

# TRADITIONAL MAYAN MATERNAL HEALTH PRACTICES IN GUATEMALA

Reflections from a Maternal Health Pilot in the Department of Sololá,  
with a Practical Guide to the History, Beliefs, and Cultural Practices of  
Comadronas in These Communities

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**SAMANTHA FIEN-HELFMAN**  
WITH RESEARCH ASSISTANCE FROM **COURTNEY BURKS**

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# CHAPTER 1

## Context

Despite reducing the maternal mortality ratio (MMR)\* in Guatemala by half over the past two decades—from 173 maternal deaths in 2008 to just 88 in 2015<sup>1</sup>—the country’s ratio remains well above the Latin America regional average of 67, and the nation is among the five countries in the region with the highest MMRs.<sup>2</sup> Nearly two women die daily in Guatemala from complications related to pregnancy and childbirth, and according to the 2011 National Study of Maternal Mortality, hemorrhage is the leading cause of maternal death (53.3 percent).<sup>3</sup> Indigenous Peoples, nearly half of Guatemala’s 16.58 million population,<sup>4</sup> are disproportionately affected, representing over three-fourths of all maternal deaths in the country. High maternal mortality is often attributed to low levels of formal and institutionalized maternal health care (primarily services during pregnancy and childbirth) available to country’s women, particularly in rural areas. Only one in every three rural births occurs in a hospital or clinic, while the number in urban areas is three births in every four.<sup>5</sup> Expectant mothers in rural Guatemala employ community-based midwives—referred to locally as *comadronas*—who are unaffiliated with any specific health facility.

Many indigenous families do so because they face cultural and financial barriers to accessing formal sector health care services.

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\* The MMR measures the number of maternal deaths per 100,000 live births. A maternal death (according to *ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines* [Geneva: World Health Organization, 1992], referred to as ICD-10) is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, regardless of the pregnancy’s duration or site, and stemming from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.



Often, these families prefer traditional health services due to their geographic isolation or because they fear they will encounter discrimination and language and cultural barriers at formal health care institutions. The traditional health system in Guatemala lacks regulation within and by the public health sector, however, and it does not include formal, systematic processes for accreditation, quality assurance, or quality improvement (See Chapter 5 for more details).

This document offers useful background for NGOs or organizations working to deliver culturally appropriate maternal health services or interventions through comadronas in Sololá or the surrounding region. To this end, the information contained herein focuses on strengthening general awareness and understanding of Mayan culture and promoting the consideration and integration of Mayan maternal health practices and beliefs when designing maternal health trainings or interventions in these communities. The document presents three main areas: (i) the history, culture, beliefs, and maternal health practices of comadronas in the Department of Sololá, including a history of the country's traditional health system and current maternal health approaches; (ii) an overview of and reflections derived from the maternal health pilot in Sololá, sponsored by the Youth Innovation Fund and the foundation for this publication; and (iii) proposed recommendations and next steps for improving maternal care and outcomes in areas practicing traditional Mayan health care.

## CHAPTER 2

# Cultural Profile of the Maya in Guatemala

## A Brief History

Approximately seven million Indigenous Peoples, predominantly of Mayan descent, live in Guatemala, although this figure is likely under-reported. Mayans are indigenous to historic Mesoamerica and now live throughout Belize and in parts of southern Mexico, El Salvador, Honduras, and Guatemala. In the pre-Columbian era, the Mayan people were known for their sophisticated civilization, distinct hieroglyphic script, unique architectural designs, numeric coding and arithmetic systems, art, agricultural practices, astronomical knowledge, and calendar system. During Spanish colonial times, the Mayan people experienced a series of displacements, land resettlements, persecutions, and migrations such that today they are one of Central America's most widely dispersed indigenous populations. Although colonialism destroyed many of the defining characteristics of Mayan civilization, some of the culture's features and practices persisted and, today, traditional religious beliefs, arts and crafts, healing and medical techniques, and more continue to be practiced by Mayan people.

# Demographics, Language, Geography, and Cultural Views

Guatemala has the second largest proportion of Indigenous Peoples of any country in Latin America. Its indigenous population, approximately 40 percent of the nation's total, comprises 23 distinct communities, each of which speaks its own language.<sup>6</sup> These groups, primarily of Mayan descent, are spread among Guatemala's 22 departments, but they are most highly concentrated in the Western Highland departments of Alta Verapaz, Sololá, Totonicapán, and Quiché. These Indigenous groups include the Achi, Akatek, Chuj, Ixil, Jakalteq, Kaqchikel, K'iche', Mam, Poqomam, Poqomchi, Q'anjob'al, Q'echi', Tz'utujil, and Uspantek. Although Spanish is Guatemala's official language, Mayan is considered the indigenous population's primary language, spoken in homes, markets, and at religious events. The Mayan language family includes upwards of 50 dialects, further complicating communication across villages and within departmental administrative boundaries. Mayans who participate in the country's formal school system learn to read and write in Spanish, but Indigenous Peoples overall tend to have much lower levels of literacy than their nonindigenous peers.<sup>7</sup>

In Guatemala today, although the Mayan peoples participate in the nation's organized economy and political structure, they often operate outside formal societal agriculture and health care structures, among others. Historically, Mayan peoples have sought health care from the institutionalized public health sector at low levels, tending instead to rely on traditional healing practices and remedies for several health issues rather than seeking care at facilities with Western-trained health professionals. This is primarily because Mayans often see these professionals as having a view of human ailments very different from their own. In keeping with the Mayans' broader cultural perspective, for example, physical states are often linked to mental and emotional ones, and health and disease are seen as being directly affected by social, cultural, and moral behaviors or states. A disrespectful or materialistic person, for example, may be considered ill or unwell.<sup>8</sup>



## CHAPTER 3

# Mayan Beliefs as Reflected in Guatemala's Maternal Health Practices

Many Mayan couples use traditional methods of family planning, turning primarily to what is known as the “natural,” rhythm, or calendar rhythm method, in which a woman tracks her menstrual cycle to predict when she'll be most fertile. Typically, comadronas are the first point of contact for young indigenous women looking for family planning advice. They are considered the community's primary provider of women's and children's health care, serving not only as family planning consultants and midwives but also as gynecologists, obstetricians, and pediatricians. Comadronas are considered community leaders who embody the spirits of the Mayan creator, and as such, they are accorded a high level of trust from their patients and patients' families.

Because many clinics and hospitals prohibit traditional Mayan practices, pregnant indigenous women in Guatemala often choose home birth, accompanied by the comadrona, rather than seeking care at a health facility. These women feel more comfortable in their homes, among their family members, and they see clinical facilities as sterile and unwelcoming, particularly as facilities may allow the women to bring only one additional person with them for antenatal care visits and labor and delivery.



“The most important is the mother and the baby. When we go to the hospital, we don’t see what they [the doctors] do, how the nurses and the doctors talk to our patients ... not like when we are in the home. At home, we have the family to help. If the mother wants something, somebody is going to get it, and there is someone that is going to do something. At the hospital, we have to leave them [our patients]. Sometimes, the patient tells us ‘They did this, they told us this,’ but we can’t witness that. We would like to be taken into consideration when we arrive to the hospital. To be respected.”

—Isabel S., comadrona from San Marcos la Laguna

The comadrona serves as a lay health worker, attending to the pregnant woman and providing traditional forms of assistance throughout pregnancy and during labor and delivery. This assistance includes temazcal (a traditional Mayan steam bath) and abdominal massages, both of which are often provided during pregnancy and/or labor and

delivery to provide comfort for the woman, position the fetus correctly, and speed delivery. Massages are seen embodying the comadrona's knowledge and intuition, and a way to more closely connect with the patient.<sup>9</sup>

Praying is also seen as part of the sacred birthing ritual. Comadronas traditionally pray at home and again at the home of the expectant mother before each birth they attend. They also pray to Saint Anna, the patron saint of the comadronas, lighting candles or leaving her yellow and white flowers (representing wisdom and purity) and other offerings. Many comadronas believe that God guides their hands when they attend a pregnant woman, and both praying and delivering the baby with their bare hands are seen as facilitating this connection.

“[Praying is] a matter of respect and what religion you're a part of. First we pray to God to give thanks for the birth of the baby. Because if we don't give thanks to God, he won't help and guide us. We invoke God throughout the entire process for the health of the mother and baby.”

—Ruth F., comadrona from San Pedro la Laguna

Comadronas may also engage in more invasive and involved techniques, such as conducting vaginal exams, pushing on the abdomen, and administering herbal remedies, all techniques for helping to expedite delivery or change the position of the fetus.<sup>10</sup> In Mayan culture, if the umbilical cord is wrapped around the fetus's neck, the infant's fate is likened to a “falling star,” that is, ascribed to bad luck. Rather than follow modern medical practice, which might call for a Caesarean section, comadronas may attempt to deliver the child, encouraging those attending to throw a handful of dirt on it to bring it closer to the earth.<sup>11</sup>

Mayan culture considers disease to have either traditional or biomedical causes. Traditional causes include *mal de ojo* (the evil eye); *empacho* (indigestion or ingestion of an inedible item); an imbalance



between heat and cold or air and sun; or *susto* (fright). Biomedical causes include, among others, season of illness (for example, the rainy season), infection, eating habits, and inadequate care. Several beliefs surround how a child can get *mal de ojo*, but the most common are that the mother, when pregnant with the child, picked up or carried another baby or felt jealousy or envy relating to another child or parent or any other cause.\* Placing a red bracelet around a newborn's wrist

can protect him or her from the *mal de ojo*: Red is the color of blood, which the Mayans see as where the spirit resides, and it is thus very powerful. According to the *comadronas*, *mal de ojo* can be cured in several ways, but two common practices are either to roll an egg over the baby's body and then throw the egg into a fire or to place garlic and *ruda*\*\* under the baby's pillow.

Mayans place strong emphasis on balance—particularly on maintaining balance between hot and cold—and believe that transgressions

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\* Explanations and background of various Mayan maternal health practices were provided by *comadronas* participating in focus groups, further described in Section VII.d of this paper.

\*\* *Ruda* (*Ruta graveolens*) is a perennial herb or small shrub commonly known as rue. Native to the Mediterranean region, it has a strong odor and bitter taste and has been used in magic rituals at least since antiquity.



of this equilibrium can lead to diseases requiring the intervention of specialists.<sup>12</sup> Pregnancy is viewed as a “hot” process, and many comadronas therefore advise their patients to avoid heat or the sun and to limit their intake of hot drinks and food. After a woman’s contractions and delivery begin, the process transitions to a “cold” one, and comadronas discuss the importance of keeping the mother well covered to balance the body’s cold temperature.

After birth, many comadronas administer a postpartum abdominal binding to their patients to facilitate a quick return to their pre-gestational figures. A length of cloth is wrapped around the patient’s lower abdomen to help return back into place bones that shifted during pregnancy and birth. Another common postpartum practice is to give the mother a hot herbal bath on the third and eighth day after the birth to restore her humoral balance to neutral, another technique believed to stimulate milk production. Comadronas attempt to increase the flow of breast milk by administering to their patients warmed Moza (a Guatemalan beer), cups of Ixhbut tea, or a tortilla Atol (a traditional hot, sweetened corn beverage) with chili peppers.

During the focus groups, some comadronas said they serve women hot chamomile tea to calm them before or after delivery. Other comadronas encourage women to eat certain foods before or after delivery or to feed their newborn infants sugar to replace what they consider the “bad” or “dirty” colostrum that precedes breast milk, a practice discouraged in modern Western medicine.<sup>13</sup> Another important issue underscored by many comadronas is the placenta, expelled after the child is born, which among the Maya is seen as a major element of the birth and of the child’s subsequent life.

Once the placenta is expelled, the family buries it on land near where the child is expected to grow up, for good luck. Many women cited the importance of this ritual burial as a reason they were reluctant to deliver in a hospital. They noted uncertainty about what the hospital does with the placenta and concern that not being able to bury it could bring bad luck or ill health to the child.

“After I attend the birth, I deliver the placenta. And then they plant it in earth wherever the baby will live so that it can accompany him/her throughout his/her life.”

–**Andrea A., comadrona from San Pedro**

Another reason many women cited for not wanting to give birth in the hospital was that they feared no one present would be able to read the signs indicating any gifts the newborn might bring (for example, ability as a healer of *mal de ojo* or as a bonesetter). Without this indication, parents consider themselves ill-equipped to provide for the child’s future.<sup>14</sup>

## CHAPTER 4

# The Comadrona's Role in Indigenous Guatemalan Communities



Comadronas have played an important role in Mayan and other indigenous Guatemalan communities since they first existed, which historians estimate at around 2000 BC.<sup>15</sup> Although they are often called upon by members of their communities to help with various general health issues, as noted above, they primarily attend to women throughout pregnancy and labor and delivery, using a combination of allopathic methods and natural medicine.\* According to the Guatemalan Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Asistencia Social, MSPAS, referred to herein as the

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\* Allopathic refers to the treatment of disease by conventional means, such as by using pharmaceutical drugs, whereas natural medicine refers to the treatment of disease without drugs and using alternative means, such as teas, diet, and massage.



“I believe that God gave me this gift. I started to practice when I was 20 years old. I had a dream, and in that dream, God told me to be a comadrona and that I would be a different woman ... that I would be working and helping other women. I was uncomfortable because I didn’t have the confidence, but I had the same dream a couple of times. So, I began as a comadrona. I didn’t have any classes or formal education, but God gave me the skills.”

—Lucia I., comadrona from San Pablo la Laguna

“I have dreams, and they tell me things. Sometimes I dream of a woman I don’t know, and in the dream she is expecting a baby. And when I see the woman, I share the dream with her. [The woman] will tell her husband, and he’ll ask me if it’s a joke and I tell him no. But then in a couple of months they see—she is actually pregnant. I may also have dreams about whether it will be a boy or girl. It’s a gift from God.”

—Ruth F., comadrona from San Pedro la Laguna

Ministry of Health or MOH), an estimated 46 percent of Guatemalan women ages 15 to 64 years old live in rural communities, and 80 percent of them deliver in their homes with a comadrona in attendance.<sup>16</sup>

Comadronas traditionally take up their role through a combination of divine calling, expressed in dreams and visions, and family background: Many comadronas had mothers or grandmothers who had served as comadronas in their communities. The community considers selection as a comadrona to be a gift from Ajaw (the Mayan creator) and an honor.

Mayans believe that a woman who refuses this calling will be fated to suffer illness and misfortune. Those who accept their gift often claim to be guided by spirits who equip them with the tools or understanding necessary to perform their work. Most comadronas are illiterate and have little to no formal training. Historically they have acquired their maternal health and comadrona skills through observation, on-the-job training, and even through dreams or visions. These women are highly respected in their communities, and in many instances, they are even considered an extension of the families they serve. In the westernized public health sector, in contrast, comadronas are sometimes denigrated and discriminated against by clinically trained doctors and nurses because of their modesty, lack of formalized training or accreditation, limited mastery of Spanish, and traditional health practices.

## CHAPTER 5

# A Brief History of Guatemala's Traditional Health System

The commitment to respect and integrate indigenous practices and beliefs is not new in Guatemala. The country's 1985 constitution "recognizes the rights of people and their communities to their cultural identity in accordance with their values, languages, and customs." The 1996 Peace Accords and its Agreement on Identity and Rights of People also recognized the importance of traditional medicine in the formal health system and affirmed the government's duty to respect the scientific knowledge of indigenous peoples.<sup>17</sup>

In 1990, Guatemala committed to the global pledge to reduce the MMR by 75 percent as part of the United Nation's Millennium Development Goals. To this end, Guatemala implemented an integrated health system (Sistema Integral de Atención en Salud, SIAS) in 1999 that aimed to reduce infant and maternal mortality while decreasing health expenditures. SIAS recognized the importance of incorporating traditional comadronas into the national health care system through both additional formalized comadrona trainings and increased oversight and regulation, especially given the limited financial resources available for health care: Less than 1 percent of gross domestic product was allocated to the country's health care system during this period. Nearly 70 percent of these limited health resources were being directed to urban hospitals,

leaving minimal resources for rural health facilities.<sup>18</sup> SIAS viewed comadronas as critical initial prenatal care providers in rural communities, who could provide a first line of necessary care while identifying and referring high-risk patients and those facing complications to biomedical professions. This approach expanded the reach and influence of the MOH in rural regions without requiring significant additional expenditures or overwhelming the already understaffed health facilities.<sup>19</sup>



Under SIAS, comadronas remained the primary source of maternal health care for rural women, but they became subject to greater regulation and enforcement of MOH policies regarding training requirements. To practice in their communities, comadronas were



required to obtain certification and a corresponding “carnet” (identification). Certification was achieved by attending mandatory training courses that focused on actions essential to caring for newborns (such as clean umbilical cord care, immediate thermal care, and breastfeeding) and on the prompt recognition of and patient referral for obstetric emergencies. Comadronas were also required to document all deliveries they attended and to provide corresponding registration forms to the local health center, which in turn shared the documentation with the MOH.<sup>20</sup> Without this documentation, the baby would not be formally registered and would be unable to receive public benefits from the government during his or her lifetime. This requirement was intended both to garner more health information from rural areas and to decrease the legitimacy and popularity of comadronas operating without official carnets.<sup>21</sup>

The significant increase in the number of trained comadronas did not lead to expected improvements in health measures, however.<sup>22</sup> Studies during this time found a minimal positive (but not significant) correlation between these trainings and a comadrona’s knowledge of risk factors and conditions requiring referrals.<sup>23</sup> In its 2005 report *Make Every Mother and Child Count*, the World Health Organization acknowledged the errors of this approach, noting that “the strategy is now increasingly seen as a failure. It will have taken more than 20 years to realize this, and the money spent would perhaps, in the end, have been better used to train professional comadronas.”

The limited success is believed to be due in part to the structure and approach of the trainings, as discussed in the comadronas focus groups. Trainings were usually conducted in Spanish, rather than in the community’s indigenous language; they unintentionally degraded the comadronas by seeing them solely as mechanisms for referrals; and the content often contradicted the comadronas’ own experiences and beliefs. Many comadronas and their patients expressed reluctance to go to the hospital, because they feared the mother’s birthing preferences would not be honored and/or

their cultural practices respected. Furthermore, many comadronas felt their role was diminished when they arrived at a hospital with their patients, because they were blamed for not seeking formal care sooner or were asked to undertake assistants' tasks, such as cleaning, making beds, or bringing food for the patient. In addition, the law requiring certification was rarely enforced, so comadronas were typically not penalized for conducting a home birth without the requisite certification.

## CHAPTER 6

# A Summary of Current Maternal Health Interventions Among Indigenous Peoples in Guatemala

Several efforts have been made to integrate traditional health beliefs and practices into Guatemala's formalized care system. In 2000, the MOH started the National Program of Traditional and Alternative Medicine (Programa Nacional de Medicina Tradicional y Alternativa, PNMTA) to promote indigenous medicine. Mayan medicine was introduced into the nursing school curricula and into the Master of Public Health program at the San Carlos University in Guatemala City.<sup>24</sup> In 2008, the Guatemalan government established a Unit of Indigenous Populations in Health Care and Interculturality (Unidad de Atención de la Salud de los Pueblos Indígenas e Interculturalidad en Guatemala) to systematize these approaches and institutionalize a model of intercultural health services. This unit promoted initiatives such as a manual on Mayan medicine (*Conociendo la Medicina Maya en Guatemala*), to better recognize, understand, and respect the indigenous and Ladino populations' sociocultural differences and the ways they approach health care.



In addition, with the support of the 2007–2013 Maternal and Infant Health and Nutrition Project, financed by the World Bank, the MOH has rehabilitated and renovated 27 permanent health care centers (*centros de atención permanente*, CAPs) and eight maternal and infant integral health care centers (*centros de atención integral materno-infantil*, CAIMIs), emphasizing culturally sensitive interventions. These interventions include allowing mothers to deliver in birthing chairs or while squatting (often the preferred birthing position), the introduction of *temazcals* (traditional steam baths) in some facilities, sensitivity trainings for medical staff, and rules allowing local comadronas to accompany mothers. The MOH, with project support, also developed and implemented a multicultural communications strategy in both Spanish and seven widely spoken Mayan dialects: K'iche', Ixil, Achí, Q'anjob'al, Mam, Kaqchikel, and Q'anjob'al.

The MOH has also made significant strides in instituting policies that support the formalization of the role and preparation of lay comadronas. This includes incorporating mandatory trainings and workshops embedded within the comadrona licensing requirements.<sup>25</sup> The curricula for comadronas is intended to be both prevention- and

treatment-oriented. Training materials for comadronas focus on clinical and osteopathic knowledge used during antenatal care, including information on (i) preventing or treating any potential health problems during the pregnancy; (ii) identifying warning signs for at-risk pregnancies (including high blood pressure and pre-eclampsia); (iii) recognizing complications during labor and delivery (for example, hemorrhages); and (iv) providing comadronas with the tools and resources necessary to get the birth mother to a facility immediately, if necessary, so any complications can be addressed by a formally trained medical provider.

Comadronas are often also given and taught to use special birthing kits, filled with supplies and equipment they may need to attend women, such as gauze, scissors, tape, tweezers, latex gloves, and so on. The comadronas are expected to keep these kits always with them or nearby, so that if they identify warning signs for complications during pregnancy or labor and delivery the materials in the kit can be used to assist the woman before she reaches a medical facility.

The MOH has taken steps to enforce these policies and to ensure the comadrona role is institutionalized within the health sector. In 2015, the government established a National Policy for comadronas<sup>26</sup> with a view toward increasing recognition of their role and disseminating their knowledge, thus incorporating them into the health system as agents of change. The MOH has also established midwife training programs in two universities. Some aspects of the Government Agreement on the National Policy for Midwives for Guatemala, Maya, Garifuna, Zinca, and Mestiza, however, still require better definition. These include the explicit role of comadronas in the delivery of care and the incentives and/or payments for their work. As of June 2015, the MOH had recruited 4,913 midwives—26 percent of the required number—to meet its primary health care institutional health team staffing requirements. One reason for the lag is that the MOH may withhold or revoke official government comadrona licenses for those who do not complete the obligatory curriculum.

In recent efforts to improve the overall childbearing experience for women and to reduce maternal mortality in the country, several nongovernmental organizations and faith-based groups have also attempted to develop more formalized educational opportunities for comadronas. Designed to increase the skill set of comadronas in their communities, these organizations have developed programs and training curricula for women across the highlands regions.

One of the main challenges throughout this formalization process has been that nongovernmental and faith-based programming are rarely sustainable. Because a program's success within the formal public health system depends primarily on the individual clinical and training staff at the facilities, whenever a staff member leaves or takes on other responsibilities, these programs often fall by the wayside. Local health center personnel responsible for coordinating trainings for their area comadronas also tend to disagree on the frequency with which these trainings should take place.<sup>27</sup> In addition, currently existing trainings and programming for indigenous comadronas have not had formal third-party evaluations of the significance of their impact on maternal health indicators in these regions. Often, this leads to further marginalization of the comadronas and divisions between them and the clinically or biomedically trained providers staffing these facilities. Thus, despite actions and advances toward inclusion, implementation of training and evaluation efforts to date remains fragmented and with limited measurable results.

Many NGOs today continue to work to fill this void. These include organizations such as (i) the Ixmunacane Birth and Women's Health Center, a self-regulated comadrona center in Antigua that involves trained comadronas in the design and implementation of training activities; and (ii) Centro Cultural y Asistencia Maya (CCAM), a group working to develop innovative visual and interactive techniques for comadrona trainings.

Another recent initiative demonstrating early success is the establishment of *casa maternas* or birthing facilities in indigenous communities with highly concentrated populations. These centers provide



indigenous mothers with a birthing environment that is respectful and inclusive of cultural traditions. In addition to being medically equipped for emergencies, these centers are primarily run by nurses who speak Mayan; some centers even feature the traditional sweat bath or incorporate other cultural practices.

On November 17, 2017, the MOH issued a ministerial decree outlining its plans to scale up the new health management and care model (Sistema de Gestión y Atención) and providing general guidelines on how the government will strengthen the service delivery network comprising primary health care as well as linkages to secondary and more specialized levels of hospital care. The model will (i) deliver a holistic package of services, emphasizing reductions in maternal and child mortality and chronic malnutrition; (ii) cover all population



groups using a multidimensional approach (individual, family, and community), with a focus on gender and intercultural sensitivity, to plan and monitor health care activities and results; (iii) integrate MOH health care standards and health system monitoring; and (iv) deploy health institutional teams, composed of MOH staff, to provide services in existing health facilities as well as through mobile teams in areas as yet lacking MOH facilities.



## CHAPTER 7

# Maternal Health Pilot in Sololá

## Background

In May 2016, the Youth Innovation Fund (YIF) of the World Bank financed a pilot training program for indigenous comadronas in five communities in Sololá aimed at strengthening their capacity to identify and respond to the needs of women with high-risk pregnancies. Sololá is nestled in the Western Highlands of Guatemala and comprises nineteen towns built along the shoreline of Lake Atitlán and up in the hills. Sololá's MMR has historically been approximately three times higher than the national average and nearly six times higher than the MMR in Guatemala City.<sup>28</sup> Although no official or systematic registry of comadronas exists in Guatemala, the National Hospital of Sololá maintains a database of all 1,101 certified comadronas in the department. As part of the initial grant, trainings were conducted to assist a subset of these comadronas, with the goal of addressing the general lack of recognition among comadronas of warning signs during the birthing process, their failure to encourage their patients to attend prenatal visits, and their hesitancy and reluctance to refer high-risk patients to the National Hospital.

The Director of Gynecology and Obstetrics at the Hospital of Sololá noted that the training events helped improve the quality of care provided to expectant mothers in these communities and that the number of referrals to hospitals by trained comadronas increased. In the year following the trainings, she remarked that the number of

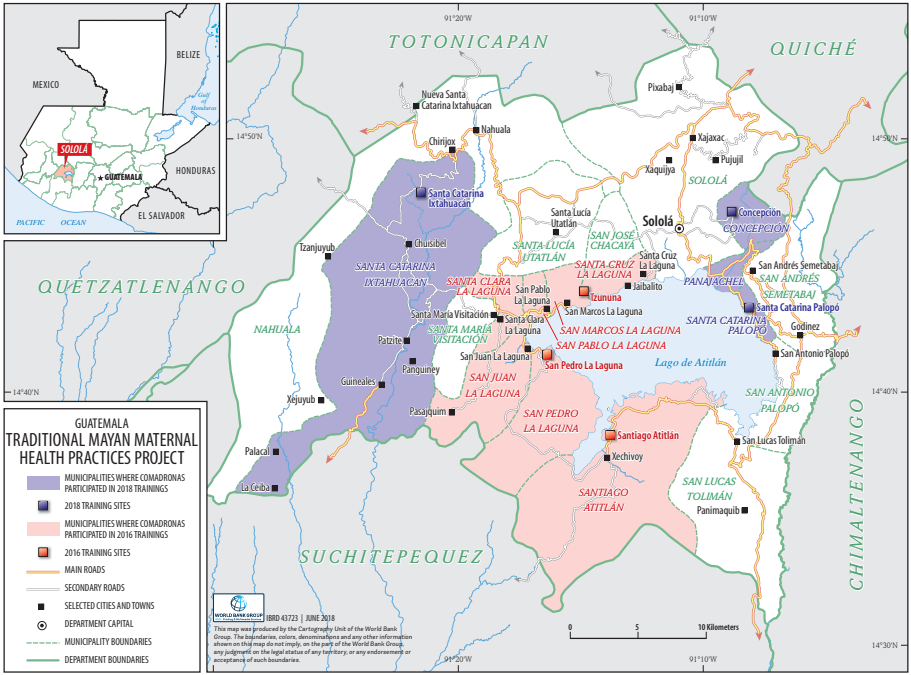
maternal deaths in the towns surrounding Lake Atitlán had decreased from 18 to 3, and that none of these deaths occurred in a town that had engaged in the training. Rooted in this success, the YIF provided additional financing in 2017 to scale these trainings to additional towns in the Department of Sololá, with the intention of transitioning the curriculum into a long-term, sustainable approach to addressing maternal mortality in Guatemala through the public health sector.



These trainings, by providing a culturally supportive environment that nonjudgmentally solicited feedback from participants, also identified several reasons why the comadronas were not applying some of the medical professionals' recommendations. One illustrative example was the common refusal by comadronas to use rubber gloves, a refusal interpreted by some hospital and NGO staff as indicating the comadronas' indifference to sanitary measures during the birthing process. Conversations during the trainings revealed the true reason for the comadronas' refusal: They perceived gloves as barriers to providing their patients with natural childbirths. Once trainers recognized this fundamental difference of perspective, they identified and taught alternative approaches that were not contrary to Mayan practices, such as providing soap and teaching proper hand-washing

techniques. This example underscores how important it is for providers to be well-versed in Mayan beliefs and practices to ensure that interventions minimize avoidable polarization of the two groups and generate the positive outcomes envisioned.

In this light, the 2017 YIF funding was also used to identify and document the cultural beliefs and practices around maternal health in Mayan culture by financing focus groups and additional comadrona trainings.



## Partnerships

To fully and successfully implement this project, the World Bank Project Team\* partnered with the MOH, including both departmental- and local-level officials.\*\* In addition, the Princeton Center for International Health (PCIH, formerly known as Naturopathic Medicine for Global Health), served as the primary partner in implementing the focus groups and MOH-sponsored trainings for the comadronas. PCIH has operated in the Guatemalan Highlands for eight years and is run by Dr. Carlos Cunningham, a medically trained and recognized naturopathic doctor. Since its founding in 2010, PCIH has created several vehicles to bring culturally sensitive health care to Sololá, including the creation of the world's first integrated and naturopathic medicine-focused community health worker programs, providing health promotion in local communities and delivering health care directly to patient's homes.

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\* The World Bank Project Team was led by Samantha Fien-Helfman and included support from Christine Lao Pena, Tania Dmytraczenko, Homa-Zahra Fotouhi, Naa Dei Nikoi, and Maryanne Sharp.

\*\* The MOH includes three levels of facilities: (i) health posts, which are generally staffed by one or two auxiliary nurses or a rural health technician and provide limited primary care health services to patients (such as those in Santa Catarina Palapo and San Marcos); (ii) health centers, which are typically open 24 hours per day, are staffed by physicians and nurses, provide more specialized services, and may contain resources such as blood banks for routine surgeries (such as Tzununa and San Pablo); and (iii) hospitals, located in the department capitals or cities, which typically provide more secondary—sometimes even tertiary—care services to patients (such as the Hospital of Sololá).

## Initial Trainings in 2016



The Department of Sololá is home to 1,101 registered comadronas who attend to approximately 63 percent of births outside a formal hospital setting. In May 2016, YIF grant proceeds financed three trainings for select midwives, addressing their limited capacity to recognize complications during pregnancy, labor, and delivery. This included a one-day training in the village of Santiago Atitlán; a one-day training in Tzununa (which included comadronas from San Marcos la Laguna, San Pablo la Laguna, Santa Cruz la Laguna, Jabalito, and Tzununa); and a one-day training in San Pedro la Laguna (which included comadronas from San Juan la Laguna). In total, 79 women attended. These specific villages were identified by staff of the Reproductive Health Department of the departmental hospital for their epidemiological data (high rates of complications and maternal deaths), and because comadronas at the clinics and health centers in these villages had not benefitted from substantial education to appropriately recognize warning signs for complications or proper protocol for escorting women who do face complications to a medical facility. A pre-test was conducted prior to the training sessions to measure the baseline

knowledge, attitudes, and beliefs of the participants on topics to be covered. All sessions were facilitated by MOH local-area leadership and conducted in a local health post. Each location included a group leader, instructional leader, MOH area supervisor, interpreter, comadrona coordinator, and local health center staff members.

Activities conducted during the training combined didactic, interactive, and visual learning methods and drew heavily on images and activities included in *Mas que una Sanador: Guía para la capacitación de comadronas tradicionales*, a capacity-building guide for comadronas, as well as the use of photographs provided by PCIH and the Hospital of Sololá.<sup>29</sup> Overall, the comprehensive curriculum included an introduction to the purpose and goals of the training sessions; prenatal guidelines; a lecture on and practice of proper hand-washing techniques; a video presentation of the complete conception-to-birth process; a review of warning signs for pregnancy or birthing complications and conditions for hospital referrals; role-playing activities with participants to reinforce their comprehension of learned topics, such as demonstration of the birthing process with use of a medical (pelvic) model provided by the MOH; and emergency planning. Participants received a stipend to cover the cost of their transportation, as well as a snack and lunch during the day. The MOH committed to assume development and implementation of future trainings as a part of the initial agreement.

## Focus Groups

The initial success of the 2016 grant-funded trainings was due to the recognition that comadronas are rooted in local culture and that, to be effective, trainings must be cognizant of this culture and incorporate traditional methods wherever appropriate. Given this perception, and to foster a deeper understanding of comadronas' behavior and priorities, additional financing provided by the YIF in 2017 was used to conduct eight focus groups with comadronas to gather qualitative information on Mayan beliefs and practices. Approximately 10 women—all of whom had participated in the 2016 sponsored trainings—were interviewed during the focus group sessions, which took place in San Pedro la Laguna, San Marcos la Laguna, and San Pablo La Laguna.

The Area Director at the Hospital of Sololá and the comadrona coordinator at each health center identified and assisted in recruiting comadronas to participate. Interview questions were expressed in Spanish



in San Pedro La Laguna and translated from Spanish to T'zutuujil (the local dialect) in San Marcos La Laguna and San Pablo La Laguna. Each interview began by presenting background on the purpose of the focus groups and obtaining the verbal consent of each comadrona to participate and to be recorded. The focus groups took place with the knowledge and consent of local health outpost representatives, PCIH, and the Hospital of Sololá.

## Trainings in 2018

As part of the 2017 YIF funding, four trainings were conducted in May 2018 by Rosa Amelia Tay Tuy, a Guatemalan comadrona and volunteer firefighter contracted by PCIH. One training each took place in the municipalities of Concepción and Santa Catarina Palapó and two in Santa Catarina Ixhuatacan, all located within the Department of Sololá; through these, 104 additional comadronas were trained. The MOH selected all locations, taking into account the limited education and capacity of the comadronas, the length of time since the last government-sponsored training in a community, and the occurrence of at least one maternal death in the preceding year. In Santa Catarina Palapó, the women spoke Spanish, so no interpreter was needed, but in the other two towns, interpretation was provided by the comadrona coordinator at the local health center. Because the comadronas had to travel long distances to reach the health center in Santa Catarina Ixhuatacan, transportation stipends were provided to ensure that finances did not present a barrier to participation. In Concepción and Santa Catarina Palapó, the MOH requested that transportation stipends not be provided.

The content for the trainings was very similar to that used in 2016, and for many of the comadronas the sessions served as a refresher course from other MOH-sponsored trainings or in-service learning program. The approach consisted of didactic, lecture-based training and video and other visuals designed to deliver the material to the women. Women reviewed the birthing process, identifying the fetus's position, calculating the woman's due date, the importance of emergency planning, prenatal vitamins and folic acid, proper hand-washing techniques, and situations in which the mother should go to the hospital and why. Women participated in a number of interactive activities, including practicing delivering a baby using a mannequin and cutting the umbilical cord, as well as role-playing activities through which they reviewed the information covered and applied it to various scenarios.





Although pre- and post-tests were not conducted as part of these trainings, as they had been in 2016, observers noted that the women were engaged throughout the training and appeared to retain significant portions of the content. When PowerPoint presentations and videos were presented, however, although the women watched, they were not nearly as engaged as they were when presented with handouts on the visual warnings signs of birth complications or high-risk pregnancies. During these sessions, the facilitator described each image in detail and discussed the issue and how to address it. When asked if they had seen anything like a particular warning sign in the course of their practices, the women responded by sharing their own experiences and discussing the tensions and mistreatment they felt they had experienced at the hospitals and health centers. Attendees also noted that they enjoyed the role-playing activities and mannequin demonstrations, including how to clean the vaginal area, proper hand-washing techniques, what to do if the placenta is not fully expelled, and managing situations in which a family member doesn't want the pregnant woman to go to the hospital.

It should be noted that the Coordinator for Reproductive Health for the Region (an employee at the National Hospital of Sololá) was present for the trainings in both Santa Catarina Ixhuatcan and Concepción. She expressed her support of the initiative and thanked the YIF for financing the trainings. She noted that government funds for trainings were extremely limited and that she was relying mostly on the work of local NGOs or the health centers themselves to provide trainings. She welcomed continuing the trainings and expanding them to other towns, but she did not appear willing or able to put government funds toward this initiative.

## CHAPTER 8

# Recommendations

To support the ongoing educational training of comadronas in Guatemala and, ultimately, contribute to further reducing the country's MMR, the YIF and the World Bank have derived from these initiatives four key recommendations for follow-up programs.

1. **Sensitize Guatemala's medical professionals regarding Mayan beliefs and practices and support the comadronas in their role as attendants to expectant mothers.** It is critical that medical professionals become sensitized to the existence, value, and importance of traditional health systems. These professionals should also openly acknowledge the role of the comadrona and allow her to enter the hospital and stay in the delivery room with her patient. As identified in the focus groups, sensitivity trainings should be mandated for facility-based clinical providers. Such trainings could help ensure that staff clearly understand the comadrona's conception of her role during pregnancy and labor and delivery as well as the practices and beliefs that may run counter to some of the advice clinical providers give pregnant women in the formal health facilities.
2. **Ensure that comadrona trainings are interactive, delivered in the appropriate language, and supported by the local midwife coordinator.** To ensure the timely identification of warning signs, trainings must be tailored to the community, delivered in the appropriate language, including participants' indigenous languages, and include input from the local comadrona coordinator. Visual handouts should be available for training participants, to diversify the usual more didactic training methodology. Wherever possible, the MOH should acknowledge and support traditional

health practices and incorporate them into the training curriculum. Information on naturopathic practices could help promote participants' acceptance and buy-in of the trainings, particularly given its natural alignment with many Mayan health practices. This recommendation reflects statements from the focus groups expressing interest in integrating naturopathic medicine into the curriculum. Ensuring participant engagement and understanding of the material will ensure successful knowledge transfer and local ownership through the comadrona coordinators and further sustain positive birthing outcomes in the community.

3. **Continue trainings for comadronas at regular intervals.** Moving forward, comadrona trainings should occur at regular intervals (the current training schedule is minimal and very ad hoc) such as once or twice a year. Regular periodic trainings will facilitate dialogue and improve relationships between the health practitioners working in the hospitals and the comadronas working in the surrounding communities.
4. **Create culturally sensitive programs that underscore the power of listening.** This program's outcomes have the potential to reach beyond the communities of Sololá. The comadrona trainings were effective primarily because they were rooted in a deep understanding and appreciation of the beliefs of those being served. The importance of tailoring interventions and development projects to local contexts cannot be overstated. All global development partners working with Indigenous Peoples, whether in Guatemala or elsewhere, should be careful to ensure that their programs incorporate the cultural and societal beliefs of the beneficiary community and empower and provide ownership to that community. Such an open approach will build accountability into the intervention, helping to ensure its long-term viability and success.

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