Ethiopian MDSR Training Manual

Includes slides, notes, group exercises and sample solutions

September, 2013
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INTRODUCTION

Despite significant progress in other development and health indicators, the magnitude of maternal mortality in Ethiopia remains high and is thus a major priority for the Government’s Health Sector development Plan. A wide range of initiatives are being introduced or strengthened to reduce maternal deaths, including strategies across the continuum of care from household to hospital and from pregnancy to postnatal, including clinical, social and policy interventions.

Among these strategies, the introduction of a national Maternal Death Surveillance and Response (MDSR) system will address avoidable causes of maternal death at multiple levels and through diverse components. A functioning MDSR should ensure accurate identification and timely reporting of maternal deaths, systematic review of their circumstances and contributing factors, and implementation of evidence-based response to ensure suitable measures are taken to prevent future deaths. MDSR requires action at both facility and community levels, and should form an integral part of broader quality improvement processes and accountability mechanisms.

In May 2013, the Ethiopian Federal Ministry of Health (FMoH) formally launched the national MDSR system. The launch was followed by a 3-day sensitisation and training workshop, attended by FMoH maternal and child health experts, Regional Health Bureau representatives, Lead Hospital CEO and Medical Directors, and other key stakeholders including obstetricians, senior midwives, and MCH focal persons from regional and zonal health offices. The training workshops provided an overview of national system’s structure, and introduced the newly published National MDSR Guidelines, including the data collection and reporting tools that will be used. Training materials were developed by the National MDSR Task Force, with technical support from Evidence for Action (E4A), a regional programme for action on maternal and newborn health funded by DFID and implemented in Ethiopia by WHO and the University of Aberdeen. The training was conducted by a multi-sectoral team drawn from the Task Force membership, the Ethiopian Society of Obstetricians and Gynaecologists (ESOG), and the E4A technical assistance team.

The national training workshop initiated a “training cascade”, with each RHB subsequently responsible for rolling-out the MDSR training to relevant participants in their regions. This training manual was developed to assist in conducting the next wave of training, and is part of a comprehensive MDSR Ethiopia training package based on the content of the first national workshop.

The manual is designed to help the trainer(s) work through the presentations and participatory group activities that make up the training workshop. It is accompanied by the following materials:

- Sample pre- and post-test
- 11 powerpoint presentations
- 2 videos in mp4 format (also freely available from the internet)
- Participant workbook
- Answer book

The training package has been designed to be interactive, with the inclusion of practice-based individual and group activities to familiarise participants with the tools and processes of the Ethiopian MDSR system. Participants will be actively engaged to consider how the MDSR will build on their existing expertise and knowledge. The emphasis throughout the training should be on the use of MDSR as a basis for action.

The importance of multi-professional team collaboration will be emphasised throughout the training, as this has been shown to benefit the MDSR system by strengthening communication between disciplinary groups (clinicians, midwives, data managers, community representatives, etc). Where possible, training at each level should be delivered by a multi-disciplinary training team, following the model of the national workshop.
Overall Goal of the Training Package

To deliver a practical introduction to the Ethiopian MDSR to support establishment of a functional, effective and action-oriented MDSR system across Ethiopia.

Specific Aims

1. Introduce MDSR concepts and rationale, with presentation of international evidence for its effectiveness and best practice
2. Provide a detailed overview of the Ethiopia MDSR model and vision for how it will operate at each level of the national health system
3. Ensure staff are equipped with the requisite knowledge and competence-based skills for each component of the MDSR process
4. Provide an opportunity for participants to become familiar with the use of the National Guidelines and tools for data collection and reporting.

Target Audience & Objectives

Twelve training modules have been developed, although not all of them are relevant to all participants. The sample training workshop agenda provided in this manual makes suggestions for which modules can be adapted, shortened or removed for specific groups.

Four different levels are envisioned for delivering the training, each with slightly different primary objectives, as follows:

- National and Regional leads: political commitment, orientation of the system
- Referral/District Hospitals: facility based data collection
- Zones and Woreda: managing data flow, identifying actions and reporting upwards
- Health centres: collecting and reporting data from both community and facilities

By the end of each training workshop, participants should:

- Understand how MDSR can reduce maternal mortality
- Know the structure of the Ethiopian MDSR, including roles and responsibilities
- Recognise and know how to use the national Tools
- Demonstrate ability to recommend appropriate actions
- Appreciate the importance of MDSR processes, particularly the need for smooth bi-directional flow of information between different levels of the system
- Understand the role of monitoring actions to ensure the “response cycle” is completed

Trainings should be completed prior to the initiation of MDSR in each region, and should ensure dissemination of National MDSR Guidelines and Tools to all relevant institutions and individuals who will be involved in implementing the MDSR.
PREPARATION FOR TRAINING

Good preparation is required for all training to ensure everything runs smoothly. Below are a few tips for maximising successful implementation of the MDSR training package.

- **Number of Participants**: Given the participatory nature of this training package, it is likely to work best for groups of 25-35. A larger group is more difficult to manage, particularly during the small group work and discussion sessions.

- **Number of Trainers**: Although presentations can be delivered by a single trainer, it is useful to have 3-4 facilitators or training assistants to help during the practical exercises. Facilitators can rotate among groups to answer questions or help lead them in the right direction. Roughly 1 facilitator/training assistant per 8-10 participants is best. For example, a group of 30 trainees is ideally facilitated by 3 experts, including the trainers.

To provide diversity of experience, perspectives, and training styles, the workshops should draw on several trainers to lead the modules, based on expertise. A multi-professional team will ensure that the views of different health disciplines are incorporated in the training.

- **Venue**: The training requires a room large enough for all participants to fit in comfortably, with an unobstructed view of the powerpoint projector (particularly during the videos). Enough space is also required for small groups to sit together during the activities, ideally around a table, although chairs can be moved into circles throughout the room. Alternatively, separate spaces can be made available for groups to work in.

- **Materials**: Prior to starting the training, it is important to ensure there are enough copies of the National Guidelines, the pre (and post) test, the Workbook, the Answer book, and any other documents to be distributed. **Note** that answer books should not be distributed until the end of the training! Flipcharts and marker pens should also be available for group discussions and noting down responses/issues from the activities.

- **Equipment**: A powerpoint projector, screen and computer are critical for showing the presentations. A microphone is useful in large venues and is required for the 2 videos shown during the training (unless computer speakers are separately available).

- **Timing**: The sample workshop agenda provided in this manual suggests a 2-day training, which should provide enough time for the presentation of scheduled content and completion of practical exercises. Some adaptation may be made depending on the target audience for the training, to reflect priority areas. For example, additional time may need to be allocated for specific modules, such as Community Based Data Capture (for health centres which will manage the Verbal Autopsy process) or Facility Level Reviews (for hospital and health centre staff).
**PRE- AND POST-TEST**

Two separate pre- and post-tests have been developed. The first is for trainings conducted at regional, zonal or hospital level (or for Training of Trainers sessions), while the second version has been adapted for training Health Centre staff. Each test reflects specific MDSR system roles and responsibilities at each level of the health system and is aligned to the learning objectives suited to participants at each of these.

The two pre- and post- tests are provided below, with instructions for how to score them (each is scored out of a total of 100%). The tests are also available as separate documents as part of this training package (without the scores marked on the questions).

This exercise should be completed by participants prior to the start of the training to set a “benchmark” of current understanding of the principles of MDSR and how the system will be implemented. The test can be administered again after training to help participants identify their progress and to alert the trainer(s) to any remaining gaps in knowledge.
MDSR Training Pre- and Post- Test (Version 1)
For Training of Trainers and Regional, Zonal and Hospital staff

For each question, please circle the correct answer:

1. MDSR stands for... ?
   a. Maternal Death System and Response
   b. Maternal Death Surveillance and Review
   c. Maternal Death Surveillance and Response ✓ (10 pts)
   d. Maternal Death Systematic Register

2. What is the most important part of the MDSR process in order to reduce maternal mortality?
   a. Identification
   b. The review of the case
   c. The analysis of the case
   d. The actions ✓ (10 pts)

3. Which of these could be a maternal death? Circle ALL those that should be investigated further as potential maternal deaths.
   a. 45 year old woman collapsed and died suddenly. She had missed two periods. ✓ (2.5 pts)
   b. A woman with a 35 day old baby had a fever for 3 days before she died. ✓ (2.5 pts)
   c. A 16 year old girl took some medicine two days after her first sexual intercourse because she thought she might be pregnant. (2.5 pts if left blank)
   d. A woman, known to be HIV positive, died of pneumonia. Her family did not know the date of her last period. (2.5 pts if left blank)

4. Reporting a maternal death.
   a. A maternal death in the Community should be reported to the head of the health centre within 24 hours ✓ true false
   b. A maternal death in the community should be reported to the head of the health centre within 1 week ✓ true false
c. If the death is confirmed to be related to pregnancy a verbal autopsy should be carried out within 3-4 weeks of notification  true  false

d. The verbal autopsy should be carried out by the HEW  true  false

5. Facility Level Reviews. Which of the following types of people should be members of a Hospital Review Committee? Circle ALL that apply (1 pt for each correctly ticked or left blank):

a. Hospital CEO ✓ (1pt)  

b. IESO Officer ✓(1pt)  

c. Ambulance Driver (1pt if blank)  

d. Senior midwife ✓ (1pt)  

e. Human Resources/ Personnel staff  

f. Obstetrician/Gynaecologist ✓(1pt)  

b. IESO Officer ✓(1pt)  

g. Night security guard (1pt if blank)  

h. Quality Officer ✓(1pt)  

i. Pharmacy Head ✓(1pt)  

j. Anaesthesiologist/Anaesthetist ✓(1pt)  

6. Community level factors affecting maternal deaths. (2.5 points each)

a. Men in Ethiopia are traditionally the decision makers in the family. If a husband or other male household head does not believe a pregnant woman is experiencing an emergency, it is likely there will be a delay in seeking care for her.  true  false

b. Living in traditional tukul-style homes increases the risk of developing complications during pregnancy  true  false

c. Poor understanding of the purpose of antenatal care and its potential to identify health problems reduces appropriate health-seeking behaviour during pregnancy  true  false

d. If community members who attend delivery are able to correctly recognise danger signs, they can urge the family to seek medical attention quickly  true  false

7. Quality of Care factors affecting maternal deaths. (2.5 points each)

a. A previously bad experience at a health facility may discourage women from choosing to deliver with skilled birth attendants  true  false
b. Inadequate water supplies in labour wards can increase the risk of maternal death, even if the woman has arrived in time  
   true  false

c. As long as a hospital has enough blood, women with PPH will be saved in time
   true  false

d. The quality of referral systems, admission procedures, and care during recovery should all be considered during MDSR data analysis (in addition to what emergency interventions were provided)  
   true  false

8. Which of the following are social factors that put women at risk of maternal death? (2 points for each correctly ticked or left blank)

   a. Fees for public maternity services ✓ (2 pts)
   b. Arid climate (2 pts if left blank)
   c. Low use of family planning ✓ (2 pts)
   d. Religious diversity (2 pts if left blank)
   e. Belief that birth is a natural event that does not require medical intervention ✓ (2 pts)

9. Reporting and Data Flow in an MDSR: (2.5 points each)

   a. Community deaths will be reviewed by a Health Centre committee and data will be summarised and sent to the zone and/or regional health bureaux:
      true  false
   
   b. Hospital deaths will be counted, summarised and sent to the woreda health officer to identify changes that are required at the facility:
      true  false
   
   c. All review committees should meet monthly and submit a report, even if NO maternal deaths have occurred during that time period: true  false
   
   d. A Regional review committee notices that one woreda has not reported a single maternal death for over one year. They should celebrate the fact that all maternal deaths have been prevented in that woreda. true  false

10. Which of the following are appropriate actions that might be taken by a Hospital review committee? Circle ALL that apply

   a. Close the maternity unit due to poor quality and refer pregnant patients elsewhere (2 pts if left blank)
b. Allocate more staff to the post-obstetric surgery recovery room  ✓ (2 pts)

c. Appoint a referrals officer to liaise with Health Centres  ✓ (2 pts)

d. Punish the senior midwife who was on duty during the time of the last death (2 pts if left blank)

e. Ensure a partograph is available for every birth and provide refresher training to staff on how to use it ✓ (2 pts)
For each question, please circle the correct answer:

1. **MDSR stands for... ?**
   - a. Maternal Death System and Response
   - b. Maternal Death Surveillance and Review
   - c. Maternal Death Surveillance and Response ✓ (10 pts)
   - d. Maternal Death Systematic Register

2. **What is the most important part of the MDSR process in order to reduce maternal mortality?**
   - a. Identification
   - b. The review of the case
   - c. The analysis of the case
   - d. The actions ✓ (10 pts)

3. **Notification. Which of the following deaths should be notified to the health centre? (2 pts for each correct answer)**
   - a. 13 year old girl who died giving birth true/ false
   - b. 24 year old woman who died in her sleep true/ false
   - c. 36 year old woman with a 3 week old baby who died of pneumonia true/ false
   - d. 52 year old woman who died in an accident true/ false
   - e. 21 year old woman who died after a vaginal haemorrhage true/ false

4. **Screening. Which of these might be a maternal death? (2 pts for each correct answer)**
a. 45 year old woman collapsed and died suddenly. She had missed two periods.  true/ false

b. A woman with a 35 day old baby had a fever for 3 days before she died.  true/ false

c. A 16 year old girl took some medicine two days after her first sexual intercourse because she thought she might be pregnant.  true/false

d. A woman, known to be HIV positive, died of pneumonia. Her family did not know the date of her last period.  true/ false

e. A married 26-year old woman miscarried her pregnancy after 4 months. A week later she developed a fever and was sick in bed for about 5 weeks and died in her sleep.  true/ false

5. Reporting a maternal death. (2 pts for each correct answer)

a. Community members can inform HEW about the death of any woman of reproductive age  true/ false

b. A maternal death in the community should be reported to the head of the health centre within 1 week  true/ false

c. If the death is confirmed to be related to pregnancy a verbal autopsy should be carried out within 3-4 weeks of notification  true/ false

d. The verbal autopsy should be carried out by the HEW  true/ false

e. All maternal deaths, regardless of where they occur, should have a verbal autopsy completed in the community  true/ false
6. Hospital Level Reviews. Which of the following types of people should be members of a Health centre Review Committee for a mother who died at home? Circle ALL that apply (1 pt for each correctly ticked or left blank):

a. health centre head ✓
c. husband of the deceased ✓
b. HDA team leader of the deceased family ✓
d. cleaner ✓
e. pharmacist ✓
f. kebele chairperson ✓
g. midwife in the delivery case team ✓
h. woreda health office staff member ✓
i. HEW from the kebele where the deceased lived ✓
j. security guard

7. Community level factors affecting maternal deaths (5 pts for each correct answer)

a. Men in Ethiopia are traditionally the decision makers in the family. If a husband or other male household head does not believe a pregnant woman is experiencing an emergency, it is likely there will be a delay in seeking care for her. true/false

b. If community members who attend delivery correctly recognise danger signs, they can urge the family to seek medical attention quickly true/false

8. Quality of Care factors affecting maternal deaths. (5 points each)

a. Oxytocic drugs are not essential to provide quality care in the third stage of labour true/false

b. The quality of referral systems, admission procedures, and care during recovery should all be considered during MDSR data analysis (in addition to what emergency interventions were provided) true/false

9. Reporting and Data Flow in an MDSR: (5 points each)

a. Community deaths will be reviewed by a Health Centre committee and data will be summarised and sent to the woreda health bureaux: true/false

b. It is not necessary for a review committee to meet or submit a report during a month when NO maternal deaths have occurred: true/false

10. Which of the following are appropriate actions that might be taken by a Health centre review committee? (2 pts each)
a. Request BEMONC training for untrained staff  
   true / false

b. Work with Community leaders and woreda administrator to get electricity supply  
   true/false

c. Punish the SBA who was on duty during the last death  
   true / false

d. Obtain a copy of the ANC guidelines from the FMOH  
   true/false

e. Ensure iron is available for all antenatal patients  
   true / false
### SAMPLE MDSR SENSITISATION & TRAINING AGENDA

<table>
<thead>
<tr>
<th>Day 1</th>
<th>SESSION TITLE</th>
<th>CONTENT</th>
<th>PLANNED GROUP WORK/ ACTIVITIES</th>
<th>PURPOSE</th>
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<tbody>
<tr>
<td>9 am start</td>
<td>Greetings &amp; Opening of Training</td>
<td>Opening Speech Welcome and Introduction</td>
<td></td>
<td>Sensitise participants and describe the MDSR to stakeholders and describe the training objectives and agenda</td>
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<td></td>
<td>Pre-test</td>
<td></td>
<td></td>
<td>Help participants identify their level of awareness regarding MDSR and assess progress by the end of the training.</td>
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<tr>
<td>Coffee break 10:30-11:00</td>
<td>Legal Framework</td>
<td>Discussion of legal framework and importance of ensuring a ‘No blame’ culture.</td>
<td></td>
<td>Acknowledge concerns surrounding legal implications of MDSR and emphasise that safeguards need to be built into the system from the beginning.</td>
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<td></td>
<td>MDSR: Why did Mrs X die? Understanding Pathways to Maternal Death</td>
<td>Video to stimulate discussion about how MDSRs can be effectively applied to the Ethiopian context.</td>
<td></td>
<td>Provide a rationale for introducing MDSR as a way to improve quality of care and health outcomes.</td>
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<tr>
<td>LUNCH 13:00-14:00</td>
<td>Identification &amp; notification of maternal deaths</td>
<td>How to identify maternal deaths Who is responsible for identification Using the notification form Avoiding duplication Zero reporting</td>
<td></td>
<td>Standardise classification for what should be considered a maternal death and whether it should be investigated further. Familiarise participants with the community-based notification form.</td>
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<td></td>
<td>Setting TOR for Review Committees</td>
<td>Session builds familiarity with committee functions and responsibilities and prepares participants for setting their own review</td>
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<td>Ensure participants understand the structure and function of Maternal Death Review Committees.</td>
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<tr>
<td>Time</td>
<td>Session</td>
<td>Details</td>
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<tr>
<td>16</td>
<td>Committee TOR</td>
<td>Review Committees for each level (Region, Zone, Facility, Community).</td>
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<tr>
<td>Coffee break 15:30-16:00</td>
<td>Community-level data capture for MDSR</td>
<td>Brief overview of the role of PHCU in identifying maternal deaths and conducting VA. Intro to VA best practices. Ethical issues, including informed consent. Discussion on VA scenario to illustrate issues; review of consent form. Covers appendix 3. Introduces ID coding system. Provides a basic introduction to VA and how they will be used in the MDSR, including how ID codes will be allocated to each maternal death.</td>
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<td></td>
<td>Wrap up Discussion</td>
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<td>Answer any questions from the day.</td>
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<td>Finish by 17:30</td>
<td>CLOSING REMARKS</td>
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<tr>
<td>Day 2</td>
<td>9 am start</td>
<td>Key points from Day 2</td>
<td>“Brainstorming” what were the key learning points from day before.</td>
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<td>Facility Level Reviews</td>
<td>Using the review form. Abstrating from raw data to summarise maternal death cases. Transferring data to next level. Data quality issues. Summarising cases for presentation at review. Case discussions by participants from raw data obtained from hospital cases. Covers appendices 2 &amp; 5 from SOP.</td>
<td>Participant led summary of main lessons learned in Day 1. Can Alert trainers to any confusion or areas that need clarification. Presents the MDSR system at facility level, with a focus on reviewing and reporting hospital-based deaths.</td>
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<tr>
<td>Coffee break 10:30 – 11:00</td>
<td>Understanding the determinants of maternal death</td>
<td>Difference between causes and determinants, including social/community factors. Use of framework to demonstrate different levels at which determinants operate Use of the 3 Delay Model. Exercise on causes and determinants of maternal deaths in Ethiopia. Potential actions to address the 3 delays.</td>
<td>Familiarises participants with the wider social factors that contribute to the “pathway to death” and may need to be addressed outside the health system.</td>
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<tr>
<td></td>
<td>Community-level data capture for MDSR</td>
<td>Brief overview of the role of PHCU in identifying maternal deaths and conducting VA. Intro to VA best practices. Ethical issues, including informed consent. Discussion on VA scenario to illustrate issues; review of consent form. Covers appendix 3. Introduces ID coding system. Provides a basic introduction to VA and how they will be used in the MDSR, including how ID codes will be allocated to each maternal death.</td>
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<tr>
<td>LUNCH 13:00-14:00</td>
<td>Moving to ACTION: Identifying Responses</td>
<td>Identifying appropriate actions. Prioritisation. Examples of clinical action. Addressing social factors as action. Group work on different maternal death scenarios how to select and prioritise possible actions. Systematically using data on prevalence, feasibility and impact to.</td>
<td>Key session with to emphasise the importance of the action steps, and what these might be at facility and community levels.</td>
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<td>Time</td>
<td>Session</td>
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| Coffee break | 15:30-16:00                                                             | Guide selection of actions  
* Covers appendix 4 (action tool)  
* Video from Tamil Nadu  
* Additional detail on how to implement actions and ensure accountability for follow-up. |
|              | How to IMPLEMENT responses                                              | Level and timing of responses  
Immediate, period and long-term action  
Accountability for following through  
* Video from Tamil Nadu  
* Additional detail on how to implement actions and ensure accountability for follow-up. |
|              | ANALYSIS: aggregating data at RHB & National level                      | Accountability for following through  
• Practical session on how data from MDSR system will be aggregated and reported to each level. Covers appendices 6 and 7 from Guidelines  
Orientates participants on the type of data they will need to analyse from zonal and woreda MDSR reports, and how RHB data will be summarised nationally. |
|              | Next Steps and Action Plans                                             | Accountability for following through  
• Opportunity for participants to identify feasible next steps and timelines for their contribution to MDSR system.  
Initiates process of producing official MDSR Action Plans at different levels that can be used to track and monitor progress. |
|              | Wrap Up Discussion                                                      | Hand out Post-Test (someone should score them by the end of the session!)  
Questions emerging from sessions  
General Discussion  
Next Steps  
Results of Post-Test |
|              | Finish by 17:30                                                          | Wrap Up Discussion  
Hand out Post-Test (someone should score them by the end of the session!)  
Questions emerging from sessions  
General Discussion  
Next Steps  
Results of Post-Test |
This module reviews international definitions of maternal deaths and near-misses, and gives an overview of international (and African) patterns of maternal mortality. It then describes the National MDSR system and how it will work.

This session should take 30-45 minutes

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**Slide 2**

**Learning objectives**

*By the end of this session, participants will be able to:*

- Define and classify maternal deaths
- Describe global patterns of maternal mortality
- Describe the structure of the Ethiopian MDSR
- Identify the review committees and their composition at each level
- Explain how data will flow through the system

The **trainer’s focus** should be to ensure participants:

- Receive and review the National MDSR Guidelines and tools
- Understand the basic structure & functions of the Ethiopian MDSR system
- Recognise their own role in the MDSR, including at what level they will participate, and relevant responsibilities.

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**Slide 3**

**Definitions (1)**

*A Maternal death is the death of a woman*:

- while pregnant or within 42 days of the end of pregnancy (irrespective of duration and site of pregnancy)
- from any cause related to or aggravated by the pregnancy or its management
- but not from accidental or incidental causes

(Source: ICD-10)
Definitions (2)

- **Direct obstetric deaths** are maternal deaths resulting from complications in pregnancy, labour or postpartum or from omissions or incorrect treatment.

- **Indirect obstetric deaths** are maternal deaths resulting from previously existing or newly developed medical conditions aggravated by the physiologic effects of pregnancy.

- **Late maternal deaths** are deaths from direct or indirect causes that occur from 42 to 365 days after the end of pregnancy.

(Source: ICD-10)

Definitions (3)

A Pregnancy related death is all deaths of women during or within 42 days of the end of pregnancy regardless of cause.

Useful in settings where it is difficult to determine cause, and in many low resource contexts, the cause of death is highly likely to be related to pregnancy.

Definitions (4)

A maternal near-miss is defined as “a woman who nearly died but survived a complication during pregnancy, childbirth or within 42 days of end of the pregnancy”

- “Near misses” occur when women survive life-threatening conditions (i.e. organ dysfunction)
- Use of Near Misses provides a positive approach (analysing survivals rather than deaths)
- Appropriate for review when there are too few deaths to support regular review meetings

Near-misses will be identified and reviewed within hospital settings. They will NOT be reported to higher levels nor analysed at community level.
Sub Saharan Africa continues to represent the highest risk levels for maternal deaths.

Proportions of maternal deaths that are classified as either direct or indirect change over time. At the moment, *indirect causes* are an increasing proportion of all deaths.

Ask participants to briefly look through their copy of the National Guidelines so they are familiar with its format and contents.

The Ethiopian National Guidelines are based on existing international experience and WHO documentation. They have been peer reviewed by senior Ethiopian gynaecologists.

- These guidelines are expected to serve as a *working document* and will be revised periodically based on experience.
- They can be *adapted* at regional level to suit local contexts.
- All the data collection and reporting tools are included in the Appendices. Again, these can be adapted to fit local needs.
Objectives

- Strengthen capacity of program managers & providers in analysis & interpretation of maternal death data
- Facilitate standardization & harmonization of the MDSR process at community, facility, district & regional levels
- Guide program managers in timely implementation, monitoring and supervision of MDSR at different levels
- Serve as a basic tool to guide service providers in MDSR
- Improve use of information to produce local solutions to the root causes of maternal death

Committee Structure

This is the basic structure of the Ethiopian MDSR.

Committee Membership

Further detail on committee membership, roles and responsibilities, will be addressed in a separate module.
This man is at risk of drowning....

How can he be helped *without* blaming him for his behaviour?

---

**Culture of no blame**

The man in the boat needs help managing his appetite, a reminder of good nutrition, and assistance to stop sinking, but *NOT* a lecture on his poor eating habits!

- Healthcare providers are vulnerable to self-blame, which does not improve care
- Support and training are better solutions for preventing future deaths
- "No blame" is NOT "no accountability"

---

**National MDSR Action Plan**

- **May**: National training & dissemination of guidelines
- **June - September**: Regional Committees established
- **June - September**: Phase I implementation (committees established at Facilities & Health Centres, with woreda support)
- **September**: Orientation for Health Centres and HFW
- **October ’13 – March ’14**: Phase II
- **April – September ’14**: Phase III
- **Monthly monitoring throughout**

Highlight where the MDSR Action Plan should have reached at the time of the training, and emphasise how important it is that each region, zone, hospital and health centre begins to introduce MDSR so that the whole system becomes functional as soon as can practically be expected. Moving to the ACTION STEPS as soon as possible is the ultimate aim!
Module 2: The Legal Framework for MDSR in Ethiopia’s Health System

This module addresses a very important and sensitive issue of MDSR. Maternal deaths are emotional events, and an increased focus on them can potentially have adverse effects, such as the identification and blame of individuals who were involved (including providers and family members). Thus concerns about the legal implications of collecting and reviewing data around maternal deaths are very natural and need to be acknowledged and not dismissed.

Note to Trainers: When delivering this module, it is important to maintain a positive outlook and emphasise that while any concerns raised about legal issues are very real and valid, they can be managed without negative consequences. A well designed, functioning MDSR system will address legal issues right from the start, engaging with the relevant authorities.

While your tone should be one of reassurance, you must also be careful not to make any statements that suggest any legal safeguards or protections that do not yet exist. The legal situation may change over time and you should try to get any up-to-date information (e.g. on FMHACA regulations related to MDSR, local relationships with police commissions, etc). Do not attempt to answer questions for which you do not know the answer, nor offer guarantees that do not necessarily exist.

Slide 1

The Legal Framework for MDSR in Ethiopia’s Health System

Ensuring a legal framework accompanies the implementation of MDSR is important and will be addressed at National FMoH and RHB levels.

However, the system itself can be designed to address many of the legal concerns.

Slide 2

Overview

- Importance of the legal framework in guiding MDSR
- International examples of successful models
- Common concerns
- Protections within an MDSR system
  - Confidentiality
  - Anonymity
  - Establishing a "No blame" culture
Slide 3

**International Examples**

*Malaysia & Sri Lanka*

- Both countries experienced dramatic improvements in maternal & newborn health
- Formal MDR and confidential enquiry systems established
- MDR processes adopted 'no blame' approach
- Emphasised to all that purpose of MDSR to learn from each death and prevent others

Other countries have managed to dramatically reduce maternal deaths, and the use of maternal death reviews have contributed to these successes.

Successful review systems have instilled a culture of no blame throughout, and have ensured that data are used for improving health NOT legal proceedings.

---

Slide 4

**International experience: India**

'Maternal & Perinatal Death Inquiry and Response' (MAPEDIR)

Verbal autopsies to address family, community, health services and policy level determinants

- Motherhood is a top priority of India’s Rural Health Mission
- Confidential, non-threatening environment to allow documentation and analysis of factors leading to adverse maternal outcomes
- Informed consent and confidentiality ensured
- Confidentiality protected when sharing findings
- Result has been openness in reporting, trust across the system and better data

---

Slide 5

**Fundamental principles to protect an MDSR:**

- Confidentiality strictly maintained
- Anonymity of all concerned
- "No name, no blame" institutionalised
- Community liaison at every level

Formalised systems for *informed consent* (e.g. for family members participating in VA interviews), for *anonymity* (e.g. no names or personal details given about people who were involved) and *confidentiality* (keeping review discussions private) help protect MDSR participants.

Communities need to be informed about the purpose of MDSR and reassured so that they see reviews as a way to improve the health care system for all, and NOT as a means of pursuing revenge or compensation for their loss.
Using a “non-disclosure” or confidentiality pledge demonstrates a review committee’s commitment to confidentiality.

These types of agreements formalize the responsibility to keep the details of a committee’s discussion private and hold all the committee members to account.

Even if the committee members are familiar with a specific case and know which death is being discussed, it is important that no names or identifying information are included on documents reviewed by the committee or reported to higher levels.

Families can be reassured if the process of the review is explained to them, and their anonymity guaranteed.

Very important to emphasise that lessons can be learned from every death, particularly if they are grouped together and discussed in terms of systematic failures or weaknesses and structural changes that could prevent similar occurrences in future.

Most maternal deaths are the result of many factors acting in combination. Rarely is a death the result of any individual’s actions.
**Note to Trainers:** There may be many questions and concerns raised at the end of this session. These should be kept to a specific amount of time (perhaps 15-20 minutes).

Not all questions will be possible to answer. The main message should be that if the basic principles of anonymity, confidentiality and no-blame are enshrined at every level of the MDSR system, this benefits all the people involved.

Formal negotiations with FMHACA and other relevant national and regional authorities are underway in order to ensure an appropriate legal framework is put in place. The aim is to ensure that any information obtained through MDSR is *not available* for legal cases.
MODULE 3: WHY DID MRS X DIE? UNDERSTANDING THE PATHWAYS TO DEATH

Slide 1

Why did Mrs X Die?: Understanding the Pathways to Maternal Death

Slide 2

Understanding the “pathway to death”

Video

Why Did Mrs. X Die?

The video is provided as part of this training package. It is also available online (free of charge for non-profit purposes) at the following websites:
http://www.youtube.com/watch?v=gS7fCvCle1k

http://www.handsonformothersandbabies.org/

Slide 3

Short Exercise (10 minutes)

1. Turn to 1-2 people next to you
2. Discuss the video with the following in mind:
   - What was the direct cause of Mrs. X's death
   - Were there any indirect causes?
   - What evidence did the review committees use to make changes in quality of care at the facility?
   - List 2 actions resulting from the analysis of Mrs. X's death taken at the hospital and nationally)

PLAY the WHY DID MRS. X DIE video clip.

The video itself includes superfluous material, including an interview with a famous Obstetrician who has been instrumental in intensifying efforts to reduce maternal mortality.

To save time, play the video from 01:22 minutes UNTIL the end of the animation at 11.22 minutes

The instructions for this activity are also printed in the participant workbook.

After 10-15 minutes of participants working in pairs, bring everyone back together for a group discussion.

Ensure that participants understand the difference between the direct cause of Mrs. X’s death (antepartum haemorrhage), its indirect cause (anaemia) and any contributing social factors (low status of women, poor nutrition, lack of awareness of ANC, transport costs)
**GROUPWORK:** Why did Mrs X die? ANSWERS

**Q1:** What was the direct cause of Mrs X’s death?  
*Antepartum Haemorrhage*

**Q2:** Were there any indirect causes?  
*Anaemia*

**Q3:** What evidence did the review committees use to make changes in quality of care at the facility?  
*Staff MDR Review:* Conducted a retrospective audit of files, including Mrs. X’s, and also interviewed her family members in the community.  
*International Review (National Enquiry):* Reviewed aggregated data from across facilities, including social and cultural issues related to access to family planning and gender roles and responsibilities.

**Q4:** List 2 actions taken at Hospital level after the first review?  
- Improved blood supply  
- Increased availability of emergency services e.g. Caesarean Section  
- More trained midwives both for ANC and Delivery

---

The main point of the next 2 slides is that the MDSR cycle continues indefinitely. Even if actions are taken to reduce some preventable factors, others may emerge.  

Deaths need to be constantly identified, reported, summarized, analysed, and actions identified and monitored.  

Some participants may suggest that it is difficult to identify the problem before collecting data. In this case, “identify the problem” relates to broad understanding of the high rate of deaths NOT specific issues. Participants may also suggest that data analysis should occur prior to discussion with a review committee. While some basic summaries or aggregation of data will be made for review at higher levels, it is important that each review committee analyses the data in whatever form they receive it as a communal and multi-disciplinary activity.
In this session, some of the MDSR tools will be introduced and participants will have a chance to practice using them.

Ensure that all participants have a copy of the MDSR National Guidelines, and/or a separate print out of Appendix 1 (in the relevant language).

Ask the participants to turn to the Appendices in their National Guidelines, so they can see the Notification & Screening tools (Annex 1) that will be discussed in this session.

It is better to err on the side of caution – meaning that if there is doubt, better to notify the death so that it can be further investigated.
**REMINDER 2!**

- **Direct obstetric deaths** are maternal deaths resulting from complications in pregnancy, labour or postpartum or from omissions or incorrect treatment.
- **Indirect obstetric deaths** are maternal deaths resulting from previously existing or newly developed medical conditions aggravated by the physiologic effects of pregnancy.
- **Late maternal deaths** are deaths from direct or indirect causes that occur from 42 to 365 days after the end of pregnancy.

(Source: ICD-10)

Examples of DIRECT maternal deaths: postpartum haemorrhage, sepsis, eclampsia etc.

Examples of INDIRECT maternal deaths: malaria, HIV.

The Ethiopian MDSR will not include late maternal deaths in its reporting.

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**Individual Exercise: Death Scenarios**

- Which are maternal deaths?
- Why or why not?
- How would you classify them?
- Should it be reported to the MDSR committee?

The Scenarios are listed in the Workbook.

Participants should work through each case on their own. This should take about 20-30 minutes.

Then it is important to lead a discussion with the whole group to go through each case and explain the answers.

There may be some disagreements or ambiguities – not all cases are easy to classify!

Remember that the purpose is to assess whether the death is likely to be a maternal death and thus require a verbal autopsy. Participants should NOT try to diagnose the condition described or assign a cause of death.

Try to prevent participants’ getting too preoccupied with specific examples or asking about scenarios that are likely to be extremely rare. As long as standardized classification are applied to most deaths, the system will function.
GROUP WORK: Identification

Aim: To accurately identify maternal deaths

This is an individual exercise. Consider the examples described below and for each, determine if it is a maternal death; if so, which type of maternal death and whether it should be reported.

Example 1

A 24 year old woman delivered a large healthy baby at home. Two hours after delivery she was bleeding heavily with a fast pulse and low blood pressure. She died four hours after delivery.

CIRCLE AS APPROPRIATE:

Q1. Is this a maternal death? 
   Yes / No / don’t know
Q2. If yes, can it be classified as 
   direct / indirect / incidental
Q3. Should it be reported to the MDSR committee? 
   Yes / No

ANSWER

- Yes, maternal death,
- direct (haemorrhage),
- should be reported

Example 2

A 36 year old woman is known to be about 6 months pregnant with her 5th pregnancy. She experiences dizziness and night sweats, shortness of breath and has been coughing blood stained sputum. The Doctor diagnosed tuberculosis and found she was HIV positive. She died at 7 months pregnancy of pneumonia.

Q1. Is this a maternal death? 
   Yes / No / don’t know
Q2. If yes, can it be classified as 
   direct / indirect / incidental
Q3. Should it be reported to the MDSR committee? 
   Yes / No

ANSWER

- Yes, maternal death,
- indirect (HIV/TB are affected physiologically by pregnancy)
- should be reported

Example 3

A 31 year old woman is 38 weeks pregnant with her 4th child. She is on her way to the local town walking along the main road with her children when a bus knocks her down. She is unconscious and dies 4 hours after the accident.
Q1. Is this a maternal death? Yes / No / don’t know
Q2. If yes, can it be classified as direct / indirect / incidental
Q3. Should it be reported to the MDSR committee? Yes / No

ANSWER
- No, it is not a maternal death
- incidental
- should be notified but not reported

Example 4
A woman dies very soon after arriving at a health facility. She dies without having delivered, but health personnel at the facility were able to feel fetal parts on vaginal examination. The person accompanying her to the facility reported that she had pains for a day and a half but could provide no further details.

Q1. Is this a maternal death? Yes / No / don’t know
Q2. If yes, can it be classified as direct / indirect / incidental
Q3. Should it be reported to the MDSR committee? Yes / No

ANSWER
- Yes, it is a maternal death
- direct (obstructed labour).
- should be reported.

Example 5
A teenage girl is raped and worries she may be pregnant. Two days after the rape she tells a friend, who gets her some herbal medicine. Four hours after swallowing it she collapses and dies.

Q1. Is this a maternal death? Yes / No / don’t know
Q2. If yes, can it be classified as direct / indirect / incidental
Q3. Should it be reported to the MDSR committee? Yes / No

ANSWER
- No/ don’t know, it is not a maternal death- the most likely cause of death is poisoning.
- should be notified but not reported

Example 6
A teenage girl has unprotected sex and misses her next period. Her boyfriend gives her some herbal medicine to cause an abortion. Two days later she starts to bleed and 5 days after taking the medicine she becomes feverish and has a very offensive-smelling vaginal discharge. After another 2 days she collapses and dies.
ANSWER

- yes this is a maternal death
- It is direct probably due to septic shock
- should be reported.

Example 7

A 23 year old has missed 2 periods and is feeling very unwell. She is very weak and sets out to go to the local health centre on her own. The health centre is 4 hours away and she collapses and dies on the way.

Q1. Is this a maternal death? Yes / No / don’t know
Q2. If yes, can it be classified as direct / indirect / incidental
Q3. Should it be reported to the MDSR committee? Yes / No

ANSWER

- yes, it should be considered a maternal death
- It could be pregnancy related, possibly hyper emesis gravidarum
- should be reported

Who should notify maternal deaths at community level?

- Religious Leaders
- Health Development Army
- Community authorities
- Administrative leaders
- Health Extension Workers
- Members of the community
- HEW have formal responsibility for reporting deaths within the MDSR system

Currently, the vast majority of maternal deaths occur in the community.

These deaths often go unreported. It is critical to encourage as many different community authorities and local people to report maternal deaths as possible.
Slide 7

How will identification occur in facilities?
- Referral forms
- Medical records
- Log books (maternity, OR, OPD, anaesthesia)
- Attending health workers (maternity, OPD, OR)
- Other ... E.g. mortuary

Slide 8

Verbal Autopsy conducted for ALL confirmed maternal deaths, regardless of where they occurred, and report provided to HC Director. Key staff at HC determine classification of death within 3-4 weeks of notification. HEW notify all identified deaths to HC within ONE WEEK. The HC Director assigns 2 independent reviewers to produce a summary. HEW identify ALL deaths to women of reproductive age.

Slide 9

How will identification occur in facilities?
- Referral forms
- Medical records
- Log books (maternity, OR, OPD, anaesthesia)
- Attending health workers (maternity, OPD, OR)
- Other ... E.g. mortuary

Keeping good medical records will be very important for identification of facility deaths.

Slide 10

How will identification occur in facilities?
- Referral forms
- Medical records
- Log books (maternity, OR, OPD, anaesthesia)
- Attending health workers (maternity, OPD, OR)
- Other ... E.g. mortuary

This illustrates the process of data collection and review at facility level.
Data collection

- Many sources involved
  - family cards
  - antenatal care records
  - medical records from health facilities
  - interviews with family members, community leaders, traditional healers and health care workers
- Each data source provides different information
- For community deaths, HC staff will be trained to use the VA tool
- The HC Medical Director responsible for that kebele will supervise the process
- Data collectors for both facility and community level should be fluent in the local language

Ask participants whether there are any other sources of data that might help identify maternal deaths?

Data Collection

- Speed is essential
- Notes will disappear
- People will be unavailable
- Establish who was around as soon as possible

When a death of a woman of reproductive age has been identified, checking the medical records or arranging a verbal autopsy should be done as soon as feasible to prevent the loss of information.

In the case of conducting verbal autopsies, however, allowances need to be made for the mourning period.

How can duplication be avoided?

There is a risk that a death that occurs at a facility (or on the way) might be reported TWICE to the woreda, from BOTH the facility review committee AND HC committee reviewing verbal autopsies.

During this slide, emphasise that Verbal Autopsies will be conducted for all maternal deaths, regardless of where they occurred.

Formal reporting will occur through the VA process.
How can duplication be avoided?
- MDSR Guidelines recommend that **ALL** maternal deaths should be counted through the VA process.
- The Facility deaths are to assist in identifying actions **NOT** for contributing to aggregate figures.

How does Woreda avoid reporting the same death twice to Zone or RHB?
This will require careful data management practices to avoid confusion!

While hospital review committees will review the deaths that occur in their facilities and report the action steps to the next level (woreda, zone or region), these deaths should not be included in the final count.

Woreda health staff are responsible for reporting all the deaths that occur in their jurisdiction but should do so based only on the verbal autopsy summaries and NOT forms received from hospitals. This is to avoid “double counting.”

What is “Zero reporting”?
- **ZERO** Reporting refers to ensuring all data abstraction and aggregation tools are filled out and sent on time, **EVEN** when no maternal deaths have occurred.
- Reporting **ZERO** shows attention to the issue and proactive tracking of maternal mortality.
- **NO** reports suggests that the **MDSR is not functioning** or the issue is neglected.
- Reporting should be an **active process** even when there have been **NO deaths**.

Perhaps a greater risk is that the MDSR process is not efficiently implemented, and facilities or higher level committees start to neglect monthly reporting.

Like with the surveillance of other health conditions, an MDSR report must be filled out each month, even if there have been no deaths.

This demonstrates that there is regular process of **checking** for deaths.

Watching out for silent areas
- **Silent areas** are geographical locations (woredas, zones) or facilities at any level that do not report or consistently report **NO maternal deaths**.
- Silent areas could mean **no deaths** occurred.
- **BUT** silent areas also are a potential **warning sign** of poor compliance with MDSR.
- Woreda or regional review committees are responsible for further investigation.
- Additional support or training may be required.
GROUP WORK: Notification

Aim: To become familiar with the notification form

This is a group exercise. First, divide into groups of 5. Work through the 4 scenarios described below. Each scenario should be led by a different individual in the group (who plays the role of a HEW supervisor or Senior midwife). The other group members should be a husband, a neighbour, a priest and a mother-in-law. The responsibilities of the group are as follows:

- The HEW Supervisor/ Snr Midwife leads the data collection and completes the notification form (available in the Workbook and as an appendix in the national guidelines). The Lead will ask questions of the other people in the group in order to complete the form (listed below the scenarios).
- Questions should be based on what additional information is needed to complete the form. The Lead decides to which of the other members s/he will direct specific questions.
- The husband, neighbour, priest and mother in law respond according to their own knowledge of the situation. Please keep your responses brief, and try to think of realistic details of what might have happened.
- Do not worry if your group does not have time to complete all 4 scenarios before the end of the session.

NOTE FOR TRAINERS: There are no right or wrong answers in this activity, as the Lead for each scenario may obtain the necessary data by asking a wide range of questions from the other characters. However, some ideas for how to ensure the Notification Form is adequately filled out are listed below.

Scenario 1. As reported to HEW by a Neighbour who is pregnant

AT has been sick with fever for days. She died a week ago.

ANSWER

This is a tricky notification, as the information comes from a pregnant woman but there is as of yet no indication that the woman who died (AT) was herself pregnant. The Midwife needs to talk to the neighbour herself and any available family members and the first piece of data required is whether AT was pregnant or within 42 days of the end of a pregnancy. If there is no evidence of that, then the death is likely to be a non-maternal death and does not require a verbal autopsy.
Similar to the situation above, the notification that comes from the priest concerns the death of a woman of reproductive age. While the priest may not be aware whether or not the woman was pregnant of within 42 days of the end of a pregnancy, others in the community should be questioned further. If there is evidence that the death was pregnancy-related, it should be assumed to be a maternal death for the time being and a full VA administered to someone who was present at the time of the woman’s death to obtain the required detail.

The Midwife should probe the husband for more information on the woman’s use of injectible contraception. If she was using it regularly and there was evidence (perhaps from a family folder or HEW record?) that the woman had been maintaining the 3-monthly injections, then her death was unlikely to be pregnancy related or maternal. However, it is possible that she experienced a contraceptive failure and then had complications from her pregnancy or tried to terminate it as it was unwanted. These are sensitive data that should be asked about cautiously from the husband or someone the woman was close to (perhaps the neighbour?) to determine whether the death was maternal or not.

There is no need for the Midwife to collect any additional information. The deaths described are accidental and thus even if the women who suffocated in the fire were pregnant or postpartum, their deaths would not be reported as maternal deaths.
Summary Points

- ALL deaths of women of reproductive age should be notified in communities
- HEW are responsible for reporting deaths to HC, where classification occurs and further investigations are authorised (VA)
- Facilities must ensure identification occurs through data collection in all departments
- Rapid extraction and summary of raw data crucial to ensure accurate information
- At woreda level, data are checked for duplication, zero reporting and “silent areas”

NOTE: there will be a support system available to assist with the introduction of MDSR. Each RHB will have a focal person and E4A will also provide technical assistance and help with difficulties throughout the system, including with identification and notification of maternal deaths.
**MODULE 5: TERM OF REFERENCE FOR REVIEW COMMITTEES**

This modules should be tailored to the audience. If the Training is at national or regional level, then it makes sense for participants to get into groups according to their own role within the MDSR (National/regional, zonal, hospital, and health centre representatives can work in their own groups and draft TOR for their review committees).

For training at hospital and health centre level, this module can be used for staff to draft their actual review committee TOR, roles and responsibilities. If these already exist, they can read them to become familiar and the module can be shortened to 15-20 minutes.

---

**Slide 1**

SETTING TOR FOR REVIEW COMMITTEES

It is important for all Review Committees to have clear terms of reference so that everyone know who is a member, what the committee will do, how often it will meet, how it will report, and to whom it will report.

---

**Slide 2**

Committee Roles and responsibilities - Developing Terms of Reference -

- Break into small groups based on your expected role within the MDSR (RHB/Zonal, Hospital or Health Centre Level Committees)
- Use Guidelines as reference and draft a TOR for your Review Committee
- Complete the exercise form in Workbook

This activity is also listed in the workbook.

If TOR already exist, then participants should have the opportunity to read through them and ask any questions.

This activity should take 20-30 minutes, with time for discussion or questions afterwards.
## Terms of reference for MDSR Committee

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<th>Description</th>
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<td></td>
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<tr>
<td>Secretary</td>
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<tr>
<td>Members</td>
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### Overall aim of committee

- **Roles and responsibilities**

### Links to the MDSR system:

- From whom will you receive information?
- To whom will you send information?

### Quorum

### Frequency of meetings
Roles and responsibilities are detailed in the National MDSR Guidelines, and will be made locally specific at each appropriate level.

There are thus **no prepared answers** to the TOR activity.
MODULE 6: FACILITY LEVEL REVIEWS

This module is only relevant for training staff at facilities where a maternal death is likely to occur. It is specifically designed for hospitals. It would also be suitable for training at larger Health Centres.

Slide 1

This is a very long session and requires at least 1 hour.

Slide 2

Learning objectives
By the end of this session, participants will be able to:

- Complete a facility review form
- Generate and present case summaries
- List the 5 decisions a facility MDR committee should make
- Complete the review reporting form to send to the next level

Slide 3

Overview

1. Role of data collector
   - Tools: MDR Facility review
   - Ensuring data quality
   - Maximising data capture
   - Summarising cases for presentation at review

2. MDSR Facility committee
   - Roles and responsibility
   - Tools: report form to next level
   - Constructive discussion and taking key decisions
Slide 4

**Facility level tools**
- Facility reporting form
- Report from facility to next level
  - Consider translation into local languages
  - Anonymise records and keep any data that identifies individuals in a secure place
  - Provide data collectors with on-the-job training

Slide 5

**Data quality improves when...**
- All members of staff understand the purpose of the data collection
- There is good coordination across the facility departments for collecting and synthesising data
- Multiple sources are used (case notes, records from admission, surgery theatre, mortuary etc)
- Notes are legible

Once the process of data collection becomes routine, reporting and quality often improve as staff realise their notes and records will be looked at and used!

The success of MDSR will rely on the quality of patient records and case notes.

Ensuring notes are complete, neatly written, and easily available is an important facility-based component of MDSR.

Slide 6

**Data capture**
- Include all sources of information if women received care at multiple sites
- Every effort should be made to include family interviews
- A summary of the chain of events should be generated (description of events leading to the death)

The MDSR system will work best if there is good collaboration, partnership and respect between institutions.

Hospital and Health Centre staff need to regularly communicate and share information.
SAMPLE MEDICAL NOTES need to be provided for this exercise. Ideally, these should be real cases from the local context, with all identifying information removed (including names of the patient, her family members, address, and even name of the health facility and any staff involved).

**INDIVIDUAL WORK: DATA EXTRACTION**

N.B Case Notes will be made available during the training but will be collected at the end of the session.

**Exercise 1. Transfer of raw data from anonymised clinical notes to the Facility review form.** This is an individual activity.

1. Using the notes provided, complete as much of the form as possible
2. Return the notes at the end of the session.

---

**Facility based maternal death summary form**

**I. Abstractor related**

1. Name of the abstractor:______________________________
2. Qualification of the Abstractor_________________________
3. Telephone number of the abstractor:____________________
4. Date of abstraction:________________________________
5. Was the abstractor involved in the management of the case? 1. Yes  2. No

**II. Identification/ Background information**

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<th>Question</th>
<th>Response</th>
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<td>Time of death and date of death</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>When did the death occur?</td>
<td>In transit ______</td>
</tr>
<tr>
<td></td>
<td>Place of usual residence</td>
<td>Woreda/subcity______</td>
</tr>
<tr>
<td></td>
<td>Educational status of the deceased</td>
<td>1. Illiterate  2. No education, but can read and write  3. Grade completed _________________  4. Don’t know</td>
</tr>
<tr>
<td></td>
<td>Level of education of the husband</td>
<td>1. Illiterate  2. No education, but can read and write  3. Grade completed _________________  4. Don’t know</td>
</tr>
</tbody>
</table>
I. Obstetric characteristics

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gravidity</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Parity</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Number of living children</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Attended ANC?</td>
<td>1. Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Not known</td>
</tr>
<tr>
<td>5</td>
<td>If yes, where is the ANC?</td>
<td>1. Health post</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Health center</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Hospital</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Other (specify)</td>
</tr>
<tr>
<td>6</td>
<td>If yes, number of visits</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Basic package of services provided (Tick ALL that apply)</td>
<td>RPR, Hgb, Blood group, HIV status, U/A BP measurement during the follow up Fefol supplementation TT immunization Other (Specify)</td>
</tr>
<tr>
<td>8</td>
<td>Problems or risk factors in the current pregnancy: (Tick ALL that apply)</td>
<td>I. Pre existing problems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>II. Antenatal/ intranatal problems/risks</td>
</tr>
<tr>
<td>Facility Episode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Question</td>
<td>Response</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Date of admission</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Day of admission</td>
<td>1. Working days 2. Weekends 3. Holiday</td>
</tr>
<tr>
<td>3</td>
<td>Time of admission</td>
<td>1. Working hours 2. Nonworking hours</td>
</tr>
<tr>
<td>4</td>
<td>Main reason/symptom for admission</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Is it a referred case?</td>
<td>1. Yes 2. No</td>
</tr>
<tr>
<td></td>
<td>If “No” to question number 5 go to number 9</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Referred from (Name of health facility)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Reason for referral</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Comment on referral</td>
<td></td>
</tr>
</tbody>
</table>
- Accompanied by HCWs
- Appropriate management

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Summary of management at hospital</td>
</tr>
<tr>
<td>10</td>
<td>Qualification of the most senior attending health professional(s)</td>
</tr>
<tr>
<td>11</td>
<td>Primary cause of death</td>
</tr>
<tr>
<td>12</td>
<td>Is this preventable death?</td>
</tr>
<tr>
<td>13</td>
<td>If preventable maternal death, specify factors according to the three delay model</td>
</tr>
<tr>
<td></td>
<td>Delay in seeking care</td>
</tr>
<tr>
<td></td>
<td>Delay in reaching at right facility</td>
</tr>
<tr>
<td></td>
<td>Delay within the facility (diagnostic and therapeutic)</td>
</tr>
</tbody>
</table>

**INSTRUCTIONS:** This form should be stored with a copy of the relevant Verbal Autopsy Summary form (Annex 3) and Annex 4 in a secured location (e.g. locked cupboard in HC manager’s office)
ANSWER
The handwritten notes serve as the basis for data extraction to the Facility Based Summary Form. These will be discussed during the session. For the simulation of the Review Committee, the following factors could come up as contributing to the woman’s death:

- There were clearly family and social factors related to this death. As the woman appears to have died as a result of sepsis from an attempted abortion, she did not have adequate access to contraception and her pregnancy was unwanted.
- Given the involvement of abortion, it is possible there was a delay in taking the woman to the first facility, particularly if family members were concerned about liability.
- Following the blood transfusion at first health facility (to which she appears to have had a poor reaction) it is not clear whether there were delays in referral to next level of health service.
- However, once at the second facility, the woman received appropriate care and there is no evidence of any delays in treating her.

Reminder: Committee Roles
- Multi disciplinary to bring in different perspectives and ideas
- Preserves the anonymity of patients and staff (through non-disclosure pledge)
- Maintains a "No Blame" culture
- Reports objectively on cases
- Identifies actions and provides required feedback to all concerned
- Coordinates with community reviews – essential to build a complete picture

Confidentiality: a Code of conduct
- Local data collectors and involved health care workers are the only staff who see the names of deceased
- Knowledge contained within review committees
- All individuals (including committee members) who access identifying data sign a non-disclosure confidentiality agreement (kept on record)

Emphasise the importance of removing all identifying information, even if everyone at committee level is familiar with the case and knows who was involved.

Maintaining anonymity and confidentiality reinforces the formality of the review committee meetings, strengthens accountability, and is an example of best practice.
Draft Disclaimer
(Non-disclosure confidentiality agreement)
We, the members of the review committee, agree to maintain anonymity and confidentiality for all the cases discussed at this meeting, held on [DATE]. We pledge not to talk to anyone outside this meeting about details of the events analysed here, and will not disclose the names of any individuals involved, including family members or health care providers.

Asking all MDR committee members to sign a statement such as this one at the beginning of a review meeting makes it clear to all that the committee takes the principles of no blame seriously.

Hospital committee membership
- Obstetrician & Gynaecologist
- IESO officer
- Senior Midwife
- Anaesthesiologist /Anaesthetist
- CEO
- Medical Director
- Pharmacy case unit head
- Quality officer of the hospital

During the “Set Up” phase, facilities should:
- Raise awareness and provide training for all staff
- Schedule regular, routine facility reviews
- Appoint a MDSR co-ordinator who relates well to other staff, is supportive and respected
- Invite local experts to join committee from backgrounds other than medical/midwifery
- Engage senior staff and managers

Key Challenges
- Blame culture
- Lack of ownership
- Lack of leadership
- Missing documentation
- Lack of feedback
Committee discussion
Five key decisions
1. Cause of death
2. Death classification Direct/indirect/incidental
3. Relevant delays
4. Preventability Lessons learnt are applied to prevent further deaths
5. Actions

It is important to discuss the action steps at every meeting – actions should not be left out due to running out of time!

Reporting Form to next level (Appendix 5)

Refer to appendix in the National Guidelines and talk through them

Case discussions
➢ Practical session aimed at simulating Facility MDR committee meeting
➢ Groups of approx 6-8
➢ Described in Workbook

During the group work, trainer (and any assistant facilitators) should circulate among the groups and encourage them to consider the summary previously prepared from the case notes, acting as if they were really at a review committee meeting that required identifying feasible actions.

There are no set answers for this activity.

Exercise 2: Hospital facility MDSR Committee Simulation. This is a group activity.

1. Divide into groups of 6-8 in order to simulate a hospital MDSR Committee meeting.
2. Allocate the following roles to group members: Gynaecologist, Lead Midwife, CEO, Medical Director, Pharmacy Head, Quality Officer, IESO, Anaesthetist.
3. The Medical Director should review the Roles and Responsibilities in the Guidelines.
4. The gynaecologist or lead midwife should present the case to the rest of the committee, which should be followed by committee discussion. As a group, clarify outstanding issues and decide how to complete Appendix 5.

ANNEX 5: REPORTING TEMPLATE FROM HEALTH FACILITY TO NEXT LEVEL (fill it in duplicates)

1. Date of reporting: ________________
2. Name of the facility: __________
3. Next level: __________________
4. ID No of deceased: ___________
5. Place of death ________________
6. Date of death _________________
7. Age: _________________________
8. Marital status: ________________
9. Religion: _____________________
10. Ethnicity: _________________
11. Address: Urban___ Rural ___
12. Level of education ____________
13. Gravidity _________________
14. Parity _________________________
15. Cause of death ________________
16. Death in relation to pregnancy/ L&D/puerperium: ________________
17. Contributory factors/non-medical- tick all that apply

<table>
<thead>
<tr>
<th>Delays</th>
<th>Contributory factors</th>
<th>Tick ALL that apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harmful traditional practices</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family poverty</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Failure of recognition of the problem</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of decision to go to health facility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delayed referral from home</td>
<td></td>
</tr>
<tr>
<td>Delay 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delayed arrival to referred facility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of roads</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of transportation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No facility within reasonable distance</td>
<td></td>
</tr>
<tr>
<td>Delay 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delayed arrival to next facility from referral from another facility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delayed management after admission</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delayed or lacking supplies and equipments(specify)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Human error or mismanagement</td>
<td></td>
</tr>
</tbody>
</table>

18. Preventable death (yes or no):

Attach Appendix 4 to discuss agreed actions

**INSTRUCTION:** Copy kept at facility with Annex 2 and Annex 4; Copy sent to next level
MODULE 7: UNDERSTANDING DETERMINANTS OF MATERNAL DEATHS

Slide 1

Understanding and responding to the determinants of maternal deaths

Photo by Renee Bourque, Bright Star Consultants, www.brightstargrants.com

Slide 2

Learning objectives

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

• Explain the difference between causes and determinants of maternal death
• Classify determinants using the “3 delays”
• Identify how community-level action links to MDSR

Slide 3

Brainstorming Exercise

In the next 5 minutes:

1) List 3-5 main causes of death during or immediately after childbirth in Ethiopia
2) For each of these, note down what social factors you think contribute to them
Exercise 1: Brainstorming exercise

On your own, in the next 5 minutes ....

1. List 3-5 main causes of maternal death during or immediately after childbirth in Ethiopia.
2. For each of these what social factors contribute to them?

Be prepared to discuss these in the follow up discussion.

<table>
<thead>
<tr>
<th>Possible main causes of death</th>
<th>Contributing social factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemorrhage</td>
<td>Poor nutritional status</td>
</tr>
<tr>
<td>Ruptured Uterus/Obstructed Labour</td>
<td>Insufficient access to family planning; too many closely spaced pregnancies</td>
</tr>
<tr>
<td>Sepsis</td>
<td>Lack of clean delivery</td>
</tr>
<tr>
<td></td>
<td>Lack of clean water in health facilities</td>
</tr>
<tr>
<td></td>
<td>Unwanted pregnancy (if followed by induced abortion)</td>
</tr>
</tbody>
</table>
## Review of Terms

### Causes

The immediate clinical or medical reason for the woman’s death, classified as a direct or indirect maternal death.

### Determinants

The “causes of the causes” or factors that increased the woman’s risk of dying from a specific cause.

## Slide 6

### Common Determinants of Maternal Deaths

1. Poor access to family planning and safe abortion services
2. Insufficient use of antenatal services
3. No skilled attendance at delivery
4. Difficulties in obtaining transport
5. Insufficient supplies or staff
6. Low status of women

*These are very different factors, operating at different levels of social influence.*

It is possible to skip the next 3 slides during trainings at health centre and hospital level.

## Slide 7

### The “3 Delays” Model

- Generally refers to events following an obstetric emergency, so very specific
- Related to seeking and obtaining clinical care
- Divides the process of accessing care into 3 phases:
  - Recognising an emergency & need for treatment
  - Reaching a health facility where care is available
  - Receiving the care that is needed

The “3-delays” are used in the national MDSR tools to help classify different social determinants.
**Delay 1**

*Delay in deciding to seek care:*
- Rapid recognition of a problem can be critical to saving a mother’s life (esp. for excessive bleeding)
- Delay 1 measured as length of time from onset of a complication to decision to seek care
- Determinants include:
  - Inadequate knowledge
  - Reliance on family members who are not present
  - Lack of familiarity with or trust in services
- Education, socio-economic status and women’s autonomy also affect Phase 1 in seeking care

**Delay 2**

*Delay in reaching care:*
- Once decision to seek care is made, there can be delays in reaching it
- Determinants include:
  - Unavailable or expensive transport
  - Long distances to facilities
  - Costs related to accompanying woman or paying fees/ expenses related to services
  - Inadequate referral systems between facilities
- Inequitable or insufficient distribution of CemOnc services increase type 2 delays

**Delay 3**

*Delay in receiving care:*
- Delays 1 & 2 can lead to a women never reaching a facility or arriving in critical condition
- Delays within a facility also contribute to maternal deaths or “near misses”
- Determinants relate to *Quality of Care:*
  - Shortages of staff, equipment or blood products
  - Time lag between arrival and initiation of treatment/ surgery
  - Poor technical competence

**Addressing Community Level Determinants**
- Delay 1 relates mainly to Individual & Family determinants
- Delay 2 relates to Community determinants
- Delay 3 relates to Health System determinants
- All delays reflect background factors, such as:
  - Women’s autonomy & education
  - General reproductive health
  - Laws, policies and cultural norms
Exercise 2: Understanding the 3-Delay Model

1. Divide into groups of 5-6 people
2. Each group will be assigned one of the 3 delays
3. Discuss the factors in Ethiopia that are most likely to lead to that delay.
4. Identify 3-5 strategies or approaches that will target the factors you identified and might help reduce the delay.

Circulate among the groups to help facilitate discussion.

Ensure that the action steps identified by groups are feasible in the current Ethiopian context.
### 3 delay exercise

<table>
<thead>
<tr>
<th>DELAY</th>
<th>Contributing factors</th>
<th>Strategies to Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay in Seeking Care</td>
<td>Poor awareness</td>
<td>HEW campaign on emergency signs</td>
</tr>
<tr>
<td></td>
<td>Insufficient funds</td>
<td>Community transport schemes</td>
</tr>
<tr>
<td></td>
<td>Distrust of facilities</td>
<td>Public awareness of quality improvements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adapting facilities to cultural preferences</td>
</tr>
<tr>
<td>Delay in Reaching Care</td>
<td>Distance to facilities</td>
<td>Promoting birth preparedness (moving closer to facilities at time of birth)</td>
</tr>
<tr>
<td></td>
<td>Poor referral systems</td>
<td>Designated staff to liaise between facilities</td>
</tr>
<tr>
<td></td>
<td>Inability to pay related fees</td>
<td>Voucher or waiver schemes</td>
</tr>
<tr>
<td>Delay in Obtaining Care</td>
<td>No staff on duty eves/weekends</td>
<td>Improved staff roster</td>
</tr>
<tr>
<td></td>
<td>Inadequate supplies</td>
<td>Streamlined stock taking &amp; ordering system</td>
</tr>
<tr>
<td></td>
<td>Poor follow-up (eg after C/S)</td>
<td>Establishing recovery room and monitoring</td>
</tr>
</tbody>
</table>

**Summary Points**

- Social determinants are the "causes of the causes" of maternal deaths, and depend on many social levels.
- Addressing maternal deaths thus requires action at every level, not just medical or health services.
- Because many women die at home, in transit or soon after arrival at a facility, understanding the delays in receiving care helps analyse patterns of deaths.
- MDSR identifies determinants related to the 3-delays from the onset of obstetric complications.
- At higher levels (RHB, national) social determinants beyond the 3 delays should be considered (culture, gender).
MODULE 8: COMMUNITY LEVEL DATA CAPTURE

This module provides a basic overview of issues related to the verbal autopsy (VA) tool. More detailed VA training may be required for the Health Centre staff who will conduct the VA interviews to prepare them for conducting VA, including more detailed familiarisation with the data collection tool.

The **coding system** for assigning a unique ID number to each maternal death is introduced in this model. Health Centre staff are responsible for assigning the ID number to each case, and this should be clearly marked on the verbal autopsy form and throughout subsequent documentation.

Slide 1

![Community Level Data Capture for MDSR](http://www.globalhealthlearning.org/course/mortality-surveillance-methods-strategies)

This module provides an introduction to the VA tool and the process that will be used within the MDSR but **NOT** provide detailed training in the methods.

Slide 2

**Learning objectives**

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

- Describe the process for initiating a Verbal Autopsy in the MDSR
- List basic principles of good VA
- Identify some of the ethical and logistical challenges of VA
- Name key aspects of a consent form for community data collection
- Assign a unique ID number to each case

Slide 3

**Verbal Autopsies**

- Collect data from family members, friends, neighbours, and potentially HEW on circumstances around death
- Help construct the “pathway to death” including background factors
- Investigates the woman’s health issues, decisions about care, services received, and community factors (e.g. Transport)

Participants may recall that a form of VA was used in the Mrs X video as part of the first maternal death review.
Community Data Collection - process
(See Summary Table)

- Any community member can alert HEW about deaths of women 15-49
- HEW identify deaths and notify HC
- HC screens for potential maternal deaths and arranges a verbal autopsy
- Data from VA presented at the HC review committee

Hand out the “Summary Table,” which details how the Verbal Autopsy fits in with the notification, screening and reporting process.

Logistical Issues

- Timing is important – VA should be conducted after the mourning period, but before key details are forgotten (roughly 3-4 weeks after the death)
- Important to find respondents familiar with the case and events leading up to it
- Families may have separated or moved

VA need to be conducted very sensitively. Ensuring that the people who conduct them are familiar with the tool and well versed in the process, through additional training if necessary, is critical to good quality data.

Ethical Issues

- Maternal deaths are emotional events
- Grief of the family must be respected
- Information provided must be voluntary
- There should be no repercussions for family members’ actions
- The VA process can raise sensitive issues requiring support (disagreements, abortion, lack of available care)

Informed Consent

- Formally establishes voluntary participation
- Reassures family members
- Can offer legal protection to communities
- Builds rapport and trust before starting data collection

See Sample Form in Workbook & National Guidelines

Ask participants to look in their work book or in the National MDSR Guidelines for a sample VA informed consent form.
When obtaining Informed Consent, remember to mention...

- Purpose of the VA interview
- What will happen during the interview
- Risks involved (feeling uncomfortable, sad)
- Benefits (avoiding future deaths)
- Confidentiality
- Voluntary participation

Steps in Conducting VA

- Planning a community visit
- Approaching the household
- Selecting the best respondent(s)
- Obtaining Informed Consent
- Conducting the VA interview
- Recording the information accurately
- Submitting Annex 1 to the Health Centre

See the 10 Tips for VA Handout

Best Practices for Verbal Autopsy (1)

- Friendly approach – Explain the purpose of your visit in positive terms
- Ensure privacy – Interviews will go more smoothly if you are undisturbed
- Speak slowly & clearly – explain anything that the respondent doesn’t understand
- Probe for detailed information

Best Practices for Verbal Autopsy (2)

- There are NO “right answers” - let respondents tell their story in their own words
- Take notes – write down additional relevant information in the blank spaces of the VA form
- Pay attention – show that you are listening & aware of respondents’ emotions

Hand out the “10 tips” document. This slide lists the topics that are covered in greater detail. The “10 tips” can be used as a reference by those who are conducting the VA interview.
Participants should join the same groups that they were in for the Maternal Death NOTIFICATION exercise, and should use Scenario 3 (copied below). For this exercise, the groups should assume that the screening has found that the death of TA was likely to be a maternal death. One group member should take the role of the VA interviewer, and the others can play the role of family members with relevant knowledge (husband, mother, sister etc). The objective is to go through the VA form together (2nd part of Annex 1) and practice trying to fill in as much of the information as possible, using realistic information provided by the members of the group.

**Scenario 3. As reported by a Husband**

TA had no periods for over 3 months. They have 6 children and she had been using an injectible contraceptive. She had been vomiting and bleeding for 6 days and died in her sleep last night.

Bring the groups back together and briefly ask if there were any questions about filling out the VA forms, how long they think it would take, and what challenges there might be.

To save time, the next 2 activities can be used as HOMEWORK. Participants should complete them during their own time. You should save a few minutes at the start of Day 2 (perhaps after the recap of Day 1) to briefly go through the answers. In particular it is important to check that they are able to use the coding scheme correctly. Participants can work together in pairs to check that they have assigned the correct unique code.

**Home Work: Verbal Autopsy Scenario**

Read through the following description of a visit to a family to conduct a Verbal Autopsy. Jot down your thoughts in response to the discussion questions listed. Be prepared to share some of your observations during the discussion.
Community Based Data Collection:
Conducting Verbal Autopsy with Family Members

Following the death of a woman who had been in labour for three days and was on her way to a health facility, a midwife is sent from the Health Centre to the kebele to collect information on the circumstances of the woman’s death from her family members. She is accompanied by the HEW who made the initial report of the woman’s death.

The arrival of the midwife attracts a lot of attention in the kebele, where everyone has heard about the woman’s death. Several local women crowd around the midwife and HEW, to lead them to the woman’s household, and loudly start to describe what happened to the woman who died. These local women have strong opinions about the death, and tell the midwife that everyone knows that the family members in that household didn’t like to use the local health services and waited a long time before arranging transport to the health centre. They blame the woman’s father-in-law, saying that he didn’t want to spend any money on transport, and did not believe that a woman who already had three normal deliveries was in any danger. The women from the kebele are very upset, and want to accompany the midwife and HEW into the house of the woman who had died.

When the midwife reaches the household, she is greeted by an elderly woman who introduces herself as the mother-in-law of the deceased. She has a heated discussion with the other women from the kebele, who are still clustering around the midwife and the HEW by the entrance. Finally, the HEW asks them to leave and the midwife is able to introduce herself to the mother-in-law and explain the purpose of the visit. She shows her the form and says she has a questionnaire she needs to fill out about the death of the pregnant woman. The elderly woman looks very suspicious and says that they have done nothing wrong and don’t want to answer any questions. The HEW interrupts, insisting that the questions are mandatory and the health service needs this information so they know what has happened. Finally the mother-in-law agrees, but looks unhappy about it, and they sit down inside. There is a man present, and a younger woman, who are introduced as the husband and sister-in-law of the woman who died.

The midwife goes through the questions on her VA form, and the mother-in-law answers in short replies. The husband and sister-in-law do not say anything. The husband looks very upset during parts of the interview. At the end of the standardised questions, the midwife requests a narrative report, asking the mother in law to describe what happened from start to finish, in her own words. The mother-in-law looks annoyed and replies, “I’ve answered all your questions and I have a lot of work to do. There is nothing more to say – my daughter-in-law was in labour for a long time and it was not progressing. We did everything we could to help her along, giving her special drinks and massaging her stomach. When she became weak and unconscious, my husband went to ask a neighbour to lend us money for a taxi to the health centre, but the baby was stuck and that killed the mother – these things happen.”

The midwife then asks to interview the husband, to get his perspective. The husband agrees, but his mother interrupts and says that he was not involved, men did not understand pregnancy, and he had no additional information to provide. The husband says it was true that although he had been present, he did not understand what problem his wife was experiencing, as all their other children had been born normally. The mother-in-law then stands up, making it clear it is time for the midwife and HEW to leave.
ANSWERS

(1) What are some of the challenges faced by the investigation team in conducting this community-based review?
   a. Interference from other community members that may make the household feel blamed or negatively targeted
   b. Resistance within the household to cooperate with the review
   c. Emotional distress in the family, particularly the husband
   d. The principle of informed consent seems to have been neglected.
   e. Review process dominated by one family member, making it impossible to collect information from others who may be able to provide relevant details

(2) How could the midwife or HEW act differently to try to prevent some of the problems?
   a. HEW could have visited the family in advance, to prepare them for the arrival of the midwife. Both midwife and HEW could also have made clear to the local women that the visit to the family needs to be private. If required, the HEW could have remained outside, listening to the perspectives of the other women, thus “distracting” them while the midwife conducted the review.
   b. More of an effort should have been made to enter the household in a neutral and sympathetic way, and to ensure the purpose of the visit was understood as fact-finding and not apportioning blame.
   c. Emphasising that the interview would not take long and that the review team wanted to hear their opinions would have been better than making it sound like a long and formal process.
   d. Interviews should have been requested in private, and the midwife should have made clear that she wanted to speak to all family members present during the woman's labour and/or death, and that interviews are private and confidential.

(3) Specifically, how could the HEW and midwife build better trust and rapport with household members? Did any of their actions contribute to creating a difficult relationship with the family?
   a. On entering the household, the review team could have expressed their sympathy and offered condolences, and provided the household members with a chance to express their grief. Acknowledging distress during the interview also improves rapport
b. Demanding participation as a “requirement” is unethical, and also can damage the relationship with family members at a sensitive time. The midwife should have requested an interview in a way that showed appreciation for the information that would be provided. The voluntary nature of participation should have been explained.

(4) What methods could the review team use to get more detailed information from the household?
   a. Starting the process with a narrative interview before asking specific questions
   b. Ensuring that each family member is interviewed in private, emphasising anonymity

(5) Is there anything that can be done at this stage to improve the situation and capture more information about the pregnant woman’s death?
   a. The HEW may be able to go back at another time to get follow-up information, or schedule a second visit by the midwife, perhaps asking to talk to other family members who were away on this occasion (such as the father-in-law).

**ASSIGNING ID CODES**: The reference table that provides codes for regions and zones throughout the country can be found in the Workbook and on page 56 of the National MDSR Guidelines

**Individual Work**: Assigning a unique identifier to each maternal death (required on the verbal autopsy form and then used in subsequent summary report forms).

**ASSIGNING AN ID CODE**: This is an individual activity. Using the reference table above, write down the ID code that would be used for a woman who died on the 5th of the month of Yekatit last year. Assume she lived in the kebele, woreda and zone where YOU live (and select a local health centre accordingly). (10 minutes)

WRITE the code here: _____________________________

**CHECKING YOUR CODE**: Now turn to the person who are sitting next to and discuss your ID code and the one they have written. You should both check each other’s work and discuss any disagreements about how you could allocated the codes. Remember that you will both have different correct answers, as you are unlikely to live in the same neighbourhood!

**Answer**

**ASSIGNING AN ID CODE**: Answers will depend on the location of each participant’s home, but in regional trainings, the REGIONAL component of the code is likely to be the same for most correct answers, and the DATE should be the same of everyone.
MODULE 9: MOVING TO ACTION – IDENTIFYING RESPONSES

NOTE TO TRAINERS: This is perhaps the most difficult module to deliver, and includes quite a bit of clinical information. It works well if a senior obstetrician/gynaecologist facilitates this module, if available.

Slide 1

This module addresses the most important part of MDSR: the response component.

The main point of an MDSR system is to identify and implement feasible and effective actions, based on the evidence that has been reviewed.

Slide 2

Learning objectives
By the end of this session, participants will be able to:
• Identify actions appropriate to data presented
• Use the action tool and support its implementation
• List ‘evidence based actions’
• Prioritise actions in a systematic way

Important to emphasise: There are no definite right answers in terms of selecting actions.

When there are discussions between people in different roles within the health system, diverse perspectives will be raised, and this leads to stronger and more effective actions.

Slide 3

Taking action to reduce avoidable maternal deaths is the reason for conducting MDSR
Slide 4

What are appropriate actions?

Slide 5

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

Slide 6

Practical exercise
• Work on your own
• Consider the 9 possible actions listed on pg. 22 in the workbook
• List the 3 actions you think would be most effective in this case

Possible actions

1. Ensure iron is available for pregnant women in that Health Centre
2. Increase the number of SBAs in that area
3. Punish the husband
4. Make sure blood transfusion is accessible in that community
5. Commend the SBA for her actions
6. Ensure family planning is available in that community
7. Make sure National guidelines re ANC are available in that health centre
8. Check local EMONC training has been delivered and repeat if necessary
9. Increase community awareness of need for SBA at delivery by supporting delivery of an educational campaign
List the 3 actions you consider to be most appropriate

1.  
2.  
3.  

ANSWER:

Q1 Possible actions include

10. Ensure iron is available for pregnant women in that Health Centre  
5. Commend the SBA for her actions  
6. Ensure family planning is available in that community  
7. Make sure National guidelines re ANC are available in that health centre  
8. Check local EMONC training has been delivered and repeat if necessary  
9. Increase community awareness of need for SBA at delivery by supporting delivery of an educational campaign

But should not include:

2. Increase the number of SBAs in that area  
3. Punish the husband  
4. Make sure blood transfusion is accessible in that community

Slide 8

What are evidence based actions?

Actions for which there is overwhelming evidence that maternal mortality and morbidity will be prevented if they are followed:

- Usually refer to clinical actions, based on trials
- Individual cases should be assessed to see if “best practices” were carried out or not
- If not, appropriate action should be taken to ensure these are implemented to prevent further deaths
- Ethiopian Guidelines (FMOH) for A/N and intrapartum care provide details
Eclampsia
• Diagnosis and treatment of high blood pressure
• Magnesium Sulphate
• Timely delivery

Haemorrhage
• Active management of third stage of labour
• Misoprostil
• Blood transfusion (dependent on environment)

Sepsis
• Clean delivery
• Antibiotics for prolonged ruptured membranes at term
• Antibiotics for C/S
• Avoid prolonged delivery

Obstructed labour
• Facility delivery after 12 hours of labour
• Use of partograph
• Availability of C/S
Non clinical actions

- Not all problems identified during the review and analysis have clinical solutions
- Actions in the community e.g. Changing health-seeking behaviour, addressing transportation, reducing costs of accessing care, also play a role.
- Innovative solutions come about through community participation in identifying and carrying out actions likely to be successful.

Not all actions that are recommended through the MDSR will be clinical.

It is important to consider the social factors that led to a maternal death and think about how to action to prevent or reduce them.

Prioritising!

When there are many options, how do you pick from among them?

Which actions?

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

Some questions that should be considered by a review committee when moving from data analysis to identifying responses.

<table>
<thead>
<tr>
<th>Action</th>
<th>Prevalence</th>
<th>Feasibility</th>
<th>Potential impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron is available-anaemia is</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>eliminated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commend and empower SBA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family planning to prevent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unwanted pregnancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guidelines on ANC available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPANC training in MTUSC + VHA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBA attendance at delivery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>community education</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Exercise 2: PRIORITISATION**

This is an *individual activity*

- Complete the grid below
- Use + to indicate your score for each criteria
  - Minimum +
  - Maximum+++++
- For each possible action, put a score against the criteria. Be prepared to justify your scores!
- List the top 3 actions you would take according to your personal scoring.

---

### Prioritisation: Some data

<table>
<thead>
<tr>
<th>Action</th>
<th>Prevalence</th>
<th>Feasibility</th>
<th>Potential impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron is available - anaemia is eliminated</td>
<td>17% take iron (DHS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commend and empower SBA</td>
<td>Majority of SBA are newly qualified and inexperienced</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family planning to prevent unwanted pregnancy</td>
<td>50% of Ethiopian women have an unmet need for FP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guidelines re ANC available</td>
<td>FMOH guidelines are rarely at HC level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMONC training re AMTSL + PPH</td>
<td><em>Extent of training</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBA attendance at delivery - community education</td>
<td>10% delivered by a skilled provider (DHS)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

(Facilitated Discussion)

- Which action(s) address the most *prevalent* problems
- Which action(s) are most *feasible? (Why or why not?)*
- Which action(s) will deliver the most *impact?*
- Reminder that prioritisation is subjective and best done in a multi disciplinary team including community members (especially non clinical)
NB: Remember that selection and prioritisation of responses is subjective and best done in multidisciplinary teams including lay members!

There are NO definite “right answers” – the committee’s collective judgment and expertise must be used to decide which actions to choose.

**ANSWER**

**Q2** Actions which address the most prevalent problems are;

- Increasing Community awareness re skilled birth attendance
- Lack of available National Guidelines
- Iron provision
- Commending SBA

**Q3** Actions that are most feasible are;

- Iron provision
- Commending SBA
- Making National Guidelines readily available

**Q4** Actions that deliver the most impact are;

- Education campaign to increase community awareness of SBA at delivery
- Family planning – globally shown to reduce maternal deaths by 30%
- Provision of iron – anaemia makes women more susceptible to PPH
- Commending the SBA- healthcare staff are the most valuable resource in a healthcare system, motivated staff are less likely to leave the profession

(Facilitated Discussion)

- Which action(s) address the most prevalent problems
- Which action(s) are most feasible? (Why or why not?)
- Which action(s) will deliver the most impact?
- Reminder that prioritisation is subjective and best done in a multi disciplinary team including community members (especially non clinical)

**Exercise 3: USING THE ACTION TOOL (Health centre review committee)**

This is a group activity

- Divide into groups you of 5-6 people to simulate a review committee at woreda level (use a different group from when you were role playing the hospital committee)
- Complete the Action tool provided below (using the same scenario from Exercise 1 above)
- Note that this death occurred in the community as will be the case for the majority of maternal deaths reviewed at this level, so actions should consider responses beyond the health centre.
This activity is *most relevant* for training Health Centre level staff.

However, it may be useful at other trainings to provide participants with an understanding of how data can be used to identify actions that address *both* facility and community level determinants.

The action tool is available in the National Guidelines and in the workbook.
Facility/woreda level

woreda level

Case ID:  

Date of meeting:

Death preventable  yes  no

What actions will you take as a result of this case?  Complete the following Action Plan form

<table>
<thead>
<tr>
<th>Avoidable Factor</th>
<th>Action to be taken As a result of the case</th>
<th>Person responsible for completing the action</th>
<th>Timescale</th>
<th>Comment and challenges to completeness of action</th>
<th>Action complete date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Examples of good care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EXAMPLE ANSWER (in answer book – for discussion; participants are likely to have alternative suggestions that can be discussed)

- Case ID; X
- Death preventable yes no
- What actions will you take as a result of this case? Complete the following Action Plan form

<table>
<thead>
<tr>
<th>Avoidable Factor</th>
<th>Action</th>
<th>Person responsible</th>
<th>Timescale</th>
<th>Comment and challenges to completeness of action</th>
<th>Action complete date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unplanned pregnancy</td>
<td>Ensure Family Planning is available in that community</td>
<td>Woreda Maternal Health lead</td>
<td>Upto 6 months</td>
<td>-Needs trained staff -Community sensitisation and education -Contraceptives</td>
<td></td>
</tr>
<tr>
<td>Inadequate ANC</td>
<td>Training of midwives</td>
<td>Lead midwife/health centre head</td>
<td>3 months</td>
<td>No programme of CPD/CME for midwives-discuss at higher level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provision of National Guidelines at health centre</td>
<td>Lead midwife/health centre head</td>
<td>1 week</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provision of iron</td>
<td>Health centre pharmacist/ midwife</td>
<td>1 week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No SBA at delivery</td>
<td>Increase community awareness of need for SBA at delivery by supporting delivery of an educational campaign</td>
<td>Health centre head and local midwives, HEW with community leaders, Development Army</td>
<td>3 Months</td>
<td>Dependent of attitudes of community leaders and relationship with healthcare providers</td>
<td></td>
</tr>
<tr>
<td>Failure to seek help when problem arose</td>
<td>Increase community awareness of healthcare provision by supporting delivery of an educational campaign</td>
<td>Health centre head and local midwives, HEW with community leaders, Development Army</td>
<td>3 months</td>
<td>Dependent of attitudes of community leaders and relationship with healthcare providers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In the face of family</td>
<td>Midwives</td>
<td>3 months</td>
<td>Needs to be discussed at</td>
<td></td>
</tr>
</tbody>
</table>
poverty access to free transport to be arranged before labour starts i.e. at 34 weeks of pregnancy

<table>
<thead>
<tr>
<th>Examples of good care in this case</th>
<th>Actions</th>
<th>Person responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBA</td>
<td>Commended</td>
<td>Health centre head</td>
</tr>
</tbody>
</table>

higher level and consider inclusion in a revised National Guidelines

1 week
How to IMPLEMENT responses

Who and when?

Level and timing of action

Actions to reduce preventable maternal deaths can occur at more than one level of the health system, and over a period of time.
Responses that need to be implemented at RHB or FMoH levels will take a longer time. COMPLETING actions is very important. Previously identified actions need to be regularly reviewed to check whether they have been completed.

Examples

Some actions can be taken immediately following each death, however.

Periodic actions reflect the need to take a step back and analyse some deaths together as a group, to identify patterns that may be emerging.
Example of periodic actions

- A referral hospital was noted to have a high proportion of deaths from ruptured uterus.
- An audit of all cases of ruptured uterus was started including those where the woman survived (near miss).
- Two woredas were found to be ‘hot spots’.
- Actions
  - Discussions with woredas, which found poor transport and identified unstaffed health centres
  - Transport in these woredas and midwifery staffing prioritised for improvement

It can be useful to do targeted reviews (or audits) in which similar scenarios are analysed together (such as all deaths and near misses from a certain geographical area, or all deaths and near misses from sepsis).

Periodic responses at different levels

Community
- Public education
- Health promotion activities
- Changes in community health provision
- Training and support to HDA/HEW
- Improvement in transport

Periodic Facility level response
- Change in clinical practice
- Reorganisation of health facilities
- Development of clinical guidelines and care plans
- Training and support to staff

Long Term (Regional & National)
- Analysis of aggregated data and recommendations from maternal death reviews
- All regions incorporated in an annual report contributing to a national maternal health plan
- At national level, a longer-term strategic plan (3–5 years) is developed to focus on
  - Key priorities identified across many districts
  - Key geographic areas where more women are dying or the risk of dying is greater
  - Required changes or updates to national policies, laws or guidelines.
Long term response: facility
• Every hospital and HC should summarize maternal mortality & near miss findings annually.
• In larger facilities, findings should contribute to continuous quality improvement plans.

Example of annual response - facility
• Following the publication of a hospital's annual report it was found that the majority of maternal deaths followed PPH.
• Actions
  – Introduction of mandatory annual training on management of PPH for all doctors and midwives, including team training.
  – System for ordering oxytocic drugs changed to ensure availability at all times.

Woreda Long Term Response
Actions at the district level may include
– health-system strengthening
– staff retention,
– resource mobilization,
– increasing community and institutional awareness of maternal mortality,
– fostering community-facility partnerships and building alliances with the private sector,
– advocacy activities eg access to blood transfusion services.

Making actions happen through use of a Response Coordinator
• At each level a committee member can be nominated to follow-up identified actions and ensure they occur.
• The coordinator identifies roles and responsibilities for delivering the action plan.
• For example:
  o Community education on signs of obstructed labour may be best done by a community health worker.
  o Improving availability of obstetric medications will require hospital management to coordinate with those responsible for supply chains at the national level.

Although there is no “Response Coordinator” role listed in the MDSR National Guidelines, international experience shows that actions are more likely to happen if a particular individual has the responsibility for following-up actions.

A member of the review committee can be appointed and will then check that actions that have been agreed are being implemented. This increases the chance that responses will be taken up.
The Response Coordinator should...

- Monitor implementation of agreed actions
- Report progress back to the committee.
- Share information related to response – what works, what doesn’t and suggested solutions
- Involve community members such as traditional birth attendants or religious leaders.
- Ensure actions are linked to existing quality improvement initiatives and institutional plans

The Coordinator can be any member of the Review Committee, but should be someone with adequate authority to hold others to account for the actions they were supposed to implement.

Advocacy

Advocacy happens in many different ways:

- Exposing the size of an issue
- Demonstrating patterns and trends
- Identifying causes (and their determinants)
- Highlighting social needs (education, community awareness, infrastructure)
- Increasing community involvement & ownership
- Identifying gaps or absent protocol or policies

If some identified responses can’t be implemented due to resource constraints or lack of support and political will, it might be necessary to work together and advocate – e.g. “push” to create a more enabling environment for change.

Feedback

- Feedback helps maintain staff motivation and sense of participation in the review process
- Appropriate and timely feedback is part of the MDR process
- Feedback should emphasise positive action and good practice in addition to pointing out gaps
- Providing support and avoiding blame are critical to feedback becoming part of the response
- Feedback across the system maintains continuity and the flow of information in both directions

Feedback is crucial and needs to be non-judgmental, and it should support team-building, staff confidence, and the knowledge for positive change.

Negative feedback will demoralize people.
MODULE 11: ANALYSIS – AGGREGATING DATA FROM WOREDA TO ZONAL/REGIONAL LEVEL AND ZONAL/REGIONAL TO NATIONAL LEVEL

This module is to help MDSR stakeholders appreciate how they will report data upwards, and also what format they are likely to receive data and how they should then aggregate and analyse it.

This module should be conducted for trainings at which RHB, zonal HB and Woreda MCH Leads are present.

There is NO powerpoint presentation for this module, it is a data-driven exercise, and can be found in the workbook.

Exercise 1

The following table summarises data submitted at Regional level from Woredas A & B

Work in groups of 4 and review the information given below

1. Considering all the information together, what conclusions do you draw about maternal deaths in these woredas (i.e. what are the main issues that should be addressed?)

2. What actions might realistically be taken to address the main issues that you identified?

ANNEX 5: REPORTING FORMAT FROM WOREDA TO RHB: WOREDA A

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Death 1</th>
<th>Death 2</th>
<th>Death 3</th>
<th>Death 4</th>
<th>Death 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID Number (from verbal autopsy and summary forms)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of Death</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>22</td>
<td>19</td>
<td>36</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>Marital status</td>
<td>m</td>
<td>s</td>
<td>m</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>Parity</td>
<td>3+0</td>
<td>0+0</td>
<td>6+2</td>
<td>0+1</td>
<td>2+3</td>
</tr>
<tr>
<td>Educational status</td>
<td>illiterate</td>
<td>1ry school</td>
<td>illiterate</td>
<td>1ry school</td>
<td>illiterate</td>
</tr>
<tr>
<td>Timing in relation to pregnancy (antepartum, intrapartum, postpartum)</td>
<td>i.partum</td>
<td>a.partum</td>
<td>p.partum</td>
<td>abn</td>
<td>p.partum</td>
</tr>
<tr>
<td>Cause of death (Clinical)</td>
<td>Ruptured uterus</td>
<td>eclampsia</td>
<td>PPH</td>
<td>sepsis</td>
<td>PPH</td>
</tr>
<tr>
<td>Contributory factors to death</td>
<td>Delay 1</td>
<td>Delay 2</td>
<td>Delay 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harmful traditional practices</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family poverty</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Failure of recognition of the problem</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of decision to go to health facility</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delayed referral from home</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delayed arrival to referred facility</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of roads</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of transportation</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No facility within reasonable distance</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delayed arrival to next facility from referral from another facility</td>
<td>No</td>
<td>Yes</td>
<td>Died in transit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delayed management after admission</td>
<td>Yes</td>
<td>Yes</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delayed or lacking supplies and equipment (specify)</td>
<td>Yes – delay in Laparotomy</td>
<td>Yes – no Mag. Sulph.</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human error or mismanagement</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Death 1</th>
<th>Death 2</th>
<th>Death 3</th>
<th>Death 4</th>
<th>Death 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID Number (from verbal autopsy and summary forms)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Date of Death</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Age</td>
<td>23</td>
<td>25</td>
<td>34</td>
<td>21</td>
<td>18</td>
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<tr>
<td>Marital status</td>
<td>m</td>
<td>m</td>
<td>m</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>Parity</td>
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<td>4+2</td>
<td>3+0</td>
<td>2+4</td>
<td>0+0</td>
</tr>
<tr>
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<td>1ry school</td>
<td>illiterate</td>
<td>illiterate</td>
<td>illiterate</td>
<td>2ry school</td>
</tr>
</tbody>
</table>

**Reporting format from Woreda to RHB: Woreda B**
Timing in relation to pregnancy (antepartum, intrapartum, postpartum) | a.partum | p.partum | p.partum | p.partum | i.partum
---|---|---|---|---|---
Cause of death (Clinical) | Pneumonia (HIV) | PPH | Pneumonia (HIV) | PPH | eclampsia
Contributory factors to death
 Delay 1 | Harmful traditional practices | No | Yes | No | Yes | No
 | Family poverty | Yes | Yes | Yes | Yes | No
 | Failure of recognition of the problem | No | No | Yes | No | No
 | Lack of decision to go to health facility | Yes | No | Yes | No | Yes
 | Delayed referral from home | Yes | No | Yes | No | Yes
 Delay 2 | Delayed arrival to referred facility | Yes | Yes | Yes | Yes | Yes
 | Lack of roads | No | Yes | Yes | No | No
 | Lack of transportation | Yes | Yes | Yes | No | Yes
 | No facility within reasonable distance | Yes | Yes | Yes | Yes | Yes
 Delay 3 | Delayed arrival to next facility from referral from another facility | n/a | Died in transit | Died at home | Died in transit | Dead on arrival
 | Delayed management after admission | n/a | n/a | n/a | n/a | n/a
 | Delayed or lacking supplies and equipment (specify) | n/a | n/a | n/a | n/a | n/a
 | Human error or mismanagement | n/a | n/a | n/a | n/a | n/a

SAMPLE ANSWERS (other answers may be as valid)

Exercise 1: Analysis of Woreda data at Regional level

1. Woreda A has considerable delay at all 3 levels but the facility is poorly performing with delayed management and lack of drugs causing a big problem. Woreda A also has 2 teenagers and 3 others with high parity suggesting either a problem accessing Family Planning or low uptake of the service
The main issues for Woreda A are
a. The functionality of the hospital
b. Access/usage of family planning

Woreda B has a major problem with Transport and access to facilities. There are also 2 women with HIV which suggests there may be a high incidence of HIV
The main issues for Woreda B are
a. transport for pregnant women
b. lack of available facility
c. specialised antenatal care for HIV population

2. Woreda A

Appears to have a poorly functioning facility

- More information is needed – discuss with MD, CEO, Head of O&G dept, lead midwife
- Find out the type of support needed
- Establish why the drugs were not available
- Are there human resource issues?
- Support establishment of MDSR at the facility

There is a problem with access to / use of Family Planning services

- Establish what is the key problem
- Extend/facilitate family planning coverage to this area - training of staff and community sensitisation
- Work with partners eg Marie Stopes

Woreda B

There is a problem accessing facilities

- There is no available facility – is there a plan to develop one? If not why not?
- There are a lack of roads – is there a plan to build roads?
- Are waiting homes needed?
- Support communities to establish traditional ambulances- community ownership

There is a problem with HIV services

- Are there problems with coverage of this area- if so discuss solutions and support implementation
- Problems with community engagement – discuss solutions and support implementation
- Discuss with partners
- Ensure increased antenatal support for affected women
Exercise 2

The following data summarises the data submitted at National level from a Region

Work individually to review the information given below

a. Considering all the information together, what conclusions do you draw about maternal deaths in this Region (i.e. what are the main issues that should be addressed?) Use the remark section to document your thoughts

b. What actions might realistically be taken to address the main issues that you identified? Use remark section to document your thoughts

c. Can you suggest any alterations to the form which may make it more useful?

Annex 7: Reporting format from Region to National

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Quantity/Number</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (number)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤19 years</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>20-29 years</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>30-39 years</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>&gt;40 years</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>118</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>190</td>
<td></td>
</tr>
<tr>
<td>urban</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>Primary school</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>Secondary school</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>University/college</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Parity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>II-IV</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>&gt;V</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Timing of death in relation to pregnancy, delivery or puerperium</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Antepartum, Intrapartum, Postpartum</td>
<td></td>
</tr>
</tbody>
</table>

- 50 antepartum
- 7 intrapartum
- 105 postpartum
- 38 post abortion

<table>
<thead>
<tr>
<th>Cause of maternal death</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct obstetric causes (specify)</td>
<td>140</td>
</tr>
<tr>
<td>- Haemorrhage 44</td>
<td></td>
</tr>
<tr>
<td>- Eclampsia 26</td>
<td></td>
</tr>
<tr>
<td>- Sepsis 24</td>
<td></td>
</tr>
<tr>
<td>- Obs.labour 18</td>
<td></td>
</tr>
<tr>
<td>- Unsafe abortion 17</td>
<td></td>
</tr>
<tr>
<td>- Anaesthetic 11</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indirect obstetric causes (specify)</th>
<th>37</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Respiratory 21</td>
<td></td>
</tr>
<tr>
<td>- Cardiac 8</td>
<td></td>
</tr>
<tr>
<td>- Infections 4</td>
<td></td>
</tr>
<tr>
<td>- Others 4</td>
<td></td>
</tr>
</tbody>
</table>

| others | 23 |

<table>
<thead>
<tr>
<th>Contributory factors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay I</td>
<td>100% cases had some delay in seeking care, Family poverty was a feature of 80% of cases.</td>
</tr>
<tr>
<td>Delay II</td>
<td>85% of cases had delay in reaching the right facility.</td>
</tr>
<tr>
<td>Delay III</td>
<td>80% of cases had some delay at facility level, the commonest component was delay in treatment.</td>
</tr>
</tbody>
</table>

Preventable death:
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>192</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Number deaths reviewed by regional SMTWG/RH task force in last one month</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>
### Exercise 2: Analysis of Regional data at National level

**See Example Remarks Provided**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Quantity/Number</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (number)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤19 years</td>
<td>45</td>
<td>1. ? high % of teenagers , compare with other regions</td>
</tr>
<tr>
<td>20-29 years</td>
<td>82</td>
<td>2. If teenage rate high, suggests need for extension of family planning services . Review and present up to date data re family planning coverage in this region at next National meeting.</td>
</tr>
<tr>
<td>30-40 years</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>≥40 years</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>36</td>
<td>1. Majority married</td>
</tr>
<tr>
<td>Married</td>
<td>118</td>
<td>2. No action required</td>
</tr>
<tr>
<td>Others</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td><strong>Address</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>190</td>
<td>1. Majority rural</td>
</tr>
<tr>
<td>urban</td>
<td>10</td>
<td>2. Focus efforts on improving services in rural communities</td>
</tr>
<tr>
<td><strong>Educational status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>102</td>
<td>1. Majority illiterate</td>
</tr>
<tr>
<td>Primary school</td>
<td>84</td>
<td>2. Continue to support extension of Health Development Army and HEWs with particular emphasis on supporting illiterate families.</td>
</tr>
<tr>
<td>Secondary school</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>University/college</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Parity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>60</td>
<td>1. Significant minority in first pregnancy</td>
</tr>
<tr>
<td>II-IV</td>
<td>115</td>
<td>2. Continue to support HEWs to engage women in Maternity care – especially around delivery- regardless of parity.</td>
</tr>
<tr>
<td>≥V</td>
<td>25</td>
<td>3. Initiate national poster campaign</td>
</tr>
<tr>
<td><strong>Location of Death (tick ONE)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td>116</td>
<td>1. Majority Postpartum but high number post abortion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Start national campaign to ensure public awareness of the</td>
</tr>
</tbody>
</table>
### Health post
- ______ 4 ____
- ______ 25 ____
- ______ 39 ____
- ______ 16 ____

### Hospital
- ______ 25 ____
- ______ 39 ____
- ______ 16 ____

### Antepartum, Intrapartum, Postpartum
- 50 antepartum
- 7 intrapartum
- 105 postpartum
- 38 post abortion

### Cause of maternal death

<table>
<thead>
<tr>
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<td>24</td>
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<tr>
<td>Obs.labour</td>
<td>18</td>
</tr>
<tr>
<td>Unsafe abortion</td>
<td>17</td>
</tr>
<tr>
<td>Anaesthetic</td>
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</table>

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<td>21</td>
</tr>
<tr>
<td>Cardiac</td>
<td>8</td>
</tr>
<tr>
<td>Infections</td>
<td>4</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
</tr>
</tbody>
</table>

| Others | 23 |

### Contributory factors

<table>
<thead>
<tr>
<th>Delay I</th>
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<tr>
<td>Delay III</td>
<td>80% of cases had some delay at facility level, the commonest component was delay in treatment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1. Major problems at all levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. In first wave of actions, focus attention on facilities access – including health centres to ensure improved functionality and therefore incentivise use of facilities.</td>
</tr>
</tbody>
</table>

| Disseminate examples of good practice eg. monthly meeting between hospital facilities and health centres to improve referrals and expedite transport arrangements between |

1. Majority Postpartum but high number post abortion
2. Start national campaign to ensure public awareness of the high number of post partum care and therefore the need for SBA at delivery and post partum care.
<table>
<thead>
<tr>
<th>Preventable death:</th>
<th>facilities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>192</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
</tr>
<tr>
<td>Number deaths reviewed by regional SMTWG/RH task force in last one month</td>
<td>20</td>
</tr>
</tbody>
</table>

Monitor these figures and review six monthly. Initially expect an increase as reporting increases.

Ask regions to provide written summaries to include as case histories in the annual report.

WRAP-UP DISCUSSION

At the end of the training workshop, take 15-20 minutes (or more, if feasible) to allow time for questions, discussion, and identification of next steps.

The post-test should be handed out at the start of the session, and collected so that the scores are available by the end of the training. Participants will appreciate seeing if they have progressed! It may also be useful to briefly go over the answers to ensure everyone understands what correct responses should be; this will help address any remaining gaps in knowledge and clarify misunderstandings.

Summary points that could be made during the discussion include:

- Although the MDSR is a national system, it needs to work as a whole, with close links between each level. Every region, zone, woreda, hospital, health centre and community play an important part in the overall success of MDSR in addressing maternal deaths.

- Although MDSR should improve availability of data, its main purpose is identifying follow-up actions and implementing change. Better data alone will not reduce maternal deaths.

- Most maternal deaths in Ethiopia take place in the community. Focusing MDSR within facilities will not address this adequately. At every level consideration must be given about how to reach out to communities to build trust, communicate the purpose of the MDSR, and work together with local people to ensure there is a chain-of-action from household level right up to the national FMoH.

- MDSR systems are not set in stone. They are flexible and need to adapt and change so that they meet local needs. While National Guidelines and Tools have been provided to help structure the system and how it will work, these are “working documents” and will be revised over time to ensure they remain relevant.

If participants are not already aware of the existence of a regional/ zonal Task Force, then the membership, TOR, and meeting schedule of the Task Force should be described. It would also be worth reminding participants of all the local Review Committees (regional, zonal, hospital, health centre) and provide an overview of their work to date, how often and where they meet, and (if appropriate) how the Chair can be contacted.

Finally, ensure that copies of the training materials are distributed to participants. In particular, it is important that all participants have their own copy of the National MDSR Guidelines and Tools, the Workbook and Answer Book to take away with them. It is also possible to provide all the powerpoint presentations and the 2 videos on CD.
APPENDIX A: GLOBAL MOVEMENT FOR MATERNAL DEATH SURVEILLANCE AND RESPONSE (ADDITIONAL PRESENTATION)

This presentation should be used for national or regional-level trainings, where the audience is fairly high-level and interested in policy setting and global health issues. It may not be appropriate for hospital- and health-centre level training.

Slide 1

This presentation was originally developed by Professor Wendy Graham, from the University of Aberdeen.

Professor Wendy is the Technical Lead for the Evidence for Action (E4A) Programme in Ethiopia.

Slide 2

Different approaches to identifying, notifying and reviewing maternal deaths have been used around the world. While several countries have implemented Confidential Enquiries, MDSR is increasingly promoted as an effective system.

Slide 3

This map shows all the different countries throughout the world that are implementing some form of MDSR.

It is very much a global effort, and has been endorsed by CARMMA and the African Union, as well as the COIA process.
Why is there renewed interest in maternal death reviews?

Why a global movement?

Reducing maternal mortality is particularly challenging among the MDGs, with varying progress being made.

Unfortunately, Ethiopia is currently not on track to meet its MDG 5 target.

This conceptual framework illustrates the integrated and holistic approach required (across settings and across the lifespan) to effectively reduce maternal and child deaths.
In Ethiopia, women “dip in and out” of the health care system.

This graph shows rates of attendance at different services, and also differences between wealth quintiles (social classes).

While rates of attending at least 1 ANC visit and some vaccinations are high in some groups, use of most of the other services are very low, particularly delivery in a health facility.

For each maternal death, there has been a “pathway” or “road to death” across her lifespan.

Many of the factors that influence a maternal death relate to social, economic, and environmental factors.

Acting to prevent each step of the route will provide a holistic approach.

The Every Woman and Every Child initiative re-invigorated global efforts to prevent maternal deaths.
Commission’s 10 recommendations have been translated into a common strategic work plan, with priority areas including:

- Birth and death registration
- Monitoring of results
- Maternal death surveillance and response
- Strengthening use of ICT
- Resource tracking
- National mechanisms for review and accountability
- Advocacy for action

Maternal Death Surveillance & Response:
A continuous action cycle at community, facility, regional & national levels

- Surveillance
- Identify & notify deaths
- Review deaths
- Analyse & make recommendations
- Respond & monitor response

This is the “core” of MDSR. The cycle continues and as new data are generated, these must be reviewed on a continuous basis so that appropriate action can be taken.

In 2013, WHO and its partners published new Technical Guidance.

The Ethiopian National Guidelines were developed to be harmonized with the draft international guidelines.

MDSR systems are now based on lessons learned from previous experiences of reviewing maternal deaths.
Slide 16

Why is MDSR important?

What opportunities does MDSR provide?

• Provides information for action
• Connects actions to results
• Makes maternal death visible at local & national levels
• Sensitizes communities & facility health workers
• Boosts country ownership of data
• Provides data in real time
• Enables progress towards capturing all deaths

ACTION is the main goal of MDSR

Slide 17

What are the challenges faced in implementing MDSR?

Engaging communities
Weak data availability & quality
Human resource requirements
Need for continuous commitment at all levels
Building enabling environment of “no blame” & legal framework (protection, anonymity, confidentiality)

Despite the international support for MDSR, there are numerous challenges in implementing the system. Some of these relate to logistics and infrastructure, some relate to capacity of systems, and some relate to the risk to the risk that individuals will be blamed for maternal deaths.

These are some of the issues raised related to MDSR by different stakeholders

Slide 18

Common concerns with death reviews

• Patients: concern that illegal behaviour will be punished (e.g. abortion, under-age marriage)
• Families: concern for repercussions (not seeking care, being involved in illegal behaviour)
• Health workers: concern for prosecution or job loss
• Facilities: concern for lost reputation & legal costs
• Committee members: concern for adverse reactions from colleagues or management

Slide 19

Some consequences of concerns

• Under-reporting
• Misreporting
• Defensive behaviour
• Diverts attention from actions to save lives of mothers & newborns

If the system is not carefully designed and implemented, there can be negative consequences of people’s fears and concerns.
Fostering the essential culture of “no blame”

- Acknowledgment throughout system that mistakes do happen
- Constructive approach to learning from every death
- Identifying preventive measures for the future as over-riding priority
- Use of multi-professional committee to build team solidarity
- Participation of community representatives to explain value & results to wider audience

MDSR should not be used to blame individuals.

The purpose of the MDSR system is to move away from a focus on an individual case and its management, to seeing how patterns and trends emerge from review of several deaths or deaths over time.

There needs to be a sense that the system is for everyone’s benefit as it will help make structural improvements to care.

People need to feel supported rather than penalized by the system.

Legal support and a framework that makes clear from the start of MDSR that there should be no “shaming and blaming” is a key component of successful implementation.

The UK has a strong legal framework for its Confidential Enquiries system

Other countries have also been able to establish MDSR in a way that enshrines principles of anonymity, confidentiality and no-blame.

Ethiopia can learn from these examples.
Why is Ethiopia at the forefront of the global movement for MDSR?

- RMNCH is a top national priority
- FMoH's strong ownership of MDSR
- Action-focused MDSR from outset
- Strong champions
- Existing expertise & experience
- Community link enabled by HDA
- High level commitment to maintaining momentum started today
- Enabling environment being built, including legal framework

This is an exciting time, as the Ethiopian FMoH is committed to introducing MDSR and tackling maternal deaths.

Ethiopia has the opportunity to be an example to other countries!
APPENDIX B: EVIDENCE FROM THE INTERNATIONAL LITERATURE ON MDSR EFFECTIVENESS
(ADDITIONAL PRESENTATION)

Slide 1

This presentation contains examples from other African settings to demonstrate to participants that different forms of MDSR have been successfully used elsewhere.

Evidence exists that the cycle of data collection, review and analysis leads to actions that both improve quality and lead to improved health outcomes.

Slide 2

The main point of the next 2 slides is that the MDSR cycle continues indefinitely. Even if actions are taken to reduce some preventable factors, others may emerge.

Deaths need to be constantly identified, reported, summarized, analysed, and actions identified and monitored.

Some participants may suggest that it is difficult to identify the problem before collecting data. In this case, “identify the problem” relates to broad understanding of the high rate of deaths NOT specific issues. Participants may also suggest that data analysis should occur prior to discussion with a review committee. While some basic summaries or aggregation of data will be made for review at higher levels, it is important that each review committee analyses the data in whatever form they receive it as a communal and multi-disciplinary activity.
The terms Evidence, Review and Action will be used in the examples of research presented next, to show how even if the process or procedures differ, all approaches to maternal death review centre around the cycle of collecting data, reviewing it, and identifying relevant action.

This module should end here during trainings cascaded down to hospitals or health centres. For participants at regional/zonal level training, the international evidence could be useful as a way to show the justification for introducing and MDSR system in Ethiopia.

Slide 4

Example 1: Piloting a new MDSR in ZAMBIA
(Evidence of improved quality of care)

Slide 5

Piloting MDSR in Zambia
• In 2007, Zambia's MMR estimated at 591
• Data often not recorded outside labour ward

EVIDENCE:
• IMDA: Investigate Maternal Deaths and Act
  Piloted over 12 months 2006-7
• Facility & Community based data collection
  (TBA trained to notify maternal deaths)
• Narrative approach to record immediate causes and wider social determinants

This study was a short-term pilot study to see whether collecting data on maternal deaths in both facilities and in the community was feasible.

Unlike in Ethiopia, community based health workers (in this case, traditional birth attendants) were trained to collect the data on community deaths.

Slide 6

Piloting and MDSR in Zambia

REVIEW:
• 4-5 anonymised cases discussed per meeting
• 11 Data review meetings held, chaired by Provincial Health Director
• Participants: provincial & district officers, health staff, blood transfusion reps, TBA, external obstetricians
• Total of 56 deaths reported (53 in tertiary hospital; 1 HC; 1 home)
• Meetings also reviewed progress on previously identified action points

The structure of the review committee and how often it met is similar to that in the Ethiopian MDSR system.
Health Seeking Issues:
• Families often sought traditional remedies first
• Some husband didn’t give approval to seek care
• Communities lack resources for transport

Health systems weaknesses:
• Shortfall in supplies
• Absence of Obstetricians
• Inadequate blood supply

Case Management at facilities:
• 67% cases had inaccurate diagnosis
• Post mortems not routinely conducted
• Malaria used as “default” cause of death in unclear cases but not confirmed

Findings were then summarized into 3 main themes.

Community issues, general weaknesses of the health system, and specific quality of care problems within facilities were analysed separately.

Although the review committee was able to identify many potential actions, it was not possible to implement all of them.

These are the main responses as a result of the reviews.

When the committee reviewed progress and monitored the action steps, the majority of recommended actions had been fully or partially implemented.

Not all identified actions will be feasible in the short term; some may require more time to arrange or securing additional resources first.

This study demonstrates how the MDSR process led to improvements in quality of care.

Example 2:
Facility Based MDSR in SENEGAL

(Evidence of improved clinical outcomes)
This research compares data from before the introduction of maternal death reviews with data in the 3 years following the launch of an MDSR.

**Evidence:**
- Facility based MDR + interviews with family
- Midwives responsible for identifying maternal deaths
- Senior Obstetrician reviewed cases and collected data from others
- Data analysed for baseline (1997) and 3 years after MDSR introduced (1998-2000)

**REVIEW:**
- 153 maternal deaths reviewed in total
- District Health Manager chairs annual meetings and evaluates progress

**ACTION:**
- 13 recommendations implemented, mainly:
  - 24-hour availability of life saving services, drugs and blood products
  - Improved availability of basic emergency obstetric care
  - Recommendations NOT implemented included
    - Expansion of delivery unit
    - Staff recruitment

**CHANGES IN QUALITY OF CARE:**
- Increased uptake of Antenatal care (in Year 1, 11% women had no ANC visit and by Year 2, just 4.2% did not attend)
- Rates of transfusion up from 1% in Year 2 to 2.1% in Year 3

**CHANGES IN MATERNAL MORTALITY:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of maternal deaths</th>
<th>Study period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>50 deaths</td>
<td></td>
</tr>
<tr>
<td>Year 1</td>
<td>43 deaths</td>
<td>50% decrease</td>
</tr>
<tr>
<td>Year 2</td>
<td>33 deaths</td>
<td></td>
</tr>
<tr>
<td>Year 3</td>
<td>27 deaths</td>
<td></td>
</tr>
</tbody>
</table>

Number of maternal deaths fell by almost 50% over the study period.

This is a graph to demonstrate the steep decline in deaths.

It is important to note, however, that there were no comparison sites. It is possible that this decline in maternal deaths would have occurred in any case, for reasons not related to the MDSR.

However, given the relatively short time frame, and the implementation of key improvements in quality of care, it is likely that the maternal death review contributed to the observed decline.
Summary Points

- MDSRs involve an ongoing cycle of collecting and synthesising data, reviewing the determinants of maternal deaths, implementing actions, and monitoring them to ensure change.
- Many countries have introduced MDSR and demonstrate positive effects on quality of care and health outcomes.
- Responses should link with and strengthen existing quality improvement measures, rather than introduce parallel processes.

MDSR is based on evidence from other African settings, although it will be useful to document Ethiopia’s experiences with the national MDSR system to strengthen this evidence base.