

Weaving Traditional and Professional Midwifery

The Story of Midwife, Birth Center, and the Empowerment of Midwives in Guatemala

*Jennifer Foster, CNM, PhD
Jennifer Houston, CNM, MSN
Ann Davenport, RN
Angela Anderson, MSN, CNM
Virginia Lamprecht, RN, MPH
Gal Frenkel, MPH*

To be trained by a professional midwife who understands what midwifery is made the difference in the training. They respected our role in the community and understood what we need to be better midwives and serve our communities.

—JELIN YADIRA CARRANZA GIRON, GUATEMALAN TRADITIONAL MIDWIFE

Location: Antigua, Guatemala

Name of Project: Ixmucané Women's Health and Birth Center; Midwives for Midwives (MFM) Training Program

Sponsoring Organization: Midwives for Midwives

Target Population: Traditional midwives (training); women

Program Goals: To improve the skills and knowledge of traditional midwives; to provide prenatal care, well-woman gynecology care, contraception, childbirth classes, and birth services (Ixmucané)

BACKGROUND

Each of us were compelled to contribute to this case study because of our commitment to improving the lives of women, their newborns, and families. Some of us are midwives (Jenna, Jenny, Ann, and Angela), and others are international public health professionals (Virginia and Gal). Our calling to serve in Guatemala began by observing women's reproductive lives there, simply because we took the time to hear women and feel the fabric of their daily reality. We learned that traditional midwifery in Guatemala is central to a community's sense of itself and is integral to a cultural context that may or may not interlace with biomedical culture, and that the midwifery model is vital for women's empowerment.

Traditional midwives, *comadronas* in Guatemalan Spanish¹, attend approximately 71% of births to indigenous women (United States Global Health Initiative, 2010). They construct the fiber of social and personal health of Guatemalan society. They are eager to receive more clinical skills training. However, many political and economic forces outside of those midwives' control determine who pays for and defines that education.

In this case study, we explain the story of the Ixmucané [pronounced ISH-MOO-KA-Né] birth center and the Midwives for Midwives (MFM) training program from 1997 to 2004. We weave together Guatemalan traditional values, professional midwifery modeling in knowledge acquisition and skills competency, biomedical intervention when appropriate, and respect for women's rights. We entwine all this with the challenges we confronted to sustain nonprofit health services for the poor—challenges we eventually could not overcome.

The Guatemalan Context

The traditional midwives (comadronas) of Guatemala live and work in a country where maternal and infant mortality rates rank among the highest in the Western hemisphere; only Bolivia, El Salvador, and Haiti have higher mortality rates, although none of these countries have confirmable measurement systems in place for counting their dead mothers and newborns (World Health Organization [WHO], 2007). The maternal mortality rate in Guatemala in 2007 was 139/100,000 live births (Pan American Health Organization [PAHO] 2011). In contrast, the maternal mortality rate in the United States was 24/100,000 (PAHO, 2011).

Guatemala's population of about 14 million (United States Central Intelligence Agency [CIA], 2012) is expected to double by 2050. The total fertility rate (the average number of children born to a woman during her lifetime) is 3.18, and the contraceptive prevalence rate is 43%, with an unmet need for family planning of 28%, and higher in rural areas. (United Nations, 2011). Although abortion is illegal in Guatemala, except to save a woman's life, unsafe abortions result in a high annual rate of hospitalization for complications (8/1,000 women) (Singh, Pada & Kestler 2006). Abortion is the third leading cause of maternal death (Guatemala 2003). These statistics demonstrate a great need for women's reproductive health improvements among the general Guatemalan population, but the situation among the indigenous Mayan population is far worse. Two principal cultural groups define the fabric of the Guatemala population: Ladinos, who are of both Spanish and Mayan descent (about 59% of the population), and the indigenous Mayans (about 41% of the total population) (CIA, 2012). The Ladinos dominate the economic and political systems and are collectively wealthier and better educated than the indigenous population.

Most of the indigenous population lives in rural areas far from government health care or hospitals. They lack transportation to travel long distances to access emergency care, and 54.5% of them suffer from chronic malnutrition (PAHO, 2011). Only 17% of indigenous women give birth with a skilled birth attendant, as defined by the World Health Organization (WHO), compared to 41% of the nonliterate Ladino population (Instituto Nacional de Estadísticas, 1995). Traditional midwives do not meet the WHO or UNICEF definitions of 'skilled attendants', and in rural Guatemala these are the women who attend the vast majority of births. In some areas, the traditional midwives attend 95% of all births. Even though 41% of all births in Guatemala are reportedly attended by "skilled attendants" (UNICEF, 2004), there is wide variation in staff distribution

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and competency of those “skilled attendants.” In our experience, there are rural indigenous areas where the traditional midwives attend 95% of all births.

In addition to gender inequality, discrimination and illiteracy are additional burdens of the poor and indigenous. The maternal mortality rate for nonliterate women is three times the rate of their literate counterparts (Guatemala 2003). Nonliterate women tend to marry early (as young as 13 or 14 years old) and have little knowledge of their own reproductive systems, and they do not have access to information about reproduction services or choices (which are usually written). Thus, they become pregnant sooner, and most of their reproductive lives are spent either lactating or pregnant, increasing their health risks with every pregnancy.

Men make most of the reproductive healthcare decisions for women and children. Women have very little voice or choice regarding their own reproductive rights. Women in all cultural and economic groups suffer from gender discrimination, and many are victims of increasing violence; rape and incest, particularly prevalent in marginalized groups (MSPAS, 1993). The women who came to the Ixmucané Women’s Health and Birth Center complained of infidelity, fear of being exposed to sexually transmitted infections including HIV, forced sexual relations, domestic violence, and husbands who they said “would *never* use a condom.” Many women told us that their husbands “won’t give me permission to use contraception.”

Discrimination is not limited to the privacy of the family. Many poor women, particularly indigenous women, report crude treatment and discrimination from hospital staff. Mistrust of Guatemala’s public healthcare system may in part be a legacy of the 35-year history of civil war and five centuries of colonial domination of indigenous peoples. Two or three generations of Mayan indigenous and rural poor have a social history of being “disappeared” by government forces; thus to go into the government healthcare system for a normal process such as pregnancy or birth is counterintuitive.

In ancient Mayan society, men and women had equally important roles in society, and neither was considered to be a whole person without the other. The domination of the Spanish- and later U.S. sponsored business interests marginalized Mayan traditions and practices (Nelson, 1999). Traditional sustainable agricultural rituals, diet, and healing arts that encompassed plant medicine and Mayan rituals for pregnancy, childbirth, and newborn care do continue, but they are eroded because of the hegemony of Western influences (Cosminsky, 1975, 1982).

BEGINNINGS

The Ixmucané Birth and Women's Health Center opened in 1997 in Antigua, a historic and beautiful town near Guatemala City and one of UNESCO's cultural world heritage sites. Jenna Houston (a certified nurse–midwife from the United States with many years of home birth, hospital, and birth center experience) and Hannah Friewald, a German resident of Antigua and a graduate from Maternidad La Luz midwifery school in El Paso, Texas, worked together to open the birth center in Antigua.

The center was named in honor of Ixmucané, described in the primary Mayan text *Popol Vuh* as the grandmother of all Mayans and the entire human race. She is the feminine goddess, the protector of women, and the vessel maker (Goetz, Morley, & Recinos, 1950). Ixmucané is the midwife for all midwives. The Ixmucané Birth and Women's Health Center (Centro de Partos y Salud de la Mujer Ixmucané) opened in a large old hacienda in the center of Antigua.

A year after Ixmucané opened, Jenna's and Hannah's interests diverged. Hannah moved on to start a birth center in Guatemala City and worked with a more affluent population. Jenna stayed at Ixmucané in Antigua, drawn to her connections with the local traditional midwives and eager to learn more about indigenous birthing practices. Jenna soon discovered that the local midwives were required to attend monthly meetings facilitated by a government-trained nurse. What happened at one of those meetings forever changed the direction of Jenna's work.

About 40 traditional midwives came to the meeting from the small towns and remote areas in the Department of Sacatepéquez, dressed in traditional woven *traje* (skirts and woven blouses with sashes). Most wore shoes, some were barefoot, some brought children. While seated in a circle, the midwives spoke in turns, shared their stories and problems, asked questions, and voiced their concerns. Although many spoke from the heart, the nurse seemed dismissive of their comments. One comadrona stood to speak. She began quietly and carefully, as if finding it difficult to share what she had to say. Looking downward, she told this story:

I attended a birth two months ago and the mother died. I see the family every day and am so sad. The husband cried at the birth, and the children are now all motherless. I too cry and go to church every day. On my knees, I ask God for forgiveness. I know it is God's will, but maybe I did something wrong. I can't work anymore,

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because they took my *carner* (license) away, and I feel guilty and very, very sad. I want to know what happened and what I could have done. (Antonia Son Xanic, 1998)

All the midwives sat in silence for a moment. The nurse facilitating the meeting then said, “Alright. Next?”

The loss and pain in the traditional midwife’s story left Jenna shocked. The tender and personal plea for assistance was ignored, and the enormous anguish and courage of this midwife to share her story with the group was dismissed. At the meeting’s end, so moved by what she had heard and by the nurse’s response, Jenna offered to start a midwifery support group and invited the midwives to come to a meeting at the Ixmucané birth center. Thus a relationship between the local traditional midwives and MFM began, as well as an attempt to intertwine them within the Ministry of Health system.

The next day, 19 midwives arrived at the doorstep of Ixmucané. Jenna was astounded by their eagerness to learn and connect. During that very first meeting, they suggested the idea of a support group of midwives, by midwives and for midwives. Soon thereafter, the nonprofit organization Midwives for Midwives formed and gave birth to Ixmucané Women’s Health and Birth Center, which became a place where women could receive care, a clinical practice site for midwifery students from other countries, and a place where traditional midwives could bring clients from their communities for consultation and care. Ixmucané Women’s Health and Birth Center became the living representation for the midwifery model of care.

The birth center sought clients who spanned a wide economic range, including clients who could subsidize those who could not pay. However, many more poor women than wealthy women accessed Ixmucané’s services. MFM needed to constantly conduct fundraising activities to support the midwives and the birth center because very few clients had the means to pay for the operational costs of the clinic.

IXMUCANÉ AS CLINICAL PRACTICE MODEL

The Ixmucané Women’s Health and Birth Center provided prenatal care, well-woman gynecology, contraception, childbirth classes, and birth services. A trusting, respectful relationship between midwife and woman, through confidence building, information sharing, and childbirth preparation, became fundamental to service provision. Unhurried prenatal visits included husband and family participation, nutritional counseling, lifestyle changes to encourage rest and

appropriate activity, and early problem identification. Women felt cared for in the homey, relaxing environment of Ixmucané, where they regularly met with other women, borrowed books from the extensive library, and attended classes.

Jenna recounted the following:

During labor we encouraged relaxation and movement, nourishment, and hydration. We provided an environment with music, massage, privacy and support, all of which encouraged spontaneous labor and birth in most cases. We monitored the mother and baby in a calm, attentive way. All emergency equipment was well within reach, but out of view. We offered water birth and encouraged delivery in any position the mother desired. We promoted the participation of any support person the mother wanted and provided protection from overbearing in-laws at the mother's request. We treated the mother and the birth process with great respect and sacredness. Women felt safe and cared for. Babies stayed with their mothers continually. Mother, baby, and partner had uninterrupted time for taking in the deep satisfaction and joy of a conscious birth. (Jenna Houston, 2000.)

Ixmucané staff expected the local midwives to remain with their clients and encouraged them to participate in their clients' care. The staff used every opportunity to work with local midwives and encouraged information sharing and teamwork. Support and camaraderie defined the atmosphere among the midwives and volunteers at Ixmucané. Every birth became a unique teaching opportunity for the traditional midwives and international midwifery students, a time to observe good birthing management and apply the skills they already knew or wanted to learn. Ixmucané provided an environment not only for a respectful interface and exchange of ideas, but also for hands-on skills practice for the traditional midwives. Ixmucané's large, comfortable waiting room transformed into a learning center after clinic hours, equipped with a library, pelvic models, and videos on midwifery practice.

During our provision of comprehensive women's health care, we faced firsthand the vast social inequities in Guatemala. For example, international travelers who had read about Ixmucané (Gorry, 2001) sought and paid for emergency contraception with us, and Ladina Guatemalans drove to Antigua from Guatemala City in search of personalized and humane maternity care at Ixmucané. Wealthy, informed women chose and paid for their gynecologic care. Most of the care, however, was given to poor local women brought in by the traditional midwives.

Having heard of the professional and caring attention at Ixmucané by word of mouth, the traditional midwives brought young pregnant girls, undernourished

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women, overworked grand multiparas (women who have borne five or more children), and others to Ixmucané for treatment of complications due to infection, hemorrhage, obstructed labor, or anemia. Sometimes the poor and illiterate just came to access a safe place, a place where neither the traditional midwife nor her pregnant woman would face ridicule or shame.

Jordan articulated a concept of “fruitful accommodation” (1993, p. 136) in which professional practitioners attending births would combine the best of knowledge from the Western scientific model of obstetrics with the intuitive and cultural knowledge learned through the experience of generations of birthing women. Ixmucané became a place where accommodation could be put into action; it was an environment where both effective science and nonharmful traditional practices could coexist (Sesia, 1997) and the authority of both thrived (Lukere, 2002).

MFM and the Ixmucané clinic provided a unique opportunity for professional midwives to learn about Guatemalan rituals and observe their knowledge and skills. Because the center provided rich fieldwork experience to midwifery apprentices and international students in women’s studies, public health, and anthropology, Ixmucané received hundreds of requests from volunteers and students who were interested in the center as a clinical practice site. For many students, Ixmucané offered experiences that they would never have encountered anywhere else. As one apprentice said, I was interested in learning midwifery unrestricted by institutional protocols that are often established for litigation issues and not necessarily in the woman’s best interest.

Another said, “There are so few places in the U.S. where one can study ‘true’ midwifery, to take time and give one-on-one care throughout the entire child-bearing process.”

The midwifery model at Ixmucané encouraged the presence of students and apprentices, people who brought enthusiasm, new ideas, and fresh ways of seeing things. The model valued intergenerational exchanges and offered students knowledge and skills often lacking in formal midwifery educational systems based on hospital care. The MFM model for midwifery training became a powerful educational tool.

Student midwives input at Ixmucané and their dedication to documenting outcomes truly benefited the center. In 2004, for her graduate thesis, a nurse-midwife student reviewed all births at the center that were attended by professional midwifery students who had complete perinatal data (99 births) between October 1997 and July 2002. She compared these outcomes with those of a

home birth service of professional midwives serving a primarily immigrant Latina population in Chicago (Romano, 2004). She selected the home birth service in Chicago because the style of practice and population served were similar to those of Ixmucané and because of its reputation as an exemplary midwifery service.

Her study used the Optimality Index-U.S., a research instrument that evaluates both the outcome itself and the means by which it was achieved. The instrument incorporates a measurement of the frequency of obstetric interventions, with less reliance on interventions themselves, yielding a more optimal score (Murphy & Fullerton, 2001). This is a unique research tool that allows capturing the midwifery model of care within the quantitative analysis of outcomes.

This method excluded women in active labor who transferred to Ixmucané with a traditional midwife if the woman had no recorded prenatal record or medical history. The method also excluded women who required transfer to hospital-based care, because outcome data were not reliably recorded for these women and their newborns. However, the study did provide an important look at the outcomes at Ixmucané and allowed comparison with an exemplary midwifery practice in the developed world.

The study controlled for the effects of social and medical background and for differences in the practice guidelines between the two birth settings. There were no significant differences in the processes and outcomes of professional midwifery care in the two populations, with high optimality scores in both settings. This student nurse midwife's study supported the claim that the provision of professional midwifery care to a population in Guatemala can yield outcomes similar to those of an exemplary midwifery practice among a similar population in the United States (Romano, 2004).

Due to Ixmucané's unique position as a transfer center for the comadrona clients, the caseload at Ixmucané included a high percentage of primigravidas (women having their first baby), women attempting a vaginal birth after Cesarean (VBAC), and women presenting after prolonged labor and /or rupture of amniotic fluid. Overall, the midwives at Ixmucané attended 262 women between 1997 and 2004. The first birth was a water birth of a healthy female baby, born fully in the amniotic bag, which spontaneously ruptured upon movement of the baby. This is such a rare event that we considered it an auspicious sign. Women brought to Ixmucané by a traditional midwife comprised 56 of the total 262 births. Of those 262 births, 32 were transferred to the referral hospital; of 32 transfers, 25 were resolved with surgery (a Cesarean rate of approximately 10%). There were no maternal deaths between 1997 and 2004, although we did have

two neonatal deaths. Both of these neonates had normal fetal heart rates that were closely monitored during labor, but they had very poor Apgar scores following birth. Neither infant responded to vigorous resuscitation efforts, raising the possibility of cardiac anomaly. In both cases, autopsy was offered and encouraged, but the families declined to have it performed.

Although the births studied were those attended by student professional midwives, models of maternity care organizations emphasize a dual role for professional midwives who are working with traditional midwives—that of weaving direct care provision of women with their community-based providers and intertwining it all with the formal healthcare system (International Confederation of Midwives, 2003).

TRAINING TRADITIONAL MIDWIVES

The more the professional midwives learned about comadronas, the Guatemalan healthcare system, and community realities of isolation, poverty, and violence, the more they changed the focus at Ixmucané from that of service provider to that of curriculum development for training the comadronas. These two roles required fundamentally different skills and orientations.

MFM initially worked for 3 years in Sacatepéquez, the department (state) that includes Antigua, providing care to our own clients and attending births with local traditional midwives when they came to Ixmucané for consultation and emergency services. The traditional midwives had a standing invitation to bring in their clients so they could attend their births at Ixmucané, and we had the backup services of a local Guatemalan general physician with hospital privileges. When necessary, the professional midwives transferred emergencies to either a local private hospital or the local national hospital, depending on the economic resources of the woman in labor.

Due to regular monthly support meetings for a core group of traditional midwives and many other traditional midwives coming in and out of the group (depending on their ability to attend classes), MFM had the opportunity to conduct hours of in-depth interviews to understand the traditional midwives' knowledge levels, how they became midwives, and how they acquired their skills.

Traditional midwives throughout Guatemala have very diverse knowledge levels, and as the MFM midwives began to train in other departments in Guatemala, they learned that skills also varied greatly between geographic areas. MFM

eventually worked in six different departments and interviewed more than 200 traditional midwives during our 9 years in Guatemala.

Some traditional midwives were literate; however, most were nonliterate or semiliterate. Some had received some form of continuous education about pregnancy and childbirth (from information), but none had received skills training. Some had attended basic nursing courses, some had many years of empirical experience, and some were beginners. A few had attended many births, but the majority of the comadronas we trained had attended 50 or fewer births in their entire career. The majority had attended only two or three births a month.

The following list shows some, but not all, of the average traditional midwives' level of knowledge and skills concerning maternal and newborn health care. The traditional midwives adapted some practices from what the nurses in the public health system taught them, from what they were expected to perform by members of their village, or from practices that were passed on to them by other traditional midwives. There were many areas where traditional midwives did not have the knowledge and skills important for promotion and care of normal pregnancy and birth. Only two practicing traditional midwives (out of approximately 250) knew how to take blood pressures and had the equipment to do it. The following list indicates knowledge gaps for the traditional midwives that were observed. Most traditional midwives could not identify gestational age and did not measure uterine height to compare fetal growth with gestational age. Thus, they did not know about intrauterine growth retardation or if a fetus was too large for dates.

- Other unknown concepts included a woman's current or prepregnancy weight, nutritional counseling, rest, fluid intake, or urine.
- Most traditional midwives did not have the equipment or skills to measure blood pressures or listen to or count fetal heart rates.
- Many traditional midwives identified preeclampsia as swelling, but they did not know the relationship between high blood pressure and preeclampsia. They knew about convulsions, but not the cause, treatment, or medical diagnosis (eclampsia).
- The majority of traditional midwives lacked skills to intervene in cases of hemorrhage or to resuscitate a newborn in distress.
- Most traditional midwives lacked basic skills in birth support and could not identify signs of complications or management of emergencies during labor or childbirth, postpartum, or in the newborn.

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- The laboring mother was covered with a heavy blanket during labor and postpartum to accommodate the concept of “warmth” that leads to “down and out” bodily energy movement. The traditional midwives did not encourage walking or position change during labor.
- Almost all traditional midwives use the *umbliquero*—a small cloth to cover the umbilical stump of the newborn, which, if not sterile or changed frequently, may cause infection.
- Many traditional midwives, and women in general, believed that colostrum was “bad milk” that should be expressed and expelled, not given to the newborn. Many thought that babies should be given bottled formula. They began to value formula feeding while watching their upper-class employers feeding their babies that way (many Mayan women work as house cleaners or nannies).

Various nongovernmental organizations (NGOs), church groups, and Ministry of Health nurses have conducted training courses for traditional midwives over the years, courses that last from a few days to a few weeks. None of those courses teach skills, except for the UNICEF courses that teach the Four Cleans: clean hands, clean area, clean cord cutting, and clean baby. Not a single curriculum addresses the difficult issues of sexual rights or humane treatment of women—issues that traditional and professional midwives deal with on a regular basis—such as rape, incest, unwanted pregnancies, and forced sex for procreation. Many participants said they see these problems all the time, but no one ever talks about them, and they do not know how to confront these issues when they occur.

Because the MFM professional midwives listened to the traditional midwives and observed how they attend women, they developed a training curriculum together, weaving scientific evidence, practical skills, and nonharmful traditional methods with nonharmful technological methods. They intertwined what the comadronas wanted to learn with essential lifesaving skills they should have—what nonharmful traditional practices were expected by their clients with basic care skills the midwives should provide for the well-being, safety, and comfort of the women and babies in their charge.

The MFM midwives designed much of the curriculum based on our own experiences as midwives (collectively we had more than 100 years of experience) and drew from the Hesperian Foundation’s *A Book for Midwives* (Klein, Miller, & Thomson, 2004). The book is not only well written and organized, but it also

speaks to the social issues that midwives confront every day. The MFM midwives began using this book in their initial training, even with nonliterate midwives. As training evolved, literacy became a requirement for participation, and each traditional midwife participant received a copy of *A Book for Midwives* (in Spanish), for personal use as a text and reference.

In addition to the Hesperian book, the course design drew from other important and globally recognized resources for curriculum and reference, including the following:

- The IMPAC manual (WHO, 2000) for integrated management of pregnancy and childbirth
- Checklists for knowledge and skills acquisition and demonstration developed by midwives at the Johns Hopkins Program for International Education in Gynecology and Obstetrics (JHPIEGO), modified for traditional midwives
- ASESCA (Asociación de Servicios Comunitarios de Salud) curricula, selected for relevant and thorough content coverage in Guatemala and because it addresses the underlying social causes and medical consequences of poverty
- Training manuals and guidebooks published by PAHO; Ministries of Health from Guatemala, El Salvador, Nicaragua, and Peru; and other NGO publications based on their work with midwives, including MotherCare and CARE/Peru.

The training course evolved over time. By spring 2005, the course for traditional midwives consisted of 27 one day a week, 6-hour sessions. Most traditional midwives could not attend training full time, and one day a week was the most practical solution. The program used adult learning methodologies and techniques emphasizing participatory interaction, reinforcement of key messages, critical thinking skills, and practical application. Learning formats included minilectures, discussions, role plays, live model demonstrations (with pregnant clients, if available, or within the Sololá hospital prenatal clinic), hands-on skills labs for developing physical assessment techniques, and small group work involving case studies and problem solving. The MFM training curricula focused on three main areas:

- Assessment and care of the pregnant woman and newborn, covering basic reproductive anatomy and physiology; healthy behaviors and nutrition;

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prenatal examination; history taking; estimating gestational age and expected date of birth; initiation of breastfeeding; and postpartum evaluation of the mother and baby

- Technical skills, including vital signs; measuring uterine fundal height; palpating for fetal position and presentation; auscultation of fetal heart tones; sterilizing birth kit equipment; active third-stage management and management of postpartum hemorrhage; and neonatal resuscitation
- Critical thinking skills, including categorizing both traditional and modern methods into helpful, harmful, or benign; management of normal labor and birth; assessment and timely identification of danger signs and potential complications; prudent and judicious use of technology; and strategies for ensuring emergency transportation and transfer

The MFM midwives encouraged the traditional midwives to ask themselves, when confronted with new and improved methods or existing cultural practices, whether or not their practices would serve the health of women and the community. In addition, the MFM midwives included discussions on larger cultural constructs, such as machismo and gender-based violence. They challenged the traditional midwives to consider the ways in which cultural traditions contribute to inequities between men and women, they stressed women's reproductive rights as human rights, and emphasized the importance of women working together for change.

The MFM midwives also incorporated effective traditional practices, such as personalized care, presence and support, education, and respect for women as a primary participant in her own process. They created a training model that spoke to the role and everyday work of the community-based traditional midwife.

MONITORING AND EVALUATION OF TRAINING

By June 2005, MFM had trained 239 traditional midwives distributed in five cohorts located in six different departments in the Guatemalan highlands (Sacatepéquez, Chimaltenango, Quetzaltenango, Huehuetenango, Sololá, and Totonicapán). Of the traditional midwives trained, 215 (90%) graduated successfully. However, the question should be asked how success was assessed and documented. Since its inauguration, MFM correctly recognized the need to monitor, evaluate, document, and report its training progress. Processes and

outcome evaluations received increasing attention and enhancement as the program matured under the guidance of Virginia Lamprecht, a member of the advisory board and an international reproductive healthcare specialist.

In late 2004, with the help of funding received from American Jewish Worldwide Services (AJWS), MFM hired Gal Frenkel, a public health professional, to further design, develop, and implement MFM's monitoring and evaluation activities and provide the MFM staff, board members, and other stakeholders with a comprehensive report of MFM's training program. The first step in this process was to review all of the evaluation tools and data collected to date; the second step was to analyze those data, provide recommendations for improvement of the training, and enhance (and revise) the monitoring and evaluation design. The following box presents a list of the tools used.

BOX 2-1

Monitoring and Evaluation Tools

- Precourse screening interview
- Pre- and postcourse knowledge assessment
- Weekly quiz
- Weekly class written evaluations (by participants and instructors)
- Weekly class oral discussions
- Final exam
- Focus groups and postcourse descriptive evaluations

These tools were under constant development and underwent ongoing revisions and improvements; however, their objective remained the same:

- To characterize the incoming cohort of traditional midwives in terms of their midwifery experience, literacy level, and Spanish comprehension ability
- To assess the traditional midwives' change in knowledge before and after attending the MFM training
- To help the instructors better tailor the content of the training to the needs of each specific cohort and assess the participants' progress
- To evaluate the satisfaction of the traditional midwives who attended the course

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The focus groups and postcourse evaluations were consistently and overwhelmingly positive. The traditional midwives expressed a very high level of satisfaction with the training and the instructors, and they were honored to have had the opportunity to participate in the course. These tools also provided the MFM team with the opportunity to address challenges, in addition to other topics they would have found useful in the training.

The screening tool was extremely useful for selecting traditional midwives at a level appropriate for the training. In the first couple of cohorts, participants varied greatly in their backgrounds and abilities. The youngest participant was 22 years old, and the oldest was 86 years old; some were not active traditional midwives and had no prior experience in midwifery, and the most experienced traditional midwife had 50 years of experience. Among the active traditional midwives, the number of births per month ranged from zero to six. Moreover, approximately one-third of the traditional midwives did not speak Spanish and/or were illiterate. This fact demonstrates that MFM was indeed reaching the targeted population of indigenous midwives or those that were most in need, but at the same time this also proved to be a challenge in administering the training and teaching more complex materials. For example, incorporating blood measurement into the training was challenging for traditional midwives who could not read numbers and found it difficult to comprehend numeric values and the meaning of systolic and diastolic blood pressure. Given the increasing level of comprehension required as the training expanded throughout the years, there was a need to select traditional midwives who were able to understand the concepts taught in Spanish, read the materials provided in the training, recognize numbers, and complete the course successfully.

The final exam and the pre- and postcourse knowledge assessment were the two key quantitative tools designed to demonstrate the level of success of the course participants. Questions were designed in an attempt to address the three core topics of the MFM training: assessment and care of the pregnant woman and newborn, technical skills, and critical thinking skills. The final exam eventually consisted of 195 possible points that covered the range of topics taught in the course, including a clinical section to assess selected clinical skills such as measurement of vital signs and infant resuscitation. The final exam was organized by topic, and participants had to obtain a score of 70% or higher to pass. Clinical skills were assessed using a checklist, and they were scored as pass or fail. The traditional midwives were required to demonstrate every clinical step correctly in order to pass the exam. It should be noted that the content of both the training

BOX 2-2

Traditional Midwives and the Final Exam

Topics Traditional Midwives Struggled with on the Final Exam

- Knowledge of what to do during the first prenatal visit
- Gestational age and its relationship to the size of the uterus
- Correct blood pressure measurement
- When not to perform a vaginal exam
- Knowledge of normal signs during the third stage of labor
- Sexually transmitted diseases (STDs)
- Having an emergency plan
- The importance of keeping the baby warm

Topics Traditional Midwives Excelled at on the Final Exam

- Risk signs and factors
- Management of postpartum hemorrhage
- Knowledge of the three signs of a healthy baby immediately following birth
- Infant resuscitation
- Advantages of exclusive breastfeeding
- Knowledge of different contraception methods
- Focus groups and postcourse descriptive evaluations

and the final exam, including the administration of the final exam (i.e., in oral and verbal format) and the score required to pass successfully, changed greatly throughout the years (e.g., “success” had previously been defined as a score of 50% or higher).

The pre- and postcourse knowledge assessment tool was used for the first time in the third MFM training cohort, which was held in the second part of 2003. Like the final exam, it underwent constant changes and as such was challenging to analyze, especially when different precourse and postcourse versions were administered in the same cohort. One of the major modifications of this tool resulted from the need to clearly establish knowledge indicators. In terms of results, some demonstrated an increase in knowledge, and others demonstrated a decrease in knowledge, an unexpected outcome after having attended and graduated from the course. The latter results, therefore, are a critique on the validity and reliability of this evaluation tool as it is currently designed and administered.

BOX 2-3

Traditional Midwives' Knowledge during the Training

Topics in Which Traditional Midwives Demonstrated Increased Knowledge from the Beginning to the End of the Training

- White vaginal discharge with no other symptoms is normal
- Equipment must be sterilized
- How to detect meconium
- When the placenta is delivered normally
- Exclusive breastfeeding

Topics in Which Traditional Midwives Demonstrated Decreased Knowledge from the Beginning to the End of the Training

- Correct counseling when there are signs of preeclampsia
- What to do if the water breaks but labor does not begin after 36 hours
- What to do with postpartum complications
- Focus groups and postcourse descriptive evaluations

In addition to the outcome evaluation assessed by both the final exam and the pre- and postcourse knowledge assessments, the importance of process evaluation (in this case, dropout rate) should also be mentioned as another indicator of the challenges that faced the MFM training team and that impacted overall success. The first example is from the fourth training cohort, where 75 traditional midwives attended the training, 65 completed the training, and 62 graduated successfully (i.e., passed the final exam). Another example is from the third training cohort, where 50 traditional midwives attended the third MFM training cohort and 49 graduated successfully. However, when MFM offered a refresher course in the summer of 2004, only 12 traditional midwives showed up. The reasons why only one-quarter of the MFM trained traditional midwives attended this refresher course may vary. However, this example clearly demonstrates the difficulties associated with continued education and reinforcement of new knowledge, attitudes, and practices that may not be sustainable independently in the original communities of the traditional midwives.

To summarize, MFM faced a great challenge when administering this training to traditional midwives. On one hand, the professional midwives identified the unmet need to train the indigenous and most traditional midwives, where infant and maternal mortality were the highest. On the other hand, there were many barriers to successfully implementing the training and sustaining the knowledge acquired in this training. Lessons learned from this experience include the need to clearly define the characteristics of participants in terms of language, literacy, and experience and to tailor the training to meet their level. It could also be beneficial to assess the beliefs and attitudes of the participants toward the new information and address these issues during the training. Finally, it is important to keep in mind that even when course participants demonstrate positive attitudes and increased knowledge upon graduation, the road to incorporation of the new and correct practices and their implementation is very long. Professional and technical support groups and continuing education for these trained traditional midwives are essential.

INTERTWINE WITH THE MINISTRY OF HEALTH

By 2004, MFM's training program had become established enough to be known in Guatemala, particularly by other NGOs, local health facilities, and the Ministry of Health. As the program's success and visibility grew, and after many previous attempts by MFM to work with the Ministry of Health (MOH), some doctors from the MOH approached MFM with the idea of developing a pilot curriculum for traditional midwives that would include a clinical practical component. This request by the MOH signified a major first step on the part of the Guatemalan government to acknowledge the contribution of midwifery and the need to effectively work with and incorporate comadronas into the official health system.

The MOH invited MFM to conduct training in the Department of Sololá, where MFM had been in previous contact with various doctors working with comadronas and began developing a relationship with the medical director of the Sololá hospital—the main public referral hospital in the department. The group we trained in Sololá graduated in June 2005, along with another group from Totonicapán. This latter group included 37 traditional midwives that live in the region around Lake Atitlan. The Totonicapán group did not have the training component that included clinical skills because of transportation and distance problems to the Sololá hospital.

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In addition to attending 27 classroom sessions, the Sololá group participated in 10 clinical sessions inside the Sololá hospital, where they worked in collaboration with hospital staff supervised by MFM's training team headed by Melida Jimenez, an advisor on the MFM board. Ms. Jimenez was uniquely suited to be the clinical supervisor within the public system, given that she is a Guatemalan physician who later moved to Canada, where she graduated from midwifery training. Ms. Jimenez was joined by Cornelia Muhl, a German midwife. The practical component of the training provided clinical experience for traditional midwives, with modeling and supervision by a professional midwife—the first time this had ever happened in Guatemala.

The experience in the hospital was very challenging. Although MFM midwives tried valiantly to orient hospital staff and present the project in a manner that respected their authority, and even with institutional support from the Ministry of Health, our presence met with steady and daily opposition. The hospital administrator gave the MFM trainers a large room where they set up a space that allowed for birthing privacy, freedom of movement, and practice of the midwifery model. Although they made many attempts to invite nurses and doctors in the birth room, the MFM midwives were met with ongoing resistance from both. Despite the challenges, the traditional midwives did experience clinical practice under supervision within the hospital, and MFM was able to observe client care provided within a public health system over many weeks, instead of only during an organized tour.

UNRAVELING AND CLOSURE

In November 2004, Ixmucané in Antigua closed. Ixmucané Birth Center and MFM could not maintain sufficient personnel to run a birth center 24 hours a day, seven days a week, and also have enough staff for the training program. We made an organizational decision to focus exclusively on training, rather than trying to incorporate training concurrently with a full-time birth center that included direct care provision. Although many professional midwives expressed interest in, and support for, the work of MFM, experienced midwives were not willing to relocate to Guatemala for extended periods to work with us full time at the birth center. Since no cadre of professional midwifery existed in the country, recruiting professional Guatemalan midwives to run the Ixmucané center was not an option.

Finding continuous funding became another insurmountable challenge to the birth center and the organization. MFM's work came at a point in the history of international development when funding priorities had moved away from training traditional midwives toward training "skilled birth attendants" (in the language of international donors, that means nurses and doctors) and toward improving referral care facilities and health systems. The US Institute of Medicine published a recommendation in 2003 that every delivery be assisted by a skilled birth attendant with access to essential obstetric and newborn care. This recommendation requires a network of good-quality health facilities that provide basic essential obstetric care (BEOC includes the availability supplies, i.e. antibiotics, oxytocics, and anticonvulsants, along with skill sets of practitioners that involve manual removal of the placenta, removal of retained products of conception, and mechanically assisted vaginal deliveries) (Bale, Stoll, & Lucas 2003).

The traditional midwives of Guatemala had never been integrated into the official health system of the Ministry of Health. Even though a meta-analysis on the effectiveness of training traditional midwives urged more evaluation, refinement, and dissemination of promising community-based approaches to care during birth (Sibley & Sipe, 2004, 2006), MFM's experience was that by 2004, the global donor community had already unraveled the prioritizing of such approaches.

From the beginning, the commitment to work with the poor created economic challenges and limited MFM's ability to pay for growing staff needs. Ixmucané and MFM survived as long as it did because of the interest and dedication of volunteers, students, experienced midwives, and others committed to the work. Funds came from clients who could afford to pay for services, small grants from local Guatemalan charities, and individuals who supported the effort. Without funding or sufficient staff, MFM had to close the Ixmucané birth center, and we eventually had to discontinue the training sessions as well.

LESSONS LEARNED

Despite its closure, MFM and Ixmucané made many important contributions to the global midwifery discourse. As MFM looks back at the underlying causes of women's unmet reproductive health needs, it was not difficult to also identify some causes of unmet knowledge and skills needs of traditional midwives, who continue to be blamed by the "skilled birth attendants" for maternal and

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newborn morbidity and mortality rates in almost every country. The consequences of global economic policies, misuse of power and authority, extreme devaluation of women, and machismo are only some of the reasons why women suffer and maternal and infant mortality remain so high among indigenous populations around the world.

Guatemala has seen developmental organizations and projects come and go over many decades. Despite 9 years of MFM and Ixmucané Women's Health and Birth Center presence in Guatemala, and regardless of very favorable relationships with local midwives, it would have taken many more years and much more financial support to build a strong enough organizational structure to have the necessary influence over public policy that might have enabled the kind of social change needed to improve reproductive health care for women.

Another important lesson from the MFM experience is that communication between professional providers and traditional midwives, along with interfacility (clinic to hospital, birth center to hospital) communication, needs to be clear, respectful, and continuous. When midwives are excluded from the hospital system, continuity of care suffers, trust from the community is lost, and women and children die.

Regarding specific work with traditional midwives, the MFM training experience shows that to improve their knowledge and skills, traditional midwives must be able to read and write and that governmental or charitable literacy programs need to include traditional midwives.

MFM's experience also shows that professional midwives who can model midwifery care to traditional midwives (and other skilled birth attendants) are essential for improving healthcare provision and outcomes. Working side by side and building relationships with the midwives was not only based on theoretical concepts (Jonsdottir, Litchfield, & Pharris, 2004; Kennedy, 2000), but also an essential and practical training strategy.

FABRIC FOR THE FUTURE

Midwifery care and midwifery training should be local, accessible, and personal. A traditional midwife needs to be respected, enabled, and included in reproductive health policy and training design. Studies have shown that what midwives need in their training, and what they do not receive from governmental programs, include a solid knowledge base, clinical experience for skills practice, and

ongoing support with follow-up over months or years (MacLean, 2003). Midwifery training needs to focus on building critical thinking skills, enhancing self-esteem, understanding the root causes of maternal morbidity, and teaching and practicing lifesaving skills to effectively meet the needs of women and newborns.

Midwives from developed countries have the opportunity to help traditional midwives organize themselves and create a group identity. These organized midwives can and do advocate for health policies that respect the important role of women in their communities. Traditional midwives could participate in national training programs based on MFM's midwifery model, a model that empowers women, incorporates both knowledge acquisition and skills competence, and promotes social change.

In some places in Guatemala, midwives have organized. The exclusion that traditional midwives experienced from hospital personnel, witnessed over and over again by MFM, has changed in places where midwives can enter with the mother and continue their relationship as a trusted provider (Maupin, 2008; Schooley, Mindt, Wagner, Fullerton, & O'Donnell 2009). Yet the role of the midwife has shifted; Maupin has noted that the recruitment, education, practice, and authority of the midwife is changing, based on the influence of the national priority of the Sistema Integral en Atencion en Salud (SIAS), which links traditional midwives with the goals to significantly reduce maternal and infant mortality. The reshaping of the midwife role, however, is as community advocate and source of referral, *not as birth attendant*. Institutional delivery is the national emphasis (Maupin, 2008).

Nine years of MFM in Guatemala have enabled many students of midwifery, anthropology, and public health to profoundly understand the differences between indigenous health and governmental public health systems; establish close relationships with traditional midwives; understand the level of knowledge, skills, discrimination, and obstacles traditional midwives face; and determine what a traditional midwife needs to become a knowledgeable, capable community-based healthcare provider. MFM learned what is possible given effective training based on a midwifery model; we tested that model in practical settings (in the Ixmucané center and the Sololá government referral hospital) and in training (throughout six departments within Guatemala), and we came away not only with some highly positive results, but with a solid conviction that the midwifery model contributes much to improving the health of mothers and newborns.

Discussion Questions

1. How would you describe the relationship between the traditional midwives and the staff of Ixmucané?
2. How do you think the participation of student midwives influenced the client-provider relationship and the quality of care at Ixmucané?
3. Describe the socioeconomic and health systems implications of a skills-based, literacy-dependent curriculum. Consider the community, the traditional midwives, and the clients of the traditional midwives.
4. What do you think were the causes of the conflict between the MFM and traditional midwives in the Sololá hospital? How do you think it could have been prevented?
5. What were the challenges presented by international funding priorities on training skilled attendants in a country such as Guatemala?

NOTES

1. A point of clarification is warranted here about the nuances in the language of midwifery. Today's Guatemalan midwives are categorized in official World Health Organization language as traditional birth attendants, or TBAs (WHO, 1992). Midwives for Midwives (MFM) declined to adopt the TBA label. This term diminishes the role and significance of traditional midwives. The word "midwife" means "with woman," referring to the way women have accompanied women during childbirth throughout history. MFM referred to the indigenous Guatemalan practitioners who attend births as they refer to themselves, *comadronas*, or simply *midwives*. We use the term *traditional midwife* interchangeably with term *comadrona*. A generic definition offered by medical anthropologist Shelia Cosminsky (1976) became the alternative that felt realistic for MFM to use for midwives: "The term 'midwife' refers to a position which has been socially differentiated as a specialized status by the society. Such a person is regarded as a specialist and a professional in her own eyes and by her own community."

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