min	Preparation of state/district/block plans for MDR implementation
	LUNCH
180 min	Presentation and feedback on state plans

CBMDR: Block level training of investigators

Venue	Block
Duration	2 days
Facilitators	ToT trained medical officers
Batch size	24-30
Participants	Members of the investigation team
Training materials	All formats (annexes) Case studies, Instructions/Reference manuals,

Training procedures	<p>Facilitators manuals, Guidebook, filled up formats (if available)</p> <p>Power-point presentations on the background: maternal mortality-causes, current status, rationale of MDR, process of CB-MDR, roles and responsibilities, data flow and analysis, monitoring & supervision, review process;</p> <p>How to approach the household/sensitivity issues</p> <p>Question by question training on filling up of the formats with help of the reference manuals; interpreting the filled up questionnaire to develop the case summaries.</p>
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Proposed agenda for CBMDR investigation team (2 days)

DAY 1	
30 min	Maternal mortality – causes /current status
30 min	The importance of community based MDR
90 min	CB- MDR operational steps - Formats - Roles and responsibilities - Information flow - District/state level committees
30 min	Monitoring and Supervision
	LUNCH
15 min	Data Analysis
45 min	The interview: Ethical aspects and informed consent
45 min	Approach to the household and respondents
DAY 2	
15 min	Recap of day 1
60 min	Role play – communication and sensitivity issues
15 min	Discussions about the role plays
30 min	Conducting the interview
	LUNCH
60 min	Group practice module 1
60 min	Group practice module 2
60 min	Group practice module 3
90 min	Group practice complete questionnaire and case summary

CBMDR: Block level orientation

Venue	Block level
Duration	1/2 day
Facilitators	Block MO and the Block level investigation team
Participants	Block level functionaries of Health, ICDS, P&RD. General Administration and other related Departments. Local NGOs. The 'notifiers' ANM, ASHA, AWW
Training materials	Guidebook on MDR, case studies
Training procedures	Discuss MDR, rationale and processes. Emphasize on the importance of timely reporting of all suspected maternal deaths Discuss how to report a women's death, work on filling up the required formats and how to identify a suspected maternal death
Remarks	This sensitization may be done at the block Health & FW Samity meeting as well

FBMDR: State level training (ToT)

Venue	State capital
Duration	1days
Facilitators	State level trainers identified by the state RCH officers (minimum 3 obstetrician)
Batch size	24-30
Participants	Facility Nodal officer, Dy CMOs, ACMO, nursing tutors
Training materials	All formats (annexes) Case studies, Instructions/ Reference manuals, Facilitators manuals, Guidebook on MDR, filled up formats (if available)
Training procedures	Power-point presentations on the background: maternal mortality-causes, current status, rationale of MDR, process of FB-MDR, roles and responsibilities, data flow and analysis, monitoring & supervision, review process; Question by question training on filling up of the formats with help of the reference manuals; interpreting the filled up questionnaire to develop the case summaries.

State level training on FBMDR

1 day	
20 min	Background MMR / causes/current status
30 min	Introduction to two types of maternal death review. Need/purpose
60 min	Facility Based MDR- Process - Role of the Nodal Officer - Role of facility Maternal death committee - Role of the CMO,DNO &DM
60 min	Investigate maternal deaths using FBDR format
30 min	Cause of death – definitions
45 min	Group work- case studies
45 min	Presentation of group work and discussions

FBMDR: Facility level training

Venue	Facility level
Duration	1 day
Facilitators	Facility Nodal officer
Participants	Staff that will take part in the MDR nodal committee at facility level, i.e. medical superintendent, OB-GYN etc
Training materials	Interview format for FB-MDR, Case studies, FB-MDR reference manual, Guidebook on MDR
Topics	Power-point presentations on the background: maternal mortality-causes, current status, rationale of MDR, process of FB-MDR, roles and responsibilities, data flow and analysis, monitoring & supervision, review process; How to use the FB-MDR review format. Cause of death definitions. Non-punitive process

District Level Training on FBMDR for Medical Officers at the facility

1 day	
20 min	Background MMR / causes/current status
30 min	Introduction to two types of maternal death review. Need/purpose
60 min	Facility Based MDR- Process - Role of the Nodal Officer - Role of facility Maternal death committee - Role of the CMO,DNO &DM
60 min	Investigate maternal deaths using FBDR format
30 min	Cause of death – definitions
45 min	Group work- case studies
45 min	Presentation of group work and discussions

FBMDR: Facility level sensitization workshop

Venue	Facility level
Duration	1/2day
Facilitators	Facility Nodal officer
Participants	Other medical and paramedical staff of the facility
Training materials	Guidebook on MDR
Topics	Power-point presentations on the background: maternal mortality-causes, current status, rationale of MDR, process of FB-MDR, roles and responsibilities, data flow and analysis, monitoring & supervision, review process; Non-punitive process

1.8 Data Analysis

The case summaries of maternal deaths (both CBMDR & FBMDR) will be reviewed at district and block level by the designated officials and action will have to be taken accordingly. In addition, there is a need for in-depth analysis of the filled up formats to identify the trends in different factors associated

with maternal deaths. This will help in guiding policy issues related to maternal health and also capture any change over time and comparison between different geographical areas and population groups. The analyzed data may also be used to design communication strategies and develop IEC materials for awareness generation and behavior change for reducing maternal deaths.

For the in-depth analysis of data, states may take support from experts from Medical Colleges, Universities and other specialized agencies at state and/or district level. Selected indicators are to be entered in HMIS, and separate software may also be developed for data entry and analysis.

Use of analyzed data

The analyzed data will be used for developing the Annual Maternal Death Report for the state. The report will be disseminated to all stakeholders annually and used for state level measures for systems improvement and community action. At district level, the analyzed data should also be shared with stakeholders including community for programmatic improvement and community action.

Community awareness and action

Sharing analysed data on maternal deaths is a good way to raise awareness about the issue with the local communities. Through discussions on the contributory factors and the three delays leading to women's deaths, it may stimulate a will to act among the community. Presentation of the data can also be done using street theatre etc. Experience has shown that creative discussions with the communities, using data from the maternal deaths in the district, may lead to increased knowledge and action to improve birth preparedness and complication readiness at local level.

1.9 Monitoring and Supervision

MDR being a new initiative, it will need close monitoring and supervision of the process to identify the problems that need to be addressed on a priority basis for its effective implementation and ultimate impact.

The BMO will ensure timely reporting and investigation through regular feedback to the notifiers and investigating team. He/she will be responsible for scrutiny of the filled up formats and provide handholding support to the block investigation team to improve quality of investigation. The BMO as a supervisor of the block team will also participate in the field level investigation himself/herself.

The district nodal officer/CMO will monitor the process indicators of the district and give feedback to the blocks. He/she will also give feedback on the quality of investigation through scrutiny of filled up formats and case summaries (samples) and provide support to the block level investigation teams and BMOs, as well as FNO's in the facilities to improve the MDR process. The entity in charge of data entry may also give feedback on the quality of investigation through scrutiny of filled up formats. The CMO and will also follow up with the blocks/ health facilities on implementation of the response plans.

The state nodal officer will also follow up with the districts/Medical Colleges on implementation of the response plans. He will also monitor the process indicators of all the districts. The process indicators will be used to assess the completeness of reporting, timeliness and quality of investigation, regularity of review meetings and development of response plans.

CB-MDR process indicators

1. Proportion of maternal deaths investigated in the district
 - a. Reported vs. expected/estimated
 - b. Investigated vs. reported

FBMDR process indicators

1. Proportion of institutions that conducted FBMDR meetings

[Ex: If there are 5 identified facilities in the district, 5 meetings should be conducted every month. Even when there is no death, meetings should be held to discuss quality issues and action taken since previous meetings]
2. Percentage of maternal deaths notified within 24 hours
3. Proportion of maternal deaths investigated

4. Proportion of minor gaps resolved.
[Ex: Anything which can be resolved at the facility level is classifies as minor]
5. Proportion of major gaps on which action is initiated (proposals submitted)
6. Proportion of major gaps on which action taken (proposals approved and process begun)

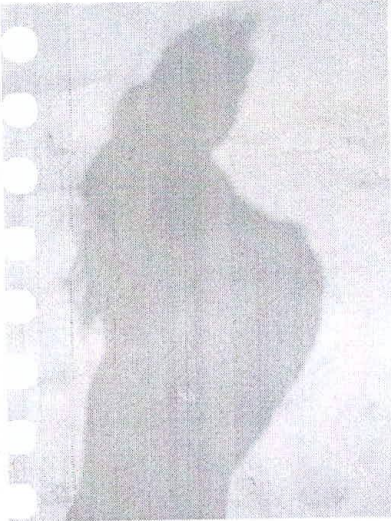
District level process indicators

1. Proportion of MDR meetings conducted by the DM
2. Proportion of cases reviewed vs. cases investigated
3. Proportion of maternal deaths notified vs. estimated.

2. COMMUNITY BASED MDR TOOLS

2.1 Interviewer Reference Manual

2.2 Manual for Trainers of Interviewers



2. COMMUNITY BASED MDR TOOLS

2.1 Interviewer Reference Manual

The purpose of this reference manual is to provide the block MO and others who will interview women using the verbal autopsy questionnaire (MO, LHV, BPHN, graduate nurse, ANM etc) with the information they need to conduct systematic, reliable and valid interviews for investigating maternal deaths. The manual describes the roles and responsibilities of MDR interviewers, and provides a question-by-question guide to the verbal autopsy questionnaire for women of reproductive age.

Interviewers are to use this manual as a reference guide during their training and, as needed, in the course of their work as MDR interviewers.

Informed consent

All potential respondents have the right to determine for themselves whether or not they will participate in the interview. All respondents must be at least 18 years old, to help ensure that they are capable of making this decision. Part of the job as an interviewer is to administer “informed consent” to all potential respondents. This means that you must fully inform them about the MDR and the interview process before asking any questions; and that after learning all the facts they consent to be interviewed. Respondent(s) must fully understand the purpose and expected duration of the interview, the risks and benefits of being interviewed, and their right to not answer any or all questions. All these and other facts are described in a “consent form,”

which you must read and explain to the respondent(s) before conducting the interview. Each respondent must make their mark on the consent form, which you will then sign to testify that the person consented to be interviewed. Complete a separate consent form for each respondent. The consent form is in Annex 1

Confidentiality

It is critical that all information obtained from the MDR interviews remains strictly confidential. You are not permitted to discuss the findings from an interview, gossip about it, or show your records to anyone other than your supervisor. Make all entries on the questionnaires yourself. Do not leave your verbal autopsy forms lying around where unauthorized persons may have access to them.

Maintaining confidentiality is an ethical responsibility that we all share. It is necessary to protect the respondents from any repercussions that might occur as a result of the information they have provided. It is also necessary to maintain the trust of the community and assure that people will be willing to talk openly to us about the maternal deaths.

Falsification of data

Your job as an interviewer will not always be easy. There may be times when you have to visit a household more than once to meet with the best respondent. The interview will often take one hour or longer to complete. Many of the questions seek sensitive information that may appear to reflect badly on care provided to women by their families and sometimes by the health system. All these conditions can lead to temptations to falsify data in order to quickly complete the interview and not record painful facts. However, you must never falsify your work. The whole purpose of the MDR project is to collect and share information with the community that can be used to prevent maternal deaths. This will be possible only if the information collected is truthful. It is your responsibility to assure that you maintain this standard. You should work as an interviewer only if you are certain you can accomplish this.

Approach to the household and selecting the respondent(s)

The interview is best conducted with the one or a few persons who were with the woman during her fatal illness and death. However, when approaching a household in a rural village you are likely to be met by a crowd of interested persons. Once inside the yard or the house several neighbours and family members who know little about the woman's illness may want to participate in the interview or just observe. You must manage this situation effectively and sensitively in order to ensure that you interview the most knowledgeable person(s) and that the others are not offended.

Consider working with a local respected person (e.g., schoolteacher, village leader) to pre-arrange the meeting and/or to accompany the interview team to the household.

In order to have respondent's cooperation and obtain complete and accurate data, you must first gain the trust and confidence of the household. You can do this by making a good impression and conducting yourself in a professional, but also friendly manner.

Understand the project

If you are knowledgeable about the project and your responsibilities respondents will be more likely to trust you and participate. You should be able to answer any questions that household members may ask about the purpose of the project and how the information they share will be used.

Emphasize the confidentiality of the information

You must assure participants that their responses will be held in strictest confidence. No information will ever be released to anyone outside the project in a way that reveals who provided the information.

If a household member or respondent hesitates to cooperate because of confidentiality concerns, you should fully explain how confidentiality will be maintained. Explain that no names will ever be revealed and that the information from all interviews will be combined in a report for district and national use.

Introducing yourself at the household

This is a very sensitive time for the family so it is important that you be polite and sensitive when introducing yourself. Be sure to state the purpose and confidential nature of the interview—these are key elements to gaining the family's cooperation. An example is provided below:

My name is [say your name]. I am a nurse/_____ in the _____ center, and an interviewer with for MDR. I have been informed that a woman in your household died. I am very sorry to hear this. Please accept my sympathy. In order to improve health care in our district, we are collecting information on recent deaths of women in this area. I would like to talk to the person in your house who took care of [say the woman's name] during her illness before death. I assure you that any information you or your family provide will be kept confidential.

How to select the best respondent

The respondent is the main person that will provide information about the deceased. S/he should be the one who was with the woman during her illness. Usually, the woman's husband, mother, sister or mother-in-law is the preferred respondent for a maternal death. In some cases more than one person will have taken care of the woman or been present during different stages of the illness. For example, the woman's mother may have attended the birth at home, while the woman's husband may have accompanied her to the hospital after the birth. All respondents must be at least 18 years of age.

What to do if the potential respondent(s) is away or lives elsewhere

If the person(s) who appear(s) to be the best respondent is not available when you first visit the household, try to make an appointment to return when they will be at home. If no one is at home when you visit the house try to ask a neighbour when you might be able to find family members at home. Then leave a message indicating that you plan to return at this time. In either case, make a note of this return date in your notebook.

Sometimes the best respondent(s) may have moved to another village. In this case, you should discuss the situation with your supervisor, who will decide if you should travel to the other village or if help needs to be sought from the MDR team in another block.

How to handle multiple respondents

As discussed above, there may be instances when you need more than one respondent to get the full story of the woman's illness. If you interview these

persons together it should be clear as to who is the respondent for which stage of the illness. More than one person answering the same question can lead to confusion and greatly lengthen the interview.

Some persons who were not with the woman during her illness may insist on attending the interview or even on being the respondent. For example the woman's husband or mother might not let the sister talk to you alone, even if she took care of the woman during the illness. Or, the respondent may have children to care for who distract her attention from the interview. Lastly, having a visitor at the household can attract many other unwanted people to observe the interview. In these cases it is important to stress to the respondent the importance of confidentiality and privacy. You can try:

- Suggest moving to a different location
- Ask some of the bystanders to leave and come back once the interview is finished.
- Reschedule a time to come back and finish the interview

Communication and sensitivity issues

Effective communication with the respondent is of key importance in obtaining high quality information. As an interviewer, you will interact with bereaved relatives of women who have recently died. In addition to mastering basic communication techniques, you need to be sensitive to the emotions of these bereaved persons and know how to handle difficult situations that might arise during the interview.

How to approach the respondent

Always have a positive approach. Do not use phrases such as: "Are you too busy?" or "Can you spare an hour?" Such questions invite refusal before you start. Instead, begin by restating condolences for the death and say: "I would like to ask you a few questions." or "I would like to talk with you for a few minutes." Just as when approaching the household, state the purpose of the interview and its importance for helping the community; and stress the confidential nature of the interview.

However, if a respondent insists that s/he does not wish to talk to you, do not argue. Instead, ask her/him for another day or time when s/he would be available to participate in the interview. Answer any questions the respondent asks frankly and to the best of your knowledge.

Basic communication techniques

Sit at the same level as the respondent(s) and maintain eye contact

Always look at the respondent when administering the interview. Remember, this is a difficult time for the respondent and they must feel comfortable with you in order to complete the interview.

Build rapport with the respondent(s)

Try to build rapport with the respondent(s) before discussing the case of the deceased. For example, if culturally appropriate, you may ask the respondent what work s/he does, or ask about her/his family.

Encourage speech, listen actively, do not rush, nod your head

These are ways of showing the respondent that you are interested in what s/he is saying, and will encourage her/him to continue.

Be non-judgmental

Some of the respondent's answers may lead you to feel that s/he contributed to the woman's death, for example, by not taking her for health care quickly enough. However, you must not transmit this message in any way because it will discourage the respondent from providing truthful answers. The success of the project depends on all of us taking this non-blaming approach. The idea is for us and the community to learn what we can do together to prevent maternal deaths. This can only be accomplished by working together without blaming individuals for the deaths.

Language problems

If you encounter any language difficulties, for example, if you anticipate that a respondent speaks a different dialect than you do, talk to your supervisor beforehand.

Bereaved respondents and sensitivity issues

Persons who are mourning the death of a loved might have several emotional responses that could interfere with the interview. These might include the following, some of which are discussed below:

- Becoming sad or upset
- Getting offended or angry
- Being wary or suspicious of the entire interview or certain questions
- Not wanting to answer certain questions for unstated reasons

Sadness, tearfulness

First, be sure to express your sympathy and condolences for the respondent's loss before starting the interview. It may also help respondents to know that the health program and community will use the MDR data to help improve care for other women. If a respondent begins to cry or have great difficulty in answering questions because s/he is overcome with emotion, you should pause and offer a tissue for tears. Acknowledge how difficult it must be to answer the questions, give the respondent time to regain their composure, and ask if s/he can continue at this time. If the respondent chooses not to continue, attempt to reschedule the interview.

Anger

A respondent may be angry at the health program if s/he feels that an individual health worker or the health program in some way contributed to the death. The respondent might direct this anger at you if s/he sees you as a representative of the health program. Another possibility is that a respondent may blame a relative or neighbor for the woman's death if, for example, s/he feels that this person did not provide help that was needed. This anger could also come out during the interview. If this happens, let the person express their anger. Then, again express your condolences for their loss and acknowledge that you understand that they blame the particular person or the health program. (Never state that you agree with them, just that you understand that this is their feeling.) Last, again explain that the purpose of the interviews is to learn more about the problems that lead to maternal deaths and to help the community work together to overcome these problems.

Not wanting to answer certain questions

There could be several reasons that a respondent does not want to answer certain questions. A question may rekindle painful memories; it may ask about a topic that is particularly sensitive for the respondent; the respondent may feel that they personally did not do enough to help the woman and that the answer to the question would reflect badly on them, etc. Whatever the reason, you must never demand or even ask a respondent to answer a question that they have told you they do not want to answer. As stated in the informed consent statement, respondents' participation is totally voluntary and they have the right to refuse to answer any or all questions. It should not be a problem for the interview if a respondent refuses to answer only a few questions. However, many refusals will compromise the quality of the interview. You should make a note about any reasons you think might be leading to the respondent's reluctance and discuss such cases with your supervisor.

Conducting the interview***Materials you will need***

Interviewers will be provided the materials listed below to help them perform their duties. Make sure that you secure them in a safe place in your home when you are not working to prevent loss, damage, or any unauthorized person seeing information that is recorded on the MDR forms.

- Interviewer identification card (be sure to wear it where it can be seen)
- This manual, *Maternal Death Review Interviewer's Reference Manual*
- Blank maternal death verbal autopsy formats
- Consent form
- Pencils or pens for writing, and erasers
- Bag for carrying forms and other materials.

General instructions for the verbal autopsy questionnaire

1. The first page of the questionnaire, except probable cause of death, will be filled out by the block MO that assigns you the interview.

2. The questionnaire has 3 modules that should be filled up according to the type of death, however module 1 must be filled for all.

Antenatal deaths:	Module 1 and 2 (section 6 and 11)
Abortion deaths:	Module 1 and 2 (section 7 and 11)
Death during delivery:	Module 1 and 3 (section 8, 10 and 11)
Postnatal deaths:	Module 1 and 3 (section 9, 10, and 11)

3. Ask the questions slowly and clearly so the respondent understands. Allow the respondent to think about the question before recording their answer. Note that respondents may tend to give answers that they think will please the interviewer. Do not show any surprise, approval or disapproval of the respondent's answer by the tone of your voice or facial expression.
4. If the respondent doesn't know the answer to a question or looks uncomfortable with the question, you can try "probing" to get an answer. This means asking other questions similar to the subject material to try and help the respondent remember certain events. For example, if the respondent cannot remember who assisted the woman with the birth in the home, you might try "probing" by asking: "Who was in the room at the time of delivery?" Use your judgment when probing. Remember, this is a very sensitive time for the respondent and we do not want to upset them further.
5. Allow the respondent to narrate the events leading to the death of the mother in their own words. Keep prompting until the respondent says there was nothing more to say.
6. If you make a mistake when marking your answers do not erase the information. Instead, cross it out neatly with one line so the original entry can still be read, and then mark the correct answer. Write your initials next to the correction, so anyone who later examines the completed format will know who made any changes in the answers. Corrections can be made only by the designated interviewer.

Question-by-Question instructions

Front page: Available background information (to be filled out before the interview)

Page 1 should be completed when you receive the format from your supervisor. It provides background information that was gathered by the death notifier, which you should use to help locate the correct household where a suspected maternal death occurred. However, the last question;

probable cause of death, is not always clear and can be filled out by the investigators after the interview.

Name of the state

Write name

Name of the district

Write name

Name of the block

Write name

Name of the PHC

Write the name of the PHC to which the mother belongs.

Name of the SC

Write the name of the Sub- center to which the mother belongs.

Name of pregnant woman/mother

Knowing the woman's name will help you locate the correct household for the interview and to communicate about the woman with the people you meet at the household

Name of husband/other (father, mother)

If there is no information about the husband, the name of the head of household can be noted here.

Date of woman's death

The day, month and year should be recorded. This can also help you locate the correct household and ensure that you conduct the interview about the correct woman.

Name and designation of the investigators

Full name and designation of the interviewer team (interviewer and recorder). Please write the task (interviewer or recorder) in brackets next to the name. ≥

Date of investigation

Date of the interview. If it is necessary to return a second time, write the second date here as well.

Probable cause of death

The MO may not have the information to answer this before the interview, so it should be filled by the investigators after the interview. Please add also underlying causes, in addition to medical causes – if known.

Symptoms	Cause of Death
Bleeding in antenatal period	APH
Bleeding after delivery or postnatal period	PPH
Convulsions in antenatal period	Eclampsia
Infection , fever and foul smelling discharge after delivery	Puerperal sepsis
Woman not delivered after 18 hours after onset of labour	Prolonged labour
Sudden cessation of labour pains, woman in shock	Ruptured uterus
Woman develops fever and becomes unconsciousness after induced abortion	Septic abortion
Any other cause	Other (specify)

MODULE 1

1. Background information 2. Family history 3. Infant survival 4. Availability of health facilities, services and transport 5. Current pregnancy

INSTRUCTION: Introduce yourself and the purpose of your visit. Say that we are trying to improve the care of women and children. Ask to speak to the person(s) who knows the most about the circumstances of the woman's death. This might be her sister, mother, mother-in-law or other person. In some cases you may need to speak with more than one person to learn about different stages of the illness. If someone you need to speak with is not available, arrange a time to return when s/he will be home. Read the consent form to the respondent(s) and ask for her/his participation. Each respondent must consent to be interviewed.

Use the name of the woman who has died, when you are asking questions about her in the interview. E.g. How old was /-----/ when she died?

1. Background information

1.1 Resident /visitor death

Write 'Resident' if the woman who died is a resident of the village/area where she died. If she is usually residing outside, she is classified as a 'visitor' For example, if she was staying in her mother house during the delivery, she can be classified as a visitor

1.2 Type of death

Ask the respondent whether the woman died after having an abortion, before the labour started, during labour or after. If this is not yet clear, you can wait to tick an answer until it becomes clearer later in the interview.

1.3 Place of death

Tick the right answer. If this answer is not written, please specify in 'others'

1.4 Specify the name and place of the institution or village where death occurred. Write down name of the facility and/or village where she died.

1.5 Onset of fatal illness

Try to find out when the women's sickness that led to her death actually started. Write down day/month/year and the time of day. If time of day is not accurately known, write down an estimated time.

1.6 Admission in final institution (if applicable)

Final institution means the health facility in which she finally died. If she did not die in a health facility, this question can be skipped. Write day/month/year and time of day of the admission.

1.7 Death

Write day/month/year of death and the time of day.

1.8 Gravida

How many times has she been pregnant? Include this pregnancy, non-live births and abortions as well. Tick the appropriate answer.

1.9 Para

Para means the number of live births that the woman has had previously. Multiple births, i.e. twins, are considered as one para. Tick the appropriate answer.

1.10 Abortions

Has the woman previously lost any pregnancies due to either spontaneous or induced abortion? Spontaneous abortion is defined as < 20 weeks gestation.

1.11 Previous stillbirths

Did the woman previously experience any stillbirth? Stillbirth is defined as > 20 weeks gestation. Tick the appropriate answer.

1.12 Living children

How many living children did the women have (previous to the last pregnancy)? Tick the appropriate answer.

1.13 Week of pregnancy (if applicable)

If the woman died after abortion, an antenatal death, or during delivery, try to estimate the week of pregnancy she was in when she died. If respondents know the expected date of delivery (EDD), this can help estimate number of weeks.

Weeks	1-4	5-8	9-13	14-17	17-21	22- 26	27-30	31- 35	36-40
Month	1	2	3	4	5	6	7	8	9

1.14 Age at death

Even if the respondent does not know the woman's exact age it can help to know her approximate age. Please estimate if not known exactly. Record the exact or estimated age in completed years.

2.0 Family history**2.1 Age at marriage**

Tick the right answer.

2.2 Religion

Tick the correct answer. If, others, please specify.

2.3 Community

Tick the correct answer (SC= Scheduled caste, ST = Scheduled tribe, OBC = Other backward class, OC = Other class)

2.4 Occupation

This means the occupation of the deceased mother. What was the main/daily work of the woman? Tick the most appropriate answer. If there is none of the ones mentioned, note than her occupation in 'others'

2.5 Education

Please tick the correct answer according to how many years in school the deceased women have completed.

3.0 Infant survival**3.1 Infant**

At the time of the interview, is the newborn baby alive or dead? If dead, please indicate whether it was a stillbirth or a newborn death. If the mother died an antenatal death or abortion related death, please write N/A (not applicable) .

4.0 Availability of health facilities services and transport**4.1 Name and location of the nearest government / private facility providing Emergency Obstetric Care Services**

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This information you can fill in before the interview, without asking the respondents. Considering the village where the women lived, write the name of nearest facility that provides Emergency Obstetric Care Services (EmOC)

EmOc Facility: A facility that can provide the 9 signal functions of comprehensive emergency obstetric care:

1) Administer parenteral antibiotics (2) Administer uterotonic drugs (3) Administer parenteral anticonvulsants for preeclampsia and eclampsia 4) Manually remove the placenta (5) Remove retained products 6) Perform assisted vaginal delivery (7) Perform basic neonatal resuscitation (8) Perform surgery (9) Perform blood transfusion

4.2 Distance of this facility from the residence

These questions you can also fill in without asking the respondents. Estimate how many kilometres it is from the village to the above mentioned facility.

4.3 Number of institutions visited before death (in the order of visits)

Ask the respondents if they visited any formal health facilities (sub- center and upwards) before she died. If there is more than one, list the name of the institutions from the first to last. If she did not go to any, write 0 (zero)

4.4. Reasons given by providers for the referral

If the woman were referred to another facility, ask the respondents if the health staff explained why she had to be referred. Tick the appropriate answer, if 'others' please specify.

If the woman was not referred, tick 'Not applicable'

5.0 Current pregnancy

5.1 AN Care

Ask if the woman had any ANC check up during her pregnancy. Tick the correct answer.

5.2 If yes, Place of Antenatal checkup

Please tick the appropriate answer. If she went to different places, you can tick more than one. If she did not have any ANC check- up, write N/A for non applicable. If 'other', please specify/

5.3 Number of antenatal check ups

Please tick the correct answer.

MODULE II

This module is only to be filled out if there was an abortion related death or antenatal death – as stated in question 1.2. ***6.1 to 6.5 is for antenatal death only and 6.6 to 6.18 is for abortion deaths only***

6.0 Deaths during the antenatal period

6.1 Did the mother have any problem during antenatal period?

Ask the respondents if the woman had any problems relating to pregnancy or been feeling ill during the antenatal period. If she had problems or was feeling ill, tick yes. If she did not have any problems and was feeling well, tick no. If the respondent is not sure, tick not known.

6.2 If yes, was she referred anytime during her antenatal period?

If the above answer was yes, meaning she had problems or was feeling ill during the antenatal period, ask if a health worker referred her to a health facility during the same period. Tick the correct answer. If the answer above is no or not known, write N/A for not applicable.

6.3 What was the symptom for which she sought care?

Here is a list of symptoms, please tick the appropriate one(s) Ask the question as an open question –but if they do not respond, you can prompt carefully by asking about the listed symptoms. After they have answered, kindly ask: ‘anything else?’

6.4 If YES, did she attend any hospital?

This question is linked to 6.2. If yes, the woman was referred, please answer if she attended the any formal facility after being referred. If she was not referred, write N/A for not applicable.

6.5 In case of not seeking care from the hospital is it due to:

If the answer is yes or don’t know to 6.4, please write N/A for not applicable. If the answer to the previous question 6.4 is no, please continue with this question and tick the appropriate answer. If ‘others’ please specify in writing.

7.0 Abortion deaths

7.1 Did she die while having an abortion or within 6 weeks after having an abortion?

An abortion is either spontaneous < 20 weeks gestation or induced. Please tick the appropriate answer

7.2 If during an abortion, was the abortion spontaneous or induced, including MTP?

If the onset of abortion is spontaneous, tick spontaneous. Induced abortion also include induced by self or other unskilled person. Please tick the appropriate answer.

MTP means both *surgically* through Vacuum Aspiration and *medically* using medicines.

7.3 If the abortion was induced, how was it induced?

Please tick the appropriate answer. If possible, please specify whether it was MTP. If the abortion was not induced, tick 'not applicable'.

7.4 If the abortion was induced, where did she have the abortion?

Please tick the appropriate answer. If appropriate answer does not fit any category, please specify outside the column, i.e. if the abortion took place at a quack. If the abortion was not induced, tick 'not applicable'.

7.5 If the abortion was induced, who performed the abortion?

Please tick the appropriate answer. If the abortion was not induced, tick 'not applicable'. If 'other', please specify in writing.

7.6 If induced, what made family seek care?

This question means the reason for why she went to 'induce' the abortion. Did she initially start bleeding, or did she have the abortion because she wanted to terminate? Tick the appropriate answer. If the abortion was not induced, tick 'not applicable'

7.7 If the abortion was spontaneous, where was the abortion completed?

Please tick the appropriate answer. If other, please specify (e.g. informal providers, quacks)

If the abortion was not spontaneous, tick 'not applicable'

7.8 How many weeks of pregnancy completed at the time of abortion

Write down weeks in completed weeks (same as in 1.13)

7.9 Whether she had any of these symptoms after abortion?

Ask the respondent whether she has any of the listed symptoms after the abortion. Tick the appropriate one (s) If she did not have any symptoms, tick 'none'

7.10 After developing complications following abortion, did she seek care?

Please tick the appropriate answer. If other, please specify, e.g. if she developed complications while she was still in the facility that performed the abortion

7.11 If yes, whom/where did she seek care?

This question is only applicable if answer to 7.10 is yes. Tick the appropriate answer. If others, please specify. If she did not seek care, tick 'not applicable'

7.12 In case of not seeking appropriate care, is it due to..

If the answer is yes or don't know to 7.10, please write N/A for not applicable. If the answer to the previous question 6.10 is no, please continue with this question and tick the appropriate answer. If 'others' please specify in writing.

7.13 Date of spontaneous abortion/ date of termination of pregnancy

Write the day/month/ year of abortion.

7.14 Date of death

Repeat answer from 1.7

MODULE – III

This module is only to be filled for deaths that occurred during delivery, and postnatal deaths. Section 8 is for deaths during labor and delivery only, and section 9 is for postnatal deaths only. **Section 10 and 11 will be filled up by both delivery and postnatal deaths.**

8.0 Intranatal services

8.1 Place of delivery

Please tick the appropriate answer. If it is 'other' please specify in writing.

8.2 Admission (not applicable for home delivery and transit)

Write the day/month /year she was admitted in the facility where she delivered. If she did not deliver in a facility, please tick 'not applicable'.

8.3 Delivery

Write day/month/year and the time of day when the baby was born. Tick 'Not applicable' if mother dies in labour, but before the baby is born.

8.4 Time interval between onset of pain and delivery (in hours)

Write down the time difference between start of labor pain and birth of baby.

Tick 'Not applicable' if mother dies in labour, but before the baby is born.

8.5 Who conducted the delivery- if at home or in institution (Not applicable for transit delivery)

This question includes both private and public health facilities. Tick the one that attended her at the time. Please tick the appropriate answer. If 'other', please specify.

8.6 Type of delivery

Please tick the appropriate answer. Tick 'Not applicable' if mother dies in labour, but before the baby is born.

8.7 Outcome of the delivery

Please tick the appropriate answer. If multiple births, write down how many alive/dead. Tick 'Not applicable' if mother dies in labour, but before the baby is born.

8.8 During the process of labor/delivery did the mother have any problems?

Please see the possible answers and tick the appropriate one. If there are not any of the mentioned alternatives, please specify elaborately in 'others'. If she did not have any problems, write No.

8.9 Did she seek treatment, if yes by whom and what was the treatment given by the ANM/Nurse/LHV/ / MO/others? (Give details)

If the woman was having problems during the delivery (8.8), please write here a small narrative on what happened – did she seek treatment? Who treated her? Was any treatment given?

If she did not seek care, or respondent does not know, please note it as well.

8.10 Was she referred?

If answer to 8.9 is no, question 8.10 – 8.17 is not applicable. Skip to section 9.

If answer to 8.9 is yes, please tick the appropriate answer.

8.11 Did she attend the referral centre?

If answer to 8.10 is no or not known, question 8.11 – 8.17 is not applicable. Skip to section 9. If answer to 8.10 is yes, please tick the appropriate answer.

8.12 In case of non compliance of referrals state the reasons

If answer to 8.11 is no, she did not attend the referral centre- please ask why and tick the appropriate answer. If 'other', please specify.

If answer to 8.11 is yes, tick 'not applicable'.

8.13 Was there delay in:

If answer to 8.11 is yes - she did go to the place she was referred, ask if there was delay (it took quite some time) in any of the alternatives listed in questionnaire. 'Decision making' means if it took time to decide to seek help. Please tick the appropriate answer(s). If any 'other' delays, please specify.

8.14 Any information given to the relatives about the nature of complication from the hospital

If the woman went to a health facility, ask if the persons who accompanied her received any information about her condition from the health staff. Please tick the appropriate answer

8.15 If yes, describe

If they did receive information, please write a small narrative on what information they got. If the answer to 8.14 is no, please tick 'not applicable'

8.16 Was there any delay in initiating treatment?

Ask if the woman had to wait for some time in the facility before they started the treatment. Tick the appropriate answer.

8.17 If yes, describe

If the answer to question 8.16 is yes, please write a small narrative on what happened. What caused the delay? No staff, they had to pay the first etc. If the answer to question 8.16 is no, please tick 'not applicable'

9.0 Postnatal period**9.1 No. of Postnatal checkups**

Ask how many times she was seen by a health staff after the delivery – either at home or if she returned to the facility. Please tick the appropriate answer.

9.2. Did the mother had any problem following delivery

Ask if the mother had any problems during the delivery and/or the immediate period after. Please tick the appropriate answer.

9.3 Onset of the problem.

Write day/month/year and time of day when she got the illness that lead to her death. Please tick the appropriate answer.

9.4 Specific problems during the postnatal period

Ask the question as an open question –but if they do not respond, you can prompt carefully by asking about the listed symptoms. After they have answered, kindly ask: 'anything else?'

Please tick the appropriate answer. If 'other', please specify. If she did not have any specific problems, write No and skip question 9.5 – 9-9.

9.5 Did she seek treatment?

Please tick the appropriate answer.

9.6 If yes, by whom

Please tick the appropriate answer. If 'other', please specify. If she did not seek treatment, please tick 'not applicable'.

9.7 What was the treatment given (give details)

Please write a short narrative about what the healthcare provider (formal/informal) did to help the woman. If she did not seek treatment, please write N/A for not applicable.

9.8 Was she referred?

Please tick the appropriate answer. Tick 'Not applicable' if she had not sought care in the first place (question 9.4 or 9.5 is no)

9.9 Did she attend the referral center?

If answer to 9.7 is yes, please tick appropriate answer. Tick 'Not applicable' if she had not sought care in the first place (question 9.4 or 9.5 is no)

9.10 In case of non compliance of referrals state the reasons

If the answer to question 9.9 is no, please ask the respondent why she did not go. Please tick the appropriate answer. If 'other', please specify in writing.

If the answer to question 9.8 is no, please tick 'not applicable'

10. Reported cause of death

10.1 Did a doctor/nurse at the health facility tell you the cause of death?

Please tick the appropriate answer

10.2 If yes, what was the cause of death.

If the answer to question 10.1 is no, nobody was told the cause of death, please write N/A for not applicable.

11. Open history

Read: Thank you for answering the many questions that I've asked. Would you like to tell me about the illness in your own words? Also, is there anything else about her illness that I did not ask and you would like to tell me about?

After the respondent(s) finishes, ask: Is there anything else? Write the respondent's exact words. After s/he has finished, read it back and ask her to correct any errors in what you wrote.

THANK RESPONDENT(S) FOR THEIR COOPERATION

Informed Consent Form

Interview about a maternal death

Instructions to Interviewer: Please ask the respondent to acknowledge her/his consent to be interviewed by checking the response below. The interviewer should sign and put date below. If the respondent does not consent to the interview, thank her/him for their time and terminate the conversation.

Purpose of the interview: We are talking to people in the community to learn why some women die while they are pregnant or during or soon after giving birth. At the same time, we are learning about the reasons that some babies die during the pregnancy or soon after the birth.

What will happen during the interview: I will ask you questions about your relative/neighbor/friend who recently died. I will ask about her background, her pregnancy history and events during her most recent pregnancy. I may also some questions about her baby from this pregnancy. Some questions have a choice of possible answers and others are open-ended.

Time required: Your interview will take approximately one hour.

Risks: It is possible that some questions could make you feel uncomfortable by talking about bad experiences.

Benefits: There are no direct benefits, however, your participation will help up improve maternal and newborn care for women and babies.

Confidentiality: All information you provide will be kept confidential. Your responses will be assigned a code number and your name will not be used in any way.

Voluntary Participation: Your participation is strictly voluntary. Refusal to participate will not affect whether or not you receive subsequent services. You may discontinue participation at any time.

Contact: If you have any questions or concerns, please contact.....

Do you agree to participate in this interview? ☐ YES ☐ NO

Interviewer

Date

Respondent's relationship to woman

2.2 Manual for Trainers of Interviewers

SESSION PLAN

Sessions	Title	Duration
Session 1	Ethical Aspects and Informed Consent	45 min
Session 2	Approach to the household and respondents	45 min
Session 3	Role play – communication and sensitive issues	60 min
Session 4	Conducting the Interview	30 min
Session 5	Group practice module 1	60 min
Session 6	Group practice module 2	60 min
Session 7	Group practice module 3	60 min
Session 8	Group practice complete questionnaire	90 min

SESSION 1: ETHICAL ASPECTS AND INFORMED CONSENT

Purpose: This session ensures that the participants understand the importance of conducting MDR in an ethical manner and how to accomplish this.

Objectives: After completing this session, participants will be able to:

1. Define three key principles of human subjects research ethics;
2. Know how to administer informed consent;
3. Understand why they must keep the MDR data confidential

Duration: 45 minutes

Needed provide materials: PowerPoint presentation on Ethical Aspects of MDR; informed consent form (Appendix A of the Interviewer's Reference Manual)

GETTING STARTED

Inform the participants: This session will consist of a slide presentation, discussion and looking over the informed consent form. You should review the consent form on your own this evening.

Slide Presentation: Ethical Aspects of Maternal Death Review

Slide 1 (title slide): Explain: There are two reasons why it is so important that we all conduct MDR in an ethical manner. First, we are trying to help the community, so of course it's the right thing to do to treat people decently. Second, acting in this manner will help us gain the community's trust so that

people will be more likely to share information with us. This is the only way we can learn the true stories of what happened to the women during their fatal illnesses, and so be able to help prevent further deaths.

Slide 2: Explain: All persons who are conducting interviews must be trained in how to maintain the required ethical standards and how to ensure informed consent from the interviewee. That means everyone in this room who will be an interviewer or supervisor. Later in this session, we will discuss what informed consent means and how you will administer this.

Slide 3: Explain: There are three key ethical principles that govern all research activities. The words 'ethical principles' are underlined to remind you that the three points on this slide are the principles. After we discuss the principles, we will discuss how we maintain the principles. But remember that the three points on this slide are the principles that must be maintained. The first principle is:

1. Justice, which means that the burdens and benefits must be distributed fairly. For example, if there are two maternal deaths and you can only interview one, then you have to find a fair way to decide which one to interview.
2. Respect for individuals' autonomy, meaning that everyone has the right to decide for him or herself if they will participate; and that children and other persons with diminished autonomy must be protected. Therefore, we will only interview people who are over 18 years old.
3. Beneficence, which means that we must do our best to maximize the benefits of our work and minimize the risks.

Slide 4: Explain: We do certain things to maintain these principles. The first principle, justice, is maintained by equitable and factual recruitment of the respondents. This means that we can't make any false promises, such as that you will pay them money to answer the questions. The second principle, autonomy, is maintained by informed consent. This means that before you can interview anyone, you must tell them all about the interview and then they must consent to be interviewed. We will discuss this more fully in a moment. The third principle, beneficence, is maintained by everyone on the MDR team taking responsibility for their actions. Now let's discuss each of these in more detail.

Slide 5: Explain: Remember, equitable and fair conduct to the respondents maintains the principle of justice. You don't need to memorize the points on this slide because they are included in the informed consent statement that you will read to potential respondents. But you do need to understand them. To be fair to someone when asking them for an interview, you must clearly describe the purpose of the study. You must invite them to participate, which means it is their choice. You can't make any false promises or threaten them in any way if they decide not to participate. And you have to tell them about the interview itself, for example, about how long it will last.

Slides 6 and 7: Explain: Informed consent maintains the principle of autonomy. Only by being fully informed about the study can someone decide if they want to participate. You will administer informed consent just before doing the interview. Everything on these two slides is part of the statement that you will read to potential respondents. (Read the items on the slides.)

Ask participants and discuss: *Notice that the only risk to a respondent is the discomfort he or she may feel when talking about the death of their family member. However, can you think of any other risks that might happen if we don't maintain the confidentiality of the information that respondents share with us?*

Write: all responses on flip-chart paper. Discuss that breaching confidentiality could lead to a risk for the respondent. For example, the woman's in-laws might share some information about the care they provided during her illness that they would not want her parents to know.

ACTIVITY: Read through the informed consent form

The trainees (interviewers and supervisors) take turns reading aloud sections of the informed consent form. The trainers answer any questions. Remind the participants to review the form this evening on their own.

SESSION 2: APPROACH TO THE HOUSEHOLD AND RESPONDENTS

Purpose: This session marks the transition to actually conducting the interview. It provides ways to approach a household where an interview is to be conducted and to identify and approach the best respondent(s). It also discusses communication and sensitivity issues

Objectives: After completing this session the participants should be able to:

1. List the MDR interview sequence in the correct order;
2. State three helpful methods for approaching a household; and
3. Identify the best respondent(s) for a maternal death inquiry.
4. Identify some sensitive ways to deal with possible reactions;

Duration: 45 minutes

Needed provided materials: PowerPoint presentation on Approach to the Household and Respondents

Inform the participants: This session will consist of a slide presentation and discussion.

ACTIVITY: Slide Presentation: Approach the Household and Identify the Respondent(s)

Slide 1 (title slide): Explain: In this presentation we will make the transition to conducting the interview. While we won't actually look at the questionnaire until tomorrow, the steps and methods that we will discuss now are critical to the success of the interview. The first presentation is on how to approach the household and identify the best respondents. The next presentation is on communication methods and being sensitive to bereaved respondents.

Slide 2: Explain: The interview sequence consists of the four steps you see on this slide: 1) Approach the household, 2) Identify the best respondent or respondents, 3) Obtain informed consent, and 4) Conduct the interview.

Slide 3: Explain: When your supervisor assigns a maternal death to you for interview, he or she will give you a blank MDR questionnaire except for page 1, which will be filled with locating information provided by the death

notifier. Use this information to locate the household where the deceased woman stayed during her illness. Consider seeking the help of the ASHA or a local respected person, such as a village leader or schoolteacher, to pre-arrange the meeting and perhaps accompany you and introduce you to the family. This is more likely to result in a cordial reception and successful interview than showing up without any warning.

Slide 3: Continue: Your arrival at the household may create a lot of interest and so there may be many observers. You should seek a quiet place with as much privacy as possible to be alone with the family. If a local person from the village accompanies you to the household, you should ask for their help with this.

Slide 4: Explain: You must quickly gain the family's trust and cooperation if you hope to conduct a successful interview. You should dress professionally and carry an ID badge that shows you are part of the MDR project. Be polite and sensitive to the family's recent loss. State the purpose of your visit and the confidential nature of any information the family provides. Also be prepared to answer any questions the family may ask about the project. Chapter 5 of the interviewer's reference manual includes an example of how to introduce yourself:

My name is [say your name]. I am a nurse/___ in the ___ center, and an interviewer with the MDR project. I have been informed that a woman in your household died. I am very sorry to hear this. Please accept my sympathy. In order to improve health care in our district, we are collecting information on recent deaths of women in this area. I would like to talk to the person in your house who took care of [say the woman's name] during her illness before death. I assure you that any information you or your family provide will be kept confidential.

Slide 5: Explain: Once the introductions are over, say that you want to speak to the person who knows the most about the woman's fatal illness. We want only first-hand information, so this should be the person who was with her during the illness. For a woman who has died a maternal death, the best respondent will often be her husband, mother, mother-in-law or another close female relative. If necessary, set an appointment and return to conduct the interview. Sometimes the respondent may live in another location. If this happens you should discuss this with your supervisor and decide what to do.

Slide 6: Explain: In some cases you may need to interview more than one respondent to get first-hand information about the entire illness. For example, the woman's mother-in-law may have been with her during her labor and delivery at home; and her husband may have accompanied her to the hospital after the delivery. Try to ensure that only one person serves as the respondent for each illness stage. It can get confusing if two or more people try to tell you about the same stage of the illness. If two people were actually with the woman during the same illness stage and both insist on answering the same question, then they must agree between themselves on the answer. It is not possible to record two answers for the same question.

Slide 6: Continue: You may also face the situation where a person who was not with the woman during her illness insists on being the respondent. For example, the woman's husband may not let her sister answer any questions even though she was the one who stayed with her during the illness. Try to explain to the person the importance of gaining first-hand information in order to prevent further maternal deaths. Other times, a neighbor or other person who doesn't know about the illness may want to participate. In such cases, ask the person to leave or reschedule the interview for another time.

Slide 7: Explain: After identifying the best respondent, read the informed consent form exactly as it appears and ask the person if they agree to be interviewed. If they do, have them make their mark on the form and then you sign and date the form to show that you witnessed the signing. If there is more than one respondent, then complete a separate form for each person, listing who they are, for example, 'husband,' at the top of the form. Last, you conduct the interview, which we will begin tomorrow.

Slide 8: ACTIVITY: Re-arrange the tasks

Ask the trainees to re-arrange the tasks in the correct order:

1. Obtain locating information from supervisor
2. Conduct the interview
3. Identify the best respondent(s)
4. Obtain informed consent
5. Introduce yourself to the household

Thank respondents for their participation. Correct order: 1, 5, 3, 4, 2, 6

Slide 9: Explain: We all need to keep in mind that the MDR interview is about a very painful experience, and this can affect the respondent's ability to answer the questions. We can help the respondent complete the interview by being sensitive to their needs. Good communication with the respondent and being sensitive to his or her recent loss are both essential to the success of the interview. Even if we use a technically perfect questionnaire, we are unlikely to obtain useful information if we don't first establish good communication with the respondent and put them at ease. Being sensitive to their situation will help them discuss painful memories, continue with the interview and do their best to answer our questions thoughtfully.

Slide 10: Explain: Good communication starts with your approach to the household, before you even identify the respondent. You can set the tone for a good interview by dressing and acting professionally, building trust, ensuring confidentiality and stressing the importance of the information. Once speaking with a potential respondent, don't demand when the interview must take place. Instead, arrange a time and place that is good for the respondent. Remember, their participation is voluntary.

Approach the respondent in a similar manner as you approach the household. Be positive, express condolences for their loss, state the purpose of the interview and assure them that the information they provide will be kept confidential. Answer any questions the person has and try to allay their concerns about the interview. Even though the informed consent form will cover many of the same issues, it can help build trust if you express these things informally during your introductions. Also be prepared to deal with possible unpleasant emotional reactions of the respondent. We'll discuss this more in a few moments.

Slide 11: Explain: There are a few basic communication methods you can use to help ensure a good interview. Build rapport with the respondent before you start the interview by chatting a bit about a subject other than the woman's death. For example, you might ask the respondent about what type of work he does. Always sit at the same level as the respondent and maintain eye contact. Encourage the respondent to speak freely. Pay close attention to what he says, don't rush, and be sensitive to his or her needs. Above all, never be judgmental about what the respondent tells you. He may already feel guilty or ashamed that he did not properly care for the woman during her

illness. If he senses that you are judging him, he is unlikely to tell you anything further that may reflect badly on himself.

Slide 12: Explain: Many of the questions you will be asking may be difficult for the respondent to answer. They may feel uncomfortable or get upset when you ask certain questions. If a respondent becomes tearful then wait until she regains her composure. Express your sympathy and offer a tissue to wipe her tears. Then ask if she feels alright to continue the interview at that time. If not, then ask to schedule a time when you can return to complete the interview.

Respondents may feel angry about the woman's death. For example, they might feel that a health center did not provide proper care, or they may think that a relative or neighbor did not do enough to help them take the woman to the hospital. You should express your understanding of their anger, but never say you agree with them. It might also help to again explain that the purpose of MDR is not to determine who is to blame for a death, but to help the community work together to prevent similar deaths from happening again.

Slide 13: Explain: Some people may be suspicious of why you want to interview them. This could be expressed as anger or they may just refuse to participate. It might calm these persons to approach them with the help of a local leader or other respected person, or by explaining the purpose of MDR. However, you will also have to learn to accept that not everyone will consent to be interviewed.

Most people will consent to be interviewed, but occasionally someone may not want to answer a particular question. It might be that this question raises painful memories or perhaps feelings of guilt or shame. You must never demand or push a respondent to answer a question she does not want to answer. Remember, consent is an ongoing process. We are trying to work with people to find out how their loved one died and prevent unnecessary deaths in the future. However, do let your supervisor know if a respondent refused to answer several questions. This could affect the quality of the interview.

Ask participants and discuss: Why is it important that you be sensitive when conducting the interview? **Would anyone like to share a personal experience of loss, and how you think you might have responded to an interview about the loss?**

Allow participants **to answer and share personal experiences if they wish**. Ask participants and discuss: **What are some possible impacts of mourning on the interview?**

Record all answers on a flip chart: Possible answers may include:

- Respondents may not feel comfortable answering certain questions;
- Respondents may get angry or offended when asked questions;
- Respondents may get sad and upset; and
- Respondents may be suspicious of the entire interview.

Ask participants and discuss: **What are some ways you can help respondents feel more comfortable about answering the questions in the interview?**

Record all answers on a flip chart: Possible answers may include:

- Be patient;
- Be non-judgmental;
- Sit at the same level as the respondent;
- Maintain eye contact;
- Nod your head, encourage speech, listen actively, do not rush; and
- Allow the respondent to speak freely even if he strays slightly from the interview.

SESSION 3: SMALL GROUP ROLE PLAYS OF COMMUNICATION AND SENSITIVITY ISSUES

Purpose: This session provides an occasion for the trainees to practice methods of approaching the household and sensitively communicating with respondents.

Objectives: After completing this session the participants should be able to:

1. Have a more practical understanding of how to approach the household and identify and communicate with the best respondent(s); and
2. Be prepared to sensitively deal with several emotional responses of the respondents.

Duration: 1 hour

Needed provided materials: Interviewer's Role Play Guide (Appendix D in the Interviewer's Reference Manual) and Trainer's Role Play Guide (Appendix C in this manual)

ACTIVITY: Small-group role-plays of interview situations

Instructions: The Interviewer's and Trainer's Role Play Guides provide several examples of problem situations that MDR interviewers may encounter in the field. In addition to presenting the same scenarios as the interviewer's guide, the trainer's guide discusses each situation and provides hints for overcoming the problems. It also offers suggestions for utilizing the scenarios as a training tool, including how to organize the session and assist the interviewers to solve problems on their own. This will serve them well in their work. The following instructions supplement the information provided in the trainer's guide. Use them together to gain the full benefit of this session.

Divide the participants into four groups of four to six persons each. Assign two of the eight scenarios in the role play guides to each group. Divide the scenarios among the groups according to topic, so that each group enacts two different situations. (Scenarios 1-5 focus on approaching the household and selecting the best respondent; scenario 6 is on being sensitive to respondents; and scenarios 7-8 deal with problems that might occur during the interview.) Allow the small groups 10 to 15 minutes to discuss and enact

each situation amongst themselves. Reconvene the entire group after half an hour. Each small group should act out one of their two role plays to the whole group, followed by feedback and dialogue. The actors and observers of each role play should comment on problems and solutions they noted, as well as their own emotional responses to the situations and those that they observed in the others.

SESSION 4: CONDUCTING THE INTERVIEW

Purpose: This session provides an overview of the Suspected Maternal Death Format and general instructions for how to complete the format.

Objectives: After completing this session the participants should be able to:

1. Understand general instructions for completing the format;
2. Know how to correct mistakes made in filling the format; and
3. Know which questions to skip.

Duration: 30 minutes

Needed provided materials: MDR Interviewer's Reference Manual

Instructions: The trainees must read through the 'General Instructions for completing the Verbal Autopsy questionnaire' in the Interviewer's Reference Manual. Discuss and resolve any issues that require clarification. It provides the foundation for conducting the entire interview, so it is essential that every participant understands every point raised by the instructions. The trainers must ensure that this is so.

Hint to the trainers: The general instructions provides ideas and examples of how to deal with general questionnaire issues, such as how to record the response "Don't know," how to correct mistaken entries and how to skip certain questions. The trainees may have many inquiries about the interview format. However, the specific issues raised by each question will be dealt with in the following sessions.

Also, some trainees may not have prior experience with a standardized format that needs to be filled in so precisely. Explain to them that the responses may be computerized, and that the answers must be clear to the data entry personnel.

SESSIONS 6- 9: GROUP PRACTICE OF MODULE 1- 3 AND THE COMPLETE QUESTIONNAIRE

Purpose: These sessions provide an opportunity to practice using the Maternal Verbal Autopsy questionnaire and solidify what was learned yesterday.

Objectives: After completing these sessions the participants should be able to:

1. Be able to fully conduct an interview using the Maternal Death review questionnaire

Duration: 1 hour for each module, and 1, 5 hours for the complete questionnaire.

Needed provided materials: Verbal Autopsy questionnaire for investigation of maternal deaths

Instructions: Over the next 4 sessions the trainees take turns practicing the three different modules and then the entire maternal death interview. Plenary discussions help solidify what is learned through the practice.

It is essential that every participant be competent in conducting the interview. Today, the trainers' main role is to serve as facilitators during the practice sessions. Each trainer/facilitator should work with two groups of three trainees per group. Observe the trainees in action as they practice the interview. Do not interrupt them if you see an error being made; instead, wait until they have completed the interview section(s) they are working on, and then offer helpful observations, clarifications and corrections if necessary. Even if the trainees appear to be doing very well, give them an opportunity to ask questions.

Practice of the modules: The trainees should work in groups of three. Just as during an actual interview, one person should serve as the interviewer and another as the recorder. The third person serves as the respondent. Take about 20 minutes to complete one module; then switch roles so that a second trainee gets a turn as the interviewer and another as the recorder, again taking about 20 minutes to complete one module.

For each interview, the interviewer should begin by introducing him or herself to the household. Since we are working in small groups at this time,

pretend that the person who answered the door turns out to be the best respondent and interview this person.

Plenary discussion of practice interviews: After each module, there should be a plenary discussion. Begin with the two groups of three trainees each who worked with one trainer/facilitator. Allow each trainee to give his/her comments and observations about the process in their group, any problems encountered and solutions to the problems. Each person should also comment on how it felt to be the interviewer, the recorder and the respondent. Then the trainer/facilitator for the two groups should make his/her observations. Repeat this process for each pair of trainee groups.

Group practice of an entire maternal death interview: There is insufficient time for each person to complete an entire interview, so the time is best spent with one person in each group conducting the interview, one being the recorder and a third the respondent. If there are more than three persons in a group, the others can observe and critique. Trainees who will be supervisors in the project might better serve as observers for this session, to practice in this role.

Annex A: Practice interview situations

Scenario 1 – Postpartum haemorrhage

A 28-year-old woman, gravida 6, para 5, delivered at home with the help of an untrained dai. Her labour lasted 14 hours with difficult pushing for more than 2 hours. The baby was large and had difficulty breathing at birth. The woman had some bleeding during the birth, which continued after delivery of the placenta. After 1 hour the husband became concerned and decided to seek help. Many difficulties were experienced in finding a vehicle and the woman died on the way to the hospital.

Scenario 2 – Post-abortion sepsis

A 21-year-old woman, gravida 4, para 3, had an abortion performed by a quack who inserted a traditional root in her vagina. One day after the abortion the woman had fever and chills. The next day she noticed a foul-smelling vaginal discharge and had pain in her abdomen. She became more ill over the next days, with increased fever and sweats. She sought care from a neighbour who was knowledgeable about traditional medicines. He treated

her with an application of leaves to her abdomen and hot tea. She became sicker over the next day and went to see the ANM at her local health subcenter. The ANM referred her to hospital but the woman did not go because of a lack of money for transportation and treatment, but went to receive another traditional medicine. However, her illness worsened. She became incoherent and then unconscious for 1 day, after which she died at home.


Scenario 3 – Ante partum haemorrhage

A 25-year-old woman, gravida 3, para 2, had light vaginal bleeding early in her pregnancy that stopped by the third month. The bleeding recurred in the sixth month, occurring periodically and becoming heavier with each episode. She sought care from her ANM for several of these episodes. During the last episode, in the eighth month of pregnancy, the woman had heavy bleeding and felt faint and cold. She sought care from the ANM, who referred her to the hospital. Her husband was away so she had trouble getting money to go to the hospital. Once she got the money, she went to the nearest CHC, which took more than 1 hour to reach. The doctor at the CHC said she needed a transfusion and referred her to the district hospital. It took her another hour to reach the district hospital. When she arrived she was already unconscious and she died soon after.

3. FBMDR TOOLS

3.1 FBMDR Reference Manual

3.2 Cause of Death Classification



3.1 FBMDR REFERENCE MANUAL

3.1 FBMDR Reference Manual

Instructions for filling up the Facility Based Maternal Death Review format

Process of filling and submission of the FBR format

This form would be filled by the Medical officer (MO) who had treated the mother and was on duty at the time of the maternal death. The form would be submitted after incorporating the suggestions and approval of the nodal officer designated for that hospital. The format has to be prepared in triplicate. One copy of the FBR format would be retained by the institution, one copy would be sent for review by the Maternal Death Review (MDR) committee of the hospital and the other would be sent to the District Nodal Officer with 24hrs of the occurrence of death.

Guideline for filling up the FBR format:

Page – 1

Note: Read the notes carefully and follow accordingly

Mark with an X or $\sqrt{}$, or fill the boxes as required

Please fill the relevant areas only. For example if death was due to septic abortion do not fill questions related to AN, intranatal and post natal components.

The box for “***office use only***” will be filled by the District Nodal Officer only.

The Medical officer has to start filling from 'General Information' onwards. General information on this page includes details of the Nodal officer and address of the deceased women and the institution.

Page -2

Appropriate boxes have to be filled or ticked as required.

III.2. In Reasons for admission/diagnosis at admission:

- **APH** refers to abruption placenta or placenta previa
- **Abortion**- specify the type – spontaneous, induced, septic etc
- **Previous C section** refers to caesarean section
- **CPD** refers to Cephalo pelvic disproportion.
- **Medical condition** refers to systemic problems like cardio vascular problems, diabetes, jaundice, renal problems and other conditions like Tuberculosis, asthma etc

III. 4. Diagnosis when died:

- **Post operative** complications include surgical complications, anaesthesia complications and complications due to blood transfusion.
- **Abortion** specify – spontaneous, induced with/without bleeding, septic abortion etc
- **Medical condition** refers to systemic problems like cardio vascular problems, diabetes, jaundice, renal problems and other conditions like Tuberculosis, asthma etc

Page -3

III.7. Answer this question only if the patient had come to the hospital with a complication. E.g. Severe haemorrhage at the time of admission.

III.8. Answer this question only if the patient had been admitted for a normal process and later developed complications. For eg. She was admitted for normal delivery, but she developed post partum haemorrhage following delivery.

III. 10.a Mention the centre which had referred her

III. 11. The mother might have visited more than one centre since the onset of the problem/labour before coming to this centre. Tick for all the centres visited. More than one box can be ticked.

IV. 1.b. **Illegal abortion** refers to abortion done by unqualified persons or quacks

IV.2. **Others** refer to unapproved/ unacceptable procedures like introducing sticks of plant etc

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IV.6. Give detailed information on how the mother developed complications (due to abortion) and how it was managed.

V.1.b. **SC** refers to Health Sub centre & **MO** refers to Medical Officer, **other specialist** refers to doctors who have a diploma/ Degree in specialties other than Obstetrics, e.g. ENT surgeon

V.1.c. **GDM** refers to Gestational Diabetes Mellitus & **Grand Multi** refers to 5th pregnancy or above

Page- 5

V.4. Additional information on AN complication

All events that happened during the AN period should be recorded. Narration of the patient/ their attenders, reports, complications during the AN period and treatment given should be given in detail.

VI.2. **PROM** refers to Premature rupture of membranes, **PPROM** refers to Preterm Premature rupture of membranes and IP sepsis refers to Intrapartum sepsis

Page- 6

VI. 6. Phases of labour

- Latent phase – The phase of labour when irregular and painful contractions start and continue to build up both in intensity and frequency.
- Active Phase – The active phase of labour is the second part of the first stage, during which the cervix dilates from 0 to 10 cm.

- Second stage – starts from full dilatation of the cervix to the delivery of the baby
- Third stage – delivery of placenta
- Fourth stage – up to two hours following delivery of placenta

VI. 7.a. **CVA** refers to cerebro vascular accidents & **PE** refers to Pulmonary embolism

VI.7.b. **others** refers to conditions like urinary tract infections, thrombophlebitis etc.

VI.9. Intervention done , which is not the list may be included in the last row in the appropriate columns.

VI.10. All information on the complications during delivery and puerperium should be stated. All interventions done and medication given should be mentioned in detail

Page- 7

VII.4. **Still birth** refers to death of a fetus having birth weight >500 g (or gestation 22 weeks or crown heel length 25 cm) or more.

VII.4. **NICU** refers to Neonatal intensive care unit

VII. 4.b. **MAS** refers to Meconium aspiration syndrome. **Preterm** refers to Gestational age of less than 37 completed weeks (i.e. less than 259 days)

VII.5. Provide details of the status of the newborn and complications if any and its management

VII Cause of Maternal Death: Guide to define the Direct, Indirect & Non obstetric cause of death is given in detail in this manual in a separate chapter.

Page- 8

IX- Tick appropriate boxes, if information is not know, tick 'Not known'

X. Detailed information on avoidable factors both prior to admission / subsequent to it can be discussed including sub standard care in the hospital.

Page-9

XI.1. If autopsy was done, mention the gross findings and the detailed autopsy report can be send the Facility based maternal death review committee later.

XII. A summary of cause of death and the events leading to it, specifying the date and time of each complication and steps taken and treatment provided.

On completion of the format the medical officer should submit the format to the nodal officer, who would review for the completeness of the information and approve submission of the report duly signed.

3.2 Cause of Death Classification

Direct obstetric deaths

Maternal deaths resulting from obstetric complications of the pregnant state (pregnancy, labour, and the puerperium), from interventions, omissions or incorrect treatment, or from a chain of events resulting from any of the above.

A classification of dual causes of maternal death are more useful. It allows for two of causes: an essential level and a specific level. The essential level identifies a minimum list of causes that can be identified in all settings, whatever the level of sophistication of the cause of death reporting. The list of specific causes improves the degree of detail achieved.

Examples: Antepartum haemorrhage following placenta praevia, Postpartum haemorrhage following prolonged labour, PPH following cervical tear, eclampsia, sepsis following prior foetal death (WHO).

Maternal death

The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (WHO).

Maternal Mortality Ratio (MMR)

The Maternal Mortality Ratio is the number of maternal deaths per 100,000 live births per year (WHO).

Indirect obstetric deaths

Maternal deaths resulting from previous existing disease or disease that developed during pregnancy and that was not due to direct obstetric causes but was aggravated by the physiological effects of pregnancy.

Indirect maternal deaths are relatively few in number. The classification should list the causes of importance according to the local epidemiology of diseases. The diseases representing relatively large proportions should be listed as such rather than hidden in a broader category.

Examples: Heart diseases, Hepatitis, malaria, TB, AIDS, tetanus (WHO).

Non-obstetric causes

Death of pregnant woman resulting from accidental or incidental causes.
(Examples: Accident, assault, suicide, snake bite, burns).

A. Direct Obstetric Causes

I. Early Pregnancy death (EPD) (First 20 weeks of pregnancy)

(i) Abortions

1. Spontaneous abortion and haemorrhage
2. Spontaneous abortion and sepsis
3. Spontaneous abortion and trauma
4. Induced abortion and haemorrhage
5. Induced abortion and sepsis
6. Induced abortion and trauma
7. Ectopic pregnancy
8. Molar pregnancy

II. Late pregnancy deaths

(i) Ante partum Haemorrhage (After 20 weeks of pregnancy)

1. APH due to placenta praevia.
2. APH due to abruptio placenta
3. APH due to indeterminate causes.

(ii) Obstructed labour/ rupture uterus

1. Antepartum rupture
2. Postpartum rupture
3. Scar rupture
4. Rupture uterus attributed to oxytocin
5. Rupture uterus attributed to misoprostol

(iii) Post partum Haemorrhage (PPH).

(a) Primary PPH (birth to 24 hours of delivery)

1. PPH following uterine atony due to hydramnios
2. PPH following uterine atony due to twins
3. PPH following uterine atony due to prolonged or obstructed labour
4. PPH following uterine atony due to multiparity
5. PPH following retained membranes or placental bits
6. PPH following retained placenta with normal placentation
7. PPH following retained placenta with abnormal placentation (acreta/increta/percreta)
8. Traumatic PPH following tears in cervix /vagina / perineum
9. PPH following placenta praevia
10. PPH following abruptio placenta
11. DIC
12. PPH following inversion of uterus.
13. PPH following prior foetal death
14. PPH due to undetermined cause

(b) Secondary PPH (abnormal or excessive bleeding which occurs between 24 hours and 6 weeks postpartum)

1. 31.Secondary PPH due to retained placental tissue
2. 32. Secondary PPH due to sepsis
3. 33. Secondary PPH due to undetermined causes.

(iv) Hypertensive disorders of pregnancy

1. 34. Severe Pre eclampsia
2. 35. Eclampsia.
3. 36. Chronic hypertension with superimposed PIH
4. 37. HELLP syndrome
5. 38. CVA

(v) Sepsis related to pregnancy and child birth

1. Chorioamnionitis.
2. Puerperal Sepsis following normal delivery
3. Puerperal Sepsis following caesarean section
4. Peritonitis

(vi) Complications of anaesthesia

1. Complications following general anaesthesia
2. Complications following spinal anaesthesia
3. Complications following epidural anaesthesia
4. Complications following local anaesthesia

(vi) Surgical complications

5. Surgical complications following caesarean section
6. Surgical complications following emergency hysterectomy

7. Surgical complications following puerperal sterilization
8. Surgical complications following sterilization after MTP*

(vii) Transfusion reactions

1. Transfusion reactions
2. Reactions following IV fluid administration

(viii) Sudden deaths (others)

1. Pulmonary Embolism
2. Amniotic Fluid Embolism
3. Sudden death due to undetermined cause

(ix) Other conditions

1. Peripartum cardiomyopathy
Suicide due to puerperal psychosis.
2. Any other direct cause- specify

B. Indirect Obstetric Causes

(i) Heart diseases complicating pregnancy

1. Congenital Heart Disease
2. Rheumatic Heart Disease
3. Complications following valve replacement
4. Chronic hypertension (existing before 20 weeks & pregnancy)
5. Myocardial infarction
6. Dilated cardiomyopathy
7. Undiagnosed heart disease

(ii) Anaemia

1. Anaemia complicating pregnancy

(iii) Endocrine disorders

1. Diabetes mellitus
2. Thyroid disease
3. Other endocrine conditions

(iv) Infectious diseases

1. Meningitis / encephalitis.
2. Maternal tetanus.
3. HIV / AIDS
4. Malaria
5. Typhoid
6. Tuberculosis
7. Tuberculosis and HIV
8. H1N1(swine flu)
9. Other infections

(v) Liver disorders

1. Jaundice due to hepatitis viruses
2. Jaundice due to noninfectious cause
3. Hepatic encephalopathy

(vi) Renal conditions

1. Acute renal failure due to non obstetric cause
2. Chronic renal failure due to non obstetric causes

(vii) Other conditions

1. Bronchial Asthma
2. Epilepsy
3. Intracranial Space occupying lesion
4. Cancer

5. Haematological causes
6. Other causes-specify

***III. Non- Obstetric Causes
(accidental or incidental
causes)***

1. Non obstetric surgical cause
(appendicitis, pancreatitis, bowel
obstruction, ovarian torsion etc.)
2. Injury due to burns
3. Injury due to assault

4. Injury due to Road Traffic Accident
5. Injury due to other accidents
6. Electric shock
7. Snake Bite
8. Suicide
9. Any other specify

Note:* included here because death is
due to complications of sterilization
but not due to abortion.

4. MDR FORMATS

[Modified version December 2010]

Annex 1. FBMDR Format

Annex 2. Verbal Autopsy Questionnaire

Annex 3. MDR Case Summary

**Annex 4. MDR Line Listing Cases of
Maternal Deaths**

**Annex 5. Block Level MDR Register for All
Women's Death (15-49 years)**

Annex 6. Format for Primary Informer

Annexure 1: Facility Based Maternal Death Review Form

Annexure 1
For official use only
CONFIDENTIAL

Facility Based Maternal Death Review Form

1. NOTE: *This form must be completed for all deaths occurring in the hospital, including abortions and ectopic gestation related deaths, in pregnant women or within 42 days after termination of pregnancy irrespective of duration or site of pregnancy*
2. *Mark with an (X)/ (✓) / fill where applicable*
3. *Attach a copy of the case records to this form*
4. *Complete the form in triplicate within 24 hours of a maternal death. The original remains at the institution where the death occurred and one copy would be sent to the District Nodal Officer and the other to the Facility Maternal Death Committee by the Facility Nodal officer.*

For Office Use Only:

FB –MDR NO:				Year	
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Name, Designation & Address of the District Nodal Officer:

I. General Information:

Name, Designation and Address of the nodal officer of the Hospital:

Name, Age and Address of Deceased Woman:

Name and Address of Facility where death occurred:

District:

State:

II. DETAILS OF DECEASED

1. Inpatient Number:

2. Name:

3. Age(years) :

4. Obstetric formula

Gravida Para
 Abortions No. Living children
 Day Month Yr Hrs min
5. Date and time of admission:

Day Month Yr Hrs min

6. Date & time of delivery:

Day Month Yr Hrs min

7. Date & time of death:

Days Hrs

8. Delivery/abortion- death interval : **III. DETAILS OF ADMISSION AT INSTITUTION WHERE DEATH OCCURRED OR FROM WHERE IT WAS REPORTED (tick where appropriate)**

1. Type of facility where died:

Sub District Hospital	District Hospital	Referral hospital	Medical College/ Tertiary Hospital
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2. Reasons for admission /Diagnosis at admission:

Normal delivery	Previous C section	Abortion (Specify type)	Ectopic pregnancy	Vesicular Mole	Anaemia	Diabetes	PET/ Eclampsia
Multiple pregnancy	APH	Hydramnios	CPD	Abnormal presentation	PPH	Medical conditions	Others

3. Period of admission:

AN before 20 weeks	Antenatal > 20 weeks	Intrapartum	Post Partum/Natal up to 24hrs	Post natal 24hrs- 1 week	Post natal 1 week to 42 days
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4. Diagnosis when died:

Obstructed labour/ Rupture Uterus	PPH	Abortion (specify)	Ectopic pregnancy	Vesicular Mole	Anaemia (failure)	Diabetes	Eclampsia
Sepsis	APH	Inversion of uterus	Post operative complication	Pulmonary embolism	CVA	Medical condition	Others

5. Period of gestation, Intranatal, postnatal- at time of death:

Antenatal before 20 weeks	Antenatal after 20 weeks	Intrapartum	Post Partum /Post natal
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6. Outcome of pregnancy:

Ectopic	Abortion	Still birth	Undelivered	Live birth
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7. Duration from onset of complication to admission : Hrs mins

8. Duration from admission to onset of complication : Hrs mins

9. Condition on Admission: Stable ☐ Semi conscious responds to verbal commands ☐ Semi conscious responds to painful stimuli ☐ Unconscious ☐

10. Was she Referred from another centre? Yes ☐ No ☐ Don't know ☐

10.a. If yes, Type of facility from which referred:

PHC	24x7 PHC	SDH/Rural Hospital/ CHC	District Hospital	Private Hospital	Private clinic	Others
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11. Other centres visited before coming to the present institution

PHC	24x7 PHC	SDH/Rural Hospital/ CHC	District Hospital	Private Hospital	Private clinic	Others
-----	----------	-------------------------	-------------------	------------------	----------------	--------

IV. ABORTION (to be filled if applicable)

1. Was the abortion Spontaneous ☐ Induced ☐

1.a. If spontaneous,

1.a.i. Was it? Complete ☐ Incomplete ☐

1.a.ii. mention mode of termination? Medical abortion ☐ MVA ☐ D&C ☐

1.b. If induced, was it Legal ☐ Illegal ☐

2. What was the procedure adopted? Medical abortion ☐ MVA ☐ D&C ☐
Extra Amniotic Installation ☐ Hysterotomy ☐ Others ☐

3. Post Abortal Period Uneventful ☐ Sepsis ☐ Haemorrhage ☐ others ☐

3.a. If Sepsis, Method of management

IV fluids	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Parenteral Antibiotics	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Metronidazole	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Surgical Interventions	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Blood/Blood products transfused	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Days Hrs

4. Time taken to initiate treatment since onset of the problem **5. Was the termination procedure done in more than one centre** Yes ☐No ☐**6. Additional information on complications including Management:****V. ANTENATAL CARE****1. Did she receive ANC?** Yes ☐ No ☐ Don't know ☐ No. of Visits: V.1.a. If no, reason: Lack of awareness ☐ Lack of accessibility ☐Lack of funds ☐ Lack of attendee ☐ Family problems ☐ Others ☐V.1.b. If Yes, Type of Care Provider (mark all): SC ANM ☐ MO PHC ☐MO CHC ☐ Obstetrician SDH ☐ Obstetrician DH ☐ ObstetricianCollege/Tertiary Hosp ☐ Private Hosp ☐ – Specify – Obstetrician ☐MBBS/other specialist ☐ Nurse ☐V.1.c. If yes, was she told that she has risk factors? Yes ☐ No ☐Don't know ☐

V.1.c.i.If yes, what was the risk factor identified ?

Previous C section	Short stature	Abortion	Ectopic pregnancy	Vesicular Mole	Anaemia	Diabetes/G DM	PET
Multiple pregnancy	APH	hydramnios	Big baby	Abnormal presentation	Grand multi	Medical conditions	Others Specify

2. Was she admitted with a complication / developed a complication during the AN period Yes ☐ No ☐

2. a. If yes, what was the complication?

Bleeding	Preterm labour	Surgical conditions	Ectopic pregnancy	Vesicular Mole	Anaemia (with/without failure)	Other Medical conditions
Eclampsia	Preterm labor	Leaking membranes	Anaemia (with/without failure)	Heart Disease (with/without failure)	Others Specify	

3. Time taken to initiate treatment since the onset of the Problem:

Hrs Mins

3.a. At the first point of contact Hrs Mins

3.b.At the present Institution Hrs Mins

4. Additional information on AN complications including medication if any:

VI. DELIVERY, PUERPERIUM AND NEONATAL INFORMATION

1. Did she have labour pains? Yes ☐ No ☐

1.a.If Yes, was a partograph used in the referred centre? Yes ☐ No ☐ Don't know ☐

1.a.i. Was partograph used in the present centre? Yes ☐ No ☐

2. Complications during labour :

PROM	PPROM	IP sepsis	Eclampsia	Obstructed labour/ Rupture Uterus	Inversion of Uterus	Others Specify
------	-------	-----------	-----------	--------------------------------------	---------------------	----------------

3. Duration of labour: hrs mins

4. Mode of Delivery

Undelivered	Spontaneous Vaginal (with/without episiotomy)	Vacuum/forceps	Caesarean section
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5. Time taken to initiate treatment since the onset of the Problem: Hrs

□ □ Mins □ □

6. In which phase of labor did she die?

Latent phase	Active phase	Second stage	Third stage	Fourth stage	>24hrs after birth
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7. Postnatal period: - Uneventful / Eventful

7.a. If eventful , specify

PPH	Sepsis	CVA /PE	Anaemia	Eclampsia	Post partum Psychosis	Post op complication	Medical conditions	Othe rs
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8. Blood /Blood products given : Yes ☐ No ☐

8.a. If yes number of units transfused :

8.b. Was there any transfusion reactions: Yes ☐ No ☐ , If yes , specify

9. INTERVENTIONS (Tick appropriate box), Specify other in the last row provided

[illegible]

10. Additional information on labour ,delivery and puerperium, including management

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VII .Details of Baby:

1.Baby

Birth weight (g)

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2. APGAR Score (5 mins)/10**3. Needed resuscitation Y/ N**

3.a. If yes, who gave Early resuscitation?

Obstetrician	Paediatrician	MBBS doctor/ other specialist	Staff Nurse	Others (specify)
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4. Outcome of Delivery: Alive ☐ Still born ☐ Born alive and died ☐

4.a. If stillborn, was it Fresh ☐ Macerated ☐4 b If the baby is alive, is it Normal ☐ NICU ☐4.c Birth - death interval: days ☐☐ hrs ☐☐

4 d If died, mention probable cause:

Birth Asphxia	Sepsis	Aspiration including MAS	Congenital Anomalies	Preterm	Respiratory distress	Others
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5. Additional information on baby status(in box below)

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VIII. CAUSE OF MATERNAL DEATH :

a. Probable direct obstetric (underlying) cause of death: Specify:

b. Indirect Obstetric Cause of death: Specify

c. Final Diagnosis (including Non Obstetric causes)

IX. IN YOUR OPINION WERE ANY OF THESE FACTORS PRESENT?

System	Example	Y	N	Not known
Personal/Family	Delay in woman seeking help			
	Refusal of treatment			
	Refusal of admission in previous facility			
Logistical Problems	Lack of transport from home to health care facility			
	Lack of transport between health care facilities			
	Health service - Health service communication breakdown			
Facilities	Lack of facilities, equipment or consumables			
	Lack of blood Lack of OT availability			
Health personnel problems	Lack of human resources Lack of Anesthetist Lack of Obstetricians			
	Lack of expertise, training or education			

X. Information on avoidable factors, missed opportunities & substandard care

XI. AUTOPSY: Performed ☐ Not performed ☐

1.If performed please report the gross findings and send the detailed report later

XII.CASE SUMMARY (please supply a short summary of the events surrounding the death)

Form filled by the MO on duty

Signature & Name

Designation

Nodal Officer of the Hospital:

Signature & Name

Address of the Institution

Stamp & Date :

Annexure 2: Verbal Autopsy Questionnaire FOR INVESTIGATION OF MATERNAL DEATHS

NAME OF THE STATE	
NAME OF THE DISTRICT	
NAME OF THE BLOCK	
NAME OF THE PHC	
NAME OF THE SHC	
NAME OF THE VILLAGE	
NAME OF THE PREGNANT WOMAN/ MOTHER	
NAME OF HUSBAND/OTHER (FATHER/MOTHER)	
DATE OF DEATH	
NAME & DESIGNATION OF THE INVESTIGATOR(S)	
NAME & DESIGNATION OF THE INVESTIGATOR(S)	
DATE OF INVESTIGATION	
PROBABLE CAUSE OF DEATH	

MODULES

MODULE - I

Page No. 1 - 3

Should be used for collection of general information for all maternal deaths irrespective of whether deaths occurred during antenatal or intranatal or postnatal period or due to abortion.

MODULE - II

Page No. 3 - 4

Should be used for the deaths occurring during the antenatal period including abortion

MODULE - III

Page No. 4 - 6

Should be used for the deaths occurring during delivery or postnatal period

General Instructions

1. The verbal autopsy is a technique whereby family members, relatives, neighbors or other informants and care providers are interviewed to elicit information on the events leading to the death of the mother during pregnancy/ abortion/ delivery / after delivery in their own words to identify the medical and non medical (including socio-economic) factors for the cause of death of the mother.
2. It is preferable to give advance information about the purpose of visit to the relatives of the deceased who were with the mother from the onset of complications till the death, and obtain their consent.
3. **CONFIDENTIALITY:** After the formal introduction to the respondents, the investigating official should give assurance that the information will be kept **confidential**.
4. Throughout the interview, the interviewer should be very polite and sensitive questions should be avoided.
5. Make all the respondents seated comfortably and explain to them that the information that they are going to provide will prevent death of mothers in future.
6. Allow the respondents to narrate the events leading to the death of the mother in their own words. Keep prompting until the respondent says there was nothing more to say.
7. Wherever needed, the investigating official should encourage the respondents to bring out all information related to the event.
8. Please also write information in a **narrative form**
9. **NEUTRALITY AND IMPARTIALITY:** The interviewer should not be influenced by the information provided by the field health functionaries, doctors or by the information available in the mother care register, case sheets etc.

MODULE - I

Contains general information, information about previous pregnancies wherever applicable. It should be used for all the maternal deaths irrespective whether occurred during antenatal, delivery or postnatal period including abortion)

I. BACKGROUND INFORMATION

Kindly (✓)tick the correct answer for each question

1.1	Resident / Visitor death																			
1.2	Type of death	Abortion				Antenatal				Delivery death				Post natal						
1.3	Place of death				Home						Sub Health Centre									
					CHC						PHC									
					Medical college Hosp.						Dist. Hosp.									
					Sub Dist. Hosp.						Pvt. Hosp.									
					Transit/ on the way						Others (specify)									
1.4	Specify the name and place of the institution or village where death occurred																			
1.5	Onset of fatal illness		Date / /			Time ____:____														
1.6	Admission in final institution (if applicable)		Date / /			Time ____:____														
1.7	Death		Date / /			Time ____:____														
1.8	Gravida		1		2		3		4		≥5									
1.9	Para (number of previous live births)		0		1		2		3		≥4									
1.10	Abortions (induced or spontaneous)		0		1		2		3		≥4									
1.11	Previous stillbirths		0		1		2		3		≥4									
1.12	Living children		0		1		2		3		4		≥5							
1.13	Week of pregnancy If applicable		<16 weeks						17-28 weeks						≥29 weeks					
1.14	Age at death																			

3. INFANT SURVIVAL

3.1	Infant	Alive	Newborn death	Stillbirth	Not applicable
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4. AVAILABILITY OF HEALTH FACILITIES, SERVICES AND TRANSPORT

(4.1& 4.2 to be filled by the investigator before the interview)

4.1	Name and location of the nearest government / private facility providing Emergency Obstetric Care Services					
4.2	Distance of this facility from the residence					
4.3	Number of institutions visited before death (in the order of visits)					
4.4	Reasons given by providers for the referral	No explanation given		Lack of blood		Not applicable
		Lack of staff		Others (specify)		

5. CURRENT PREGNANCY

(To be filled from the information given by the respondents)

5.1	AN Care	YES		NO		Don't know	
5.2	If yes, Place of Antenatal checkup	Sub Health Centre		PHC/ CHC			
		Govt. Hosp.		Pvt. Hospital			
		VHND		Govt. & Pvt. hospital			
		Don't know		Not applicable			
		Other (specify)					
5.3	Number of antenatal check ups	Nil		1		Not known	
		2-3		4 and above			

MODULE - II

6. DEATHS DURING THE ANTENATAL PERIOD

This module is to be filled for the maternal deaths that occurred during the antenatal period including deaths due to abortion. In addition to module II, module I also should be filled for all maternal deaths

6.1	Did the mother have any problem during the antenatal period?	Not known		No	
		Yes			
6.2	If yes, was she referred anytime during her antenatal period?	YES		NO	
		Don't know		Not applicable	
6.3	What was the symptom for which she sought care ?	<ul style="list-style-type: none"> Head ache Edema Anemia High blood pressure Bleeding p/v No foetal movements Fits Sudden excruciating pain High fever with rigor Others (specify) 			
6.4	If YES, did she attend any hospital?	YES		NO	
		Don't know		Not applicable	
6.5	In case of not seeking care from the hospital is it due to	Severity of the complications not known		Institution far away	
		No attender available		No money	
		beliefs and customs		Lack of transport	
		Not applicable		Others (specify)	

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7. ABORTION DEATHS

7.1	Did she die while having an abortion or within 6 weeks after having an abortion?	Yes		No		Don't know		
7.2	If during an abortion, was it spontaneous or induced, including MTP?	Spontaneous			Induced		Don't know	
7.3	If the abortion was induced, how was it induced?	Oral medicine		Traditional vaginal herbal application		Instrumentation	Don't know	Not applicable
7.4	If the abortion was induced, where did she have the abortion?	Home		Government hospital (specify level)		Private clinic	Not applicable	
		Don't know		Other (specify)				
7.5	If the abortion was induced, who performed the abortion?	Doctor		Nurse		Don't know	Others (specify)	
		Ayush doctor		Traditional practitioner		Not applicable		
7.6	If induced, what made family seek care?	Bleeding started spontaneously				Wanted to terminate the pregnancy	Not applicable	
7.7	If the abortion was spontaneous, Where was the abortion completed?	Home		Government hospital (specify level)		Private clinic	Don't know	
		Not applicable			Other (please Specify)			

7.8	How many weeks of pregnancy completed at the time of abortion												
7.9	Whether she had any of these symptoms after abortion?	High fever		Foul smelling discharge		Bleeding		Shock		None			
7.10	After developing complications following abortion, did she seek care?	Yes		No		Don't know		Other (specify)					
7.11	If yes, whom/where did she seek care?	Government hospital (specify level)		Private clinic/center		Quack		Don't know					
		Not applicable		Other (specify)									
7.12	In case of not seeking appropriate care, is it due to..	Severity of complications not known		Beliefs and customs		No money							
		No attender available		Institution far away		Lack of transport							
		Not applicable		Others, Please specify									
7.13	Date of spontaneous abortion/ date of termination of pregnancy	Date / /											
7.14	Date of death	Date / /											

MODULE - III

(First section (8) to be used for the deaths occurring during delivery. Second section (9) is for women who died in the postnatal period. For these deaths, Module I should also be filled)

8. INTRANATAL SERVICES

8.1	Place of delivery	Home		Sub centre				
		CHC		PHC				
		Medical College		Dist. Hosp.				
		Sub dist. Hosp.		Pvt. Hosp.				
		Transit		Other (specify)				
8.2	Admission (not applicable for home delivery and transit)	Date / / Time ____:____						
		Not applicable						
8.3	Delivery	Date / / Time ____:____				Not applicable		
8.4	Time interval between onset of pain and delivery (in hours)	Hours ____:____				Not applicable		
8.5	Who conducted the delivery- if at home or in institution (Not applicable for transit delivery)	ANM		Staff Nurse / M. Asst.		Other (specify)		
		Doctor		Dai				
		Quack		Not applicable				
8.6	Type of delivery	Normal		Assisted		Unattended		Not applicable
		Caesarean						
8.7	Outcome of the delivery	Live birth		Still birth				
		Multiple births		Not applicable				
8.8	During the process of labour/delivery did the mother have any problems?	Prolonged labour (Primi >12 hrs / Subsequent deliveries >8 hrs)			Severe bleeding/ bleeding with clots- (one saree/insirt soaked =500ml)			
		Labour pain which disappeared suddenly			Inversion of the uterus			
		Retained placenta			Convulsions			
		Severe breathlessness /cyanosis/ edema			Unconsciousness			
		High fever			Other (specify)			

8.9	Did she seek treatment, if yes by whom and what was the treatment given by the ANM/Nurse/LHV/ / MO/others? (give details)										
8.10	Was she referred?	YES			NO						
		Not known			Not applicable						
8.11	Did she attend the referral centre?	YES			NO						
		Not known			Not applicable						
8.12	In case of non compliance of referrals state the reasons	Intensity of complications not known			Institution far away						
		No attender available			No money						
		beliefs & customs			Lack of transport						
		Not applicable			Others (specify)						
8.13	Was there delay in	Decision making			Mobilizing funds						
		Arranging transport			Not applicable						
		Others (specify)									
8.14	Any information given to the relatives about the nature of complication from the hospital	Yes		No		Not applicable					
8.15	If yes describe	Not applicable									
8.16	Was there any delay in initiating treatment	Yes		No		Not applicable					
8.17	If yes, describe	Not applicable									

9. POST NATAL PERIOD

9.1	No. of Postnatal checkups	Nil		1	2-3	
		≥ 4		Don't know		
9.2	Did the mother had any problem following delivery	YES		NO		
		Not known				
9.3	Onset of the problem	Date / / Time ____:____				
9.4	Specific problem during PN period	Severe bleeding		Severe fever and foul smelling discharge		
		Sudden chest pain & collapse		Unconsciousness/ visual disturbance		
		Bleeding from multiple sites		Severe leg pain , swelling		
		Abnormal behavior		Severe anemia		
		Don't know		Other (specify)		
9.5	Did she seek treatment	Yes		No		
9.6	If yes, by whom	ANM		Nurse		Not applicable
		LHV		MO		Others (specify)
9.7	What was the treatment given (give details)	Not applicable				
9.8	Was she referred?	Yes		No		
		Not known		Not applicable		
9.9	Did she attend the referral center?	Yes		No		
		Not known		Not applicable		
9.10	In case of non compliance of referrals state the reasons	Intensity of complications not known		Institution far away		
		No attender available		No money		
		Beliefs & customs		Lack of transport		
		Not applicable		Others (specify)		

10: Reported cause of death

10.1	Did the doctor or nurse at the health facility tell you the cause of death?	Yes		No	
		Don't know			
10.2	If yes, what was the cause of death?				

11.Open history (Narrative format) (explore)

- Name and address of the facilities she went – decisions and time taken for action
- How long did it take to make the arrangements to go from first centre to higher centers and why those referrals were made and how much time was spend at each facility and time spend at each facility before referrals were made and difficulties faced throughout the process
- Transportation method used
- Transportation cost? (at each stage of referral)
- Travel time – at each stage
- Care received at each facility?
- Total money spend by family
- How did the family arrange the money?

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Annexure 3: MDR Case summary

To be filled by the medical officer and the investigation team for each maternal death

Name of the Block PHC/District OR Name of facility					
Particulars of the deceased	Name:	Age	Religion	Caste:	
Address (where she was residing when illness/labour began)					
Place, date and time of death					
Timing of Death	Pregnancy	During or within 6 weeks of abortion	In labour or during delivery	Within 1 week after delivery	7- 42 days after delivery
Obstetric History	Gravida	Para	Abortions Spontaneous Induced		Infant outcome
Investigation	Date of 1 st visit	Date of 2 nd visit	Name and contact details of main respondents		

1. Delay in Seeking Care Unawareness of danger signs Illiteracy & Ignorance Delay in decision making No birth preparedness Beliefs and customs Non availability of health care professional Any other/specify	→	Fill in appropriate cause of Delay 1
2. Delay in reaching first level health facility Delay in getting transport Delay in mobilizing funds Not reaching appropriate facility in time Difficult terrain Any other/specify	→	Fill in appropriate cause of Delay 2
3. Delay in receiving adequate care in facility Delay in initiating treatment Substandard care in hospital Lack of blood, equipment & drugs Lack of adequate funds Any other/specify	→	Fill in appropriate cause of Delay 3

Probable direct obstetric cause of death:

Indirect obstetric cause of death:

Contributory causes of death

Initiatives suggested:

Name and designation of investigation team

Signatures and Name of Block Medical Officer (with stamp)

Annexure 5:Block Level MDR Register for All Women's Death (15-49 years)

(Fill in one register for every month)

Name of Block PHC _____ Block _____

District _____ **State** _____

Month _____ Year _____

[illegible]

Signature & Date of MO I/C of the Block PHC:

Annexure 6: Format for Primary Informer

All Women's Death (15-49) Information Report

(Maternal deaths alone to be reported from Facilities)

1.	Name of State		
2.	Name of District		
3.	Name of Block		
4.	Name of village/ Description of location		
5.	Name of the deceased woman		
6.	Name of husband		
7.	Age of the woman		
8.	Date and time of death		
9.	Place of death		
	Home		
	Health Facility		
	Others		
10.	When did death occur	YES	NO
	a) During pregnancy	<input type="checkbox"/>	<input type="checkbox"/>
	b) During delivery	<input type="checkbox"/>	<input type="checkbox"/>
	c) Within 42 days after delivery	<input type="checkbox"/>	<input type="checkbox"/>
	d) During abortion or within 6 weeks after abortion	<input type="checkbox"/>	<input type="checkbox"/>
	If either a, b, c, d, =yes: suspected maternal death		
	If either a, b, c, d, =no; non- maternal deaths		
11.	Name of reporting person		

Signature of reporting person:

Designation:

Date:

Maternal Health Division

Ministry of Health and Family Welfare

Government of India

Nirman Bhawan

New Delhi