Development of an Ethnographic Decision Tree Model for Women's Choice of Birth Attendance in Matlab, Bangladesh

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Learning Objectives

• Recognize the link between use of skilled birth attendants and maternal mortality.

• Describe the process for developing and testing an ethnographic decision tree model.

• Evaluate the decision criteria used by women making a choice about birth attendance during routine childbirth in...
Maternal Mortality

- United Nations Millennium Development Goal (MDG-5) reduce maternal mortality by 75% by the year 2015.

- Worldwide 529,999 women die each year from pregnancy and childbirth complications.

- Mostly (99%) in developing countries during labor, birth and within 24 hour of birth.

- Half of births are attended by unskilled attendants including women, family caregivers and TBAs.
Maternal Mortality in 2000

- Developed Countries: 0.5%
- Latin America/Caribbean: 4%
- Asia: 47.5%
- Africa: 48%

Total estimated deaths in 2000 = 529,000

Safe Motherhood

- All pregnant women are at risk of developing life threatening complications;

- Most complications can be neither predicted or prevented;

- Once a women develops a life threatening complication she needs prompt access to emergency obstetric care services if death and disability are to be prevented.
Maternal Mortality and Skilled Birth Attendance
Three Delay Model

Factors Affecting Service Use & Outcome

- Socioeconomic / Cultural Factors
- Accessibility of Facilities
- Quality of (EmOC)

'Delays'

- Delay 1: Deciding to Seek Care
- Delay 2: Reaching Care
- Delay 3: Receiving Quality EmOC

Death

Source: Adapted from UNFPA 2001, based on Thaddeus & Maine 1996.

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Matlab, Bangladesh

- Matlab Health Services Area
- Health and Demographic Surveillance System (HDSS)
- Maternal and Child Health and Family Planning Program (MCH-FP)
Overall Purpose

• To investigate women’s decisions to use or not use facilities during childbirth in an area where professional childbirth facilities are available.

• To reduce maternal and neonatal mortality in vulnerable populations.
Decision-making during the obstetric period can be routine or a reaction to a problem.

- Deciding to access routine preventive care
- Deciding to seek care as a result of a problem

**Three Phases of Health Care Utilization Decision Making.**

- I have a need to seek care
- I feel I can seek care
- I will seek care
Methodology

• **Design** Retrospective cross-sectional design using face-to-face interviews.

• **Sample** Purposive sample of women 18-49 years of age who had an uncomplicated live birth within 3 months of interview date. Sample from HDSS and active household recruitment strategy.

• **Data** Semi-structured interview guide, community based and hospital records.

• **Human Subjects** Approval obtained from Emory Institutional Review Board and ICDDR,B Ethical Review Board.
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<th>Demographics</th>
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<td><strong>Age</strong></td>
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Ethnographic Decision Tree Modeling

- Elicit individual emic decision criteria and rules from one sample.

- Build model by combining individual decision criteria into a composite model which is hierarchical or treelike in nature (yes/no, if/then).

- Test model in a different sample.
Decision & Alternative

• Where to give birth or deliver?
  – Home
  – Facility

• Use Facility; Don’t Use Facility
Organizing Principles

• Reduce monetary costs.

• Reduce ambiguity, uncertainty and/or fear.

• Meet needs for “cultural comfort”.

• Secure kinship support during labor and after birth.

• Maximize odds of effective outcome.
Decision-Making

- Perceived Complications
- Transportation
- Cost
- History/Experience
- Fear/Anxiety
- Risk Perception
- Religious Norms/Expectations
- Quantity and Quality of Kin Presence for Caretaking and Household Maintenance
Decision-Making

- Timing of labor
- Progress of labor
- Place during labor
- Household composition
- CHRW influence
- Family influence
- Agreement/Disagreement
Given a women is pregnant

{Use facility; Do not use facility}

Did you have a preference or plan to deliver in a facility?

Yes  No

Did you have rapid progress of labor?

Yes  No

Did you perceive complications?

Yes  No

Did you have enough time to get to the facility?

Yes  No

Was cost of home delivery higher than facility?

Yes  No

Was adequate transportation available?

Yes  No

Was family support to accompany and attend at facility available?

Yes  No

USE
Limitations

• Recall Issues

• Temporal Dimension of Decision Process

• Distributed Decision Making Process
Next Steps

- Formulate a questionnaire with dichotomous answers, based on the model.
- Conduct face to face interviews on a new sample.
- Find the degree of concordance with the model.
- Calculate the error rate.
- Devise an alternative model if needed based on errors.
Conclusions

• Decision-making about place of birth presents challenges to women and their caregivers and requires a balance of risks and benefits according to individual circumstances which are shaped by social and culture patterns.