Give Life without Losing Life:
The Casa Materna of Matagalpa and the Struggle to Prevent Maternal Death

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I. Introduction

Maternal mortality has a face. It is the health indicator with the greatest disparity between the developed and developing worlds,[1] [2] disproportionately affecting poor women with low levels of education, high levels of fertility, and inadequate access to health services. It is the health inequality that most clearly shows how poor health outcomes continue to be directly linked to poverty and socioeconomic disadvantage, while the right to safe pregnancy and motherhood comes with economic privilege. As it occupies such a critical position in community health, maternal mortality has been widely studied and the target of countless health interventions aimed at its reduction throughout the world. There is an extensive body of knowledge about the causes of maternal mortality and effective strategies as to its prevention. As such a well studied and well understood topic, it is particularly disgraceful that maternal mortality continues to take the lives of between 530,000 and 600,000 women every single year, almost all of whom are in developing countries.[3] [4] That is to say that every minute of every day at least one woman dies from pregnancy or childbirth. We have long had the knowledge and the resources to prevent the vast majority of these maternal deaths, yet we are failing to do so in the developing world. It is a shameful injustice that in the twenty-first century we continue to allow women in developing countries to die from complications of pregnancy, labor, and delivery that are both preventable and treatable. As Vicki Camacho of the Pan American Health Organization says, "Women do not die because we cannot treat their complications. They die because societies have to make the decision whether their lives are worth saving."[5]

The Casa Materna of Matagalpa, a non- profit organization in the department of Matagalpa, Nicaragua, has made the decision that yes, women's lives are worth saving. The Casa Materna is a maternity waiting house for high risk pregnant women from poor

rural communities. Founded in 1991, the Casa Materna has been working for seventeen years to reduce the all too high rates of maternal morbidity and mortality in the department, and by extension infant morbidity and mortality as well. The organization employs an interdisciplinary program of medical, educational, family planning, and transport services to make pregnancy and delivery safer for the women that they serve. In this essay I will explore the structural causes of maternal mortality in Nicaragua and how the Casa Materna addresses these causes. I will discuss the organization and activities of the Casa Materna and the challenges it faces in the struggle to break the link between poverty and poor maternal health.

II. Methodology

As an undergraduate student of biology and community health with an interest in pursuing a career in medicine, I am very intrigued by how structural factors affect health outcomes. My degree program has a specific focus on health access in poor and underserved communities, and includes analyses of barriers to receiving health care and the impact of such barriers on health outcomes. I have a particular interest in children's health, which I see as inextricably tied to and dependent on health of parents, and especially health of mothers. Maternal-child health is a distinct and critical area of health care, and my interest in it led me to the Casa Materna to learn about their work against maternal and infant morbidity and mortality.

I went in to my study of the Casa Materna with a huge number of questions about the state of maternal mortality in the department, the country, and the rest of the world, questions about the structural organization of the Casa Materna, its goals, the strategies to achieve its goals, and the obstacles working against them. I wanted to better understand the structural context of maternal mortality in Nicaragua and the changes that are necessary to succeed in reducing preventable maternal deaths. For me,

the investigation was positioned within the broader question, or seeming paradox, of why we allow preventable maternal death to persist despite the knowledge, technology, and cost effective means that we have to stop it. Where does this lack of commitment come from in society, and how can it be changed?

My investigation of the Casa Materna began with a review of the literature on maternal mortality in Nicaragua, Latin America, and the world. I used the PubMed database as well as subject librarians at my home university to find relevant secondary sources. I was given more secondary information at a conference sponsored by the United States Agency for International Development, PATH Nicaragua, and the Prevention of Post Partum Hemorrhage Initiative entitled "Conference to Reduce Maternal Mortality by Prevention of Post Partum Hemorrhage" in Managua, Nicaragua.

The primary research on the Casa Materna was carried out over three weeks from April to May of 2008. I spent eight hour days, six days per week at the Casa Materna, observing the functioning of the organization, conducting interviews, and participating in different areas of activity. I formally interviewed three of the pregnant women housed at the Casa Materna, or *albergadas*, seven members of the sixteen member staff team, and three representatives of other non-profit organizations working in alliance with the Casa Materna. Most interviews were tape recorded and transcribed, while a few were recorded by hand with careful note of direct quotation and my own paraphrasing of the interviewee. All interviewees were informed of the nature of my project, given the option to have their names be included or not, and given the option to stop the interview at any point. I also increased my understanding of the organization through more casual conversations with staff, pregnant women, and participants in the educational programs. Every day I recorded in a work journal what I did and learned.

I participated in nine of the daily educational *charlas,* or chats, given to the *albergadas,* as well as two of the weekly walks and exercise sessions. I observed and recorded data for eight days of prenatal control exams. The daily contact and routine interaction with the women helped to establish a trusting relationship between us and to make interviews were more open and comfortable. I also accompanied Casa Materna staff to different rural communities to observe and participate in *talleres,* or educational workshops, for midwives, adolescents, and women formerly housed at the Casa Materna. I went along for three different transports of women to the hospital, and observed the massages given by the Casa Materna midwife to the *albergadas*. In this way, I was able to experience the interdisciplinary nature of the Casa Materna and its work against maternal death.

Although all of the Casa Materna team knew me and helped me with different aspects of the investigation, I was assigned as an advisor Marcia Valdivia Chavarría, one of the nurses for the Casa Materna. Valdivia Chavarría provided me with written materials about the Casa Materna, arranged interviews for me to conduct with allied organizations, worked with me to schedule which *talleres* in the communities I would participate in, and gave me feedback on preliminary project titles and essay outlines. A small monetary compensation was given to the Casa Materna for the advising support that I received, but Valdivia Chavarría was not personally compensated.

For the duration of my stay, the Casa Materna staff was exceedingly generous with their time, knowledge, and support. Exceedingly grateful for their openness and the opportunity to participate in the workings of the Casa Materna, I did my best to help with whatever small tasks I could. I prepared posters and materials for *talleres,* took and loaded photographs onto the office computer, recorded the information for the prenatal control exams, gave one *charla* to the *albergadas,* and brought in occasional

treats for the staff. During my stay I rented a room at the small guest house owned by the Casa Materna which provided some financial support to the organization. Still, I am sure that the small contributions I was able to make did not come close to fully reciprocating for what I learned and gained from the project that the Casa Materna made possible.

III. Theoretical Framework: Maternal Mortality and Structural Violence

Maternal mortality is defined by the World Health Organization as "The death of a woman while pregnant or within forty-two days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes."[6] Maternal health is very tightly linked with child health and survival, so the consequences of maternal death go beyond women's lives to affect their children, families, and communities.[7] [8] Save the Children writes that "the quality life of children depends on the health, the safety, and the wellbeing of their mothers."[9] Maternal mortality is often recognized as a "double tragedy" for the loss of the mother's life in conjunction with the resulting negative impact on the child's health.

The critical position that maternal health occupies for the health of women, families, and communities renders its prevention a priority for global health. Reducing maternal mortality has been adopted as the fifth Millennium Development Goal of the United Nations, with the objective of decreasing maternal mortality by seventy-five percent from 1990 levels by the year 2015. To realize this goal, 5.5% annual declines would have been necessary, but in fact maternal mortality is declining by less than 1% annually.[10] Even with the stated objective of the fifth Millennium Development Goal, we have made disappointingly little progress against maternal death in the past twenty years.[11] This failure is particularly shameful because it is not for lack of medical

technology, knowledge, or cost effective solutions that high maternal mortality rates persist. Instead, the true tragedy of maternal mortality is that we have all of these things, but women continue to die and families continue to suffer because of a lack of commitment to implement the prevention and treatment of maternal morbidity and mortality. We have the solutions and the resources, but we do not put them into effect. The result is over 530,000 preventable and unnecessary maternal deaths in the world every year.[12] [13]

The preventable and treatable nature of maternal mortality is demonstrated in the severely unequal distribution of the burden of maternal deaths. In fact, maternal mortality is the health indicator with the single largest disparity between the developed and developing worlds.[14] [15] As many as 99.8% of all maternal deaths take place in developing countries, leaving only 0.2% of the global burden of maternal death to fall on the developed world.[16] In 2005, WHO, UNICEF, UNFPA, and the World Bank conducted an extensive study to estimate maternal mortality worldwide. They found the highest maternal mortality rate (MMR) in Sierra Leone at 2,100 maternal deaths per 100,000 live births, while that in Ireland was contained at 1/100,000. Overall the developing world had a MMR of 450/100,000, while developed countries bore the much smaller burden of 9/100,000, or fifty times less. Nicaragua's MMR was measured at 170/100,000, which is over eighteen times higher than the MMR in developed countries. Another measurement of the disparity between maternal mortality in the developing and developed world is a woman's lifetime risk of dying a maternal death. In the developed world as a whole women have a 1 in 7,300 chance of suffering a maternal death. In Latin America and the Caribbean the risk is 1 in 290, and in Nicaragua the risk is far higher than the rest of the region at 1 maternal death for every 150 women. The extent of the health disparity is further illustrated in the case of

Ireland, with a risk of 1 in 48,000, compared to Niger, where, in stark contrast, 1 in every 7 women dies from maternal causes.[17] It is hard to imagine a more blatant and pronounced health inequality.

The situation of maternal mortality today forces us to confront the ways that we perpetuate the differential valuation of human lives in the world. We take measures to keep pregnant women safe in developed countries, but we do not do the same in developing countries. The grossly unequal distribution of the burden of maternal mortality demonstrates the ways that health is not treated as a human right in society but rather as a commodity to be purchased by only those with the means.

Denying the right to safe pregnancy to poor women in developing countries is an example of anthropologist and physician Paul Farmer's concept of structural violence. Structural violence refers to the institutionalized political, economic, and social structures that systematically deny health and other human rights to marginalized populations. Part of the importance of the idea of structural violence is that it calls attention to the denial of basic human health rights as a violent act, causing harm and suffering just as a physical blow or a murder is a violent act that causes harm and suffering. In defining structural violence Farmer et al. write:

> *Structural violence*, a term coined by Johan Galtung and by liberation theologians during the 1960s, describes social structures—economic, political, legal, religious, and cultural—that stop individuals, groups, and societies from reaching their full potential. In its general usage, the word *violence* often conveys a physical image; however, according to Galtung, it is the "avoidable impairment of fundamental human needs or…the impairment of human life, which lowers the actual degree to which someone is able to meet their needs below that which would otherwise be possible". Structural violence is often embedded in longstanding "ubiquitous social structures, normalized by stable institutions and regular experience". Because they seem so ordinary in our ways of understanding the world, they appear almost invisible. Disparate access to resources, political power, education, health care, and legal standing are just a few examples. The idea of *structural violence* is linked very closely to *social injustice* and the social machinery of oppression.
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> The term "structural violence" is one way of describing social arrangements that put individuals and populations in harm's way. The arrangements are *structural* because they are embedded in the political and economic organization of our social world; they are *violent* because they cause injury to people (typically, not those responsible for

> perpetuating such inequalities)…It has long been clear that many medical and public health interventions will fail if we are unable to understand the social determinants of disease.[18]

Maternal mortality is the result of structural violence, the result of social and economic systems that render poor women in developing countries vulnerable to death that is otherwise avoidable. And the injustice of these deaths, that they are unnecessary and preventable, is tolerated largely because the victims are the very people who have the least agency and the least institutional power to change the structures that cause their suffering. "The poor are not only more likely to suffer, they are also more likely to have their suffering silenced," writes Farmer.[19] The unrelentingly high level of maternal mortality in developing countries like Nicaragua is indeed a "global silent epidemic."[20] As anthropologist Martha Ward writes, "Poor women´s sickness may be thought of as structural violence because it is neither culture nor pure individual will that is at fault, but rather historically given (and often economically driven) processes and forces that conspire to constrain individual agency. Structural violence is visited upon all those whose social status denies them access to the fruits of scientific and social progress."[21] The work to be done then is no less than to change social, political, and economic structures so that all women are guaranteed such access. This means that approaches to reducing maternal mortality must work at the institutional level, addressing all of the varied structural forces that predispose women in developing countries to maternal death. Nothing less will succeed in sustainably improving maternal health.

IV. Structural Causes of Maternal Mortality in Nicaragua

Since it is not for lack of research or knowledge that preventable maternal death persists, the steadily high rates of maternal mortality in Nicaragua beg the question of what structural forces are at work in the causation of maternal death. According to G.

Benagiano et al. of the International Federation of Gynegology and Obstetrics, "Maternal mortality results from a complex interplay of infrastructural, cultural, socioeconomic, and political issues." It follows that "making pregnancy and delivery safe events is particularly complex, as it involves infrastructural and logistic, as well as technical issues."[22] Such is the case in Nicaragua. Benagiano goes on to outline four elements that are critical to creating conditions for safe pregnancy and delivery, including skilled attendance at all births, basic emergency obstetric care in peripheral units (the health centers of Nicaragua), comprehensive emergency obstetric care in a referral hospital (the regional hospitals of Nicaragua), and the rapid transport of women in need of special care.[23] The victims of maternal mortality in Nicaragua are victims of structural forces that deny them access to these four elements and leave them vulnerable to preventable maternal death. These women by and large fit a certain socioeconomic profile. They are poor women from isolated rural areas with low levels of education. They have many children beginning at a very young age and with short intervals between births. In the course of my interviews and conversations at the Casa Materna, the same structural causes of maternal mortality came up repeatedly, including geographic isolation, poverty, religion, culture, inadequate medical attention, *machismo*, adolescent pregnancy, and low levels of education. As Zoraida Torrez Chavarría of the Matagalpa Women´s Collective says, "Maternal mortality has a face, a profile, and this profile is of poor people, of people that have many children, that do not use contraceptives, that have little contact with the Ministry of Health. Maternal mortality continues because it is a factor of poverty."[24]

A. *La Lejanía*: Geographic Distance and Isolation

In virtually every interview I conducted the first cause of maternal mortality or the first obstacle to receiving preventive medical attention mentioned was *lejanía*, or

geographic distance and isolation from health services. The horrible condition of roads, the time it takes to leave a rural community and arrive at a health center, and the scarcity of transportation to such centers were heavily emphasized. After traveling myself to rural communities for *talleres* I understood better why the emphasis was so strong. Matagalpa is a mountainous department, and the roads are steep, narrow, unpaved, and full of all matter of holes, ruts, and ditches. The lurching and bouncing is so rough that often we could not carry on a conversation, so jolted were our voices. The trips took hours although the distance in miles was never very great. And this was traveling in the dry season in a new four wheel drive vehicle. The conditions in the rainy season, when the roads turn to "*puro lodo*," or pure mud,[25] or in a less durable vehicle, which most in the country are, would seem to make the conditions virtually impassable.

"For us, still the obstacle continues to be geographical access. There are still roads in poor conditions, roads that sometimes to evacuate a woman or an injured person is severely costly," says Torrez Chavarría of the health area of the Matagalpa Women's Collective.[26] Valdivia Chavarría, nurse at the Casa Materna, also describes the problem of *lejanía*, saying "There are women who come from four hours, five hours away. We have had here in the Casa Materna women for whom it costs one day to leave, and another to return to their house. That is two days."[27] Socorro Urbina Valle, health promoter for the Casa Materna and a former *albergada* herself adds that women live "far, far from the health centers, and they can't leave **[**their communities**]**. And if they can't leave, there they stay and there they die."[28] In a 1999 study of the demographic profile of the *albergadas* at the Casa Materna, it was found that over half of the woman had to travel over an hour to reach the nearest health center. Three

quarters of the women had to travel over thirty minutes. Over 80% did the journey by foot, and the rest went by bus.[29]

The lack of infrastructure to facilitate leaving a rural community and arriving at a health facility takes a heavy toll on population health and especially maternal health. Women who cannot leave their communities and instead go through pregnancy and delivery in their homes are at greater risk for complications and death, especially from post-partum hemorrhage, the leading medical cause of maternal mortality. Post-partum hemorrhage is responsible for 25% of maternal deaths worldwide, but as many as 50-60% of maternal deaths in some countries, especially in Central America.[30][31] Post-partum hemorrhage is particularly dangerous because two thirds of all cases have no identifiable risk factor, and hemorrhage can lead to the onset of death within ten minutes if emergency measures are not taken.[32] [33] That is to say that the single greatest medical cause of maternal mortality is more or less unpredictable, and more or less untreatable without immediate emergency medical attention. When women are hours by foot from the nearest health facility, such treatment becomes impossible despite the fact that the methods are well known and cost effective.

In Matagalpa, where the majority of the population lives in rural communities,[34] the bad roads and physical isolation are of particular concern and particularly detrimental to women's health. Because of this, a large part of the Casa Materna's work is aimed at reducing the danger posed by *lejanía*. The Casa Materna works to get women out of their rural communities and safely housed in close proximity to the regional hospital, with a vehicle available to transport them, in time for labor and delivery or in case of an emergency complication. For the *albergadas* at the Casa Materna, Benangiano's conditions of skilled medical attention and rapid transport of women in need of special care have been achieved. However, this accomplishment only

serves a small portion of the population. In Nicaragua only 67% of all births are attended by qualified medical personnel.[35] In rural areas, it is likely that this percentage is even lower, meaning that much work remains to be done to ensure safer conditions for all pregnant women.

B. *La Pobreza*: Economic Poverty

Poverty itself is another significant structural cause of maternal mortality. When transport to health facilities is prohibitively expensive, women are unable to get the care that they need during pregnancy and delivery. When asked what the biggest obstacles to accessing medical services are for women in rural communities, Lucila Mantilla González, the midwife of the Casa Materna, answered, "It's the *pobreza*. That is what is relevant. The *pobreza* because the spouses do not have work, there is no money to transport oneself, to pay a vehicle, because they are not going to come three days on foot, and so anything can come to pass."[36] Torrez Chavarría goes on to say, "There is an economic obstacle because to take a woman or a sick person out of a place, everyone has to pay. To travel it costs a *montón*, a mountain, of money that the family cannot assume."[37] Coordinator of the Casa Materna Jerónima Úbeda Cruz and nurse Valdivia Chavarría also discussed the lack of economic resources and the resulting inability to "*movilizarse*," to mobilize oneself to get out of a community and to reach the necessary health services.[38] [39] "The lack of money to *movilizarse*, that is the major obstacle, the principle obstacle," says Úbeda Cruz. Besides transport costs, treatment costs to cover medicines and other services are also prohibitively expensive. In Nicaragua, the second poorest country in the Western Hemisphere, 75% of the population lives in poverty with less than US$2 per day, and 45% of the population lives in extreme poverty with less than US$1 per day.[40] With such severe levels of poverty, when there is not enough money for day to day basic food and water necessities, costly health services to prevent

maternal complications can hardly be made a priority. Again we have to question if access to basic health resources is a human right that we have the responsibility to provide to all, or if it is a commodity to be purchased. As it is, poor women in Nicaragua simply cannot afford healthy and safe pregnancy.

C. *La Religión*: The Influence of the Church

Nicaragua is a heavily religious society, and the Church has a great deal of influence over women's sexual and reproductive health. In rural communities there is a prevailing sentiment that women should have all of the children "*que Dios manda*," that God sends them. Coordinator Úbeda Cruz says, "Our plan is that the women plan their families, that they space out their births. But religion tells them that they must have the children *que Dios les manda*. And if that's twenty, let them have the twenty, because that's what it says in the Bible."[41] This attitude limits women's ability to use family planning methods and space out the birth of their children or control how many children they wish to have. Many births and births in close succession put women at higher risk for dangerous complications during pregnancy and delivery.[42] While family planning methods, including oral contraceptives, intrauterine devices, injections, and condoms are available for free at hospitals and health centers,[43][44] structural barriers including a lack of geographic accessibility, religious influence, and a lack of availability of information continue to limit access to family planning and the positive effects it has on reducing maternal mortality.[45]

In October of 2007, under pressure from the Catholic Church, Nicaragua revoked the constitutional right to therapeutic abortion to save the mother's life. It is one of only 5 countries in the United Nations to ban abortion even when the mother's life is at risk. The new law takes a directly negative toll on maternal mortality, as health professionals are legally forbidden to save the maternal life. Torrez Chavarría describes

the situation, saying that "In Nicaragua they revoked the right to therapeutic abortion. That is, it was in the constitution that we had rights, a woman whose life was at risk could have a therapeutic abortion, but now it is penalized. The law says that nothing can be done. *Que se mueran los dos*, let them both die, and no one can do anything. This is a huge obstacle for the rights of women."[46] Abortion laws in themselves are related to maternal mortality rates. In a 2004 study, Fiala et al. found that the median MMR in countries with liberal abortion laws, where abortion is allowed whether or not the mother's health is threatened, is 31/100,000. In countries with restrictive abortion laws, defined as abortion only being allowed when the mother's health is threatened, the MMR is more than 8 times higher at 260/100,000.[47] The study does not account for countries like Nicaragua where abortion is prohibited under all circumstances. Nicaragua's restrictive abortion laws take a negative toll on maternal health through the prohibition of life saving services, and by promoting increased levels of unsafe illegal abortion.[48] We see here a clear example of how decisions made on the governmental level, with the influence of the Church, can directly and negatively affect maternal health.

D. *La Cultura del Pueblo*: Cultural Norms

Besides religion, other cultural factors play into the causation of maternal deaths. In the rural communities of Matagalpa, there are generations upon generations of large families with eight, ten, fifteen children. A tradition such as this is not changed easily. The *albergadas* at the Casa Materna describe the tendency in their rural communities to "*llenarnos de hijos,*" or to fill ourselves with children.[49] "They are accustomed to having children, and having and having and having," says Karla Vilchez, clinic director at PROFAMILIA Matagalpa.[50] The large family size can be attributed to many factors, including limited access to family planning and generations of large families having

established big family size as a cultural norm. In Nicaragua great value is placed on motherhood, and women are often under pressure to prove their womanliness by mothering child after child.[51] Other cultural norms such as having children in the home instead of at a health facility are also challenging to change. Coordinator Úbeda Cruz and nurse Valdivia Chavarría describe the tendency of women to follow in their mothers' and grandmothers' footsteps.[52] "A woman says, ´my mom had ten, fifteen children and nothing ever happened to her.' And her mom says, ´I had all of my kids in the house and nothing every happened to me.'"[53] We see here another example of a structural force that leads to multiple births, short intervals between births, and the lack of professional attention in a health care facility during birth. While some may argue that it is the women's own choice to have so many children and to give birth in the home, and to work to change the situation would be to disrespect the culture, Farmer says that structural violence should not be conflated with cultural difference. Upon closer analysis, we can see institutionalized sexism, denial of control over one's own body, and denial of health services as the root causes of these cultural norms.

A lack of trust in health professionals and facilities further contributes to the failure to make pregnancy and delivery safer by providing professional medical attention. There exists a "*montón*" of myths surrounding the effects of family planning methods and other medical treatments intended to improve women's health. For example, there exists the belief that family planning methods make women smell bad.[54] Or that a woman using family planning ceases to be a woman.[55] Or that women should not drink water after giving birth.[56] When these beliefs conflict with the advice or services of health facilities, there is an added challenge to delivering quality health care. Valdivia Chavarría explains that "there is a lack of collaboration on the part of pregnant women because of their anxiety and mistrust when it comes to health centers."[57] Part of

the work of the Casa Materna is thus to deconstruct such myths through educational programming, with the goal of strengthening communication and relationships between health facilities and the communities that they serve.

E. *Cuando el Doctór no Llegue*: Lack of Health Professionals and Services

Besides mistrust of medical professionals, there is also widespread, and justifiably so, disillusionment with the services provided at health centers and hospitals. Often the health center does not open, the doctor does not arrive, the wait is too long, or medicines and other necessary supplies have run out. The lack of resources available at the health centers was illustrated to me first hand when one of the Casa Materna team fell ill while we were giving a *taller* at a health center. The one doctor on staff came to me and asked if I had water with me because the patient needed to swallow a pill and they had no clean water to give her. One *albergada* who prefers to remain anonymous described to me how one can travel all day to the closest health center, and if the doctor does not come, she leaves in exactly the same condition as she came.[58] Coordinator Úbeda Cruz says, "Women arrive at the health centers, and there isn't the medicine that they need."[59] Torrez Chavarría further elaborated on the lack of services available, saying, "There are still deficiencies in the services...In the rural areas there are health posts, but many times these health posts do not have the conditions, the requirements, to give quality attention."[60] Logistically, there is often only one bus per day to and from the communities, so by the time one reaches the closest health center it is time to return again to their community.[61] We can see that there is a double barrier to health services in that it is difficult to both reach a health facility and to obtain the necessary services once there. "The poor quality of attention is responsible for deaths related to complications that occur in hospitals and health facilities, not infrequently for lack of equipment, medicines, and moreover for insufficient specialized attention," reports the

Autonomous Women's Movement of Nicaragua.[62] With medical supplies stretched so thin, health providers are unable to fulfill their commitment to their patients to provide quality care. Professionals are not equipped to provide necessary services, and the resulting long waits and untreated patients contribute to a culture of disillusionment with the health system. The lack of services contributes directly to maternal mortality by not guaranteeing women the attention that they need, and contributes indirectly by nurturing a lack of trust in the health system and the resulting tendency to avoid seeking out medical attention during pregnancy and delivery.

F. *El Machismo*

Nicaragua is a strongly *machista* society, meaning that sexism and the degradation and oppression of women is deeply ingrained in the social, economic, political, and cultural systems of the country. Coordinator Úbeda Cruz defines *machismo* simply as the conditions where "The man always wants the woman to do as he wishes."[63] This culture of *machismo* contributes to the resistance to family planning and the large family size that follows. When men see family planning methods as a threat to their manhood, and see having many children as proof of their manhood, and women do not have the agency to make their own family planning choices, the result is dangerously big families and dangerously short birth intervals. Nurse Valdivia Chavarría describes that, "In Nicaragua there is much of what we call *machismo*, where the man is the one who makes the final decision, and makes the decisions if the woman will leave the community for a Casa Materna, health center, or hospital to be attended." She goes on to describe the submission of women to their partners'choices, and the failure to take control over their own bodies.[64] In Nicaraguan society the men also do

not have to take the same responsibility for their children as do women, so the economic and emotional burden of supporting the family often falls to the mother alone.

G. *Niñas que Tienen Niños*: Adolescent Pregnancy and Motherhood

Nicaragua has the highest adolescent motherhood rate in the Americas, with 135 births per 1,000 girls between 15 and 19 years of age. This is the eleventh highest premature maternity rate in the world. The high level of adolescent motherhood is particularly alarming because in developing countries, complications during pregnancy and birth are the leading cause of death for girls between 15 and 19. Adolescent motherhood has serious physical, emotional, and economic consequences. Save the Children reports, "When girls become mothers without being physically and emotionally prepared, the consequences are often tragic: many girls die during birth, a greater number of their children die and those young mothers and their children who do survive often must confront poor sanitary conditions, a limited level of education, and the most absolute poverty."[65] In fact, adolescents have a 50% higher risk of maternal death than their older counterparts, and their children have a 50% higher risk of dying in the first year of life than do the children of women over twenty years old.[66] Adolescent bodies are not yet developed to safely carry out a pregnancy. The relationship between poverty and premature motherhood is "mutually potentiating," and children of adolescent mothers tend to reproduce the cycle of poverty. In Nicaragua, between 20 and 22% of maternal deaths are in girls between 15 and 19.[67] During my stay at the Casa Materna, over one third of a random sample of forty-one albergadas were aged nineteen and under.[68] It is clear that reducing the high levels of adolescent pregnancy and adolescent motherhood is a critical part of reducing maternal mortality in Nicaragua.

H. *Los Niveles de Escolaridad Más Bajos*: Low Levels of Education

Maternal mortality is directly related to low levels of education. Women who suffer maternal deaths are disproportionately illiterate or with incomplete primary education. UNICEF carried out an analysis of maternal death in Nicaragua in 1998 and found that a full 80% of the victims of maternal mortality were illiterate or with incomplete primary education.[69] In Nicaragua, only 29% of all children finish primary school.[70] This already disgraceful proportion is even lower in the rural areas that the Casa Materna serves. Education is a means to empower women and to change the mentality of subservience, and so the lack thereof contributes to women staying in the home during childbirth and not seeking medical attention. Save the Children reports that "girls with higher levels of education usually marry later, have fewer children, and raise children that are healthier and better nourished."[71] When discussing the reduction of maternal mortality, improved access to education for women is an essential component.

V. Maternity Waiting Houses Worldwide

The Casa Materna of Matagalpa is an example of a maternity waiting house, institutions that first came into being in Europe and North America in the early 1900s. The idea of a maternity waiting house is to provide high risk pregnant women with a safe facility to care for their pregnancy and delivery, and by doing so reduce maternal morbidity and mortality. Maternity waiting houses recognize the preventable nature of maternal death, and work to overcome the barriers to health access and help women to have safe pregnancy and delivery. Throughout the world, maternity waiting houses have had high levels of measurable success at reducing maternal mortality rates. For example, after a maternity waiting house opened in Nigeria in 1950, the MMR was reduced ten fold from 10 maternal deaths/1,000 live births to 1/1,000. Cuba's first

maternity waiting house opened in 1962, and by 1984 they had successfully reduced the MMR from 118/100,000 to 31/100,000.[72]

Nicaragua is home to several maternity waiting houses, the first of which was founded in 1987 in Ocotal, Nueva Segovia. A maternity waiting house in Nicaragua is defined as an "alternative for pregnant women presenting a high obstetric risk, with scarce economic resources, and from rural areas."[73] High obstetric risks are classified into three levels, with level one being the lowest level and including geographic isolation, age below 19 or above 35 years, and first time pregnancies. Level two risks include transverse or pelvic presentation of the fetus, a previous cesarean section, abortion, or stillbirth, twins, and four or more previous pregnancies. Level three risks, the most urgent, include active bleeding, threat of premature birth, and the symptoms of preeclampsia. The objective of a maternity waiting house is to "contribute to the diminishing of maternal mortality and infant mortality, especially in women from geographically isolated rural areas."[74] To realize this objective, services that maternity waiting houses provide to the *albergadas* include shelter for around one week before and after birth, pre and post-natal care, transport to and from a hospital or other professional health facility, family planning counseling, educational programming on reproductive health, and recreational activities. The underlying logic of the maternity waiting houses is that women die preventable maternal deaths because they cannot access the necessary health services, so by housing women in close proximity to a hospital and providing medical attention, it is possible to overcome the predisposition to maternal death that comes with geographic isolation and the lack of economic resources for medical treatment.

VI. History of the Casa Materna of Matagalpa

The Casa Materna of Matagalpa was founded in 1991 by a team of four Nicaraguan women, coordinator Jerónima Úbeda Cruz, midwife Lucila Mantilla González, psychologist Miryam García, and doctor Gloria Compte, along with the support of allied nurses, educators, and doctors from other countries.[75] The founding group of women solicited and received international aid from the Spanish organization *Instituto de Mujer*, The Women's Institute, in order to buy the building formerly home to the Cuban consulate. The Cuban government sold the property at a discounted price to support the new organization. The building was purchased in 1990, and the doors were opened to high risk pregnant women in October of 1991.[76]

The house was named Casa Materna of Matagalpa: Mary Ann Jackman, in honor of a young Nicaraguan woman who worked with families displaced by the war in the 1980s before dying in an accident at age 27, mother of two young children and six months pregnant with a third. Before her death Jackman had a great influence on the women who went on to found the Casa Materna.[77] With the exception of doctor Gloria Compte, who has since passed away, the founders of the organization are all still working at the Casa Materna, seventeen years later.

The Casa Materna began as a small organization doing outreach on the streets and public busses.[78] The services provided to women were mainly shelter before and after labor and delivery and transport to and from the hospital. With time, the services provided were expanded to include medical attention and education. The Casa Materna developed relationships with the Ministry of Health run health centers and regional hospital, so that today the Casa Materna has grown to an organization with a team of 16 staff, a strong connection and referral system with the health centers in the department, and a multidisciplinary approach to prevent maternal death. The Casa Materna has housed over 12,500 women since its opening, or an average of over 735 women per

year.[79] The capacity of the Casa Materna is nineteen beds for pregnant women and four beds for women with new borns. Throughout the course of my investigation, the Casa Materna was almost always full or overfull.

VII. Areas of Action of the Casa Materna of Matagalpa

The Casa Materna recognizes that maternal death is the result of complex interactions of social, economic, political, and medical factors, and so takes an interdisciplinary approach to improving health. To achieve its mission to reduce maternal mortality in the department, the Casa Materna is organized into five areas of action: medical, basic services, transport, administrative, and *capacitación,* which refers to education and the act of literally "capacitating" someone to have new knowledge and abilities.

A. Medical Area

The medical area is staffed by three nurses and one gynecologist. There is always at least one nurse on duty at the Casa Materna in case of a medical emergency. The medical staff provides daily pre-natal control exams to all of the *albergadas*. The exams include checking the mother's pulse and blood pressure, monitoring the fetal heart rate, conducting ultrasounds, and conducting pelvic exams. Albergada Gloria Soza Manzanarez told me that one of the things she likes best about the Casa Materna is "the prenatal controls that they give. It is a great thing because one knows how their child is as well."[80] All exams take place in the *consultorio*, an exam room with two beds, a monitor, an ultrasound, a desk, and a sink. Many posters depicting the stages of labor, how to care for an infant, and the importance of prenatal care line the walls. Most of these posters, however, are donated from international organizations and are written in English instead of Spanish. Observing daily examinations in the *consultorio* I was

privileged to see many happy moments when a mother heard her baby's heart beat for the first time, or saw for the first time its head and body on the ultrasound monitor. Despite the large number of exams each day, usually around twenty to twenty-five, the nurses and doctor took the time to point out features of the ultrasound to the mothers and to myself, and to always let the mothers know that they are available for whatever small thing should come up. *Albergada* Andrea Jarquín Manzarez described to me the sense of "*confianza*," of confidence, that she had in the medical staff.[81] The development of such confidence carries great importance. We have seen that a large barrier to health services and the prevention of maternal death is the lack of trust in health providers, the fear or embarrassment of them seeing one's body, and the frustration with long waits and lacking services. The trusting, reliable relationship between *albergada* and health provider developed at the Casa Materna has the potential to be carried back to the women's communities and to promote a culture more trusting of health facilities.

B. Basic Services Area

The basic services area covers the logistics of housing women at the Casa Materna. It includes receiving the women, explaining the rules of the organization, and supplying the women with bedclothes, eating utensils, soap, etc. The basic services area keeps things running smoothly so that there is always someone responsible for meals and cleaning, or if an *albergada* has other needs and concerns. Other parts of the basic services area are the sewing projects for the women, art projects, walks, exercises, and games. The Casa Materna midwife and one other staff member head the basic services area, but all other staff members contribute when need be.

C. Transport Area

The Casa Materna employs three drivers, at least one of whom is on duty twenty-four hours per day. The drivers are responsible for transporting women to the hospital, transporting staff to rural communities for educational programming, doing food shopping and other errands for the Casa Materna, as well as maintenance of the vehicles and the Casa Materna building and grounds.

D. Administrative Area

The administrative area functions to coordinate all the activities of the Casa Materna, and to monitor the finances so that such activities continue to be possible. Harold Gómez, the accountant, keeps track of all the money that comes into the Casa Materna from international organizations and reports back on its use so as to secure future funding. In our interview, Gómez was effusive about his love for his work for the organization and how he loves to be able to give reports to the funding organizations to show them what the money they give accomplishes. He values "transparency and order" so that the international organizations give with "total confidence that the funds are well used."[82] Also in administration works the coordinator of the Casa Materna Úbeda Cruz and the clinical psychologist Miryam García. García's work for the organization as psychologist as well as administrative worker demonstrates the "multidisciplinary" nature of the Casa Materna. García also will drive the vehicle if no driver is available, and will give an exam if no nurse is available.[83] Medical supplies, educational materials, house expenditures such as electricity, gas, phone, food, and cleaning supplies are all under the control of the administrative area.

E. *Capacitación* Area

The Casa Materna runs capacitación programs for the *albergadas*, midwives in the rural communities, former *albergadas* who have returned to their communities, and

adolescents in rural communities. The *capacitación* for *albergadas* consists of daily *charlas* on themes such as family planning methods, benefits of family planning, risk factors for complications during pregnancy, hygiene, domestic violence, and care for newborns. The *charlas* are led by two of the nurses, Marcia Valdivia Chavarría and Gladys Sánchez González. Both are very skilled facilitators, and employ interactive games and questions into their presentations. As many of the albergadas have low or no reading ability, the *charlas* employ lots of visual aids. Often the *albergadas* are not forthcoming with participation in the *charlas*. This has to do with a variety of factors, including the traditional role of women as quiet and subdued, the low levels of education that have not prepared women for educational settings, and the sometimes controversial nature of *charla* themes, like domestic violence or family planning. These challenges make the *capacitación* of *albergadas* all the more important. Not only do the women learn information that can help them and their families be healthy, but they also begin to develop a skill set of how to learn, ask questions, and develop the sense of empowerment that comes with education. Another strength of the *charlas* is the way that they are specifically tailored for the target audience. For example, during a *charla* on the benefits of family planning, Sánchez González addresses head on the influence of the Church and its negative view of family planning methods. She acknowledges this conflict, and proposes the alternative view that "perhaps God gave us intelligence so that we could make our own decisions and control our own bodies."[84]

Sánchez González leads the program of *capacitación* for midwives. This program has been crucial for getting women out of their communities and to health facilities to give birth. The midwives are "capacitated" to recognize risk factors for dangerous pregnancy and refer high risk women to the Casa Materna or a health center. The Casa Materna works with over 400 midwives in different communities. I attended

a *capacitación* for midwives in a rural area where thirty-five midwives came from communities all over the municipality, many from over two hours away, for the program. During the *capacitación* the midwives were given the task of defining their role in the communities. They described the humanitarian nature of their work, their position as community leaders, and their role of serving women who need help with a pregnancy or a problem in the family. Delivering babies is no longer a central part of the work of midwives, but rather to support pregnant women in getting the professional attention that they need during pregnancy and delivery, to provide family planning services and advice, and to help educate new mothers on how to care for their children. The difficulties that they say they face in realizing this work are familiar; they mention the lack of transport, bad roads, distance, the lack of money, the lack of medicines, the families with many children, and the *machismo* of men not wanting their partners to leave home.[85] One goal of the program for midwives is to validate the work that they do for health in the communities. "Preventing maternal death, preventing infant death, preventing many illnesses," says Sánchez González at the *taller*, "that is the work of the midwife."[86]

The Casa Materna also provides *capacitación* in twelve rural communities where former *albergadas* live. This program of *seguimiento*, or continuation, is led by nurse Valdivia Chavarría. Former *albergadas* are organized in their communities to have two leaders, who come to the Casa Materna twice each year to receive *capacitación*. The leaders then take what they learn and reproduce it at monthly *charlas* for the other women in their communities. In addition, the Casa Materna team goes twice yearly to each community to give more in depth *capacitación* to the former *albergadas*. I accompanied nurse Valdivia Chavarría on two such *capacitaciones* for the continuation program. The topic covered in these *talleres* was cervical, uterine, and

breast health with an emphasis on the importance of preventive pap smears and self breast exams. The *talleres* involved games, posters, and practicing how to do a self breast exam. Valdivia Chavarría addressed the economic and logistical difficulties of doing a pap smear by emphasizing the importance and cost effectiveness of prevention. She weighs the cost of a trip to the city of Matagalpa for a preventive exam against the cost of traveling all to way to the capital city of Managua for expensive treatment that could have been avoided by early detection.[87] Most women are receptive to this idea. One challenge for the continuation program is the small space that is available for the groups of over thirty women. The *talleres* take place in small living rooms where there are about eight chairs, and everyone else stands, some unable to get in through the door. It is stiflingly hot, noisy, and impossible to see over all the people standing. However, it is hard to see an alternative because to move the continuation program to a bigger space would defeat the purpose of bringing *capacitación* to the communities themselves.

Another important part of the continuation program is support with family planning. Until last year, when funding ran out, the community leaders were trained and supplied to dispense oral contraceptives, condoms, and contraceptive injections of one or three months. Since the family planning program ended, the role of the community leaders is to be a link between the women of the community and the family planning services available at health centers and hospitals. The continuation program also serves to develop a positive relationship between the community and the Casa Materna and to encourage other women to come to the Casa Materna to care for their pregnancies. "The leaders and the women in the group are connections between the community and the Casa Materna," says Valdivia Chavarría.[88]

Valdivia Chavarría is also in charge of the *capacitación* program for adolescents. The objective of this program is to reduce maternal mortality by keeping adolescent girls in school and preventing adolescent pregnancy. The program is currently run in three municipalities, with sixteen youth leaders being trained in each. The youth receive *capacitación* on topics such as how to avoid pregnancy, non-violent conflict resolution, and the importance of education. They are then each responsible for reteaching the material to five other adolescents in their community. With this strategy, they "continue reproducing leaders."[89] The *taller* for adolescents that I participated in was focused on violence between youth and how negotiation can be used as a peaceful alternative. In my work journal afterwards I wrote, "I am truly impressed by how participatory, dynamic, articulate, and intelligent the youth are. 'They are tremendous!' says Doña Marcia. And it is really inspiring to see the group so committed to studying, to waiting before having kids, to their big plans for the future, and to the *talleres* themselves. They love to participate and to be given the space to share ideas, play and learn. I see very little of the silenced woman mentality."[90] The program for adolescents is only one and half years old, and I see it as having huge potential for the long term sustained reduction of adolescent pregnancy and maternal mortality.

VIII. Structural Organization of the Casa Materna of Matagalpa

The Casa Materna staff work as an egalitarian team without directors, bosses, or any form of hierarchy. All decision making is collective, facilitated by a *consejo*, or advising unit. Lucila Mantilla González, midwife of the Casa Materna, is the president of the *consejo*.[91] The team is made up of sixteen people: a coordinator, an accountant, a psychologist, a midwife, a provider of basic services, a gynecologist, two health promoters, two adolescent program assistants, three nurses, and three drivers. All of the team members are local Nicaraguans, the majority from rural communities like the

women that they serve. "Every one of us who works here is poor. Here there are no rich people. The majority of us have experienced the problems of poverty and have seen how people die in the rural communities…In the rural communities we saw everything, we saw poverty, we saw how the women live, we saw how it is during labor and delivery."[92] Despite their different areas of focus, all team members help with cooking and cleaning, all team members do overnight shifts, and all team members are available to help and support each other with their tasks. For example, nurses Sánchez González and Valdivia Chavarría are contracted to work in *capacitación*, but they also cover for the third nurse and the doctor in the examination room if need be, and work night and weekend shifts. In almost all of my interviews with staff members, they emphasized the importance of working all together as a team. In a team, "we do it together and we do it better," says Sánchez González, "we take into account other people's opinions."[93] Valdivia Chavarría says, "It is important because every member of the team assumes his or her responsibility and respects the work of everyone else. It is good because everyone has a different activity that they do, but we all support each other."[94]

The team members eat all of their meals together in the office, taking turns to cook, serve each other, and clean up. They celebrate birthdays together, know where each other live, and know about each other's families. There is a strong sense of community, and a strong sense of commitment to their work and to the Casa Materna. "The team that we work with," says coordinator Úbeda Cruz, "we are all strongly conscious that what we do not want is for women to die."[95] Almost all of the team members, including nurses Valdivia Chavarría and Sánchez González, health promoter Urbina Valle, and psychologist García, told me that their favorite part of the work at the Casa Materna is working with the women *albergadas*. García says her favorite part of

the work is "to be here in the moment that they need me. I like it because together we can overcome crises."[96] From another perspective, promoter Urbina Valle describes her own past experience as an *albergada* as "beautiful. With what enthusiasm they attend to you! What confidence and sense of trust they give to you!"[97]

The tight community of the Casa Materna team and their dedication to their work allow for a truly interdisciplinary approach to improving health. All of the five areas of action are interconnected and work in conjunction, building off of each other in a comprehensive strategy to reduce maternal mortality. The approach is not narrowly medical, nor does it only focus on education. Rather, the Casa Materna works as an egalitarian team where all areas of action are valued as critical to the goal of improving health.

IX. Funding for the Casa Materna of Matagalpa

The vast majority of the funds to run the Casa Materna come from the United States non-profit organization Friends of the Casa Materna. These funds cover the salaries of the team and the basic costs of the Casa Materna, including utilities bills. Friends of the Casa Materna of Spain provides the funding for food for the team and the *albergadas*. *Ayuda Médica para Centroamérica*, or Medical Help for Central America, of Switzerland funds the *capacitación* programs. The yearly budget for the Casa Materna is around US$145,000 per year.[98] This quantity sometimes comes up short for all the necessary expenditures, including food, gas, insurance for the vehicles, and any number of small things like gloves and lubricant for pelvic exams, cleaning supplies, bedclothes, and office supplies.[99]

The Casa Materna of Matagalpa is different from other maternity waiting houses in Nicaragua in that it is privately funded and not under the control of the Ministry of Health. The Casa Materna does not receive any funding from the Nicaraguan

government. Rather, almost all funds come from international donations, and the Casa Materna team maintains control over all expenditure decisions. The Casa Materna chose to remain a private institution separate from the Ministry of Health run network of maternity waiting houses to maintain independence of its budgetary, programming, and staffing decisions.[100]

The Casa Materna is employing some attempts to become a self-sustainable organization without dependence on international aid. The *albergadas* are responsible for paying a small "cooperation" of 50 córdobas, or around US$2.50, and for giving a small food donation such as a pound of rice or beans upon entering the Casa Materna. The Casa Materna also runs the Casita, a small guest house where I stayed throughout the course of my study, and where international solidarity groups working on projects in the area often stay. The Casa Materna has an auditorium space available to rent out, and has handmade baby slings available for sale. However, all of these sources of income are miniscule in comparison to the full financial needs of the Casa Materna. While accountant Gómez and psychologist García say that the biggest hope for the future of the organization is to be self-sustainable, nurse Sánchez González says that self-sustainability could never be a possibility for the organization. "Our hope," says García, "is that we could be self-sustainable." However, continues Gómez, "Water, light, gas, telephone, food, and cleaning alone cost US$3,000 per month."[101] Sánchez González claims that international aid is one of the strengths of the Casa Materna, because "we cannot be self sufficient."[102] In a report on the network of maternity waiting houses in Nicaragua, the author writes, "No maternity waiting house can be self sustainable because the maternity waiting houses are a social project for poor women, and also because self sustainability has to do with (for profit) business, which one cannot do while working in a maternity waiting house."[103] In other words, it is not

possible to have maternity waiting houses be social organizations for people, while at the same time being business organizations for profit.

X. Alliances between the Casa Materna and Other Organizations

The efficacy of the Casa Materna is greatly enhanced by collaboration with other organizations. The establishment of positive relations with the Ministry of Health run health centers has led to a reliable referral system, wherein professionals at the health centers throughout the department refer women presenting with high obstetric risk to the Casa Materna. In fact, the majority of *albergadas* at the Casa Materna were referred by their health center. The Casa Materna also benefits from the use of Ministry of Health run spaces to give *talleres* or do other programs in the communities. The relationship with the regional hospital allows transfers from the Casa Materna to the hospital to run smoothly and efficiently.

The Casa Materna has a special relationship with PROFAMILIA, a national non-profit family health organization funded by the United States Association for International Development and the International Planned Parenthood Federation. The PROFAMILIA clinic in Matagalpa performs surgical sterilizations for women who no longer want to have children, and the Casa Materna pays for the operation for all of the *albergadas* who so choose. Karla Vilchez, director of the PROFAMILIA clinic, says that alliances with the other non-governmental organizations serve the poor because "it permits the poorest, most vulnerable population to have access."[104] In this case, the *albergadas'* access to the operation is facilitated by PROFAMILIA and the Casa Materna, who together provide the service, funding, transportation, and logistical arrangement. PROFAMILIA also provides counseling to the women to determine if sterilization is the best choice for the woman and her health.

IXCHEN is another national organization, working for women's sexual and reproductive health. Sandra Centeno works in the education area for IXCHEN in Matagalpa, and comes to the Casa Materna weekly to give a *charla* to the *albergadas*. IXCHEN also runs a women's health clinic and refers some of its patients to the Casa Materna. In this way, the resources of both organizations are available to women seeking services at each. "Working in coordination permits us to have more force," says Centeno. She continues to describe how with alliances, organizations can accomplish bigger things. There is strong representation of women's organizations in Matagalpa, and the pressure of the organizations together is powerful.[105]

The Women's Collective of Matagalpa is a local organization concerned with women's sexual and reproductive rights. They run a clinic on Wednesdays where women can receive pap smears to promote early detection of cervical cancer. Similar to the arrangement with PROFAMILIA, the Casa Materna has an arrangement to cover the cost of these exams for not only the *albergadas*, but also former *albergadas* in the continuation program. The women are given vouchers to cover the cost of the exam, but are responsible for their own transportation. At every continuation *taller*, nurse Valdivia Chavarría passes out the vouchers to the women and any of their relatives. She explains the importance of the exam to cervical and uterine health, and suggests that they go in for the exam on a day when they are already going to the city of Matagalpa for other errands. The Women's Collective also does a yearly analysis of maternal mortality in the department, looking at the numbers and demographics of the women who suffer maternal deaths. This material serves the Casa Materna in much of the educational programming they do on risks for maternal death and how to prevent it. Zoraida Torrez Chavarría of the health area of the Women's Collective describes the advantages of working in alliance with the Casa Materna and other organizations, "I

believe that coordination is super important. The advantage is above all to unite efforts...so that we unite to defend our rights, not only the Collective going out to defend our rights, but various organizations. Coordination serves to strengthen, to interchange experiences, to interchange materials, and coordination is very valid and important, especially when there are objectives that unify organizations."[106] In the case of the Women's Collective and the Casa Materna, they share the objective of reducing maternal mortality. For the Women's Collective, the persistently high maternal mortality rate is a violation of women's rights. "We women are half of the population," says Torrez Chavarría, "but many things happen to women by virtue of being women...you have a gender condition that renders you vulnerable."[107]

Through these alliances and others, the Casa Materna is able to extend its reach to provide more resources to more women. While the Casa Materna is focused on reducing maternal and infant mortality in the department of Matagalpa, this work is a part of broader efforts to improve women's, children's and population health on a national and world level. Mutual support between allied organizations lends strength to the broader movement to improve health.

XI. Conclusions

The Casa Materna of Matagalpa recognizes that the causes of maternal death are complex and multifactorial. As such, reducing maternal death requires an approach that is equally interdisciplinary. The Casa Materna has taken on this challenge with its comprehensive work against maternal death. The Casa Materna directly prevents maternal mortality by sheltering, giving medical attention to, and transporting high risk pregnant women to the hospital. Indirectly, the Casa Materna contributes to the diminishing of maternal mortality by educating midwives, adolescents, and mothers in the rural communities that it serves. Besides the informative content of the Casa

Materna educational program, *capacitación* also plays an important role in the empowerment of women to make their own decisions and care for their own bodies. Part of the Casa Materna's mission, according to nurse Valdivia Chavarría, is to "create a space for the women so that when they leave, by means of the *capacitación* that we give, when they leave from here they leave with a new vision of life."[108] Coordinator Úbeda Cruz says, "My hope for the women *albergadas* is that they take with them a new vision of what is pregnancy and birth…I hope that with time, they put more emphasis on spacing out their births…My hope how is that the women be more conscious, that they not be like we grandmothers who had so many children, but rather that they know and be more responsible for their lives and their babies."[109]

This work, to change women's consciousness, to confront *machismo*, to confront poverty and the socioeconomic and political systems that predispose women from rural communities to early pregnancy, low levels of education, and inadequate access to inadequate health services, clearly does not happen overnight. "To make it possible for this to end," says Úbeda Cruz, "that is for the long term."[110] Daunting as such a task is, the women of rural Nicaragua and the rest of the developing world deserve no less. We have not only the resources and the knowledge to diminish maternal mortality exponentially to developed world levels, but the responsibility to do so. It is our duty to ensure health care as a human right, and so our obligation to stop the unstemmed tide of preventable maternal death. The task at hand is to move ourselves from the evidence and knowledge that we have to practical use and implementation.[111] The Casa Materna is taking important steps in this direction, but much work remains to be done. Skilled attendance at birth remains a mere 67% in Nicaragua.[112] And as much as the Casa Materna does for the women and communities it serves, more sustainable structural

changes to ensure access to safe pregnancy and delivery for all women must be a priority.

The Ministry of Health has stated that the number one health priority for Nicaragua is to reduce maternal mortality.[113] The president of the Pan American Health Organization stated that the biggest concern of PAHO is also the all too high rates of maternal mortality in Latin America.[114] These are important steps in breaking the silence of the silent epidemic of maternal death, yet much more is needed. And it is doable. As a world community we have succeeded in reducing maternal death drastically in developed countries; what remains to be done is to demonstrate the same commitment to health for all women. What we have to gain is well worth the price: the saving of over 530,000 mothers' lives each year, the improved health of their children and families, and the closing of the greatest health disparity between rich and poor in the world.

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