

# MPDSR Training & Maternal and Perinatal Review 2023- 2025: Results



MPDSR Secretariat – 16 Dec 2025

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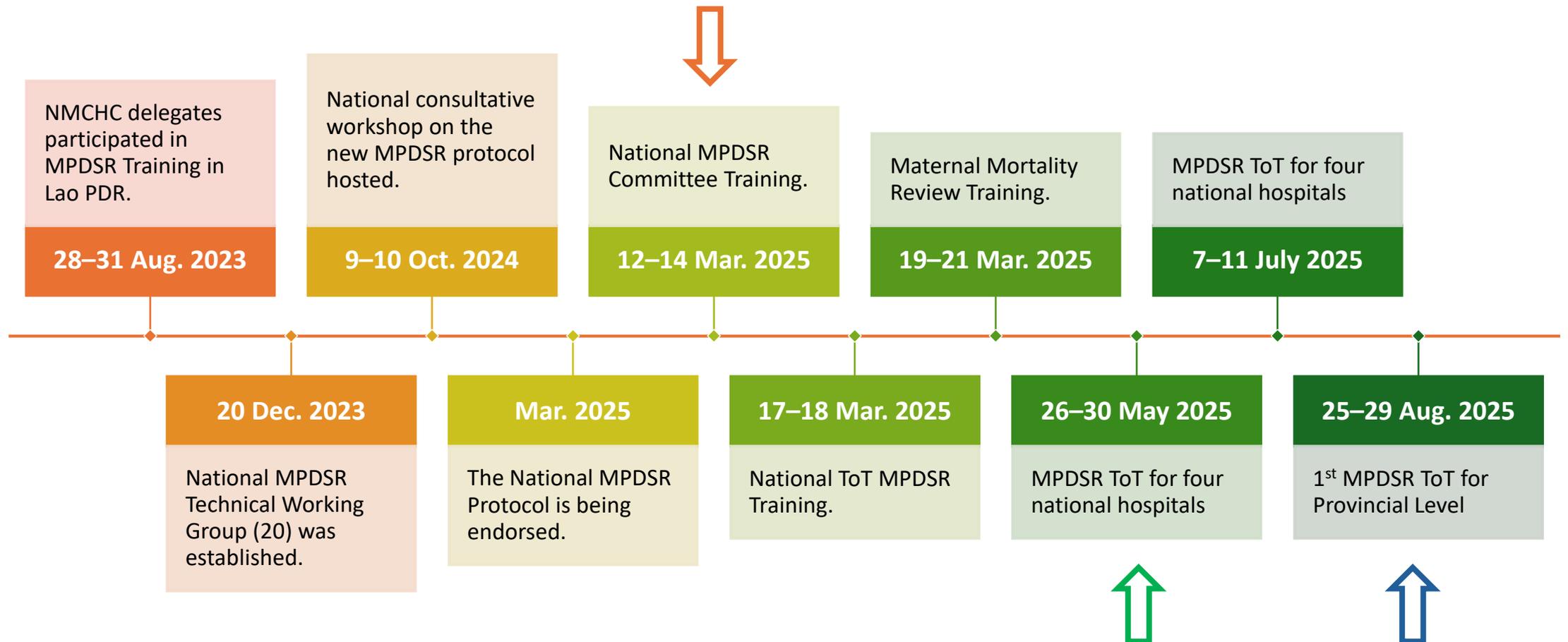
**Australian  
Aid**

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# I. Progress of the National and Provincial MPDSR ToT

# National and Provincial MPDSR ToT



# MPDSR Cascade ToT – National Hospitals: x2

## Criteria for Participants:

1. Deputy Director - Hospital
2. Head or Vice of Technical Bureau
3. Head of Maternity
4. Head of Neonatology
5. Head of Nurse
6. Head of Midwife
7. Anesthetist

5-day MPDSR ToT for National Hospitals 26-30 May 2025			
1	Calmette Hospital	Calmette	7
2	KSFH	Calmette	7
3	Preah Angdoug	Calmette	7
4	NMCHC	Calmette	8
		<b>Total</b>	<b>29</b>
5-day MPDSR ToT for National Hospitals 7-11 Jul 2025			
1	Techo Santepheap	Preah Angduong	7
2	Kantha Bopha	Preah Angduong	6
3	Jayavaraman VII	Preah Angduong	7
4	National Pediatric Hospital	Preah Angduong	7
5	Calmette Hospital	Preah Angduong	3
6	KSFH	Preah Angduong	3
7	Facilitators	Preah Angduong	15
		<b>Total</b>	<b>48</b>

# MPDSR Cascade ToT – Provincial Committees: x5

## Criteria for Participants:

### PHD:

1. Director/Vice Director
2. Chief /Vice Chief, Technical Bureau
3. Head of Quality Improvement
4. Head of MCH

### Provincial Hospital:

5. Director
6. Chief of Maternity Ward
7. Chief of NCU/NICU Ward

No.	Province	MMR 2	MMR 2025	PM 2025	Participants	Where	Responsible Hospital	ToT	Timeframe
1	Battambang	7	2	1	First ToT	7 NMCHC	Calmette		25-29 Aug 2025
2	Takeo	7			First ToT	7 NMCHC	Preah Angdoug		25-29 Aug 2025
3	Kampot	6	2	2	First ToT	7 NMCHC	Preah Angdoug		25-29 Aug 2025
4	Kampong Speu	6			First ToT	7 NMCHC	Techo Santepheap		25-29 Aug 2025
5	Kampong Chhnang	5			First ToT	7 NMCHC	NMCHC - MPDSR		25-29 Aug 2025
<b>Total</b>						<b>35</b>			
1	Kampong Cham	3	2	0	Second ToT	7 Preah Ang Duong	Calmette		6-10 Oct 2025
2	Kampong Thom	3	2	1	Second ToT	7 Preah Ang Duong	KSFH		6-10 Oct 2025
3	Kratie	2	1	0	Second ToT	7 Preah Ang Duong	NMCHC		6-10 Oct 2025
4	Tboung Khmum	1	1		Second ToT	7 Preah Ang Duong	NMCHC		6-10 Oct 2025
5	Svay Rieng	2	2	0	Second ToT	7 Preah Ang Duong	NMCHC		6-10 Oct 2025
<b>Total</b>						<b>35</b>			
1	Siem Reap	2			Third ToT	7 Preah Ang Duong	Jayavaraman VII		20-24 Oct 2025
2	Pailin	2			Third ToT	7 Preah Ang Duong	Techo Santepheap		20-24 Oct 2025
3	Ratanakiri	1			Third ToT	7 Preah Ang Duong	National Pediatric Hospital		20-24 Oct 2025
4	Mondulkiri	0			Third ToT	7 Preah Ang Duong	National Pediatric Hospital		20-24 Oct 2025
5	Stung Treng	0			Third ToT	7 Preah Ang Duong	National Pediatric Hospital		20-24 Oct 2025
<b>Total</b>						<b>35</b>			
1	Preah Vihear	3			Fourth ToT	7 NMCHC	KSFH		24-28 Nov 2025
2	Kandal	1			Fourth ToT	7 Calmette	Kantha Bopha		24-28 Nov 2025
3	Pursat	0	3	1	Fourth ToT	7 NMCHC	Calmette		24-28 Nov 2025
4	Prey Veng	0	1	3	Fourth ToT	7 NMCHC	NMCHC		24-28 Nov 2025
5	Phnom Penh	0			Fourth ToT	7 Calmette	Calmette		24-28 Nov 2025
6	Preah Kosamac Hopsital				Fourth ToT	7			24-28 Nov 2025
<b>Total</b>						<b>42</b>			
1	Banteay Meanchey	4	1	0	Fifth ToT	7 NMCHC	NMCHC - MPDSR		8-12 Dec 2025
2	Oddor Meanchey (Excluded)	1			Fifth ToT	7 NMCHC	KSFH		8-12 Dec 2025
3	Preah Sihanouk	1			Fifth ToT	7 Calmette	Calmette		8-12 Dec 2025
4	Kep	1			Fifth ToT	7 Calmette	Preah Angdoug		8-12 Dec 2025
5	Koh Kong	0			Fifth ToT	7 Calmette	Techo Santepheap		8-12 Dec 2025
6	Preah Kossamak				Fifth ToT	5			8-12 Dec 2026
<b>Total</b>						<b>40</b>			

# ចំនួនគ្រូបង្គោលសរុបដែលបានបណ្តុះបណ្តាល

- គ្រូបង្គោលថ្នាក់មន្ទីរពេទ្យជាតិចំនួន៨ (៧៦រូប)
- គ្រូបង្គោលថ្នាក់មន្ទីរសុខាភិបាល និងមន្ទីរពេទ្យខេត្ត ចំនួន២៤ខេត្ត (១៧៤រូប)

# Key Findings – Maternal Mortality Review 2023-2024

Number of Cases Reviewed: 113 (Complete: 69 &  
Incomplete: 44)

Number of national hospital: (4) National Hospitals

Number of provinces: 17 provinces

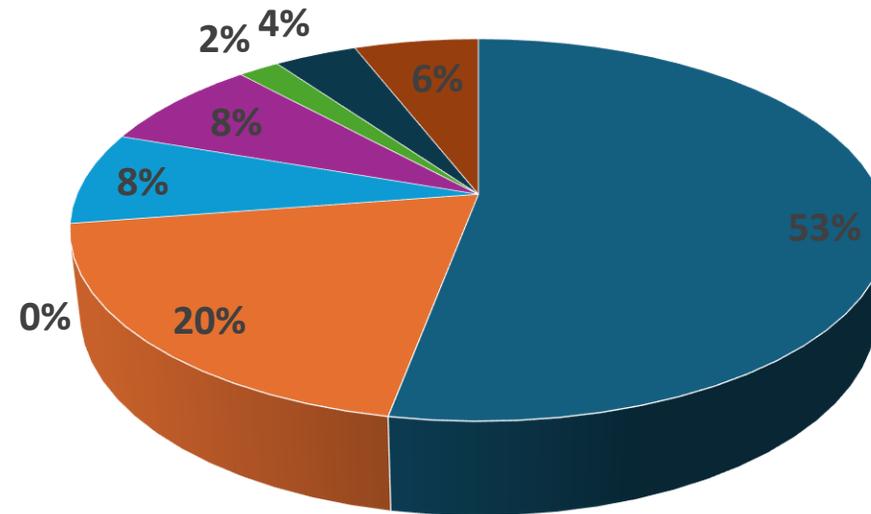
1. 19-21 March 2025 (95 Cases)

2. 26-30 May 2025 (New 8 & 103 Cases)

3. 7-11 Jul 2025 (New 10 & 113 Cases)

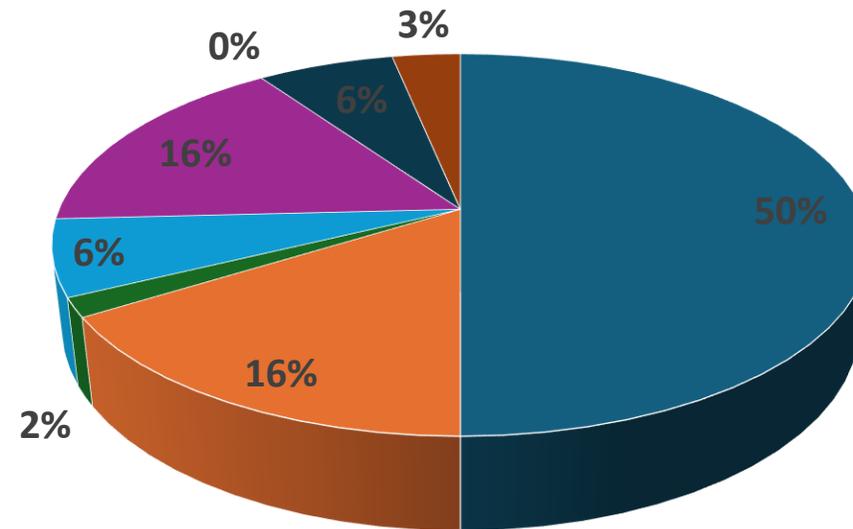


# Causes of Maternal Death 2023 (51 cases)



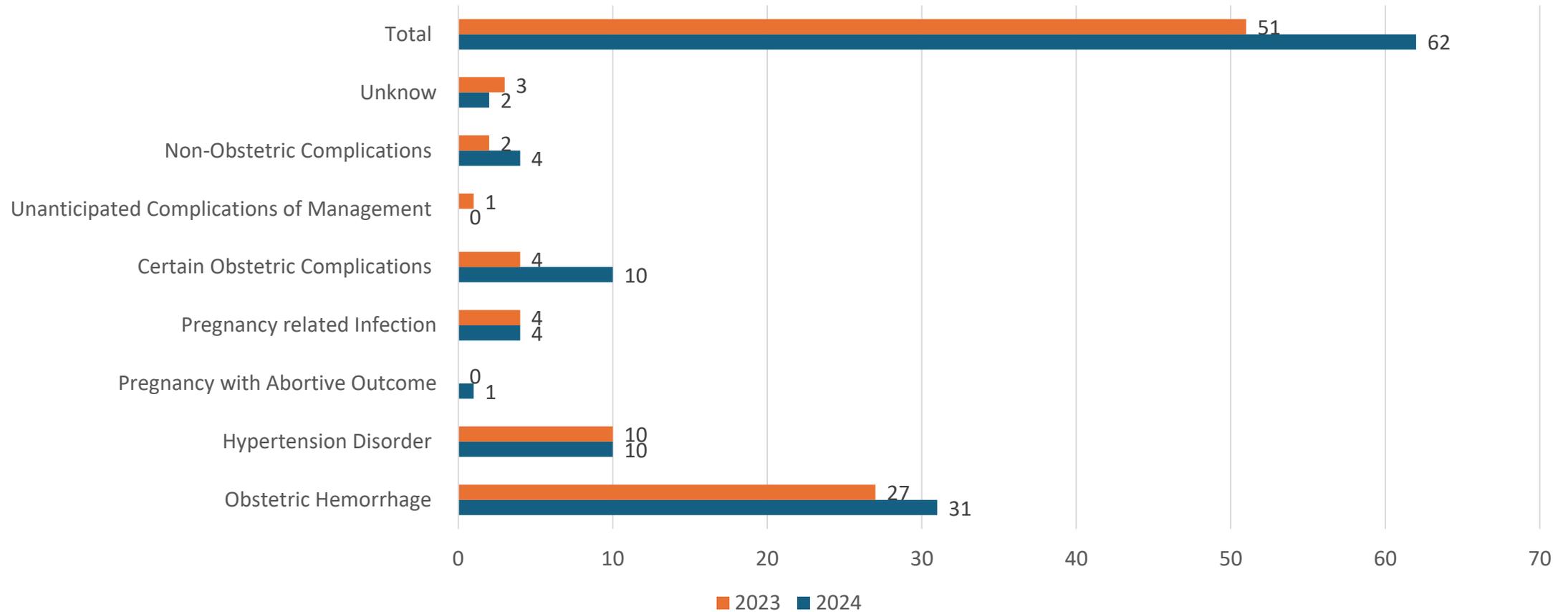
- Obstetric Hemorrhage
- Pregnancy with Abortive Outcome
- Certain Obstetric Complications
- Non-Obstetric Complications
- Hypertension Disorder
- Pregnancy related Infection
- Unanticipated Complications of Management
- Unknown

# Causes of Maternal Death 2024 (62 cases)



- Obstetric Hemorrhage
- Pregnancy with Abortive Outcome
- Certain Obstetric Complications
- Non-Obstetric Complications
- Hypertension Disorder
- Pregnancy related Infection
- Unanticipated Complications of Management
- Unknown

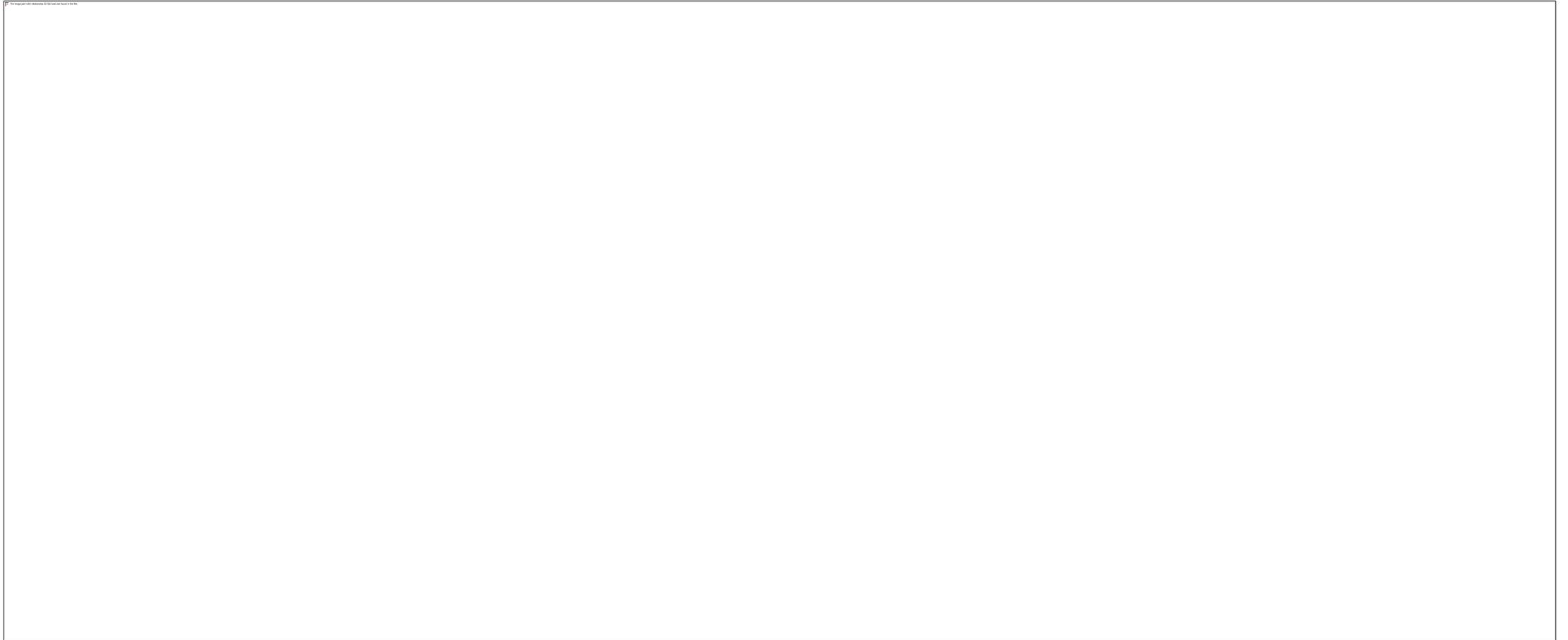
# Causes of Maternal Death 2023-2024 (113 cases)



# Underlying Causes of Maternal Death 2023 (51 Cases)



# Underlying Causes of Maternal Death 2024 (62 Cases)



# Global evidence - PPH



## Causes of and risk factors for postpartum haemorrhage: a systematic review and meta-analysis



Idnan Yunas\*, Md Asiful Islam\*, Kulandaipalayam N Sindhu, Adam J Devall, Marcelina Podsek, Sayeda Sadia Alam, Shoumik Kundu, Kristie-Marie Mammoliti, Ashraf Aswat, Malcolm J Price, Javier Zamora, Olufemi T Oladapo, Ioannis Gallos, Arri Coomarasamy

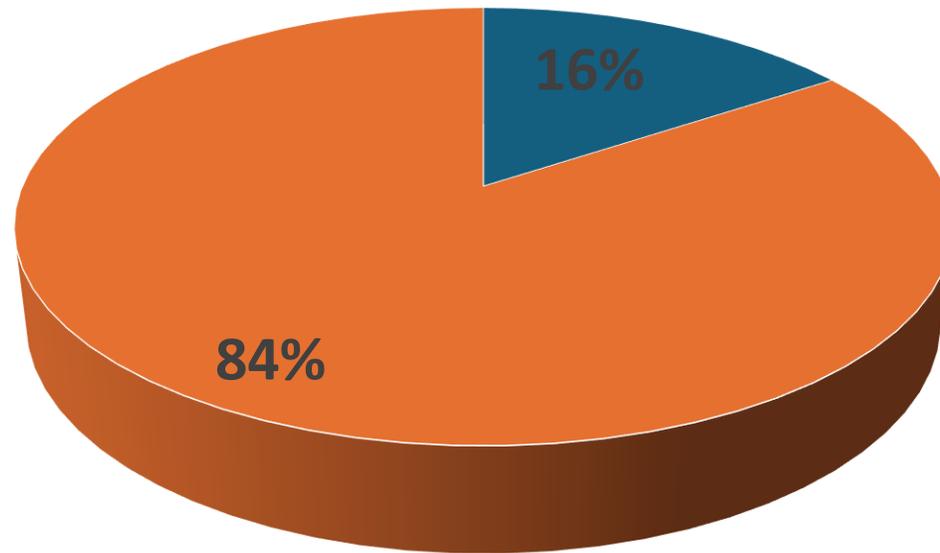
### Summary

**Background** An understanding of the causes of postpartum haemorrhage is needed to provide appropriate treatment and services. Knowledge of the risk factors for postpartum haemorrhage can help address modifiable risk factors. We did a systematic review and meta-analysis to identify and quantify the various causes and risk factors for postpartum haemorrhage.

Lancet 2025; 405: 1468-80  
Published Online  
April 3, 2025  
[https://doi.org/10.1016/S0140-6736\(25\)00448-9](https://doi.org/10.1016/S0140-6736(25)00448-9)

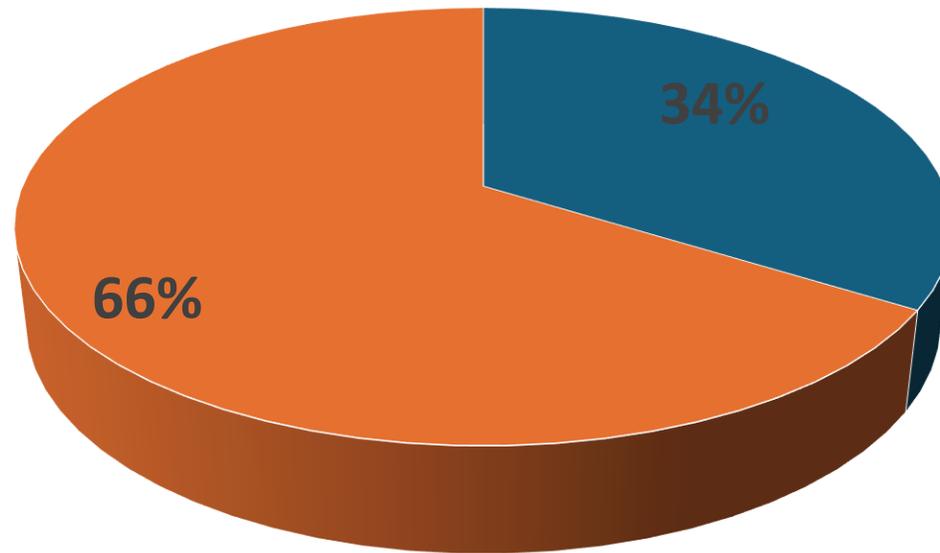
- We synthesized data from 327 studies, including 847 413 451 women.
- The pooled rates of the five commonly reported causes of postpartum haemorrhage were **uterine atony**.
- **Risk factors** with a strong association with postpartum haemorrhage included anaemia, previous postpartum haemorrhage, caesarean birth, female genital mutilation, sepsis, no antenatal care, multiple pregnancy, placenta praevia, assisted reproductive technology use, macrosomia with a birthweight of more than 4500 g, and shoulder dystocia.
- **Interpretation:** Knowledge of risk factors with a strong association with postpartum haemorrhage can help to identify women at high risk of postpartum haemorrhage who could benefit from enhanced prophylaxis and treatment.

# Maternal Death by Period of Death 2023 (51 Cases)



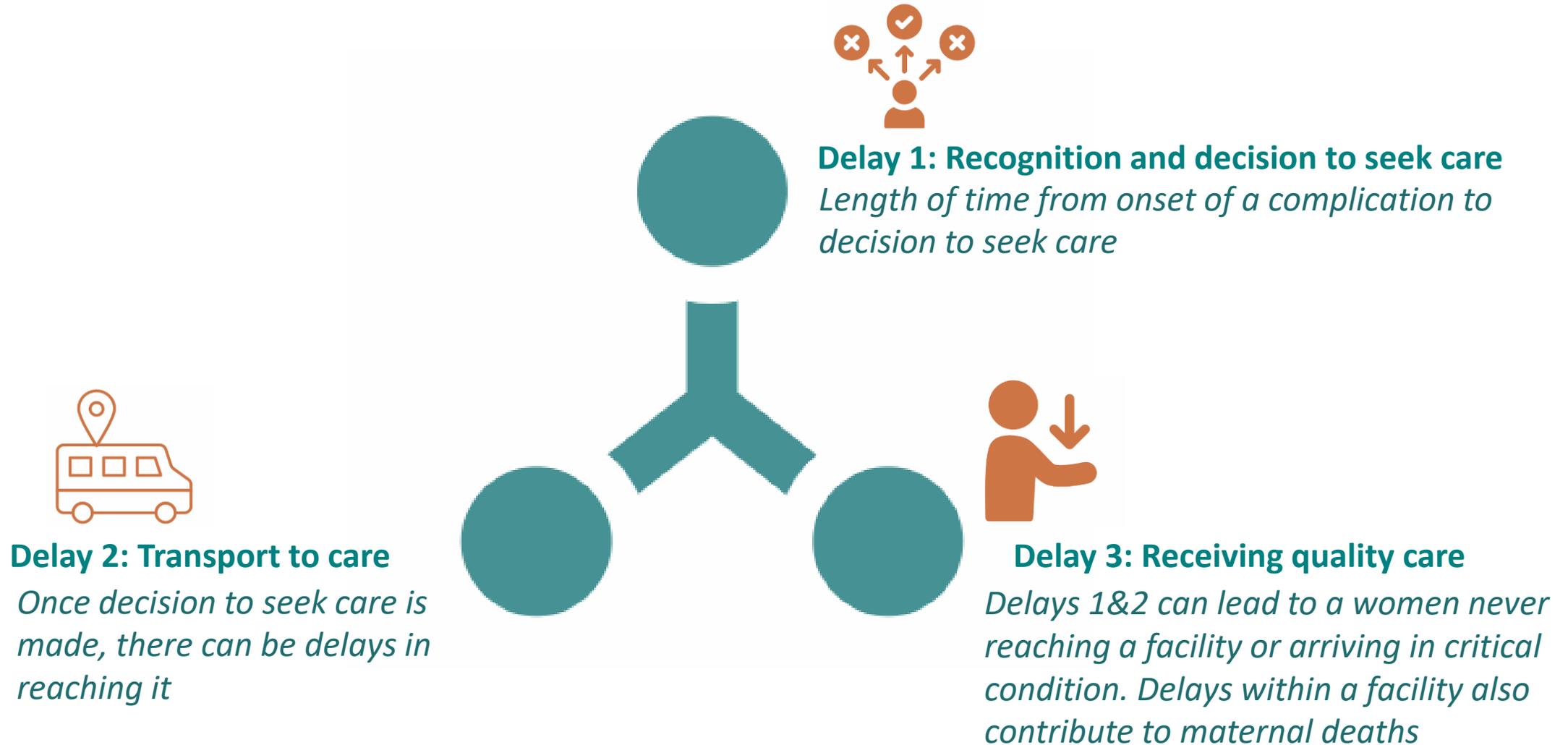
- Pregnant at the time of death
- Not pregnant at the time of death (but pregnant within 42 days)

# Maternal Death by Period of Death 2024 (62 Cases)

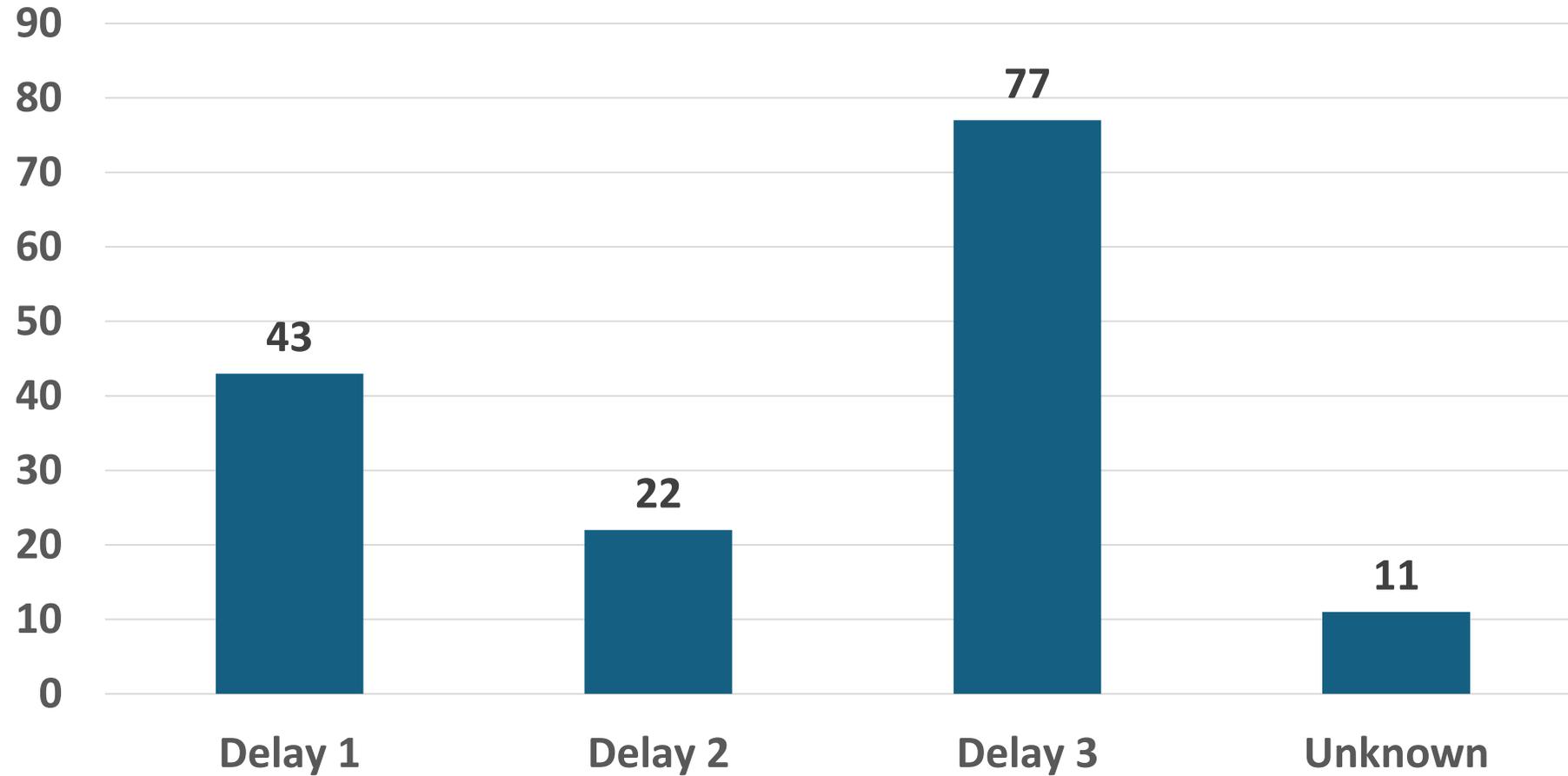


- Pregnant at the time of death
- Not pregnant at the time of death (but pregnant within 42 days)

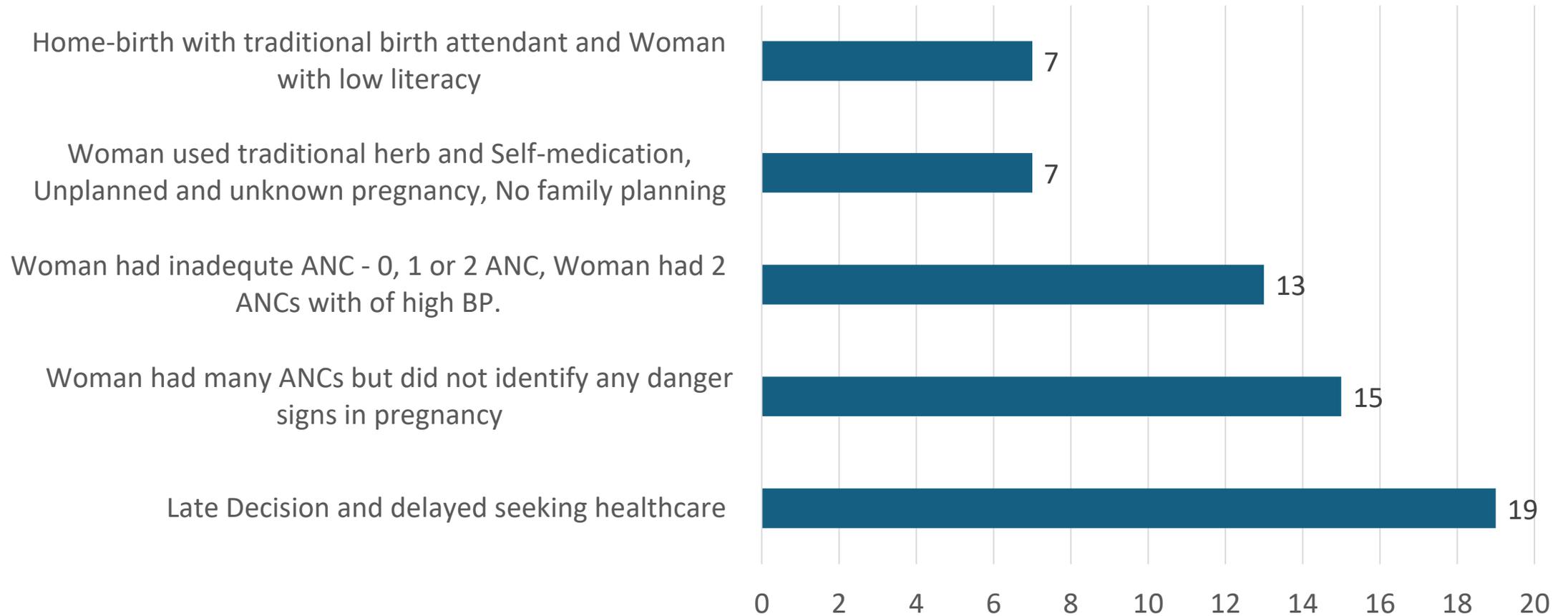
# The Three Delays Model



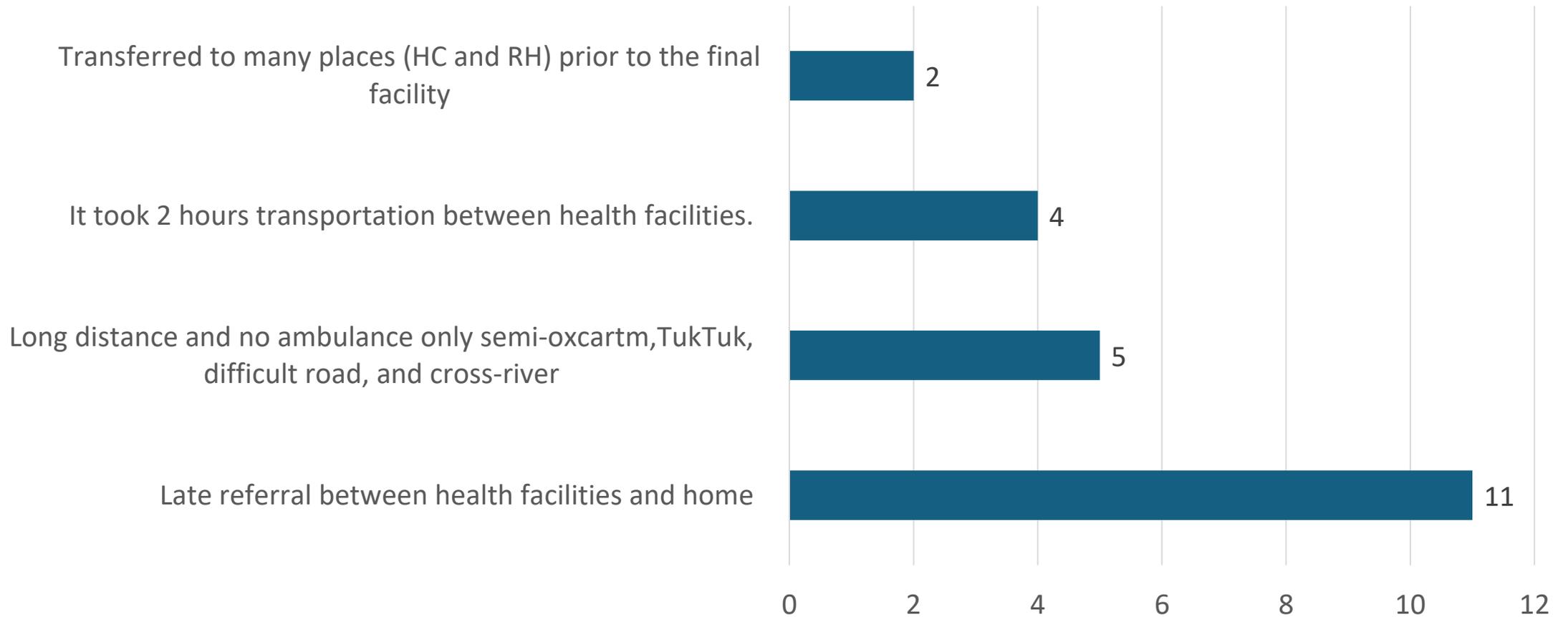
## Types of Delay for Maternal Death 2023-2024



# Rationale of Delay 1 for Maternal Death 2023-2024

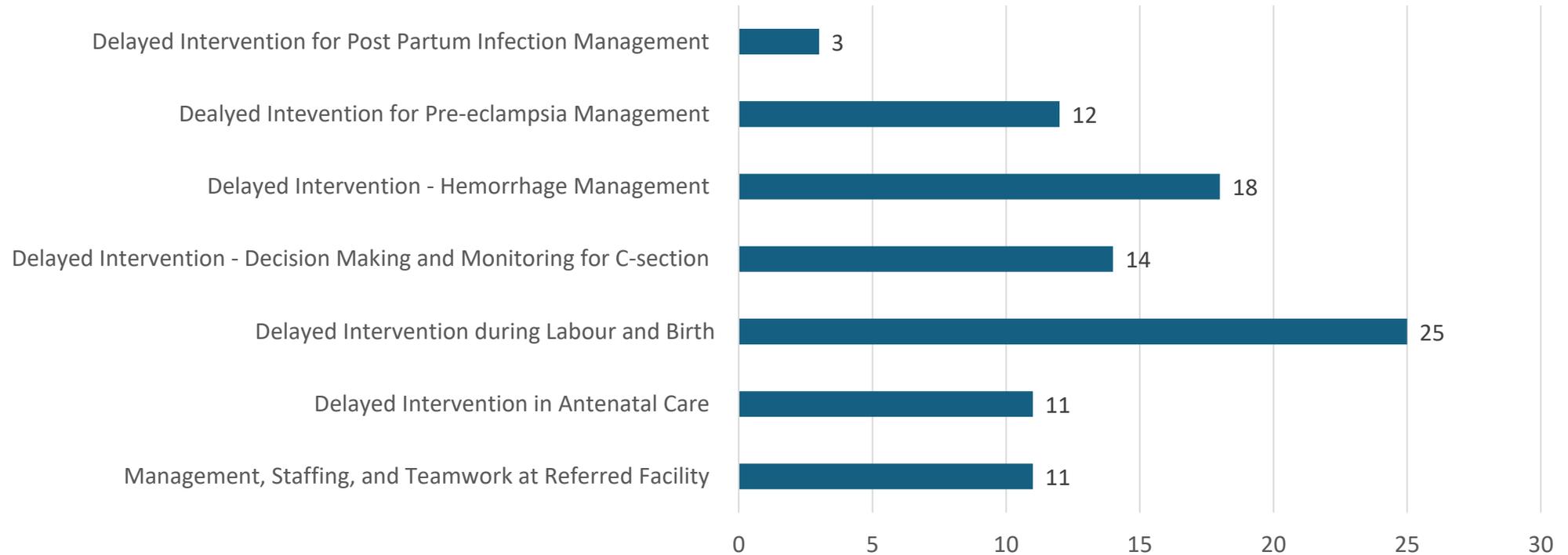


# Rationale of Delay 2 for Maternal Death 2023-2024



# Contributing Factors to Delay 3 - Maternal Death 2023-2024

Components of Delay 3 for Maternal Death 2023-2024



# III- Result of MPDSR Review in 2025

## | Key Indicators

**43**

**TOTAL DEATHS**

**35**

**Direct Causes (81.6%)**

**7**

**Indirect Causes (16.3%)**

**1**

**Unknown (2.3%)**

**TOP CAUSE**

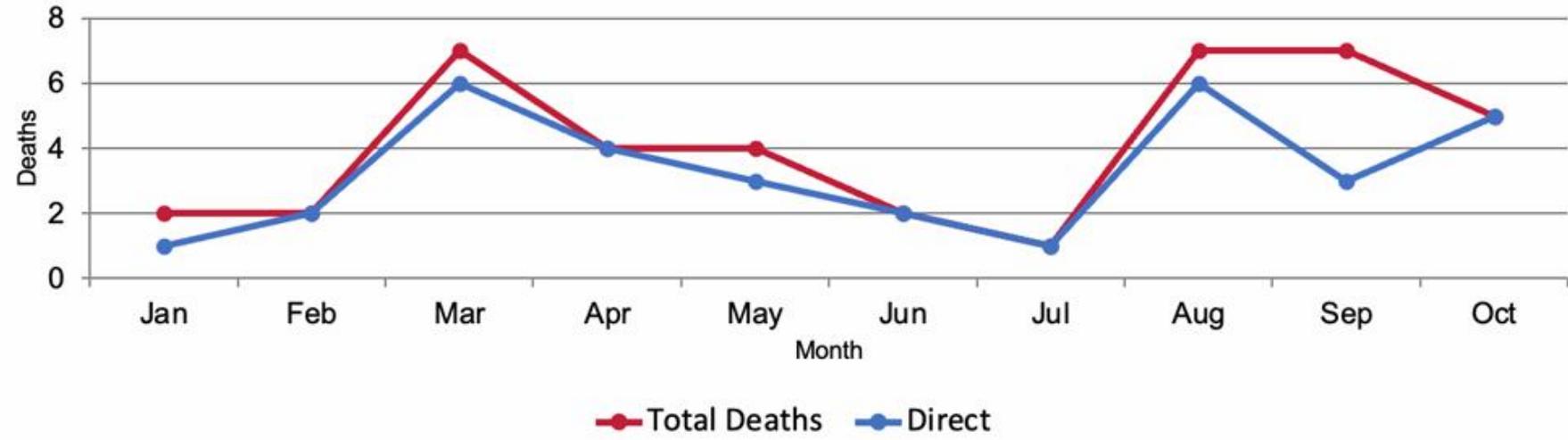
**PPH — 23 deaths (54%)**

**PEAK MONTHS**

**Mar, Aug, Sep (7 each)**

**85% of deaths at health facilities — quality of care is the critical intervention point**

# Monthly Trend Analysis



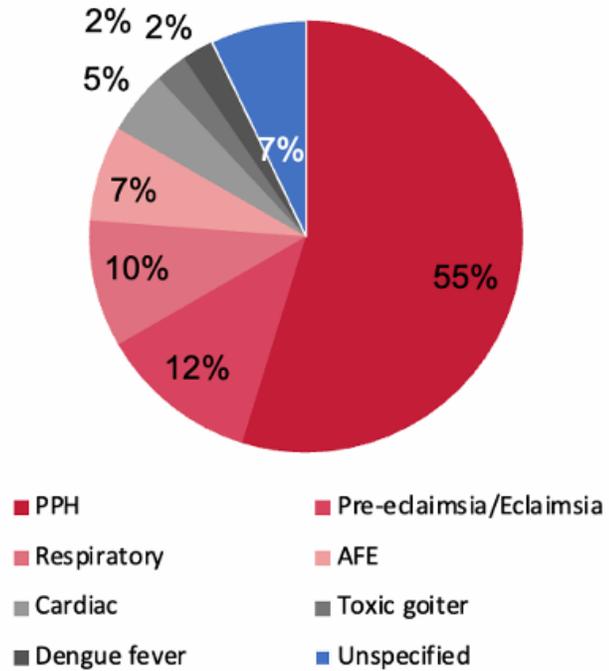
**PEAK MONTHS**  
**March, August, September**  
7 deaths each (51% of total)

**AVERAGE PER MONTH**  
**4.1 deaths**  
Based on Jan-Oct data

**LOWEST MONTH**  
**July**  
1 death only

**DIRECT VS INDIRECT**  
**33 vs 7**  
80% direct causes

# Causes of Maternal Death



<b>Obstetric Hemorrhage</b>	<b>23 (55%)</b>
PES/Eclampsia	5 (12%)
Respiratory Conditions	4 (10%)
Amniotic Fluid Embolism	3 (7%)
Cardiac Conditions	2 (5%)
Toxic goiter	1 (2%)
Dengue fever	1 (2%)
Unspecified	3 (7%)

# | Three Delays Model



## Delay in Seeking Care

Decision to seek medical help

**4**

10%



## Delay in Reaching Facility

Transportation and access barriers

**14**

34%



## Delay in Receiving Care

Quality of care at facility

**31**

76%

## Critical Finding

**76%**

of delays occur at the point of receiving care at health facilities

## Implication

Priority interventions should focus on improving facility-level care quality, emergency obstetric protocols, and staff training.

## Delay 2: Transport to care, delays reaching an appropriate facility

- ✓ Insufficiency to stabilize patient before transfer
-  Poor management during transportation
-  Lack of recording during transportation
-  Lack of competency of midwifery during transportation (e.g, midwife must do message during transportation)
-  Poor communication and coordination
-  Late to refer
-  Insecurity refer (Not use NASG)

# Delay 3: Third Delay: Quality of care received in the health facility

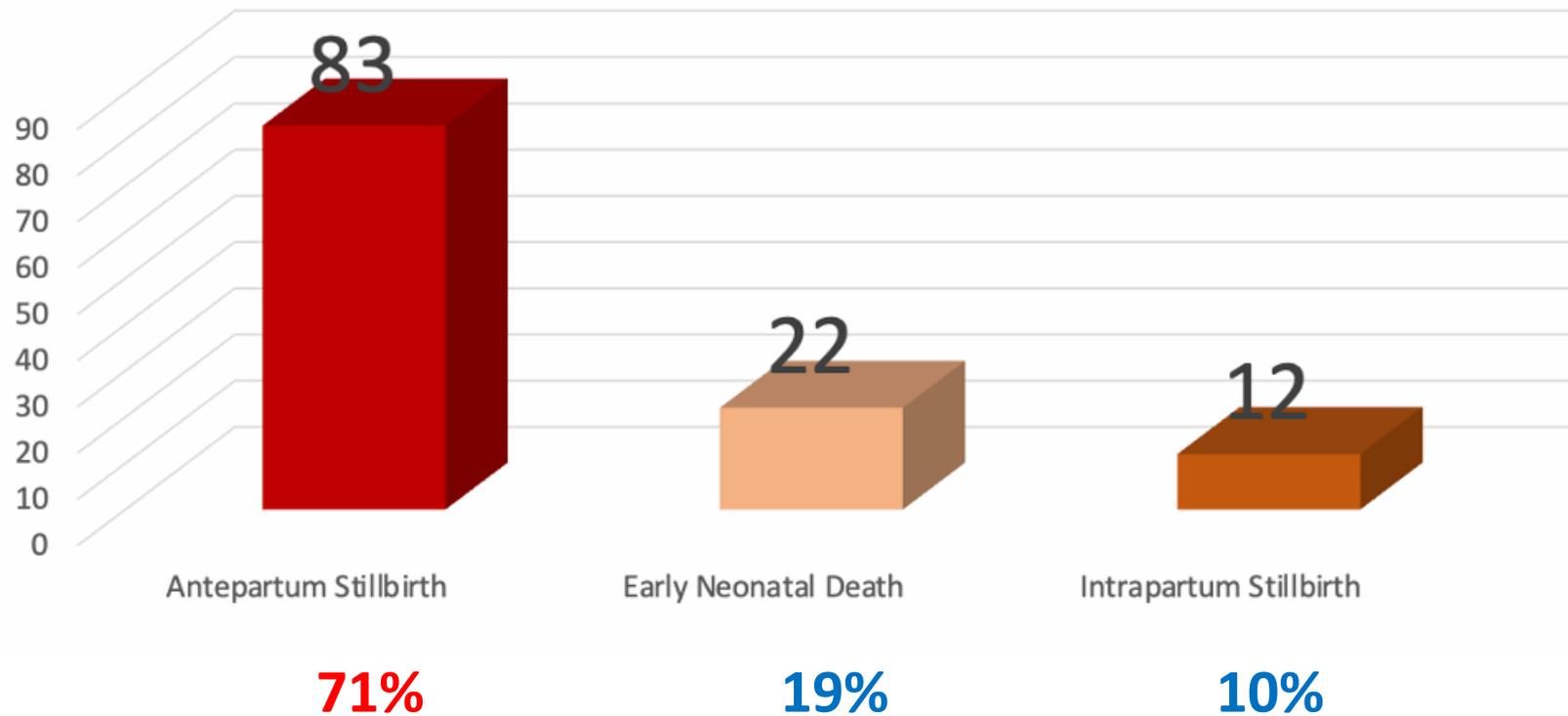


1. Low quality of ANC to detect the high-risk pregnancy
2. Lack of information about ANC and recorded
3. Midwife at HC abuse her role (DV for high-risk pregnancy: H.U=36cm with previous cesarean section).
4. Poor management of severe pre-eclampsia (Not available parenteral hydralazine in RH)
5. Inadequate patient monitoring after labore + late response treatment
6. Lack of skill for CPR
7. Poor using RBC or whole blood
8. Poor knowledge of PPH assessment and correctly management
9. Late of decision to stop bleeding (Surgical)



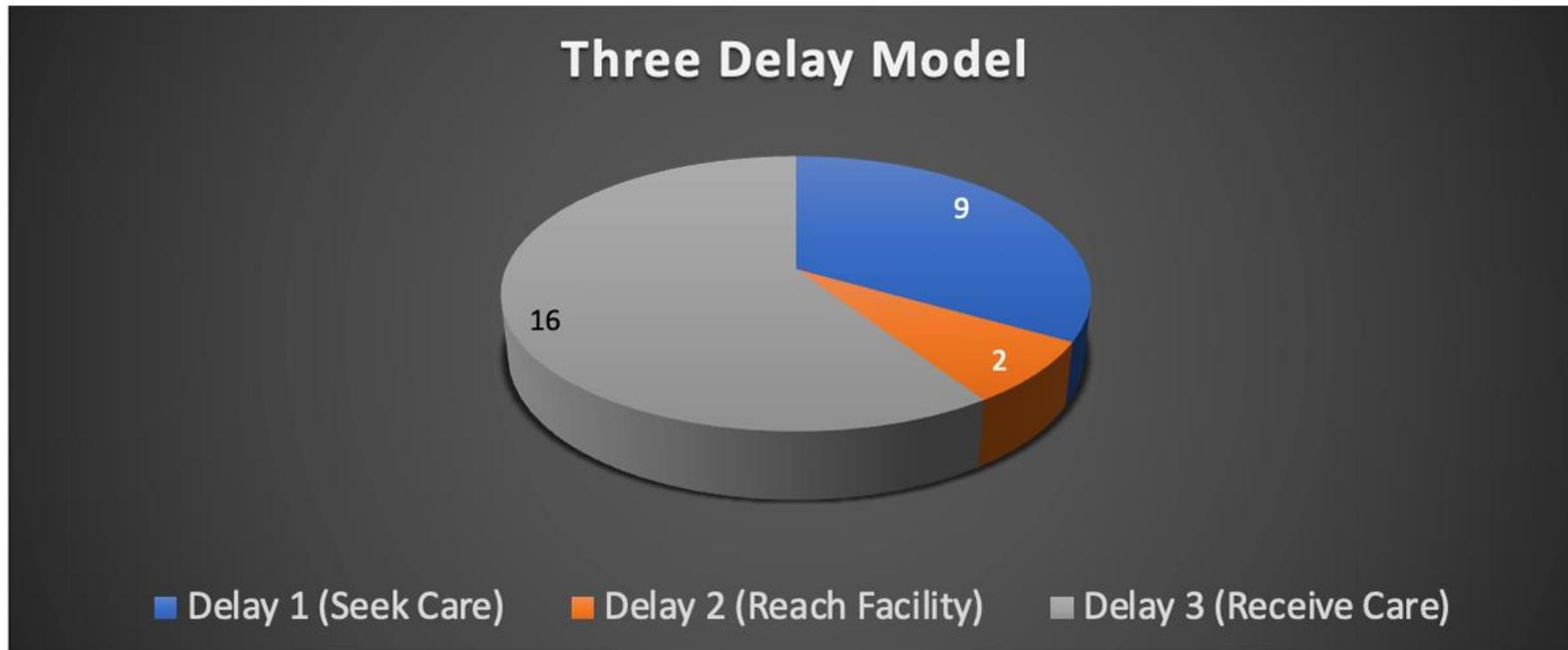
# Perinatal Death Status (117 cases)

មូលហេតុចម្បងនៃមរណភាពទារកជុំវិញកំណើត



# The 3-Delay Model

- Perinatal Review is a newly analysis.
- Only 27 out of 117 (23%) cases were reviewed.



ផ្អែកលើការពិនិត្យករណី គូសបញ្ជាក់អំពីបញ្ហាចម្បងដែលបានរកឃើញ៖

ប្រភេទនៃការយឺតយ៉ាវ ( Delay )	
Delay 1: ការយឺតយ៉ាវក្នុងការសម្រេចចិត្តស្វែងរកការថែទាំ <b>៩ករណី</b> ស្មើ ៣៣.៣%	ការយល់ដឹងទាបពីសញ្ញាគ្រោះថ្នាក់ ការសម្រេចចិត្តយឺតពីគ្រួសារ
Delay 2: ការយឺតយ៉ាវក្នុងការទៅដល់មន្ទីរពេទ្យ ២ករណី ស្មើ ៧.៤%	បញ្ហាផ្លូវថ្នល់ ការខ្វះមធ្យោបាយដឹកជញ្ជូន សេដ្ឋកិច្ច
Delay 3: ការយឺតយ៉ាវការទទួលបានការថែទាំទានពេលវេលា និងមានគុណភាព <b>១៦ ករណី</b> ស្មើ ៥៩.២%	ការខ្វះខាតបុគ្គលិកដែលមានសមត្ថភាព ឧបករណ៍ ឈាម/ថ្នាំពេទ្យមិនគ្រប់គ្រាន់ ការគ្រប់គ្រងករណីមិនបានត្រឹមត្រូវ
មិនបានពិនិត្យ ៩០ ករណី ស្មើ ៧៦.៩%	

# ប្រសាសន៍របស់ លោកជំទាវសាស្ត្រាចារ្យ អ៊ឹម សិទ្ធិកា រដ្ឋលេខាធិការ ក្រសួងសុខាភិបាល

“ យើងដឹងពីមូលហេតុនៃការស្លាប់ ពេលវេលា ទីកន្លែង និងអន្តរាគមន៍ដែលត្រូវធ្វើ ដូច្នេះជាមួយនឹងធនធានដែលមាន និងរយៈពេលដែលមានកំណត់ យើងត្រូវចាប់ផ្តើមពីពេលឥឡូវនេះ នឹងធ្វើឱ្យកាន់តែមានប្រសិទ្ធភាពជាងមុន ”

“ ការកាត់បន្ថយអត្រាមរណៈភាពមាតាគឺជាអាទិភាពចំបងរបស់ក្រសួងសុខាភិបាល ហើយការកែលម្អគុណភាពនៃការថែទាំព្យាបាលគឺជាគន្លឹះ រួមមាន៖ គុណភាពនៃការពិនិត្យផ្ទៃពោះ ការថែទាំជាសារវន្តក្នុងពេលសម្រាល និងក្រោយសម្រាល ក៏ដូចជាសេវាសង្គ្រោះបន្ទាន់ផ្នែកសម្ភពនិងការថែទាំទារកទើបកើត ដែលគាំទ្រដោយប្រព័ន្ធបញ្ជូនដ៏រឹងមាំ”

