Community-Based Impact-Oriented Child Survival in Huehuetenango, Guatemala

USAID Child Survival and Health Grants Program
October 1, 2011 – September 30, 2015
Cooperative Agreement No: AID-OAA-A-11-00041

The Changing Role of Comadronas in the Highlands of Guatemala

Kaitlin Cassidy MPH

July 2013

Curamericas Global, Inc.
318 West Millbrook Road, Suite 105, Raleigh, NC 27609
Tel: 919-510-8787; Fax: 919-510-8611

The Community-Based Impact-Oriented Child Survival in Huehuetenango, Guatemala Project in Huehuetenango, Guatemala is supported by the American people through the United States Agency for International Development (USAID) through its Child Survival and Health Grants Program. The Project is managed by Curamericas Global, Inc. under Cooperative Agreement No. AID-OAA-A-11-00041. The views expressed in this material do not necessarily reflect the views of USAID or the United States Government. For more information about The Community-Based Impact-Oriented Child Survival in Huehuetenango, Guatemala Project, visit: http://www.curamericas.org/
Table of Contents

Executive Summary 3
Background 6
Goals of Investigation 7
Methods 7
Results 8
Discussion 13
Limitations 14
Recommendations 15
Appendix 16
The Changing Role of Comadronas in the Highlands of Guatemala
Kaitlin Cassidy
July 2013

Executive Summary

Background: The Guatemala Ministry of Health and Public Welfare (MSPAS) is struggling to reduce the extremely high maternal and neonatal mortality rates of the rural Mayan population of the country. While its official policy is to accomplish this by increasing health facility births attended by health professionals, it acknowledges the near-absence of accessible health facilities in many areas and the persistence of traditional home delivery preferences. MSPAS is therefore also taking a pragmatic “harm-reduction” approach that recognizes the critical role of Comadronas (traditional Maya birth attendants) in maternal/newborn health in traditional Mayan culture, by training Comadronas to do clean, safe deliveries, providing training in the essential newborn actions (ENA – clean umbilical cord care, immediate thermal care; and immediate breastfeeding), elements of Active Management of the Third Stage of Labor (AMTSL), and the prompt recognition and referral of obstetric emergencies. A rarely-enforced Guatemalan law forbids a Comadrona from doing a home delivery unless she has been certified as having received this training. But unacceptably high maternal and neonatal mortality persist in northern Huehuetenango department, the site of Curamericas’ Child Survival Project; the MSPAS strategy is not enough. Therefore Curamericas is creating strategically-located, community-owned birthing centers called Casa Maternas, staffed by skilled birth attendants who speak the local Mayan language and who attend deliveries 24/7 in culturally acceptable ways. This includes integration of the trained Comadronas into the Casa Materna, who accompany women to the Casa Materna, and assist in the delivery as an integral part of the Casa Materna team.

Each Casa Materna is strategically located to provide maximum physical access to the communities it serves. It is constructed, owned and managed by the partner communities. Each is staffed 24/7 by a Curamericas Guatemala on-call Auxiliary Nurse and two Support Women, continually trained in ENA, AMSTL, and neonatal resuscitation by an RN Supervisory Nurse. These staff also provide prompt recognition of and response to obstetric emergencies, including coordinating emergency transport. In addition, the Casa staff offer antenatal care, family planning counseling, Papanicolaou tests, and feature support groups for pregnant and lactating women and for adolescents. The Casas Maternas conform to a basic design that includes a waiting room/training room, birthing room, kitchen, bathroom (with running water and flush toilet), examination room, and recovery room. An important feature is the chuj, the traditional sweat-lodge used by Mayan women after giving birth. This is because cultural acceptability is paramount or the women will not use the Casa. They are attended in their native language, family is permitted to visit and perform non-obstructive traditional spiritual practices, and trained Comadronas are integrated into the Casa Materna team in a redefined role: they encourage the woman to deliver in the Casa Materna, accompany her there, and assist appropriately in the delivery. Comadronas continue to receive from the family their traditional payment for services. They participate in monthly trainings in the ENAs, elements of AMTSL and recognition and referral of complications provided by the Supervisory Nurse.

This training of Comadronas begins long before the Casa Materna is operational, done in coordination with the ongoing MSPAS certification trainings. Curamericas has added a component for home-based life-saving skills (HBLSS), taught by Master Trainers who were trained by trainers from the American College of Nurse Midwives. This equips the Comadrona to respond to obstetric emergencies with immediate life-saving measures, but still requires her to refer the mother and neonate to the closest health facility. Once a Casa Materna becomes operational, these trainings continue. However,
the training now also emphasizes delivery in the Casa Materna rather than in the home, with the Comadrona accompanying the woman there and helping with the delivery, primarily via pre- and post-delivery uterine massage under the supervision of the Auxiliary Nurse.  

Methodology: The goal of the investigation was to document the perceptions of the Comadronas regarding how their integration into the health care system is proceeding and how it can be further improved. We did key informant interviews with 36 Comadronas, 20 from San Sebastián Coatán, which had 2 operating Casa Maternas in Project Year 2 (October 2012-Sept 2013); and 10 from San Miguel Acatán and 6 from Santa Eulalia, where there are not yet operating Casas Maternas. The Comadronas were selected from a census of Comadronas done in 2013 that tallied all the Comadronas in the communities of project Phase 1 to represent as many communities as possible over a broad geographic area.

Findings: All 20 of the San Sebastián Comadronas had a positive perception of the Casa Materna, stating that it helps women and is appropriate for all deliveries. They feel it is a good alternative to the hospital, as the hospital is very far and expensive. The Casa Materna allows Comadronas to handle complications more safely and efficiently, and facilitates referrals and emergency transport. Many noted that the Casa has helped to reduce infant and maternal mortality. They think it is a clean, safe place to have a delivery, and they believe the staff of the Casa Materna is an asset, especially when complications arise. Of the 15 (75%) Comadronas that have used the Casa Materna, all of them say they have worked well with the staff. The Comadronas say that deliveries require them to work together; delivering the baby is not the job of just the nurses or just the Comadrona, but a job that requires teamwork. Some of the Comadronas who haven't used the Casa Materna often say that there is still a little bit of fear or discomfort coming to the Casa, but when they have come, everything has gone well. The majority mentioned doing prenatal uterine massage to check the position of the baby and postpartum uterine massage immediately after the delivery to prevent hemorrhage. A few described the prayers that they perform in order to protect the woman and child. Nearly half mentioned receiving the baby, cleaning the baby, and helping to cut the cord. Several said they advise mothers throughout pregnancy, mostly about nutrition.

In a home, the Comadronas say they are alone and have many responsibilities during the delivery, whereas at the Casa Materna there is a team of people who support each other and share the work. It removes a great deal of pressure, and she feels better knowing that if there is a complication, she will have support, and won't receive the blame if something goes wrong. Three Comadronas said that they won't work with a woman unless she agrees to deliver at the Casa Materna. The rest said they talk to their women and family about the Casa Materna and explain its function. However, the Comadronas also said that the decision to go to the Casa Materna is ultimately made by the woman and her family; if they say no, there is nothing more she can do. While some feel uncomfortable about this, others had a more defensive reaction and “washed their hands” of it, placing responsibility on the family should there be a bad outcome.

When asked how they felt regarding the integration of their roles with medical professionals, all of the San Sebastián Comadronas reported feeling good about the trend toward integration. They report a sense of teamwork and equality. The Comadronas and nurses learn from each other; no one is more important than the other. Also, in the communities the Comadronas now have more interaction with the Ambulatory Nurses during prenatal checkups, and they feel satisfied with their interaction and the support they receive.  

When asked which type of woman should give birth in her home or the Casa Materna, the 10 Comadronas from San Miguel and the 6 from Santa Eulalia offered the unanimous opinion that the Casa
Materna serves for complicated deliveries such as prolonged labor or breach position. However, if the delivery appears normal and the woman is in good health, it is the opinion of all of these Comadronas that the birth should take place at home. The Casa Materna is not viewed as a place for normal, uncomplicated deliveries. Nearly all expressed satisfaction with the training they have received and a desire for continued support, including more training, prenatal vitamins to provide women, and help with complicated deliveries. All responded that they would be willing to bring a pregnant woman to a health center, especially if there is a complication. Half, however, mentioned that their willingness to bring a woman to a health center is dependent on the knowledge and approval of the woman’s family.

**Discussion:** A key finding is the clear differences in perception of the Casa Materna: in both Santa Eulalia and San Miguel, the Casa Materna was viewed as a resource only when obstetric complications arise, but in San Sebastian Coatán, the Comadronas preferred deliveries at the Casa Materna, including normal deliveries. This perception increased as exposure to and usage of the Casa Materna increased. There is an apparent dose-response relationship to the Casa Materna: the more interaction Comadrona has with the Casa Materna, the more positive her perception and willingness to bring deliveries.

The responses of the San Sebastián Coatán Comadronas confirms the Project’s success in integrating them into the operation of the Casa Materna – they feel supported, part of a team, and relieved of the burden of having deliveries resting on their shoulders alone.

The strategy of beginning training Comadronas well before there is an operational Casa Materna seems to prepare the Comadronas for eventual integration once the Casa is operational. It accustoms them to working with health professionals, helps them accept a positive role for health facilities, and provides them with the skills they will need to participate fully in the Casa Materna team, as well as a better understanding of the limits of their abilities. With MSPAS already invested in training Comadronas in order to integrate them appropriately into maternal/newborn care, a clear path to sustainability is suggested if MSAPS then further supports this integration by adopting and funding the Casa Materna strategy.

**Conclusion and Recommendations:** The findings provide a ringing endorsement of our strategy to train and integrate Comadronas appropriately into the maternal newborn care through their integration into the Casa Materna. The San Sebastián Comadronas understand and accept their new role, and feel accepted by the Casa Materna staff as equal members of a team. The findings also support our strategy of coordinating with the MSPAS to train Comadronas long before there is an operational Casa to prepare them for eventual integration.

The dose-response relationship suggests that in areas still lacking a Casa Materna, more can be done to expose Comadronas to the Casas, such as facilitating dialogue between them and Comadronas who are using the Casas, as well as arranging visits and observations of deliveries. In addition, we have to recognize the limits of the influence the Comadronas have in persuading families to utilize the Casa. Often it is not the decision of the woman alone, but the decision is made with or by her husband or other family members. Therefore, increasing Casa Materna utilization will also require Curamericas staff working directly with husbands and families to help the Comadronas make their case.
The Changing Role of Comadronas in the Highlands of Guatemala

Background

The Guatemala Ministry of Health and Public Welfare (MSPAS) is struggling to reduce the extremely high maternal and neonatal mortality rates of the rural Mayan population of the country. While its official policy is to accomplish this by increasing health facility births attended by health professionals, it acknowledges the near-absence of accessible health facilities in many areas and the persistence of traditional home delivery preferences. MSPAS is therefore also taking a pragmatic “harm-reduction” approach that recognizes the critical role of Comadronas (traditional Maya birth attendants) in maternal/newborn health in traditional Mayan culture, by training Comadronas to do clean, safe deliveries, providing training in the essential newborn actions (ENA – clean umbilical cord care, immediate thermal care; and immediate breastfeeding), elements of Active Management of the Third Stage of Labor (AMTSL), and the prompt recognition and referral of obstetric emergencies. A rarely-enforced Guatemalan law forbids a Comadrona from doing a home delivery unless she has been certified as having received this training. But unacceptably high maternal and neonatal mortality persist in northern Huehuetenango department, the site of Curamericas’ Child Survival Project; the MSPAS strategy is not enough. Therefore Curamericas is creating strategically-located, community-owned birthing centers called Casa Maternas, staffed by skilled birth attendants who speak the local Mayan language and who attend deliveries 24/7 in culturally acceptable ways. This includes integration of the trained Comadronas into the Casa Materna, who accompany women to the Casa Materna, and assist in the delivery as an integral part of the Casa Materna team.

Each Casa Materna is strategically located to provide maximum physical access to the communities it serves. It is constructed, owned and managed by the partner communities. Each is staffed 24/7 by a Curamericas Guatemala on-call Auxiliary Nurse and two Support Women, continually trained in ENA, AMSTL, and neonatal resuscitation by an RN Supervisory Nurse. These staff also provide prompt recognition of and response to obstetric emergencies, including coordinating emergency transport. In addition, the Casa staff offer antenatal care, family planning counseling, Papanicolaou tests, and feature support groups for pregnant and lactating women and for adolescents. The Casas Maternas conform to a basic design that includes a waiting room/training room, birthing room, kitchen, bathroom (with running water and flush toilet), examination room, and recovery room. An important feature is the chuj, the traditional sweat-lodge used by Mayan women after giving birth. This is because cultural acceptability is paramount or the women will not use the Casa. They are attended in their native language, family is permitted to visit and perform non-obstructive traditional spiritual practices, and trained Comadronas are integrated into the Casa Materna team in a redefined role: they encourage the woman to deliver in the Casa Materna, accompany her there, and assist appropriately in the delivery. Comadronas continue to receive from the family their traditional payment for services. They participate in monthly trainings in the ENAs, elements of AMTSL and recognition and referral of complications provided by the Supervisory Nurse.

This training of Comadronas begins long before the Casa Materna is operational, done in coordination with the ongoing MSPAS certification trainings. Curamericas has added a component for home-based life-saving skills (HBLSS), taught by Master Trainers who were trained by trainers from the American College of Nurse Midwives. This equips the Comadrona to respond to obstetric emergencies with immediate life-saving measures, but still requires her to refer the mother and neonate to the closest health facility. Once a Casa Materna becomes operational, these trainings continue. However, the training now also emphasizes delivery in the Casa Materna rather than in the home, with the
Comadrona accompanying the woman there and helping with the delivery, primarily via pre- and post-delivery uterine massage under the supervision of the Auxiliary Nurse.

The staff of MSPAS host monthly trainings or capacitaciones for the Comadronas. Comadronas are being integrated into the national health care system through these training sessions. “In SIAS, the Guatemalan government contracts NGOs to provide basic health services that consist of maternal health, infant and child care, emergency medicine and disease control, and environmental control to jurisdictions of 10,000 people each in rural areas.” The Casa Materna has been contracted by SIAS to hold training sessions for the Comadronas in SSC. Trainings are largely focused on the Safe Motherhood paradigm which is based on the idea that “most maternal and infant mortality is preventable through skilled care at all points during pregnancy, the timely identification and referral of complications, and access to high-quality emergency care.” “The primary strategy of midwifery training programs in this model is to teach midwives to recognize the signs and symptoms of obstetric and newborn complications and to emphasize the role of the midwife in referring women to the formal health care system for prenatal care and obstetric complications. SIAS training courses occur once a month and last approximately four hours each time. Courses are given by contracted medical staff and are based on standardized SIAS materials.”

Goals of Investigation

The goal of this investigation is to document the perceptions of the Comadronas in the three Casa Materna municipalities (San Sebastian Coatan, Santa Eulalia and San Miguel Acatan) regarding their role in the community, the changes taking place in their job, their interaction with the Ministry of Health through SIAS, and the Casa Materna, and the expectations that they and the community members have for them. Through this investigation we seek to better understand the careers of the Comadronas and how the process of integration with the national health care system and nongovernmental organizations has affected their careers.

Methods

This study was performed by conducting one-on-one interviews with Comadronas from each of the three project areas. At the time of the investigation, there were two functioning Casa Maternas in San Sebastian Coatan, and one under construction in both Santa Eulalia and San Miguel. Because of this difference in exposure to the Casa Materna, two separate interview questionnaires were developed, one for Comadronas in San Sebastian Coatan and one for the remaining two municipalities (see Appendix A). The questions developed for the San Sebastian Coatan interviews included more questions about interaction with the Casa Materna and its staff, as well as deliveries in the Casa Materna, whereas the second questionnaire focused more on perceptions of the Casa Materna. All questions for both investigations were based off of suggested topics in the study protocol, and later edited and revised by both local Casa Materna employees and the principal investigators.

Because of their exposure to and interaction with the Casa Materna, more emphasis was placed on the interviews with the Comadronas from San Sebastian Coatan. In-depth interviews took place with 20 Comadronas from the municipality within a two-month time period. The interviews were designed to last around 30 minutes, and ranged from 21 to 53 minutes. Interviews took place either at the Casa Materna in Santo Domingo during the monthly training sessions hosted by SIAS, or in the home of the Comadrona. The interviews were facilitated by bilingual Chuj-Spanish translators, which were audio-recorded and later transcribed in Spanish and translated to English. The translators were either Casa Materna staff members of Health Educators form the Supervivencia Infantil project. A list of Comadronas was compiled by the Health Educators, identifying all or most of the Comadronas residing
in communities in the Phase 1 portion of *Supervivencia*. Comadronas were selected from this list in an attempt to have representation from as many communities as possible.

In Santa Eulalia and San Miguel Acatán brief interviews were conducted by the Health Educators with Comadronas of their choosing. These interviews tended to be shorter, lasting around ten minutes, and were conducted in Akateko and Q’anjob’al in San Miguel and Santa Eulalia respectively, with brief responses recorded in Spanish.

**Results**

**San Sebastian Coatan**

**Demographics:** The 20 Comadronas were from 17 different communities within San Sebastián Coatán. The Comadronas interviewed ranged in age from 26 to 74, with an average age of 50.4 years old. The average number of years worked as a Comadrona was 17.7, ranging from 2 of training to 35 years of experience, and the average number of births reported in the past 12 months was 9.5.

**Interaction with the Casa Materna:** Fifteen (75%) of the Comadronas had at least one delivery at the Casa Materna in either Calhuitz or Santo Domingo. One Comadrona had brought deliveries to both Calhuitz and Santo Domingo, four had only used the Casa Materna in Santo Domingo, and the remaining ten had only used the Casa Materna in Calhuitz. Five (25%) of the Comadronas had no deliveries at the Casa Materna, but of the five three had no interaction at all with the Casa Materna, while the remaining two were familiar with the Casa Materna either through trainings or services. Some of the Comadronas had more than 50 births at the Casa Materna, while six had only used it once. Assisting a delivery indicates that the Comadrona worked jointly during labor and delivery with the Casa Materna staff nurse and/or support women, providing assistance and information, as well as performing cultural and/or religious rituals during normal births. A Comadrona may also bring a client to the Casa Materna after observing an obstetric sign of danger for further examination and treatment.

All (100%) of the Comadronas had a positive perception of the Casa Materna, stating that it helps women and is a benefit to the community. They feel it is a good alternative to the hospital, as the hospital is very far and expensive. The Casa Materna allows Comadronas to handle complications more safely and efficiently, and facilitates referrals and emergency transport. The Casa Materna also has medications available that the Comadronas do not have. Many noted that the Casa has helped to reduce infant and maternal mortality. They think it is a clean, safe place to have a delivery, and they believe the staff of the Casa Materna is an asset, especially when complications arise.

Of the Comadronas that have used the Casa Materna, all of them say they have worked well with the staff. The Comadronas say that deliveries require them to work together; delivering the baby is not the job of just the nurses or just the Comadrona, but a job that requires teamwork. Some of the Comadronas who haven’t used the Casa Materna as often say that there is still a little bit of fear or discomfort coming to the Casa, but when they have come, everything has gone well. (Much of the fear or discomfort that the Comadronas reference stems from a lack of interaction with the Casa Materna or similar facilities. Many of the Comadronas and women have had negative experiences at hospitals and associate all medical facilities with one another. When discussing their experiences at hospitals, many of the Comadronas said that they and their clients were made to wait a significant amount of time, Comadronas and family members were separated from the woman, and the staff of the hospital was dismissive and did not acknowledge her role as a Comadrona). Two Comadronas stated that there have been family members who had a problem with the Casa Materna staff being present and the Comadrona had to mediate, which was difficult for her. There were also some misperceptions from the women who had not yet used the Casa, such as that the staff only spoke Spanish or a misunderstanding of the cost. However, once these misperceptions were addressed during the interview and clarified, they all stated they would be able to work with the staff in the future.
When asked if they had faced any obstacles working with the Casa Materna, none of the Comadronas cited any problems with the Casa Materna itself. One mentioned distance as a barrier (traveling from her community of Tiajaila to the Casa Materna in Santo Domingo could take well over an hour in a vehicle) to using the Casa, and two others mentioned that sometimes problems arise with the women or with their families, who don’t want to use the Casa Materna. Sometimes they are embarrassed or uncomfortable, and don’t want the staff examining them. One Comadrona mentioned that early on, her community had a bad perception of the Casa Materna and because she was supporting the Casa Materna, she was "selling herself to Calhuitz", especially for Calhuitz’s affiliation with the United States. Since then, however, because of community dialogue and exposure to the Casa Materna and the Supervivencia Infantil project, her community has become an associated community with Curamericas Guatemala.

The majority of the Comadronas said that everything is going well with the Casa Materna so far. Some suggestions included more medications, especially in Santo Domingo, and more equipment such as a sonogram. Another Comadrona mentioned that having a permanent doctor would be helpful for the women as well as perception in the community, as would increasing operational capacity to be able to perform surgeries so that women wouldn’t have to travel to the hospital. One Comadrona mentioned having more Casas in more locations. Also, in some communities where use of the Casa Materna is uncommon, such as Yoxaca, clarifications about the costs associated with the Casa Materna and other information are necessary. The Comadronas and the community members are hesitant to use the Casa Materna because they believe each delivery costs 500 Quetzales and the families can’t or are unwilling to pay the cost.

**Deliveries at the Casa Materna:** When prompted to describe their responsibilities during a delivery at the Casa Materna, nearly all of the Comadronas said it was their responsibility to look after the pregnant woman to make sure that the delivery goes well and working together with the Casa Materna staff. The majority of the Comadronas mentioned doing massage on the woman, which mainly consists of prenatal massage on her stomach to check the position of the baby and postpartum massage on the stomach immediately after the delivery to prevent hemorrhage and on her head to prevent fainting. A few of the Comadronas described the prayers or secrets that they perform in order to protect the woman and child, and all of the Comadronas who were asked acknowledged doing this as well. Nearly half of the Comadronas mentioned receiving the baby, cleaning the baby, helping to cut the cord, or performing other such duties. Several Comadronas also said they give advice to the mothers throughout her pregnancy, mostly about nutrition.

When asked about the differences between a delivery at the Casa Materna and in a home, sixteen of the Comadronas were in agreement that a delivery at the Casa Materna is better for many reasons. Some of the reasons they mentioned were: the Casa Materna is always clean and safe, whereas in a woman’s house it is not necessarily clean (15%); at the Casa Materna all of the materials are already prepared and sterilized, whereas in a home the Comadrona has to do everything herself (15%); in the Casa Materna they give clothing to the baby (10%); they have a lot of materials and medications at the Casa Materna (25%); if there is a complication it is very easy to get a reference to the hospital (25%); and the most common difference was the help they receive from the staff (30%). In a home, the Comadronas are alone and have many responsibilities during the delivery, whereas at the Casa Materna there is a team of people who support each other and share the work. It removes a lot of pressure from the Comadrona, and she feels better knowing that if there is a complication, she will have support, and won’t receive the blame if something goes wrong. Of the remaining Comadronas, three said that there weren’t any differences and that the process was the same, while one said she didn’t know because she had never had a delivery in the hospital or the Casa Materna.

None of the Comadronas identified any limitations at the Casa Materna when asked if any cultural or religious limitations existed. One mentioned that at the hospital, Comadronas are not seen as
vital elements of the delivery, but at the Casa Materna they are. Thirteen Comadronas said that the Casa Materna does not have limitations; it serves and welcomes everyone with open arms, without discrimination. Two Comadronas stated that sometimes in the communities the Casa Materna isn't fully accepted, but at the Casa itself, there have been no problems.

**Community Perception:** When asked what they can do, or what they need to best serve their communities, the consensus of the Comadronas is that they do everything they can to help their community by working with the women, advising them, and helping them have a normal pregnancy. Many mentioned looking for signs of danger and bringing women to the Casa Materna if any complications or dangers are identified. Three also mentioned that it would be better for them if they had trainings in their communities, which are far from the Casa Maternas, as well as having more regular visits from health personnel, instead of just once a month, so they can have more help and support in their community. One Comadrona suggested having a doctor and operations at the Casa Materna. Another mentioned more vitamins and medications for the pregnant women, and more materials for the Comadronas. A few also said that their continued trainings and application of what they have learned helps their community.

Five of the Comadronas had not used the Casa Materna, but said they would promote its services with their pregnant women in the future. The rest of the Comadronas responded that they do promote the services of the Casa Materna. Three Comadronas outside of Calhuitz said that they make it mandatory that their patients give birth at the Casa Materna or they won’t work with the woman. The rest said they talk to their women about the Casa Materna and explain its function, and a few mentioned specifically talking to the spouse or family members. However, the Comadronas also said that the decision to go to the Casa Materna is ultimately made by the woman and her family, so she tries to advise them, but if they say no, there is nothing more she can do. In the end, they say, it is not their decision and if the women don’t want it that is how it has to be, even if the Comadrona is uncomfortable with it and would prefer to have the birth at the Casa Materna.

All of the Comadronas except for one, 95%, said that there have been a lot of changes in their role or job as a Comadrona in the past five years. Some of these changes included: since the Casa Materna opened they no longer having to attend births alone, they receive help during delivery, and they have a clean, safe place to bring their women (30%); more trainings about a broader range of topics with more interaction and demonstrations (45%); more general knowledge about pregnancy and labor and delivery (10%); increased communication with and recognition from healthcare personnel (25%); and awareness of signs of danger during pregnancy and delivery (5%). General trends in maternal health were also noted including: increased access to and utilization of health services and the Casa Materna by women and Comadronas (25%); improved health behaviors from pregnant women such as earlier prenatal checkups and consumption of nutritious food and vitamins (15%); more services such as vaccinations in each community (15%); and fewer infant and maternal deaths (25%).

When asked to define their role, the majority of the Comadronas said that their main role is to look after the women in their communities by going to visit them in their homes, making sure they and their child are in good health, and that there is no danger. They check to make sure the baby is in good position, give massages to the women, and to do everything possible to avoid any deaths. They also mentioned a large sense of responsibility; they are in charge of their women and are responsible if anything goes wrong, and the lives of the woman and child are dependent upon them. Many also mentioned the importance of their monthly SIAS trainings on their function as a Comadrona, and that it is their responsibility to learn all they can and apply the techniques they learn to avoid deaths.

**Interaction with the Ministry of Health:** The majority of the Comadronas were not very familiar with the functions of the Ministry of Health and many said they had little interaction. The most commonly cited interactions included: distribution of vitamins, proportioning materials (towels, scissors,
clamps, thread, needles, etc.) to all of the Comadronas, paying for transportation to trainings, and the trainings themselves, although a quarter of the Comadronas didn’t know what institution was responsible for their trainings. They did say, however, that they felt supported and that all of the things they mentioned have made their jobs easier. The Comadronas from Chenen mentioned working very closely with the Ministry of Health and having good relations with them. They felt that they are a vital part of the community and very important to the MOH and to pregnant women.

More than half of the Comadronas had heard nothing regarding the opinion of the Ministry of Health towards Comadronas. The two Comadronas from Chenen feel very well recognized, valued, and like an important part of the health team. Four mentioned that Comadronas are important to the Ministry of Health for reasons such as women are required to have Comadronas, they train the Comadronas, and there are consequences if something goes wrong.

When asked how they felt regarding the integration of their roles as Comadronas with medical professionals, all of the Comadronas reported feeling good about the trend toward integration. Many of the Comadronas felt grateful for the medications that exist now, and the access they have to those medications, which they can administer to their patients, or can easily facilitate access for their clients at a health center. Working with the Casa Materna, the Comadronas said there was a sense of teamwork and equality. The Comadronas and nurses learn from each other; no one is more important than the other, and they have to work together as a team. Also in the communities the Comadronas have more interaction with nurses during prenatal checkups and vaccinations, and they feel satisfied with their interaction and the support they receive.

San Miguel Acatán

Demographics: Ten Comadronas were selected from eight different communities within San Miguel Acatán. The Comadronas interviewed ranged in age from 42 to 80, with an average age of 60 years old. The average number of years worked as a Comadrona was 25.2, ranging from 2 to 67 years of experience, and the average number of births reported in the past 12 months was 8.

Perceptions of their role: When asked how their role has changed in the past ten years, the most commonly cited change, from seven of the ten Comadronas, in the past 10 years has been the increase in trainings and the knowledge acquired from the SIAS and Curamericas trainings. Comadronas felt they had more knowledge to attend births which can be assumed led to increased self-confidence and self-efficacy. Two Comadronas said that they have seen no changes and their role has remained the same. However, the majority stated that the job has improved by making emergency plans with each family, increased access to medical facilities, and increased knowledge and experience.

Many Comadronas mentioned an increased sense of trust between them and the women they work with when asked about the opinion of women in their community regarding their role. Some said they weren’t sure how their opinions have changed, while two mentioned a sense of gratitude among the women for the job they perform, and a sense of contentedness with the Comadronas.

When asked their opinion regarding what the role of the Comadrona should be in the future, responses to this question varied from unsure, to a desire to continue working as long as possible, to the opinion that the job will improve and change because of trainings and increased experience.

Perception of the Casa Materna: When asked which type of woman should give birth in her home or the Casa Materna, the unanimous opinion of the Comadronas is that the Casa Materna serves for complicated deliveries. If it is prolonged labor, breach position, if the woman is lacking strength or malnourished, each Comadrona agreed that the woman should be taken to the Casa Materna. However, if the delivery appears normal and the woman is in good health, it is the opinion of all of the Comadronas that the birth should take place at home. The Casa Materna is not viewed as a place for normal, uncomplicated deliveries.
Each of the ten Comadronas indicated that she would be willing to bring a pregnant woman to a health center and work with the staff there, especially if it were necessary to save the life of the mother or child. If there was a complication or risk, the Comadronas would be willing to bring their women for treatment or referral to the hospital. Two also mentioned working with local health centers while bringing women for their prenatal checkups.

Regarding what the Casa Materna/Curamerica's Guatemala can do for them in the future, the most common response was the allocation of more materials for attending births, such as towels, medicine like Oxytocin, and medical equipment used during delivery, as well as more trainings through SIAS and Curamerica's, and supervision and assistance by health personnel during births.

Interaction with the Ministry of Health: When asked about the opinion of the Ministry of Health toward Comadronas, almost half of the Comadronas had heard nothing about their opinion. Three Comadronas mentioned that the MOH holds Comadronas responsible for their patients, including when a mother or infant dies. Two Comadronas mentioned working with the Ministry of Health in the capacity of trainings they receive, as well as recommending women to attend prenatal checkups with MOH nurses in their communities and coordinating the job of the Comadrona with the MOH. When asked how the MOH has supported them in their job, the most common responses included the distribution of materials and equipment (towels, clamps, suture equipment, and others), and/or trainings received from the MOH. When asked about institutional obstacles that have made their job more difficult, one Comadrona said that sometimes patients are not seen in hospitals when referred or it takes a very long time, while the rest reported no obstacles.

All of the Comadronas reported feeling good, happy, content, or satisfied with the integration of their job with medical professionals because they are happy in their jobs, that they learn from the trainings, and medicine (ie. Oxytocin, Misoprostol) assists them in their jobs. 

Santa Eulalia
Demographics: Six Comadronas were selected from six different communities within Santa Eulalia. The Comadronas interviewed ranged in age from 43 to 82, with an average age of 56.7 years old. The average number of years worked as a Comadrona was 26.6, ranging from 7 to 45 years of experience, and the average number of births reported in the past 12 months was 11.8.

Perception of their role: Regarding perceived changes in the past ten years, two of the Comadronas reported that nothing has changed in their role; however two mentioned increased interactions with the Ministry of Health and feeling that Comadronas are more important now that they are recognized by the government (through the monthly SIAS trainings, provisions of basic supplies, and the issuance of a carnet license) and they make references to the local health posts when there are complications. The remaining two cited the trainings they receive as the biggest differences, which have improved their abilities as a Comadrona and expanded their knowledge about topics such as colostrum and clean and safe deliveries. All of the Comadronas but one responded that their job has improved due to trainings, support from the health posts during checkups and deliveries such as assistance from health personnel, medicines and referrals, and better pay. One Comadrona said that her job has gotten worse because there is less work for the Comadronas.

When asked how the opinion of the women in their community has changed, the majority of Comadronas cited improved relations with women in their communities. Examples included pregnant women seeking their services earlier in their pregnancies, better understanding of their job and high regard for their work, and greater compliance to their advice, such as attending services at the Health Post. Two Comadronas referenced working more with medical professionals, one saying that women in her community are not interested in working with Comadronas, only doctors.

When asked about the future of their job, all of the Comadronas expressed a desire to continue working, and the opinion of many of the Comadronas was that their job will improve in the future if they...
continue to receive or receive more training and support from health personnel. One Comadrona addressed the challenges that some Comadronas face due to their lack of formal education, while another expressed a desire to learn more about the legal context of their jobs, such as the legal rights of the Comadronas, the pregnant women, and their families during a delivery.

**Perception of the Casa Materna:** The general consensus of the Comadronas is that women with complications or those who present with signs of danger should have their delivery in the Casa Materna. Examples included if women have high blood pressure or are weak, if she is primiparity, if the fetus is in a bad position, if she presents any of the signs of danger, if they have any physical or mental illness, or if there are any other complications. All of the Comadronas believed that if the woman was in good health and there weren't any signs of danger, that a woman should give birth in her home.

All of the Comadronas responded that they would be willing to bring a pregnant woman to a health center, especially if there is a complication such as the woman not taking her vitamins or a complication during the delivery. Half of the Comadronas, however, mentioned that their willingness to bring a woman to a health center is dependent on the knowledge and approval of the woman's family. Two responded that they would be willing to take them because they help take care of the woman and baby, they have more resources, and it is faster and easier to get a referral if there is a complication.

Each of the Comadronas expressed a desire for continued support for themselves and the women they see. Examples of support for mothers included more vitamins and education for the women about the job of the Comadrona and the necessity of her prenatal checkups. Examples of support for the Comadronas included more training, improved community services, more materials and equipment, finding help during complicated deliveries, and providing support for the Comadronas during complicated deliveries. In Santa Eulalia, because there is not yet a Casa Materna, this support and services come from the government through SIAS, supplemented by educational sessions from Supervivencia Infantil.

**Interaction with the Ministry of Health:** Five of the six Comadronas thought the Ministry of Health had favorable opinions of Comadronas since the MOH requires that all women have a Comadrona, they help and assist Comadronas through trainings and distribution of materials, and support and work with the Comadronas to prevent maternal deaths. In terms of the support that the MOH gives them, the Comadronas referenced the trainings in deliveries and awareness of signs of danger, consultations, distribution of vitamins and equipment, and support from the staff during complicated births. Some of the institutional obstacles mentioned by the Comadronas included long waits at the hospital, especially for last minute referrals, substandard care for the women when they are referred, and issues with the MOH and local personnel following a maternal death. Two of the Comadronas said they had not faced any obstacles.

Four of the Comadronas reported feeling good or satisfied, especially with the use of modern medicines which have helped their patients, such as vitamins and misoprostol. One however, said she only uses these practices when supervised by health personnel, indicating that unless at a health facility or under direction of a health professional, she does not feel comfortable administering medicines. One Comadrona reported that there was no interaction, and another responded that she was not satisfied because sometimes the medicines that she is instructed to give her women does damage to her patients, though she did not elaborate on which medicines nor the harm done to her patients.

**Discussion**

Despite being from three separate municipalities, on some topics commonalities were seen across the majority of the Comadronas. When prompted to describe changes in their roles, most of the Comadronas referenced similar factors such as increased training, increased access to medicine, increased interaction with and support from health personnel, and improved birth outcomes. The type
of interaction with health personnel varied across municipalities. In San Sebastian Coatan more emphasis was placed on interaction with the Casa Materna whereas Santa Eulalia Comadronas claimed to have more interaction with the Ministry of Health. Monthly trainings, provisions of delivery supplies, and distribution of basic medicines and vitamins were cited in all three locations.

One major difference between the Comadronas was the perception of the Casa Materna. In both Santa Eulalia and San Miguel, the Casa Materna was viewed as a resource when obstetric complications arise, but all of the Comadronas preferred home delivery when possible. However, in San Sebastian Coatan, many of the Comadronas preferred deliveries at the Casa Materna in all scenarios, including normal deliveries. This perception increased as exposure to and usage of the Casa Materna increased. All of the Comadronas from all three municipalities stated that they would be willing to bring a woman to healthcare facility for a delivery and work together with the staff, however, many did state, across locations, that this decision was dependent on the family of the woman. Only a small minority of Comadronas in San Sebastian Coatan stated that they would not work with a woman if she did not agree to have her delivery at the Casa Materna.

When asked what they need or would like in the future, all of the Comadronas across the communities indicated similar desires. Most commonly cited among the Comadronas was a continuation of training, and additional supplies and materials. Comadronas in all three municipalities valued their training and stated they would like more. They also mentioned materials such as towels, clothing, medical equipment, and medicines. Comadronas in San Sebastian Coatan made more specific requests such as a sonogram at the Casa Materna, full time doctors at the Casa Materna, and increased capacity to accommodate surgery such as emergency cesarean-section.

An interesting and important observation resulting from these interviews is an apparent dose-response relationship to the Casa Materna. The more interaction and deliveries a Comadrona has at the Casa Materna, the more positive her perception and willingness to bring deliveries. In Santa Eulalia and San Miguel, where there is not yet a functioning Casa Materna, it is seen only as a resource for complicated deliveries. In San Sebastian Coatan, Comadronas who have not yet used the Casa Materna have a similar perception, whereas Comadronas who have used it at least once were more likely to see it as a resource for normal deliveries as well. Some of the Comadronas who had only used the Casa Materna a limited number of times still felt some fear or hesitation using the Casa due to experiences at area hospitals, but as usage increased, the Comadronas felt increasingly comfortable, familiar with the staff, and were more likely to recommend the Casa Materna to their clients.

Exposure to the Casa Materna in San Sebastian Coatan also seemed to bring some confusion to the Comadronas regarding the role of the Ministry of Health, SIAS, and the Casa Materna. Several Comadronas in San Sebastian Coatan said they did not know the opinion of the Ministry of Health toward Comadronas and said they were unsure of what type, if any, interaction they had had with the Ministry of Health. There seemed to be confusion differentiating between the services and support provided by the Ministry of Health and the Casa Materna. This could be due in part to the fact that many of the Comadronas attend SIAS training at a Casa Materna, with staff members from Curamericas Guatemala, where the Casa Materna and SIAS are very integrated. In communities within San Sebastian Coatan where they do not attend the trainings at a Casa Materna, such as Chenen, there seems to be much more positive perception of the interaction with the Ministry of Health. The Comadronas from Chenen stated much more direct communication with MOH staff and more involvement in prestaciones (community checkup/medical service days). This trend was also observed in Santa Eulalia, as well as San Miguel. There seemed to be a greater knowledge of the services of the Ministry of Health and a better understanding of from whom they receive support.

Limitations
This study had several limitations. Selection for these interviews was largely based on convenience. Several of the interviews conducted in San Sebastian Coatan took place during the monthly SIAS training at the Casa Materna in Santo Domingo, therefore all of those Comadronas had previous exposure to the Casa Materna, though not all of them had used it for deliveries. Interviews conducted during the training sessions tended to be briefer and put more emphasis on the utility of the trainings. Interviews conducted in the field were also based on convenience. The job of the Comadrona is largely ambulatory and requires that she is outside of her home throughout the day. Interviews were conducted with Comadronas that were available at their home on the day of the interviews.

Another limitation was the language barrier. Interview questions were written and asked in Spanish, translated to the local dialect by a translator, and the responses were then translated back to Spanish and recorded. Throughout the interviews, a number of translators were used, each with varying levels of Spanish language ability, which could have affected their ability to accurately convey the questions and responses. Additionally, all of the translators used were affiliated with Curamericas Guatemala and the Casa Materna, and therefore could have led to biased responses from the Comadronas. Also, in Santa Eulalia and San Miguel, brief notes were taken as responses to the interview questions, so there was no opportunity for follow-up or clarification.

Recommendations

Based on responses from the interviews, it appears that the biggest barrier to utilization of the Casa Materna is community perception and acceptance. Some of the resistance stems from misinformation or general lack of knowledge of the Casa Materna. In some communities the Comadronas had never used the Casa Materna, never been to a training with the Casa Materna, and had never met a woman or Comadrona who had used the Casa Materna. While they had heard of the Casa Materna, they had incorrect information about the staff, the cost of a delivery, and services provided, despite being associated communities of Curamericas Global. There needs to be a more direct information channel between the Casa Materna and the Comadronas of these communities so that they are correctly informed and can disseminate the information to their clients. This could be achieved through individual meetings/informational sessions with Curamericas Health Educators or Casa Materna staff, or an open house, in which transportation is provided for the Comadronas to visit the Casa Materna, converse with the staff, and familiarize themselves with the Casa and its services. The Casa Materna could also facilitate conversations between Comadronas who have used the Casa Materna with those who have not, as well as women who have and have not used it, so they can hear firsthand accounts of the experiences from their peers.

The other factor leading to the underutilization of the Casa Materna is a sense of powerlessness or lack of involvement of the Comadrona in the decision making process in terms of where a woman will deliver. Most of the Comadronas stated that though they recommend the Casa Materna, it is ultimately not their decision and can do nothing more after making the suggestion. While some feel uncomfortable about this, others had a more defensive reaction and “washed their hands” of it. Often it is not the decision of the woman alone, but it the decision is made with or by her husband or family members. This problem could be addressed in several ways. For example, the Casa Materna or Curamericas Guatemala staff members could host workshops or trainings with the Comadronas in order to equip them with skills and information to better address this topic with their clients, or providing more of an incentive for Comadronas to bring their clients to the Casa Materna. Additionally, there should be community forums that target men and inform them about the Casa Materna, as they are usually the main decision makers. Topics such as comparative costs of complications, time and money saved, conditions, and outcomes should be addressed. If Comadronas feel empowered to be more assertive in
the decision making process and women and family members are more informed, participation with the Casa Materna could increase.

Appendix A: Guide for In-depth interviews with Comadronas in San Sebastán Coatán

<table>
<thead>
<tr>
<th>Initials:</th>
<th>Community:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age:</td>
<td>No. of years as Comadrón/a:</td>
</tr>
<tr>
<td>No. of births in 2012:</td>
<td>Date:</td>
</tr>
</tbody>
</table>

1. Can you please describe the normal process of working with a pregnant woman (for example the number of prenatal visits, what you do during the visits, and also after the birth in the postpartum period)?

2. Do you know the Casa Materna in Calhuitz or Santo Domingo? Have you used it for any births? How many?
   a. What is your opinion regarding the Casa Materna in Calhuitz/Santo Domingo and what do you think is its role? Does it help the community?
   b. Have you worked with the staff at the Casa Materna? What is your perception of the staff? (If no, do you think you could work with them in the future? Why or why not?)
   c. Have you experienced any obstacles or problems working with the Casa Materna?
   d. What can the Casa Materna staff do in the future to better serve you and pregnant women?

3. What are your responsibilities when a pregnant woman decides to have her birth at the Casa Materna? Can you describe what you did during the last birth you attended at the Casa Materna?
   a. What are the biggest differences between attending a birth in a house and in the Casa Materna?
   b. Do you feel that there are any cultural or religious limitations having a birth at the Casa Materna?

4. What can you do or what do you need to best serve your community?

5. Do you promote the services of the Casa Materna with your pregnant women? Why or why not? (If yes, which women do you recommend use the Casa Materna? If no, would you promote the services of the Casa Materna in the future?)

6. How has your role as a Comadrona changed in the last 5 years/since the Casa Materna opened? Can you describe some differences between a birth you attended 5 years ago and a more recent birth?
   a. How do you define the role of the Comadrona in this moment?

7. What type of interaction do you have with the Ministry of Health? Do they have any impact on your job as a Comadrona?
   a. How do you feel about working more closely with the Ministry of Health?

8. How do you feel about the integration of Comadronas with professional doctors, nurses and modern medicine?
9. What do you know about the opinion of the Ministry of Health about the role of Comadronas? What do you think of their opinion?
10. Other comments:

Guide for In-depth Interviews with Comadronas in San Miguel/Santa Eulalia

<table>
<thead>
<tr>
<th>Initials:</th>
<th>Community:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age:</td>
<td>Years working as a Comadrona:</td>
</tr>
<tr>
<td>No. Of deliveries in 2012:</td>
<td>Date:</td>
</tr>
</tbody>
</table>

1. Please describe a normal day for you in your job as a Comadrona.
2. How has your role as a Comadrona changed in the past ten years?
   a. What aspects of your job have gotten better/worse?
3. How has the opinion of the women in your community changed toward Comadronas?
4. What type of woman should have her delivery in the Casa Materna and what type of woman should have the delivery in her own house? Why?
5. What do you know about the opinion of the Ministry of Health about the role of Comadronas? What do you think of their opinion?
   a. What has the Ministry of Health done to support you in your job as a Comadrona?
   b. What obstacles have you faced that have made your job more difficult?
6. How do you feel about the integration of your job as a Comadrona with professional doctors, nurses and modern medicine?
7. Would you be willing to bring a pregnant woman from your community to a health center and work with the staff there during a delivery? Why or why not?
8. What is your opinion regarding what the role of the Comadrona should be in the future and do you think it will be realized?
9. What can Curamericas Guatemala and the Child Survival project do to better help you serve your community?