SESSION FIVE
APPLYING SYSTEM THINKING TOOLS
Session objectives

• Interpret causal loop diagrams
• Describe the system dynamics applying principles of complex adaptive systems
• Identify leverage points from a causal loop diagram
• Use a causal loop diagram for inference regarding health system interventions
Examine the causal loop diagram showing the demand for neonatal and maternal health services

1. Identify linkages and polarities; what key messages emerge?

2. Identify the key drivers of the risk of neonatal death “death risk of neonate” and discuss how these drivers are interlinked

3. Identify any additional feedback loops—are they balancing or reinforcing?
Causal loop diagram showing the demand for neonatal and maternal health service delivery.
Causal loop diagram showing the demand for neonatal and maternal health service delivery:

Feedback Loops

Denotes a reinforcing loop (R1) in counter clockwise direction.
Similarly R2, R3 and R4 are Reinforcing loops

Denotes a balancing loop (B1) in a counter clockwise direction

Session Five
Supply of health services

Examine the CLD showing the supply of neonatal and maternal health services

1. What key messages emerge?

2. Identify at least one feedback loop, and describe the loop and its impact on the system
Causal loop diagram showing the supply of neonatal and maternal health service delivery
Causal loop diagram showing the supply of neonatal and maternal health service delivery – feedback loops

Denotes a balancing loop (B2) in the clockwise direction
Similarly B3, B4 and B5 are balancing loops

Denotes a reinforcing loop (R5) in the clockwise direction
Increasing newborn survival

Using both the supply and demand causal loop diagrams.

- Identify key leverage points aimed at increasing newborn survival from the following stakeholder positions.
  - Provide a rationale based on the CLDs for your decisions
    - Minister of Health (National policy level)
    - Clinic manager
    - Non-governmental organization (NGO) working at community level
Potential leverage points—demand

- Increased awareness on maternal and neonatal healthcare
- Socio-economic status
Potential leverage points - supply

- Funding for maternal and neonatal health care
- Socio-economic status
Reflection

- What are the implications of feedback loops for determining leverage points?

- What insights do these CLDs provide that might have otherwise been missed?
References

Thank you

Presentation developed by Helen de Pinho  MBBCh, MBA, FCPH
assisted by Anna M. Larsen  BS, MPH

Averting Maternal Death and Disability Program (AMDD)
Heilbrunn Department of Population and Family Health
Mailman School of Public Health
Columbia University

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