A MODERNIZING MIDWIFE

Improving Guatemalan Health Outcomes While Preserving Tradition

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INTRODUCTION

- Public health authorities seek to improve maternal and child health outcomes by diffusing positive practices into the population
- Guatemalan society is very ethnically and socially divided, making diffusion difficult
- Midwives are a possible diffusion network
  - Overseas up to 70% of births in Guatemala
  - Play significant medical, social, and spiritual roles in communities
  - Are divinely called, and believe in divine intervention
- Efforts to train midwives have produced mixed results in terms of midwife practices
  - Most studies examine a single community
- Guatemala is a good case study because of available data, prevalence of traditional practices, and traditionally weak state

DATA & METHODS

- Data: 1995 Guatemala Family Health Survey
  - Collected from four rural departments from May to October 1995
  - Included 2,872 mothers and 68 midwives
- RAND Corporation & Princeton University
- Analyzed with Ordinary Least Squares and Logistic Regression
- Midwife controls: years experience, formal education, training course
- Maternal controls: attendant, age, ethnicity, children, electricity status (proxy for income)

KEY QUESTIONS

- Which factors affect midwife practices?
- Does type of delivery attendant affect maternal practices?

MIDWIFE OUTCOMES

REFERRAL FREQUENCY

- Whether a midwife was divinely called had a negative effect on referral frequency
  - Effect remained when controlling for having taken a training course
  - Referral frequency in the case of complications is an important means of improving maternal and fetal outcomes
- Midwives who were divinely called were busier than those recruited by formal means
  - Suggests greater community trust in traditionally called midwives

INEFFICACY OF COURSES

- Whether a midwife had taken a course had limited effect on midwife practice
  - Course decreased use of injection to speed delivery
  - No effect of course on recommending immunization, follow-up, tying stomach, or use of prayer or ritual
- This may be due to poor pedagogical methods, instructor demographics, and uneasiness with biomedical professions
  - Courses often lack emphasis on hands-on experience and personal narratives

MATERNAL OUTCOMES

EFFECT OF ATTENDANT

- Women attended by midwives are more likely to breastfeed and more likely to breastfeed for a greater number of months
  - Women attended by midwives less likely to have children who received a follow-up
  - Age, ethnicity, number of children, and electricity status are predictors of type of attendant used

EFFECT OF ETHNICITY

- Ladina mothers are less likely to breastfeed than indigenous counterparts, and breastfeed for fewer months
  - Children of Ladina mothers are more likely to have a follow-up visit
  - Indicates that attendant is not the only factor affecting maternal practices

MATERNAL HEALTH BELIEFS

- Woman with biomedical attendant and electricity more likely to attribute disease to biomedical causes
  - No effect of Ladina ethnicity on disease-source beliefs
  - Causality may go in opposite direction–i.e. mothers who have particular health beliefs choose a certain type of attendant
  - Causal inference not possible due to data limitations

TAKE-AWAYS

- The existing midwife network can be used to spread valuable biomedical practices
  - Replacing traditional midwives with medically-trained providers is ineffective
  - Midwives derive authority from divine calling, not from government or education
  - Midwives more likely to be sanctioned
- Which provider attends delivery likely has a role in maternal practices
  - Mothers attended by midwives breastfeed and for a greater number of months
- Maternal practices also affected by other factors, like ethnicity and electricity status
  - Indicates deeper structural barriers to improving outcomes, such as ethnic discrimination and poverty
  - These issues must be addressed along with improvement in midwife training
  - Negotiating authority is a critical aspect of improving midwife use of biomedical practices

FUTURE QUESTIONS

- Which midwife training methods are most effective?
- How does one respect spiritual authority while promoting positive biomedical practices?

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Figures

Figure 1: Histogram of midwives’ Perceived Education.

Figure 2: Regression significance from analysis of maternal practices.

REFERENCES

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