ANC QUALITY IMPROVEMENT

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INTRODUCTION

CAMBODIA CONTEXT AND CHALLENGE

Current MMR: **154/100,000 live births** (2022)

2030 Target: **70/100,000 live births**

Key Challenges:

- Complication of pregnancy and childbirth → morbidity and mortality in females of reproductive age.
- High quality ANC → timely recognition + treatment of complications
- High risk pregnancy: 10 – 30% → systematic screening

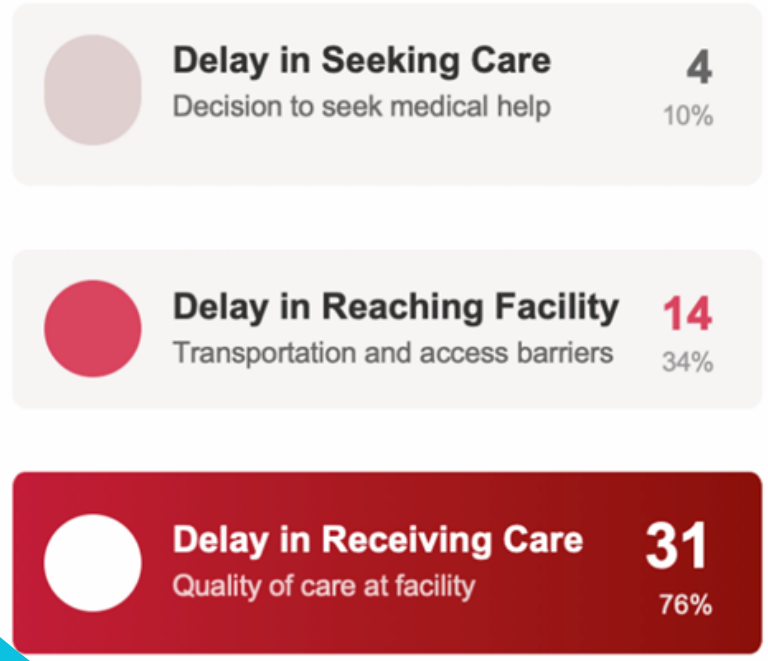
MAIN GOAL

- Reduce maternal and neonatal mortality through quality of ANC.
- Guiding principle:
  - ➢Evidence-based interventions from MPDSR findings
  - ➢Comprehensive approach across health system levels
  - ➢Focus on preventable causes of maternal and neonatal deaths

RESULT OF MPDSR REVIEW IN 2025

Result of MPDSR review in 2025

Three Delays Model



Critical Finding

76%

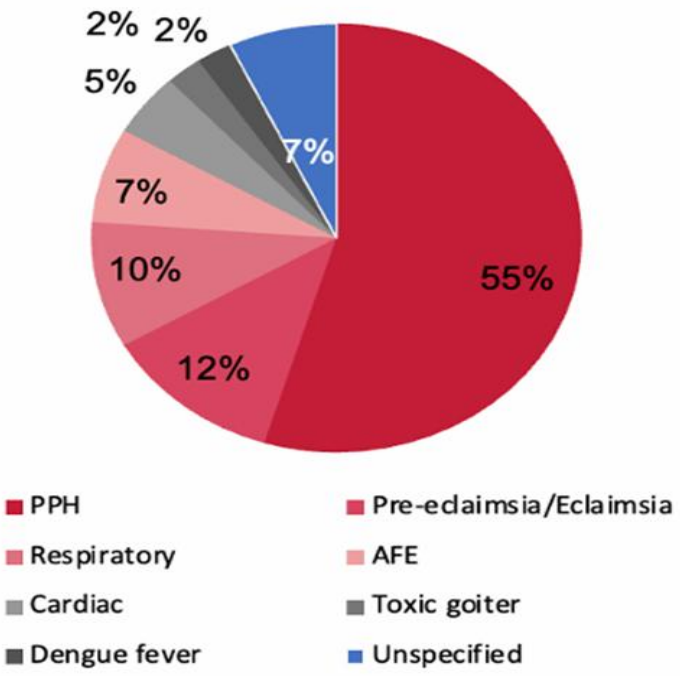
of delays occur at the point of receiving care at health facilities

Implication

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

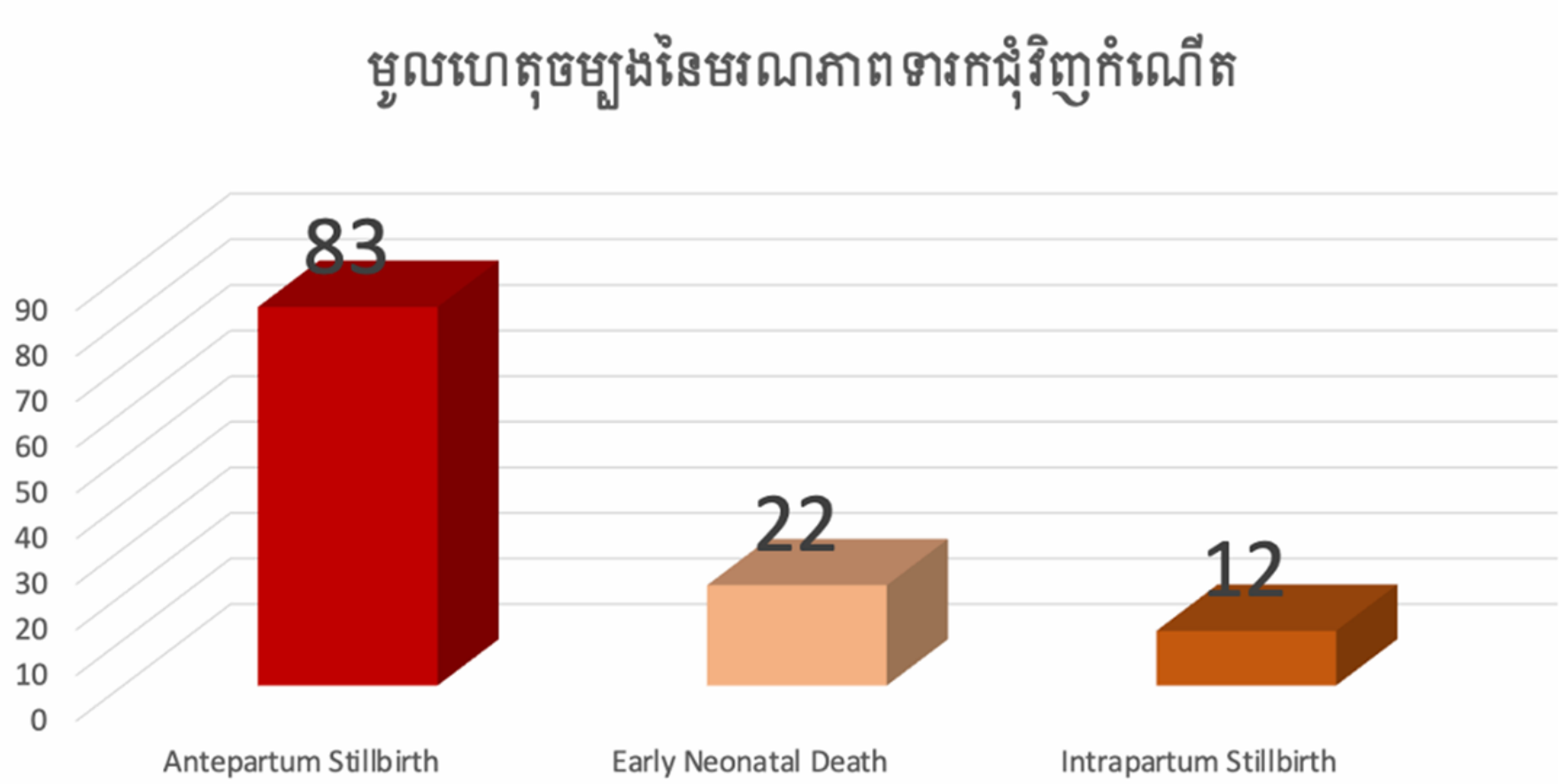
Result of MPDSR review in 2025 (2)

Causes of Maternal Death



Obstetric Hemorrhage	23 (55%)
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%)

Perinatal Death Status (117 cases)



MPDSR Key findings

Health System Barriers	
Delayed referral: 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. Inadequate patient monitoring after labore + late response treatment 5. Lack of skill for CPR 6. Poor using RBC or whole blood 7. Poor knowledge of PPH assessment and correctly management 8. Late of decision to stop bleeding (Surgical)	**Service gaps + Access barrier:** • Shortage of skilled birth attendants • Inadequate EmONC capacity • Essential medicines stock-outs • Geographic distance to facilities • Financial constraints • Transportation unavailability

STRATEGIC ANC INTERVENTIONS

Strategic ANC Interventions

Early & Complete ANC

- Promote first visit before 12 weeks
- Ensure minimum 8 ANC contacts (WHO ANC model 2016)
- Community outreach & health education
- Remove financial barriers

Risk Screening & Detection

- Blood pressure at every visit
- Proteinuria screening (pre-eclampsia)
- Hemoglobin testing (1st & 3rd trimester)
- HIV, Syphilis, Hepatitis B testing

Preventive Interventions

- Iron and folic acid supplementation at least 90 tablets
- Calcium supplementation (1.5-2g/day)
- Tetanus toxoid immunization
- Nutritional counseling

Birth Preparedness

- Early identification of delivery facility
- Transportation arrangements
- Financial preparation/health equity funds
- Danger signs education

STRATEGIC ANC INTERVENTION

- Roles of healthcare providers
  - Core competencies required:
    - ➢Comprehensive risk assessment skills
    - ➢Clinical examination and diagnostic abilities
    - ➢Effective communication and counseling
    - ➢Emergency management capabilities
    - ➢Cultural sensitivity and respect for women's rights
  - Continuous professional development: Regular training updates on evidence-based practices and emerging guidelines.

WHO ANC Model (2016)

Minimum 8 Contacts Throughout Pregnancy

Cambodia Context: Transitioning from 4 visits to 8 contacts model

ANC risk stratification and color code system

Risk level/ color	Risk factors	Responsible health facility	Monitoring frequency
Very High 🔴	Life threatening condition (severe pre-eclampsia, antepartum hemorrhage, severe anemia, heart disease)	National hospital/ Specialized hospital	As determined by specialist
High 🟡	Significant risk factors requiring specialized care (gestational diabetes, previous C-section, twins, primigravida <20 or >35), Potential risks where complications may develop (moderate anemia, history of premature birth).	CPA2/CPA3 - Regional/Referral Hospitals	Every 2-4 weeks or as needed
Low 🟢	Low risk or health pregnancy	Health center/CPA1	Standard schedule

Important notes

- **Dynamic Risk Assessment**
- **Risk status can change at any visit** - reassess at each antenatal contact
- **Upgrade color code if new risk factors develop**
- **If RED code patient is stabilized and discharged, reassign appropriate code**
- **Most severe risk factor determines the color code** (e.g., if patient has both yellow and red factors, assign RED)
- Record color code clearly on antenatal card
- Document all risk factors identified
- Record all referrals made

FUNCTIONNAL REFERRAL SYSTEM

I Community "Capture"

Early Identification & Registration

Actor: Community Health Worker (CHW) / Village Volunteer (VHSG)

Objective: Early identification of pregnancy (< 12 weeks gestation)

Actions:

- → Enroll the mother in the Target Client List (TCL)
- → Initiate the MCH Handbook registration
- → Send a Registration SMS to the Health Center to schedule the first clinical contact

II Clinical Stratification

Risk Assessment & Triage

Actor: Health Center Nurse/Midwife

Objective: Risk Triage using the JICA Initial Assessment Sheet (IAS)

Color-Coding:

GREEN
Normal/Low Risk
Routine WHO 8-Contact Model
Management: Health Center

YELLOW
Moderate Risk
Previous C-Section, Twins, Diabetes
Management: District Hospital

RED
High Risk/Emergency
Bleeding, Convulsions, BP ≥160/110
Management: Tertiary/Specialist Hospital

III The "Warm Handover"

Safe Transfer & Communication

Actor: Referring Facility Staff

Mechanism:

Stabilize

Administer first-line medications (e.g., Magnesium Sulfate for Red cases)

Documentation

Complete the Standardized Referral Slip

Digital Alert

Send structured SMS to receiving hospital with: Patient ID, Risk Color, Vital Signs, Reason for Referral

Phase IV: The Feedback Loop (Continuum of Care)

Actor: Receiving Hospital Specialist.
Objective: Prevent "drop-out" post-discharge.

Action:

Provide medical intervention.

Complete the Counter-Referral Note (Feedback Slip).

Trigger an Auto-Alert to the Community Health Worker to perform a Postnatal Care (PNC) home visit within 24 hours of discharge.

Implementation Framework

Health System Strengthening

Adequate staffing • Essential medicines availability ($MgSO_4$, oxytocin, antibiotics) • Functional laboratories
Standard operating procedures • Quality improvement teams • 24/7 EmONC at referral hospitals

Community Engagement

- Village health support groups
- Traditional birth attendant training
- Community health workers

Data & Information Systems

- ANC register and tracking
- High-risk pregnancy registry
- Defaulter tracking system
- MPDSR data collection

Financial Protection

- Health equity funds for poor
- Voucher schemes
- Transport subsidies

Monitoring & Evaluation

Process Indicators

- % ANC1 before 12 weeks
- % completing 8+ ANC visits
- % screened for anemia, HTN, HIV
- % receiving iron/folic acid
- % with birth preparedness plan

Outcome Indicators

- Maternal mortality ratio (MMR)
- Neonatal mortality rate (NMR)
- % facility-based deliveries
- % skilled birth attendance
- Case fatality rate for complications

Quality Improvement

- Monthly MPDSR meetings
- Maternal death reviews
- Near-miss case audits
- Quarterly data review
- Action plan development

CONCLUSION

- Quality ANC is essential for early detection and management of high risk pregnancies.
- WHO recommend minimum 8 contacts through out pregnancy.
- Systematic screening, competent providers, and functional referral system are crucial.
- Continuous quality improvement through MPDSR is necessary to reduce maternal and perinatal mortality.

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Initial assessment sheet pocket book

Thank you for your attention!