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Maternal and Child Survival Program

MDSR Capacity-Building Workshop

Day 1

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Welcome and Opening Remarks

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MDSR Skills-Building Workshop

Day 1, Session 1

Overview of the workshop

Session Objectives

- Describe the training format
- Explain how to use the learner's guide

Goals of MPDSR Workshop

To strengthen manager and provider skills to support strong MDSR processes that contribute to facility and sub-national efforts to improve the quality of maternal health care and eliminate preventable maternal deaths

Workshop Objectives

- Identify and notify maternal deaths
- Create and/or strengthen capacity of district/subnational and facility MPDSR or MDSR committees to implement MDSR processes
- Review maternal deaths, assign cause of death using the ICD-MM and identify contributing factors
- Define, implement and monitor responses based on individual death audits
- Monitor and analyse trends in causes of maternal death and findings of death reviews over time, and define, implement and monitor a set of priority responses based on identified trends (at the facility and district/subnational level)

MDSR Module

- Part of a set of aligned MPDSR guidance and capacity-building materials supported by the WHO, UNICEF, partners and members of the Global MPDSR TWG
- Many sessions are relevant to overall MPDSR implementation regardless of type of deaths being reviewed
- Complementary perinatal death surveillance response (PDSR) capacity-building module can be added in settings where systems are integrated
- Materials focus on subnational and facility-level implementation
- Modules on community-level implementation can be developed and added to reflect the continuum of MPDSR that exists in different countries

Workshop Format

- 3-day workshop
- Lectures, small group work, exercises
- Lunch
- Two breaks each day

Ice Breaker – "Whose fact is this?" (*10 minutes*)

- Write down one interesting/unusual fact about yourself on a small piece of paper
- Give that piece of paper to the facilitator
- Introduce yourself to your colleagues, including the interesting fact that you jotted down on the piece of paper

Workshop Norms and Expectations

- Populate the flip charts as a group

Discussion

- Question and answer with learners

Maternal and Child Survival Program

MDSR Skills-Building Workshop

Day 1, Session 2

Individual Learning Plan and MPDSR Knowledge Assessment Pre-Test

Session Objectives

- Identify areas of MPDSR where they feel competent and where they require further instruction
- Complete the MPDSR knowledge assessment pre-test

Individual Learning Plan: Level of Competency Scale

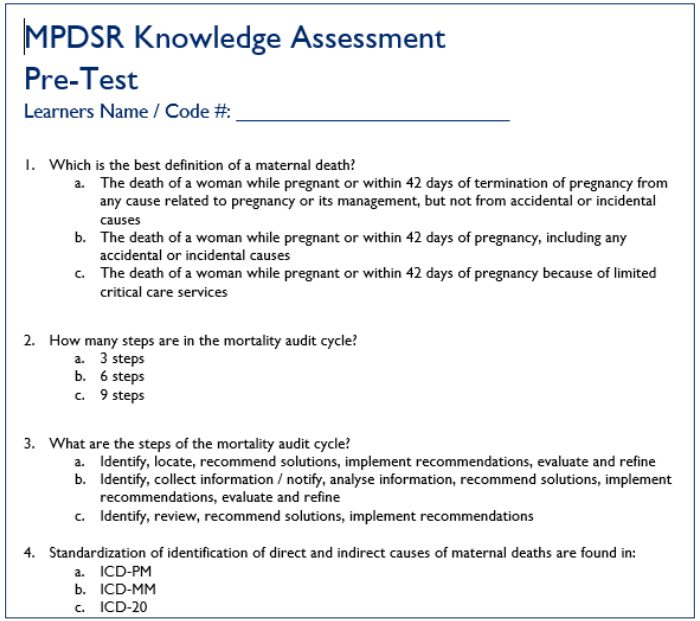
Low	Topic is new or unfamiliar to the learner
Moderate	Learner is aware of the topic. Learner is knowledgeable but will benefit from additional education on the topic.
High	Learner is highly knowledgeable on the topic and may be able to provide additional insight during the workshop

Exercise - Individual Learning Plan

- Indicate whether you have “low”, “moderate” or “high” confidence for each Learning Objective
- Return completed plan to the facilitator

MPDSR Knowledge Assessment: Pre-Test

- Write your name/number at the top of the pre-test
- Complete the Knowledge Assessment Pre-Test
- Return your completed test to the facilitator



MPDSR Knowledge Assessment

Pre-Test

Learners Name / Code #: _____

1. Which is the best definition of a maternal death?
   a. The death of a woman while pregnant or within 42 days of termination of pregnancy from any cause related to pregnancy or its management, but not from accidental or incidental causes
   b. The death of a woman while pregnant or within 42 days of pregnancy, including any accidental or incidental causes
   c. The death of a woman while pregnant or within 42 days of pregnancy because of limited critical care services

2. How many steps are in the mortality audit cycle?
   a. 3 steps
   b. 6 steps
   c. 9 steps

3. What are the steps of the mortality audit cycle?
   a. Identify, locate, recommend solutions, implement recommendations, evaluate and refine
   b. Identify, collect information / notify, analyse information, recommend solutions, implement recommendations, evaluate and refine
   c. Identify, review, recommend solutions, implement recommendations

4. Standardization of identification of direct and indirect causes of maternal deaths are found in:
   a. ICD-PM
   b. ICD-MM
   c. ICD-20

Discussion

- Question and answer with learners

MDSR Skills-Building Workshop

Day 1, Session 3

Understanding Pathways to Maternal Death

Session Objectives

- Describe the goals of a continual MPDSR process
- Explain the three delays model

Maternal Mortality – Definition

- Maternal mortality is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes. (WHO 1999)

Maternal Mortality Ratio (MMR)

- This is the ratio of the number of maternal deaths during a given time period per 100,000 live births during the same time-period.

Global Causes of Maternal Mortality

- Haemorrhage (27.1%)
- Hypertensive disorders (14.0%)
- Sepsis (10.7%)
- Abortion (8%)
- Embolism (3.2%)
- Other direct causes (9.6%)

Country Specific Mortality Data

- Placeholder – Facilitator, please insert 1-2 slides with country-specific data

Example: Select Indicators

Maternal Care Indicators	Rate/Ratio	
	2008	2015
Maternal Mortality		
Delivery in a health facility		

Causes of maternal deaths	%
Haemorrhage	
Infection	
Eclampsia	
Unsafe abortion	
Obstructed Labor	
Malaria	
Anemia	
Others	

How does the WHO define MDSR?

"A form of **continuous surveillance** linking the health information system and **quality improvement** processes from local to national levels. It includes the **routine identification, notification, quantification, and determination of causes** and avoidability of all maternal deaths, as well as the use of this information to **respond with actions** that will prevent future deaths"

Goal of MDSR (WHO, 2013)

To eliminate preventable maternal mortality

- The primary goal of MDSR is to eliminate preventable maternal mortality by obtaining and using information on each maternal death to guide public health actions and monitor their impact.

Overall objectives (WHO, 2013)

- To provide information that effectively guides actions to eliminate preventable maternal mortality at health facilities and in the community
- To count every maternal death, permitting an assessment of the true magnitude of maternal mortality and the impact of actions taken to reduce it

"No Name, No Blame" Approach to MPDSR

- Healthcare providers are vulnerable to blame, which does not improve care
- Confidentiality and a "culture of learning and improvement" are essential for a well-functioning MPDPSR system
- "No blame" is NOT "no accountability"

Reflection

Reflect on a time that you provided care for a woman who died while pregnant or soon after giving birth. Recall the causes and complications that led to her death.

Exercise – Roses & Thorns

- Roses – one strength / success using the XX colored sticky note
- Thorns – one challenge / missed opportunity using the XX colored sticky note
- Place your sticky notes on the flip charts

The Three Delays Model

- Widely used framework for examining care-seeking, decision-making, and quality of care
- It can help identify common delays in:
  - seeking care,
  - reaching care, and
  - receiving care at the facility

The Three Delays Model

Delay 1:
Recognition and decision to seek care

Length of time from onset of a complication to decision to seek care

Delay 2:
Transport to care

Once decision to seek care is made, there can be delays in reaching it

Delay 3: Receiving quality 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

First Delay

- Failure to recognize danger signs
- Lack of money to pay for medical expenses/transport
- Fear of ill-treatment at health facility
- Reluctance of the mother or the family to seek care because of cultural constraints

First Delay, cont'd

- Lack of decision-making power
- Lack of encouragement from relatives and community members to seek care
- Unavailability of someone else to take care of the children, the home, or livestock
- Lack of accompaniment to health facility

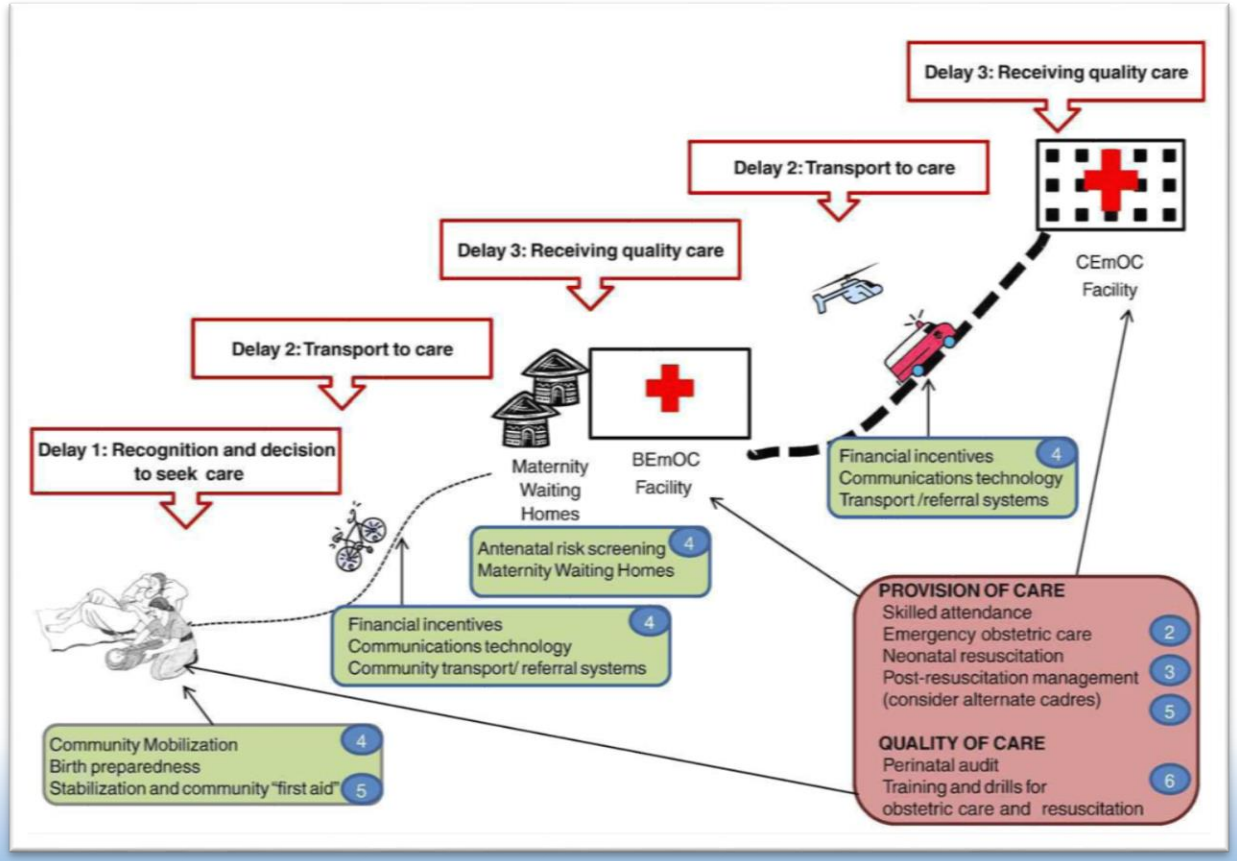
Second Delay

- Distance from a woman's home to a care facility or provider
- Lack of roads or poor condition of roads
- Lack of emergency transportation, whether by land or water

Third Delay

- Lack of health-care personnel
- Shortages of supplies such as emergency medicines or blood
- Lack of equipment for EmONC
- Lack of competence of healthcare providers to deliver EmONC
- Weak referral system
- Gender insensitivity of healthcare providers

Strategies to reducing these 3 delays



Discussion

- Question and answer with learners

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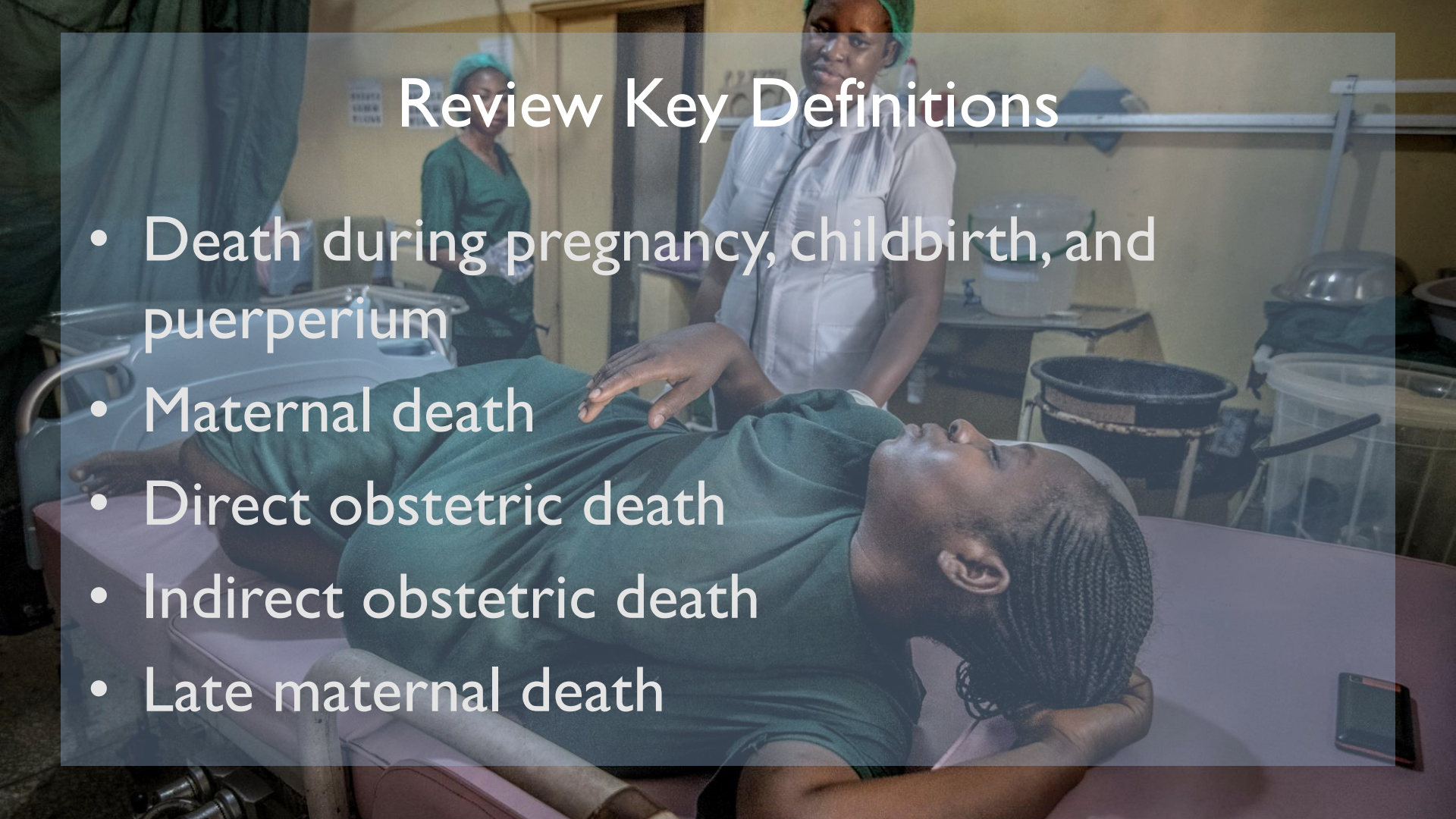
MDSR Skills-Building Workshop

Day 1, Session 5

Identifying Maternal Deaths

Session Objectives

- Distinguish between deaths that are maternal deaths and those that are not maternal deaths
- Differentiate between direct causes and indirect causes of maternal death
- Describe the process of identifying maternal deaths in their facilities



Review Key Definitions

- Death during pregnancy, childbirth, and puerperium
- Maternal death
- Direct obstetric death
- Indirect obstetric death
- Late maternal death

Definition: Death during Pregnancy, Childbirth, and Puerperium

"All deaths of women during or within 42 days of pregnancy regardless of cause" (ICD-10).

Definition: Maternal Death

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

Definition: Direct Obstetric Deaths

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

Definition: Indirect Obstetric Deaths

"Maternal deaths resulting from previously existing disease or disease that developed during pregnancy. These deaths are not due to direct obstetric causes, but are aggravated by the physiological effects of pregnancy."

Definition: Late Maternal Death

"The death of a woman from direct or indirect causes more than 42 days but less than one year after termination of pregnancy."

Exercise: Identifying Maternal Deaths

- Page 13 of the Learners' Guide
- Identify whether deaths are maternal
- If deaths are maternal, are they:
  - Direct
  - Indirect
  - Coincidental

Exercise: Mix & Match

- Working in pairs, place your index / meta card on the correct flip chart
- Is the cause of death:
  - Direct
  - Indirect
  - Coincidental
  - Unknown / Undetermined

Discussion

- Question and answer with learners

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Maternal and Child Survival Program

MDSR Skills-Building Workshop

Day 1, Session 6

Day One Wrap-up Discussion

Session Objectives

- Review content discussed over the last 5 sessions

Discussion

- Review the individual learning plan
- Revisit parking lot
- Question and answer with learners
- Assignment for Day 2
  - Review the ICD-MM reference aid and form (Pages 37–38 of Learner's Guide)
  - Bring real case summaries or case notes to review
  - Review the M/PDSR national guidelines

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MDSR Capacity-Building Workshop

Day 2

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MDSR Skills-Building Workshop

Day 2, Session 1

Day 1 Review and Knowledge Check

Session Objectives

- Describe the goals of continual MDSR process
- Describe the six steps of the mortality audit cycle
- Distinguish between deaths that are maternal deaths and those that are not
- Differentiate between direct causes and indirect causes of maternal death

Knowledge Check – Kahoot!

- In teams, play the online game
- If no internet is available, unhide and continue with slides 4–25 below…
- Award 10 points to the first team to answer a question correctly

Discussion

- Question and answer with learners

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MDSR Skills-Building Workshop

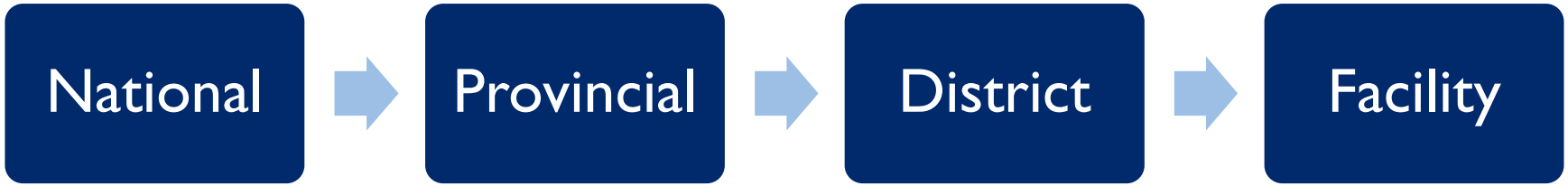
Day 2, Session 2

Creating or Strengthening MPDSR Committees

Session Objectives

- Create a facility or district/subnational MPDSR committee
- Strengthen a facility or district/subnational MPDSR committee to optimize MPDSR processes

Illustrative National MPDSR Structure



Principles of MPDSR Committee Membership

- National guidelines often define MPDSR committee membership
- Ideally, members should include a broad range of staff who have a role in maternal care
- This may include: doctors, midwives, nurses, auxiliary nurses, social workers, managers, lab technicians, pharmacists, ambulance drivers/staff, surgical team (anaesthetists, surgical nurses and technicians), and others

Review and Discussion: MPDSR Structures & Membership

- Please turn to page XX in the national MPDSR guidelines
- Read the section that defines the structures and membership of facility and district/subnational MPDSR committees
- Are these guidelines clear?
- Does the membership of your local MPDSR committee align with national and/or global guidelines?

Ensuring a "No **Name**" Environment

- "No Name" = Protecting confidentiality of client and providers
- Ensure that patient and provider names are not visible on any of the materials reviewed by the MPDSR committee (patient medical record, MPDSR summary form, etc.)
- Ensure that patient and provider names are not shared or discussed during the committee meetings

Ensuring a "No **Blame**" Environment

- "No Blame" = Promoting a constructive, non-punitive response to maternal deaths
- Emphasize learning, information gathering, and prevention (instead of blaming or punishment of providers)
- Develop a Code of Conduct that encourages problem solving rather than punishment or blame
- Create and sign non-disclosure pledges
- Acknowledge that mistakes happen, and the purpose of the MPDSR committee is to learn, and to prevent future mortality

Preparing for an MPDSR Meeting

1. Select members of the MPDSR committee
2. Clarify committee member responsible for collecting reference materials
3. Collect reference materials (e.g. clinical protocols, standards, manuals)
4. Ensure that all members are aware of the "No name, no blame" principle
5. Identify deaths for review
6. Prepare a file for each death to be reviewed (with anonymized patient records and registers, if available)
7. Develop the case summary for each death (should not include names of patient or provider)
8. Schedule the review meeting

Maternal Death Review Process

- MPDSR focal person will identify and notify probable maternal deaths immediately within 24–48 hours
- Facility maternal deaths should be discussed by facility MPDSR committee within XX days
- The focal person will prepare and present a narrative clinical summary using provided guidance

Maternal Death Review Process: Steps

- Preparation – Invitation, venue, norms, clinical summary
- Review of the recommendations from the previous meeting
- Present the clinical summary
- Conduct the review focusing on understanding the chain of events from prior to admission, admission and death

Maternal Death Review Process: Steps

- Develop response plan
- Complete the maternal and perinatal reviews report forms
- Plan for the next committee meeting

Exercise: Creating or Strengthening MPDSR Committees

- Break into 4 small groups
- Review the "Illustrative roles and responsibilities for an MPDSR committee" on Page 18 of the Learner's Guide
- Assign roles to members of your small groups
- Discuss how your committee will promote a "No name, No blame" environment

Discussion

- How will you ensure that your MPDSR (or MPDSR/QI) committee maintains a "No name, No blame" environment?
- Would you suggest any changes to the membership of your local MPDSR (or MPDSR/QI) committee?

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MDSR Skills-Building Workshop

Day 2, Session 3

Introduction to MDSR Forms

Session Objectives

- Identify the key components of country-specific MDSR forms
- Describe the sample MDSR forms that will be used in the workshop to build core MDSR skills
- Demonstrate how to complete a case summary of a maternal death using a sample MDSR form

Maternal Death Review Form

- Captures relevant information to record the events leading to the maternal death
- Information should be recorded anonymously

Sources of Information for Maternal Death Review Form

- Ward and operating theatre registers
- Antenatal cards
- Inpatient medical records and files
- Emergency department records
- Admission and discharge registers
- Interviewing staff involved in the patient's care and other relevant people involved
- Interviewing other people in the community

Key Components of Maternal Death Review Form

- Anonymized personal details: age, marital status, occupation, etc.
- Information about:
  - Delivery
  - Referral (to capture First and Second Delay)
  - Management on admission (to capture Third Delay)
  - Any complications
- Detailed case summary

Case Summary

- The case summary should present facts without expressing any judgment on the appropriateness of actions undertaken
- It summarizes the case history in narrative form
- The summary should be comprehensive, precise, and concise

Key Components of the Case Summary

- Patient background
- ANC history
- Labor and delivery details
- Cause of death:
  - events leading to the death
  - contributing factors

Sample MDSR Forms Used in Workshop

- Maternal Death Review and Clinical Summary Forms (D2/S3)
- MDSR Form: Modifiable Factors (D3/S2)
- MDSR Form: Priority responses to implement and monitor (D3/S2)
- Aggregate MDSR Form: Common Modifiable Factors and Aggregated Priority Responses to Accelerate Reduction of Maternal Deaths (D3/S3)

Discussion
Case Scenario A: Example

- Page 21 of Learners Guide
- Read Scenario A
- Discuss the proposed case summary: Is there anything you would change?

Exercise: Case Summary

- Break into small groups
- Each group reviews **one** Maternal Death Review and Clinical Summary Form Scenario (1 through 4)
- In small groups, review your assigned scenario and complete a case summary

Exercise: Facility-level Case Summaries

- Remain in small groups
- Review completed country-specific facility-level case summary
- Share observations comparing real case summary with the case summary from scenarios in the previous activity

Discussion

- Question and answer with learners

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MDSR Skills-Building Workshop

Day 2, Session 4

Cause Assignment Using the ICD-MM

Session Objectives

- Correctly assign the causes of maternal deaths using the ICD-MM classification system

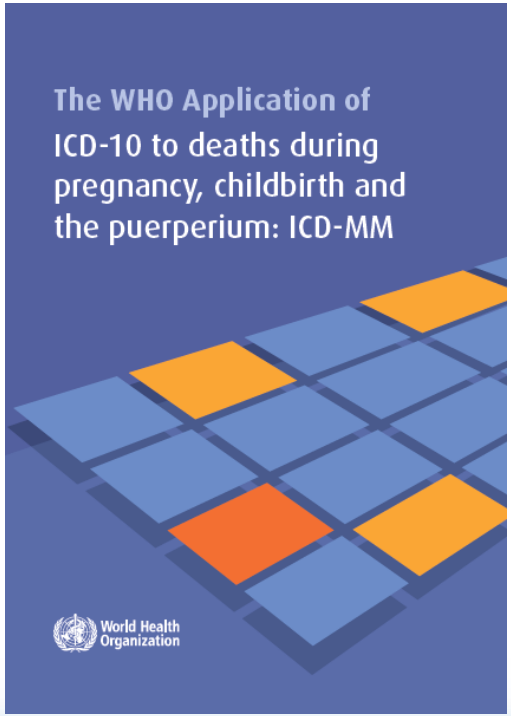
Nurse at Nigeria's Lokoja Federal Medical Center

ICD-10: Definition

- International statistical classification of diseases and related health problems, tenth revision (ICD-10) is the standard tool to guide the collection, coding, tabulation and reporting of mortality statistics based on civil registration. (WHO 2012)

ICD: Maternal Mortality

- ICD-MM is the application of the coding rules of the ICD-10 to deaths during pregnancy, childbirth, and the puerperium.



Uses of the ICD-MM

- For use by health-care providers and those who complete death certification
- Standardizes the identification of direct and indirect causes of maternal death

Why Standardize Causes of Death?

To improve:

- interpretation of data on maternal mortality
- analysis on the causes of maternal death
- allocation of resources and programmes intended to address maternal mortality

Cause Assignment

- Group 1: Pregnancy with abortive complication
- Group 2: Hypertensive disorders of pregnancy
- Group 3: Obstetric Haemorrhage
- Group 4: Pregnancy-related infection
- Group 5: Other obstetric complications

Cause Assignment 2

- Group 6: Unanticipated complications of management
- Group 7: Non-obstetric complications
- Group 8: Unknown
- Group 9: Coincidental causes (accident)

ICD-MM Reference Aid

Refer to Learner's Guide Page 37

ICD-MM Reference Aid

Groups of the Underlying Cause of Death during Pregnancy, Childbirth, and Puerperium

Definitions of deaths

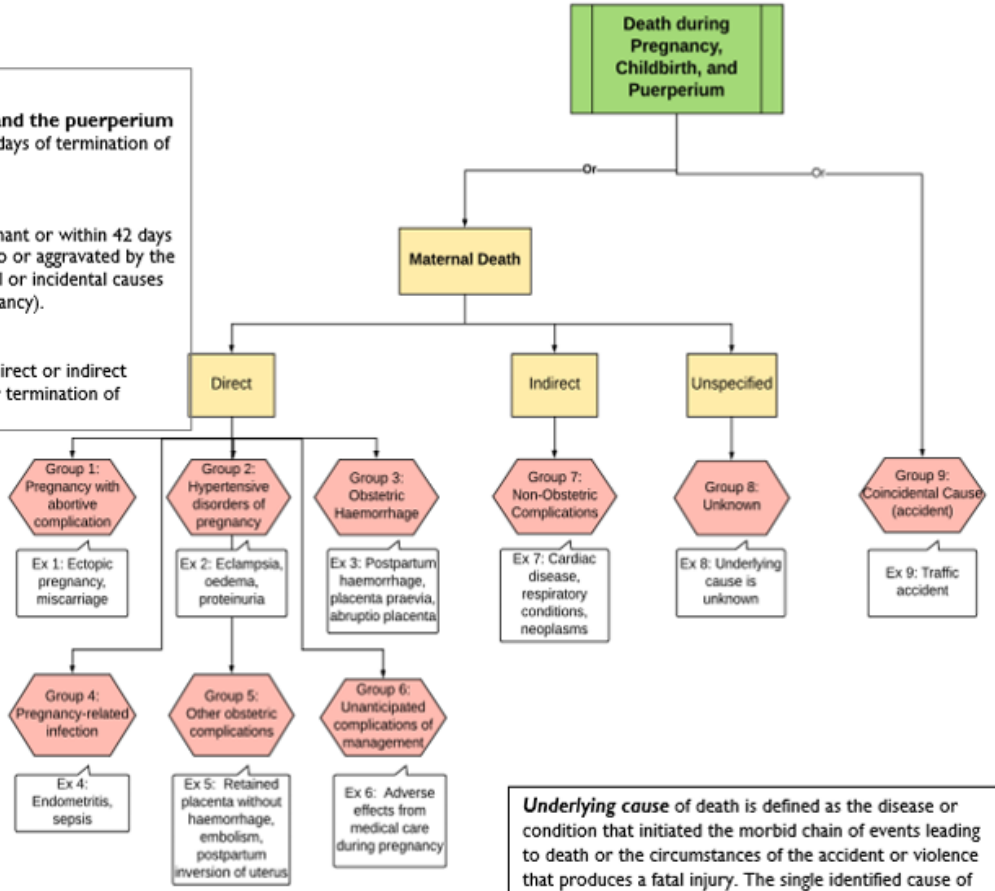
Death occurring during pregnancy, childbirth and the puerperium is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death.

Maternal death

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

Late maternal death

A late maternal death is the death of a woman from direct or indirect causes more than 42 days but less than one year after termination of pregnancy.



Underlying cause of death is defined as the disease or condition that initiated the morbid chain of events leading to death or the circumstances of the accident or violence that produces a fatal injury. The single identified cause of death should be as specific as possible (ICD-10)

Medical Certificate of Cause of Death (MCCD)

- The medical certificate of cause of death (MCCD) is designed to help the certifier record the whole sequence of events leading to death
- Death certificates should also include questions about current pregnancy and pregnancy within one year preceding death

Components of MCCD

Part I

- Disease or condition leading directly to death
- Antecedent causes:
  - Due to or as a consequence of b)
  - Due to or as a consequence of c)
  - Due to or as a consequence of d)

Part II

- Other significant conditions contributing to death but not related to the disease or condition causing it

Example 1

A woman who had anaemia during pregnancy and after delivery had a postpartum haemorrhage due to uterine atony, and died as a result of hypovolaemic shock.

Cause of death *the disease or condition thought to be the underlying cause should appear in the lowest completed line of Part I*		Approximate interval between onset and death
1. Disease or condition leading directly to death	(a) hypovolaemic shock	10 minutes
Antecedent causes: Due to or as a consequence of	(b) postpartum haemorrhage	30 minutes
Due to or as a consequence of	(c) uterine atony	45 minutes
Due to or as a consequence of	(d)	
2. Other significant conditions Contributing to death but not related to the disease or condition causing it	Anaemia	pre-existing

A contributory cause indicated in Part 1. This is assigned a code when multiple cause coding is undertaken

The underlying cause. This is the last condition noted in Part 1

The woman was:
- ☒ pregnant at the time of death
- ☐ not pregnant at the time of death (but pregnant within 42 days)
- ☐ pregnant within the past year

Example 2

A woman infected with HIV who has a spontaneous abortion that becomes infected, and dies due to septic shock and renal failure.

Cause of death *the disease or condition thought to be the underlying cause should appear in the lowest completed line of Part I*		Approximate interval between onset and death
1. Disease or condition leading directly to death	(a) renal failure	2 hours
Antecedent causes: Due to or as a consequence of	(b) septic shock	24 hours
Due to or as a consequence of	(c) septic miscarriage	36 hours
Due to or as a consequence of	(d)	
2 . Other significant conditions Contributing to death but not related to the disease or condition causing it	HIV	pre-existing

A contributory condition, indicated in Part 1

The underlying cause. This is the last condition noted in Part 1

A contributory condition

The woman was:
- ☒ pregnant at the time of death
- ☐ not pregnant at the time of death (but pregnant within 42 days)
- ☐ pregnant within the past year

Exercise: Assigning Cause of Death Using the MCCD Form

- Group work: return to groups from the last exercise (Scenarios 1–4)
- Complete the MCCD form for your scenario
- Assign the ICD-MM group for your scenario

MCCD Example: Abortion

Cause of death (*The disease or condition thought to be the underlying cause should appear in the lowest completed line of part I)*		Approximate interval between onset and death
Part I Disease or condition leading directly to death	a) Septic shock	5 hours
Antecedent causes: Due to or as a consequence of	b) Septicemia	24 hours
Due to or as a consequence of	c) Septic incomplete abortion	72 hours
Due to or as a consequence of	d)	
Part II Other significant conditions Contributing to death but not related to the disease or condition causing it		

The woman was:
X pregnant at the time of death
☐ not pregnant at the time of death (but pregnant within 42 days)
☐ pregnant within the past year

MCCD Example
Scenario 1: PPH

Cause of death (*The disease or condition thought to be the underlying cause should appear in the lowest completed line of part I)*		Approximate interval between onset and death
Part I Disease or condition leading directly to death	a) Hypovolemic shock	3 hours
Antecedent causes: Due to or as a consequence of	b) Postpartum haemorrhage	5 hours
Due to or as a consequence of	c) Uterine Atony	6 hours
Due to or as a consequence of	d)	
Part II Other significant conditions Contributing to death but not related to the disease or condition causing it		

The woman was:
X pregnant at the time of death
☐ not pregnant at the time of death (but pregnant within 42 days)
☐ pregnant within the past year

MCCD Example
Scenario 2: Uterine Rupture

Cause of death (*The disease or condition thought to be the underlying cause should appear in the lowest completed line of part I)*		Approximate interval between onset and death
Part I Disease or condition leading directly to death	a) Hypovolemic shock	1 hour
Antecedent causes: Due to or as a consequence of	b) Obstetric haemorrhage	3 hours
Due to or as a consequence of	c) Uterine rupture	5 hours
Due to or as a consequence of	d)	
Part II Other significant conditions Contributing to death but not related to the disease or condition causing it		
The woman was: X pregnant at the time of death ☐ not pregnant at the time of death (but pregnant within 42 days) ☐ pregnant within the past year		

MCCD Example
Scenario 3: PEE

Cause of death (*The disease or condition thought to be the underlying cause should appear in the lowest completed line of part I)*		Approximate interval between onset and death
Part I Disease or condition leading directly to death	a) Cerebrovascular haemorrhage/Stroke	16 hours
Antecedent causes: Due to or as a consequence of	b) High blood pressure	36 hours
Due to or as a consequence of	c) Pre-eclampsia/Eclampsia	
Due to or as a consequence of	d)	
Part II Other significant conditions Contributing to death but not related to the disease or condition causing it		

The woman was:
X pregnant at the time of death
☐ not pregnant at the time of death (but pregnant within 42 days)
☐ pregnant within the past year

MCCD Example
Scenario 4: Anesthesia

Cause of death (*The disease or condition thought to be the underlying cause should appear in the lowest completed line of part I)*		Approximate interval between onset and death
Part I Disease or condition leading directly to death	a) Brain damage/Hypoxia	1 hour
Antecedent causes: Due to or as a consequence of	b) Complications of anaesthesia	3 hours
Due to or as a consequence of	c)	
Due to or as a consequence of	d)	
Part II Other significant conditions Contributing to death but not related to the disease or condition causing it		

The woman was:

☐ pregnant at the time of death

X not pregnant at the time of death (but pregnant within 42 days)

☐ pregnant within the past year

Discussion

- Question and answer with learners

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MDSR Skills-Building Workshop

Day 2, Session 5

Day Two Wrap-up and Discussion

Session Objective

- Review content discussed over the last 4 sessions

Discussion

- Revisit parking lot
- Q & A: Any outstanding questions or comments?
- Assignment for Day 3
  - Please review the following items in the Learner's Guide:
    - MDSR Individual Death Review Response Plan (pg. 47–48)
    - Data exercises located in Day 3, Session 3 (pg. 50–56)
  - Complete the HMIS Data Availability Review Form (pg. 57–58)

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MDSR Capacity-Building Workshop

Day 3

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MDSR Skills-Building Workshop

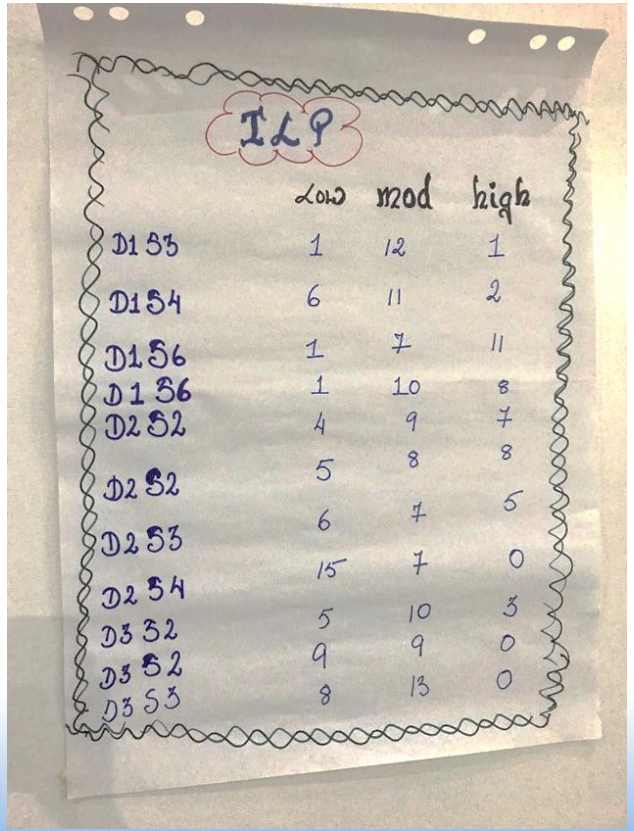
Day 3, Session 1

Day Two Review

Session Objectives

- Review content learned in the previous days
- Review the ICD-MM reference aid

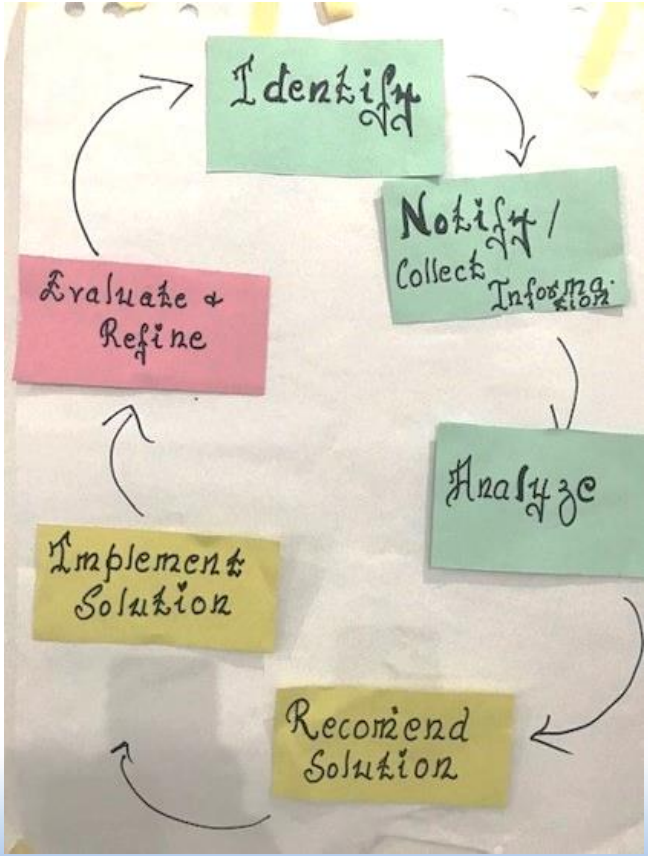
Revisiting the Individual Learning Plans



Revisiting the 6 Steps of the Audit Cycle

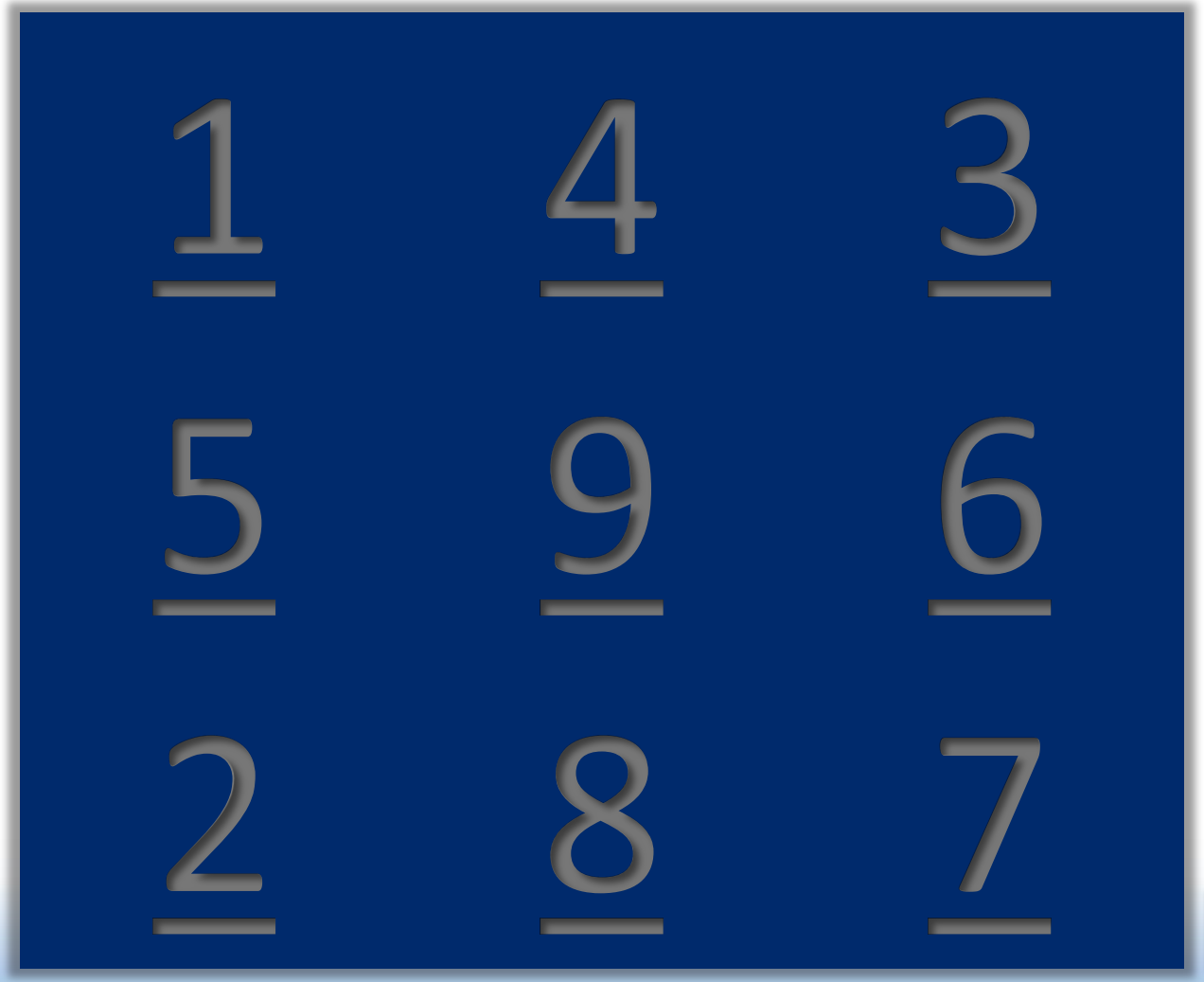
Focus of Day 3:

- Recommend Solutions
- Implement Solutions
- Evaluate and Refine



Jeopardy Game

- Break into 2 teams
- The team with the most points wins!


1 4 3
5 9 6
2 8 7

1 point

A woman was 3 months pregnant, had severe bleeding and died after reaching the hospital.

a. Group 1

b. Group 2

c. Group 3

1 point

A woman was 3 months pregnant, had severe bleeding and died after reaching the hospital.

- ✓ Group 1 – Pregnancy with abortive complication
- ✗ Group 2
- ✗ Group 3

2 points

A woman gave birth at home 2 weeks ago. She arrived at the hospital complaining of severe abdominal pain, high fever and a foul vaginal discharge. Her symptoms began 2 days after giving birth. She received antibiotics but she died.

a. Group 4
b. Group 5
c. Group 7

2 points

A woman gave birth at home 2 weeks ago. She arrived at the hospital complaining of severe abdominal pain, high fever and a foul vaginal discharge. Her symptoms began 2 days after giving birth. She received antibiotics but she died.

- ✓ Group 4 – Pregnancy-related infection
- ✘ Group 5
- ✘ Group 7

3 points

A woman delivered at the health facility and was sent home after two hours. However, she developed severe bleeding at home and was rushed to the hospital but died.

a. Group 1
b. Group 3
c. Group 7

3 points

A woman delivered at the health facility and was sent home after two hours. However, she developed severe bleeding at home and was rushed to the hospital but died.

- ✘ Group 1
- ✓ Group 3 – Obstetric haemorrhage
- ✘ Group 7

4 points

A woman came to the hospital in labour. She reported having had seizures at home. She lost consciousness and died before being treated.

a. Group 5
b. Group 2
c. Group 8

4 points

A woman came to the hospital in labour. She reported having had seizures at home. She lost consciousness and died before being treated.

- ✘ Group 5
- ✓ Group 2 – Hypertensive disorders of pregnancy
- ✘ Group 8

5 points

A pregnant woman was going for her ANC visit when the bus she was travelling on overturned and she died

a. Group 5
b. Group 6
c. Group 9

5 points

A pregnant woman was going for her ANC visit when the bus she was travelling on overturned and she died

- ✘ Group 5
- ✘ Group 6
- ✓ Group 9 – Coincidental cause (accident)

6 points

A woman with obstructed labour was rushed to the theater for emergency caesarean section. She did not wake up from anaesthesia.

a. Group 4
b. Group 6
c. Group 8

6 points

A woman with obstructed labour was rushed to the theater for emergency caesarean section. She did not wake up from anaesthesia.

- ✘ Group 4
- ✓ Group 6 – Unanticipated complications of management
- ✘ Group 8

7 points

A pregnant woman with pre-existing hypertensive heart disease went into labor. After delivery of the placenta, the midwife administered ergometrine to stop the bleeding. The woman collapsed and died in the delivery room.

a. Group 7
b. Group 8
c. Group 9

7 points

A pregnant woman with pre-existing hypertensive heart disease went into labor. After delivery of the placenta, the midwife administered ergometrine to stop the bleeding. The woman collapsed and died in the delivery room.

- ✓ Group 7 – Non-obstetric complications
- ✘ Group 8
- ✘ Group 9

8 points

A woman delivered at home. Her TBA was unable to help her deliver the placenta, and referred her to the hospital. She died in the ambulance on the way to the hospital.

a. Group 5
b. Group 6
c. Group 7

8 points

A woman delivered at home. Her TBA was unable to help her deliver the placenta, and referred her to the hospital. She died in the ambulance on the way to the hospital.

- ✓ Group 5 – Other obstetric complications
- ✗ Group 6
- ✗ Group 7

9 points

A woman who gave birth 3 weeks ago had been teary since the birth of her child and not eating or sleeping well. She was found dead in her bedroom with an empty packet of rat poison next to her bed.

a. Group 4
b. Group 5
c. Group 6

9 points

A woman who gave birth 3 weeks ago had been teary since the birth of her child and not eating or sleeping well. She was found dead in her bedroom with an empty packet of rat poison next to her bed.

- ✘ Group 4
- ✓ Group 5 – Other obstetric complications
- ✘ Group 6

Discussion

- Question and answer with learners

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Maternal and Child Survival Program

MDSR Skills-Building Workshop

Day 3, Session 2

Identifying Modifiable Contributing Factors for a Maternal Death and Priority Responses to Implement and Monitor

Session Objectives

- Identify modifiable factors that contributed to a maternal death
- Describe components of a SMART response based on identified modifiable factors
- Develop response plans (facility and district level) for implementing and monitoring based on identified modifiable factors

Guiding Principles for Planning Responses

- Start with the avoidable factors identified during the review process
- Use evidence-based approaches
- Prioritize (based on prevalence, feasibility, costs, resources, health-system readiness, health impact)
- Establish a timeline
- Decide how to monitor progress, effectiveness, impact
- Integrate recommendations within annual health plans and health-system packages
- Monitor to ensure that recommendations are being implemented

What are SMART responses?

- **S**pecific
- **M**easureable
- **A**chievable
- **R**elevant
- **T**ime-bound

What does S – M – A – R – T mean?

- **S**pecific: What will you do? Who will do it?
- **M**easureable: How will you demonstrate improvement?
- **A**chievable: Can you complete the action within the time frame given the knowledge, skills, and resources available?
- **R**elevant: Are the proposed actions relevant to the issues that you've identified?
- **T**ime-bound: By when will you complete these actions?

SMART Example

- Increase the number of women receiving a uterotonic immediately following birth by 10% in the next 12 months

The Three Delays Model

Delay 1:
Recognition and decision to seek care

Length of time from onset of a complication to decision to seek care.

Delay 2:
Transport to care

Once decision to seek care is made, there can be delays in reaching it.

Delay 3:
Receiving quality 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.

Response Plan Development

- Prioritize the problems identified
- Propose recommendations to address the three delays
- Identify deadlines and persons responsible
- Develop mechanism for implementation
- Identify additional resources needed
- Include monitoring of implementation

MDSR Individual Death Review Response Plan

MDSR Form: Modifiable Factors

District:..... **HF:**..... **Meeting Date (MM/DD/YY):**...../...../.....

Maternal Death Event Date (MM/DD/YR):	**Address of the deceased**
Place of death:	**Date of Form Completion (MM/DD/YY)**
Case Summary: *(Can be pasted in, if completed during previous meetings)*	
Modifiable Contributing Factors *(organized within the 3-delay model)*	
First Delay: Recognition and decision to seek care (Home/family/community)	
Second Delay: Transport to care, delays reaching an appropriate facility	
Third Delay: Quality of care received in the health facility	

MDSR Individual Death Review Response Plan

- MDSR Form: Priority responses to implement and monitor

Modifiable Contributing Factors	Response (What to do)	Responsible person (Ensures completion of response) Specify facility and/or district	Target completion date	Follow up Progress Notes (completed/ ongoing/failed)

Exercise – Response Planning

- Return to your small groups (scenarios 1–4)
- Work on the response plans for your scenarios
- Turn to Page 47 in the learner's guide
- Debrief: **One** group reports back

Tracking Response Plan Implementation & Follow Up

- Regular review of response plan implementation
- Identify responses accomplished
- Identify responses not accomplished and reasons
- Re-evaluate implementation
- Propose further responses with deadlines, persons responsible and mechanism for implementation

Examples of Strategies for Follow-up

- Include review of previous recommendations during each MPDSR committee meeting
- Create a sub-committee to track implementation of recommendations and report back at each MPDSR committee meeting
- Develop a follow-up schedule with one person assigned to check in regularly with persons responsible for recommendations
- Display all recommended responses on a board and have one person responsible for tracking implementation of recommendations

Discussion

- Question and answer with learners

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Maternal and Child Survival Program

MPDSR Skills-Building Workshop

Day 3, Session 3

Monitoring and Analysing Trends in Causes of Maternal Deaths and Findings of Death Reviews to Prioritize Aggregated Responses

Session Objectives

- Practice monitoring and analysing trends in causes of facility maternal death and findings of death reviews for leading local causes of death
- Practice prioritizing aggregated responses at the facility and district/subnational level based on analysis of local trends in causes of maternal death and findings of death reviews
- Review availability of maternal death data elements in country HMIS materials (facility and subnational) and discuss ways to strengthen availability of maternal health and death data in HMIS

Why Should MPDSR Committees Examine Trends In Maternal Data And Audit Findings?

Analyzing trends in aggregated data allows MPDSR committees to:

- Identify trends in numbers of deaths
- Identify trends in causes of death
- Examine patterns of modifiable factors which are contributing to leading causes of deaths
- Prioritize actions to address common, recurrent and persistent contributing factors

Data Sources & Indicators – Analyzing Trends

- MPDSR and Quality Improvement committees may track multiple indicators to measure their progress in improving maternal and perinatal care
- Data may be drawn from multiple sources, including client records, facility registers, facility summary HMIS reporting forms, national HMIS data and completed audit (reports?) files from past MPDSR reviews
- One key indicator of interest for MPDSR committees is the **cause of maternal deaths,** to be able to analyze and act on trends in causes of maternal death

Example: Calculating Proportion of Maternal Deaths by Individual Cause

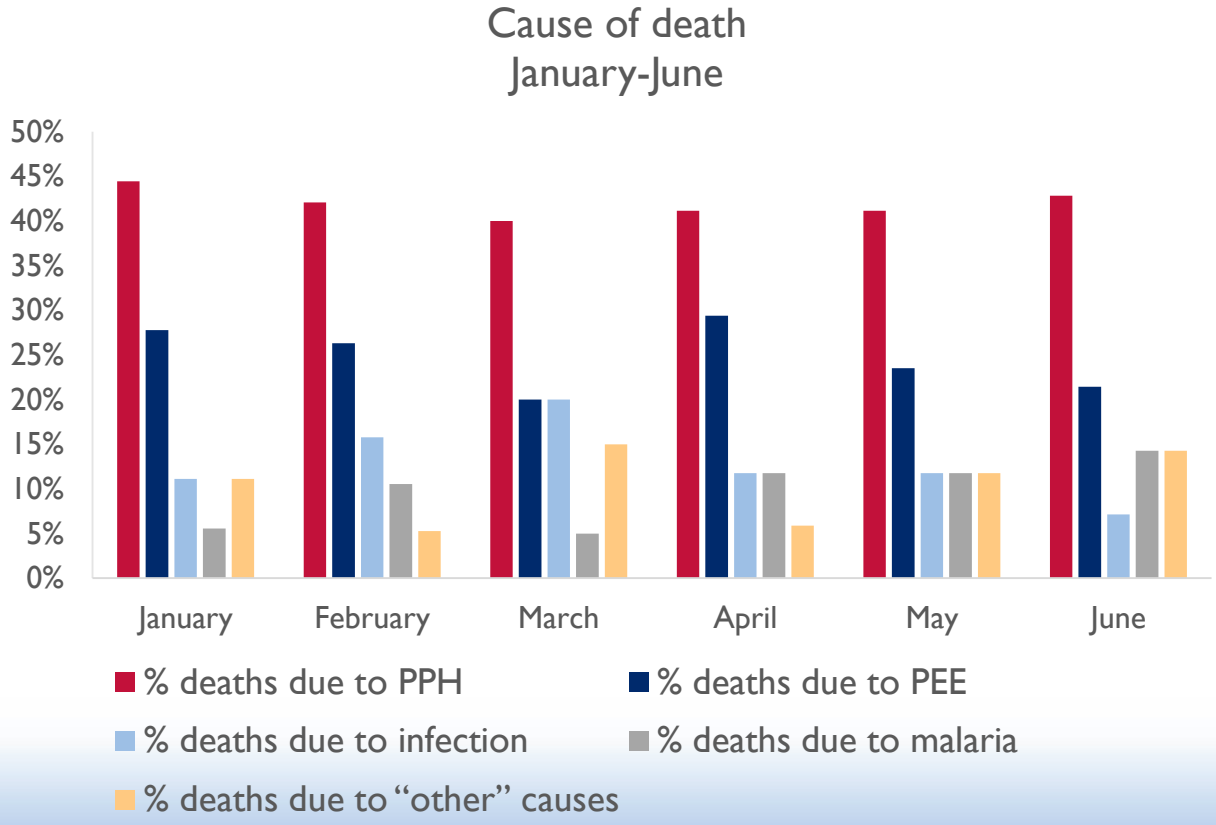
- Q: What proportion (%) of maternal deaths at the Central Teaching Hospital were caused by PPH?
- A: 50 (Deaths from PPH) ÷ 100 (total deaths) = 50%

EXAMPLE: Central Teaching Hospital - Causes of Maternal Mortality - 2017	
Deaths from PPH	50
Deaths from PE/E	30
Deaths from Infection	15
Other	5
Total Maternal Deaths	100

Exercise A – Calculating percent of maternal deaths by cause

- Return to small groups
- Turn to Page 50 in learner's guide
- Use the data in Table 19 to calculate the percent of deaths by cause for each of 6 months (January – June)

Discussion – Exercise A



- What was the leading cause of death at this facility?
- What was the second leading cause of death?

Exercise B – Response Plan Review and Analysis

- Continue to Page 52 in learners guide
- Review the summary of modifiable factors and responses
- As a group, discuss the questions on Page 53 for analysing and prioritizing common modifiable factors based on review of several audit findings

Discussion – Exercise B

- What were the most important and common modifiable factors identified by your group?
- What actions did your MPDSR committee use to prioritize activities to reduce deaths of women due to PPH in your facility?
- In your setting, is it possible to review previous audit findings to identify common modifiable factors and responses, as has been done in Table 15?

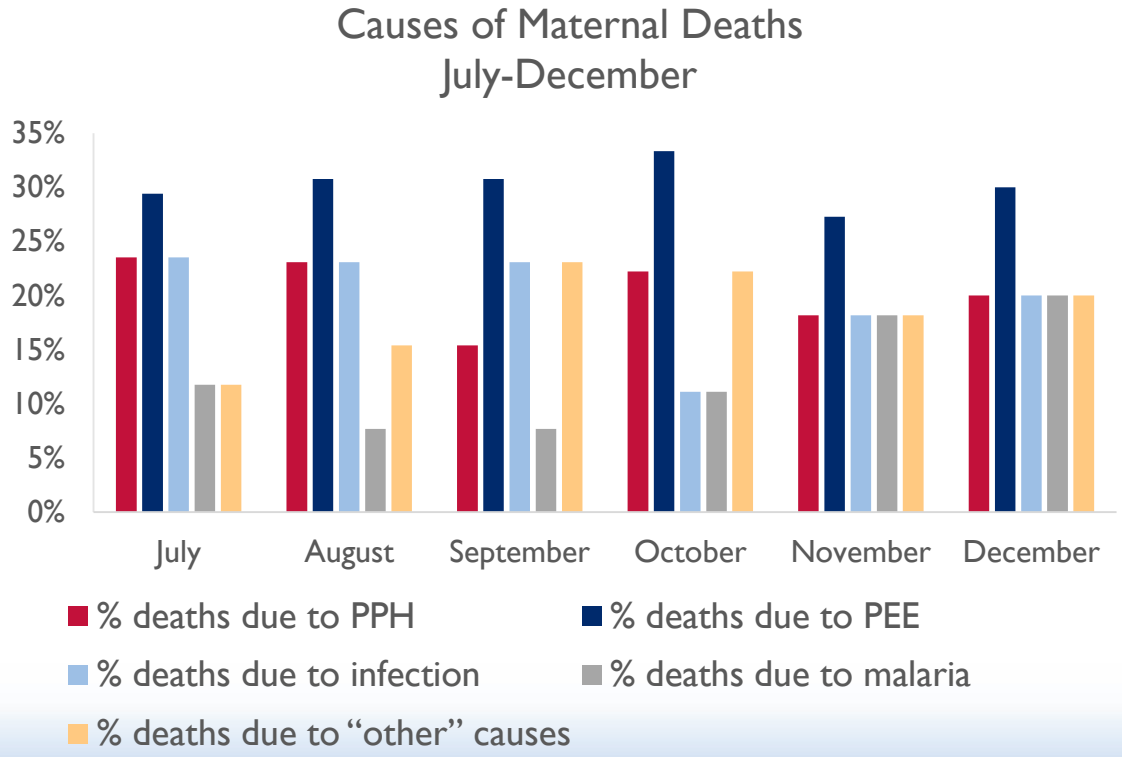
What is Data Visualization and Why is it Important?

- Data visualization is the presentation of quantitative data in visual graphics such as bars, dots or lines
- Helps to understand trends and patterns
- Makes analysis and understanding of data easier
- Shows increases or decreases over time
- Example: The Bar Chart
  - Commonly used to display health data in facilities
  - Can be used to show progress towards a target or goal

Exercise C – Visualizing Trends in the Causes of Maternal Deaths

- Continue to Page 56 in the learner's guide
- Use the data in Table 17 to create a bar graph of the monthly proportion of deaths by cause (from July–December)

Discussion – Exercise C



- Decline in total number of deaths
- Decline in the relative proportion (%) of deaths due to PPH
- Increase in % of deaths due to PE/E as % deaths due to PPH decline

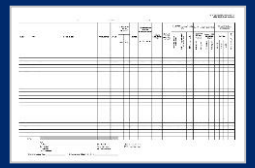
Data Availability and Flow – HMIS Systems

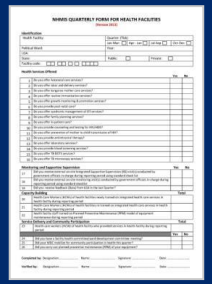
Client-provider interaction (e.g. patient record)

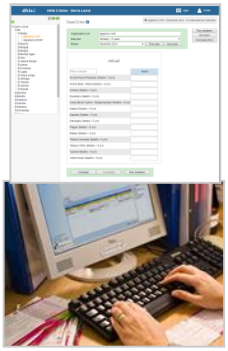
Registers

Summary Forms

DHIS2 or other software







HMIS data flow example: Nigeria

Facility

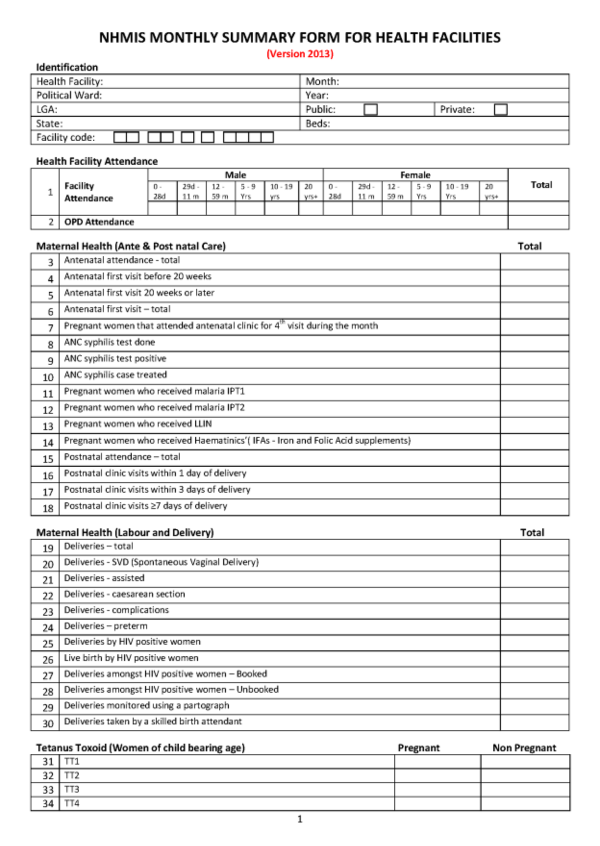
District

Provincial and National

Data Availability within HMIS Systems

- Many country HMIS systems lack data elements needed to track causes and frequency of maternal deaths
  - Client-level records might not be available, or might not be standardized across facilities
  - Many facility-level registers do not include designated data elements (e.g. columns) to record causes of maternal death
  - Even when data on cause of maternal death is captured in a facility register it may not be included in the facility's HMIS summary reporting form and hence may not be included in a country's national HMIS

Country Specific HMIS Forms Update with country–specific form



NHMIS MONTHLY SUMMARY FORM FOR HEALTH FACILITIES
(Version 2013)

Identification

Health Facility:	Month:	
Political Ward:	Year:	
LGA:	Public: ☐	Private: ☐
State:	Beds:	
Facility code: ☐☐ ☐☐ ☐ ☐ ☐☐☐☐		

Health Facility Attendance

		Male						Female						Total
		0 - 28d	29d - 11 m	12 - 59 m	5 - 9 Yrs	10 - 19 yrs	20 yrs+	0 - 28d	29d - 11 m	12 - 59 m	5 - 9 Yrs	10 - 19 Yrs	20 yrs+	
1	Facility Attendance													
2	OPD Attendance													

Maternal Health (Ante & Post natal Care)

		Total
3	Antenatal attendance - total	
4	Antenatal first visit before 20 weeks	
5	Antenatal first visit 20 weeks or later	
6	Antenatal first visit – total	
7	Pregnant women that attended antenatal clinic for 4th visit during the month	
8	ANC syphilis test done	
9	ANC syphilis test positive	
10	ANC syphilis case treated	
11	Pregnant women who received malaria IPT1	
12	Pregnant women who received malaria IPT2	
13	Pregnant women who received LLIN	
14	Pregnant women who received Haematinics'(IFAs - Iron and Folic Acid supplements)	
15	Postnatal attendance – total	
16	Postnatal clinic visits within 1 day of delivery	
17	Postnatal clinic visits within 3 days of delivery	
18	Postnatal clinic visits ≥7 days of delivery	

Maternal Health (Labour and Delivery)

		Total
19	Deliveries – total	
20	Deliveries - SVD (Spontaneous Vaginal Delivery)	
21	Deliveries - assisted	
22	Deliveries - caesarean section	
23	Deliveries - complications	
24	Deliveries – preterm	
25	Deliveries by HIV positive women	
26	Live birth by HIV positive women	
27	Deliveries amongst HIV positive women – Booked	
28	Deliveries amongst HIV positive women – Unbooked	
29	Deliveries monitored using a partograph	
30	Deliveries taken by a skilled birth attendant	

Tetanus Toxoid (Women of child bearing age)

		Pregnant	Non Pregnant
31	TT1		
32	TT2		
33	TT3		
34	TT4		

1

Country Name:
Data Availability Review Form

HMIS Form	Patient Record	Hospital Register	Health Center Register	HMIS Monthly Summary Reporting Form
Designated space to record individual/cumulative maternal deaths?	Yes/No	Yes/No	Yes/No	Yes/No
Designated space to record cause of maternal deaths?	Yes/No	Yes/No	Yes/No	Yes/No
If YES, how is data cause of maternal deaths?	Open ended space/ Designated data elements/ Not applicable	Open ended space/ Designated data elements/ Not applicable	Open ended space/ Designated data elements/ Not applicable	Open ended space/ Designated data elements/ Not applicable

Country Name:
Data Availability Review Form

HMIS Form	Patient Record	Hospital Register	Health Center Register	HMIS Monthly Summary Reporting Form
Causes of maternal death with designated data elements in each type of form?	PPH; APH; PE/E; Sepsis; Obstructed labour; Abortion complications; Malaria; HIV; Others (specify) Not applicable	PPH; APH; PE/E; Sepsis; Obstructed labour; Abortion complications; Malaria; HIV; Others (specify) Not applicable	PPH; APH; PE/E; Sepsis; Obstructed labour; Abortion complications; Malaria; HIV; Others (specify) Not applicable	PPH; APH; PE/E; Sepsis; Obstructed labour; Abortion complications; Malaria; HIV; Others (specify) Not applicable
Space for deaths audited?	Yes/No	Yes/No	Yes/No	Yes/No

Discussion: Data Availability

- What 3 changes could you make to the HMIS forms that you use on a regular basis to capture data on causes of maternal deaths so that you can analyze and act on trends in causes of maternal deaths in your facility or district, as we did in exercises A and B?
- What next steps will you suggest to your MPDSR or QI committee to either begin or strengthen your efforts to regularly monitor, visualize and analyze trends in causes of death and audit findings to prioritize actions to eliminate preventable maternal deaths?

Maternal and Child Survival Program

MDSR Skills-Building Workshop

Day 3, Session 4

MDSR Workshop Final Knowledge Assessment and Review

Session Objectives

- Demonstrate knowledge and skills learned in the workshop.
- Complete Post-test

Post-test Answer Review

1. Which is the best definition of a maternal death?
   a. **The death of a woman while pregnant or within 42 days of termination of pregnancy from any cause related to pregnancy or its management, but not from accidental or incidental causes**
   b. The death of a woman while pregnant or within 42 days of pregnancy, including any accidental or incidental causes
   c. The death of a woman while pregnant or within 42 days of pregnancy because of limited critical care services

2. How many steps are in the mortality audit cycle?

   a. 3 steps

   b.6 steps

   c. 9 steps

3. What are the steps of the mortality audit cycle?
   a. Identify, locate, recommend solutions, implement recommendations, evaluate and refine
   b. Identify, collect information / notify, analyse information, recommend solutions, implement recommendations, evaluate and refine
   c. Identify, review, recommend solutions, implement recommendations

4. Standardization of identification of direct and indirect causes of maternal deaths are found in:

a. ICD-PM

b. ICD-MM

c. ICD-20

5. What is the first step of the MPDSR process?
   a. Review of the MPDSR form
   b. Identification of maternal/perinatal deaths
   c. Analyse maternal or perinatal death

6. What single term should be written on the death certificate?
    a. Cause of mortality
    b. Underlying cause of death
    c. Morbidity agent

7. Which of the following is a direct cause of maternal death in pregnancy?

a. Pre-eclampsia/eclampsia

b. Cardiac disorder

c. Thyroid disorder

8. Which term is defined as the death of a women from direct or indirect causes more than 42 days but less than 1 year after termination of pregnancy?

a. Late maternal death

b. Delayed maternal mortality

c. Postpartum death

9. What is the underlying cause of death of a woman with HIV who dies of septic shock and renal failure after a spontaneous incomplete abortion?

a. Renal failure

b. Septic abortion

c. Septic shock

10. A 20-year-old woman (30 weeks pregnant), was involved in a traffic accident but died soon after reaching the hospital. What ICD-MM group does this fall into?

a. Direct maternal death
b. Indirect maternal death
c. Coincidental cause of death

11. A 30-year-woman (38 weeks pregnant), underwent caesarean section for foetal distress. She had just had a full meal and died on the theatre table because of aspiration following anaesthesia. What ICD-MM group would this fall into?

    a. Other obstetric complications
    b. Coincidental causes
    c. Unanticipated complication of management

12. A 16-year-old girl who was being treated for a high fever died suddenly after reaching the facility. She had taken an herbal medication 2 days earlier, following unprotected intercourse 2 weeks after her last menstrual period. How should the provider document this death?
    a. Coincidental cause of death
    b. Indirect maternal death
    c. Not a pregnancy related death

13. Pre-eclampsia has been determined to be a leading cause of maternal mortality in Facility X. Which of the options below is an appropriate action that an MPDSR committee could implement to improve the quality of care for women with pre-eclampsia in this facility?
    a. Take action against the provider who was on duty at the time of the two most recent maternal deaths caused by pre-eclampsia
    b. Ensure availability of magnesium sulphate in the emergency area at all times
    c. Immediately refer women who present with pre-eclampsia to another facility

14. What is the primary responsibility of the facility MPDSR committee?

a. To review and develop action plans following maternal and perinatal deaths

b. To penalize the provider involved in the maternal death

c. To complete and send reports on maternal deaths to the district managers

15. How often should the facility MPDSR committee meet?

a. When two or more similar maternal deaths are recorded
b. Once or twice a year, depending on facility size
c. After a maternal death or periodically, even if there is no death

16. Which types of maternal death are included in the ICD-MM classification system?

a. Direct, coincidental, unspecified
b. Direct, indirect, coincidental
c. Direct, unspecified, indirect

17. Which of the following is NOT one of the guiding principles of the response portion of MPDSR?

a. Monitoring the implementation of actions/responses identified during the death review
b. Prioritizing actions/responses based on avoidable factors identified during the death review
c. Not establishing a timeline for response actions

18. Which of the following options lists examples of the delays that the Three Delay Model addresses?
    a. **Waiting too long to seek care because of the financial implications, the length of time it takes to reach care because of poor roads, and timeliness of care because of understaffed facilities**
    b. Receiving services at a busy facility, the time it takes to properly diagnose the root cause of an illness, and the time it takes medication or treatment to take effect
    c. The time it takes to find an affordable healthcare provider, the length of time it takes a provider to reach the patient, and the recovery time needed after a surgical procedure

19. What is an important function of a Civil Registration / Vital Statistics (CR/VS) system?
    a. Registration of only births
    b. Registration of only deaths
    c. Registration of births and deaths

20. Monitoring and analysing trends in maternal deaths and the findings of death reviews should be done at the following level:

a. Community and facility levels only

b. Community, facility, subnational, and national levels

c. Subnational level only

Discussion

- Question and answer with learners

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Maternal and Child Survival Program

MDSR Skills-Building Workshop

Day 3, Session 5

Workshop Wrap-up and Closing Ceremony

Session Objectives

- Describe how they will apply the knowledge and skills obtained during the workshop
- Provide feedback on the workshop

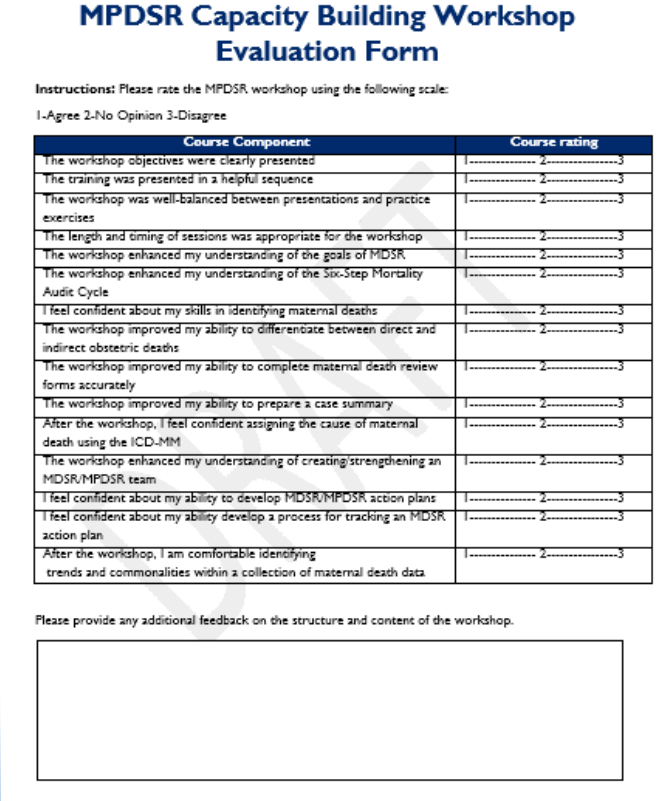
Individual Learning Plan

Discussion

- What will you do differently as a result of this training?
- How will you share the learning from this training with others from your facility/district/MPDSR committee?

Workshop Evaluation

- Please rate the MPDSR workshop using the following scale:
  - 1: Agree
  - 2: No Opinion
  - 3: Disagree



MPDSR Capacity Building Workshop Evaluation Form

Instructions: Please rate the MPDSR workshop using the following scale:

1-Agree 2-No Opinion 3-Disagree

Course Component	Course rating
The workshop objectives were clearly presented	1---------- 2----------3
The training was presented in a helpful sequence	1---------- 2----------3
The workshop was well-balanced between presentations and practice exercises	1---------- 2----------3
The length and timing of sessions was appropriate for the workshop	1---------- 2----------3
The workshop enhanced my understanding of the goals of MDSR	1---------- 2----------3
The workshop enhanced my understanding of the Six-Step Mortality Audit Cycle	1---------- 2----------3
I feel confident about my skills in identifying maternal deaths	1---------- 2----------3
The workshop improved my ability to differentiate between direct and indirect obstetric deaths	1---------- 2----------3
The workshop improved my ability to complete maternal death review forms accurately	1---------- 2----------3
The workshop improved my ability to prepare a case summary	1---------- 2----------3
After the workshop, I feel confident assigning the cause of maternal death using the ICD-MM	1---------- 2----------3
The workshop enhanced my understanding of creating/strengthening an MDSR/MPDSR team	1---------- 2----------3
I feel confident about my ability to develop MDSR/MPDSR action plans	1---------- 2----------3
I feel confident about my ability develop a process for tracking an MDSR action plan	1---------- 2----------3
After the workshop, I am comfortable identifying trends and commonalities within a collection of maternal death data	1---------- 2----------3

Please provide any additional feedback on the structure and content of the workshop.

Photo: Nigerian mother Ede holds her daughter