Fall 2006

Traditional Practices and Governmental Responsibilities: An Investigation Into the Evolving Partnership Between Indigenous Brazilian Midwives and State-Provided Maternal Healthcare Services

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Abstract

Traditional midwives play important roles in the provision of maternal healthcare services in developing countries. Especially in rural, marginalized communities, traditional midwives help to provide obstetric care when local governmental health services fail to do so. The healthcare provision that traditional midwives "should" undertake is a subject debated by public health and development policy makers who seek to reduce maternal mortality rates and improve maternal health in rural communities in developing countries. This study examines the practices of traditional midwives in indigenous Tupinambá communities located in Southern Bahia, Brazil. It seeks to define the contemporary role of traditional midwives within three Tupinambá communities: Aguas de Olivença, Curupitanga and Aguipe da Cima. The study defines traditional midwives' community roles through an examination of the way in which community health agents, Fundação Nacional da Saúde (FUNASA) maternal health care protocol and traditional midwives either work together or separately to provide maternal health services for pregnant Tupinambá women.

Analysis of this data reveals that while the role occupied by traditional midwives in the provision of maternal health services diminished during the last decade, it has taken on two new dynamics. Today, traditional midwives are accepted by both community health agents and community members as legitimate providers of emergency obstetric services. In addition, they provide community health agents with natural remedies and traditional medicines, which are then passed on to community members by the community health agents. Given the existence of an informal (non-government sponsored) relationship between community health agents, community members and traditional midwives, this study concludes with a policy recommendation for the Fundação Nacional da Saúde. It recommends that FUNASA both encourage and develop an official relationship between community health agents and traditional midwives based on cooperative learning. Such a partnership, it is argued, will strengthen community knowledge on obstetric health and also improve the quality of attendance at emergency childbirths that take place in rural, indigenous communities.

Parteiras tradicionais têm papéis muito importantes na provisão de serviços de saúde maternal nos países do terceiro mundo. Especialmente nas comunidades rurais e marginalizadas, as parteiras tradicionais ajudam prover cuidado obstétrico quando serviços locais do governo falecem. As funções que as parteiras tradicionais “devem” ocupar e um assunto muito debatido pelas especialistas nas políticas do desenvolvimento e saúde pública que tratam de melhorar a saúde maternal nos países do terceiro mundo. Esta pesquisa examina as práticas das parteiras tradicionais nas comunidades indigenas Tupinambá que ficam no sul da Bahia. Busca definir o papel contemporaneo das parteiras tradicionais em tres comunidades Tupinambá: Aguas de Olivença, Curupitanga, e Aguipe da Cima. Este papel é definido pela maneira em que os agentes da saúde, o protocolo da saúde maternal de FUNASA é as parteiras tradicionais trabalham juntos ou separados para prover servicos obstétricos para mulheres grávidas Tupinambá.

A análises dos dados revela que enquanto o papel das parteiras tradicionais tem diminuido durante a última década, também recebeou dinámicas novas. Hoje em dia, as parteiras tradicionais são aceitadas como pessoas que proveem servicos obstétricos emergentes pelos agentes da saúde e membros das suas comunidades. Além disso, elas dão para os agentes da saúde remédios naturais e medicinas tradicionais, remédios que os agentes da saúde então passam pelos membros comunitários. Dado a existencia de uma relação informal (não do governo) entre os agentes da saúde, membros da comunidade e as parteiras tradicionais, esta pesquisa conclui prover recomendações políticas para FUNASA. Recomenda que a FUNASA desenvolva uma relação oficial entre os agentes da saúde e as parteiras tradicionais que tem base na apredizagem cooperativa. Uma parceria assim vai fortalecer os conhecimentos comunitários da saúde obstétrica e também melhorará a qualidade do atendimento nos partos emergentes que têm lugar nas comunidades rurais e indígenas.

Acknowledgements

First of all, I would like to thank my good friend Valdeci, without whom this project would have been logistically impossible. Her help with my academic pursuits, as well as her humility and companionship are greatly appreciated, and were utterly necessary. I would also like to thank Damiana Miranda for bringing me into initial contact with the indigenous women of Olivença; her encouragement and enthusiasm were both comforting and inspiring. Next, I would like to thank the three agentes da saúde interviewed during the ISP, Manuco, Elieze, and Adoelson. Dona Alicia, a midwife in Aguipe da Cima, provided indispensable information on the situation of maternal health in her community as well. However, I would like to extend a very special thanks to Dona Pedrina, my midwife contact in Curupitanga. Dona Pedrina was incredibly patient and consistently enthusiastic in all of her interactions with me, regardless of her state of health, time of day or day of the week. The generosity with which she shared her rich life experiences with me was truly a gift. Finally, the family-away-from-home provided by Doctor Alba in Ilhéus was a wonderful divergence from my existence in Olivença, and I wish to extend my thanks to her and her family for their open arms and words of advice throughout my field work.

Definition of Terms

- Agente da Saúde – Local health care worker and health liaison for FUNASA. The formal definition of their role is nearly identical to that of agentes da saúde in non-indigenous PSF programs. They must be established members of the community, and are responsible for monitoring the health of community members as well as the collection and distributions of medications and basic healthcare education.
- Aldeia – Small indigenous village
- Cacique – Portuguese word meaning indigenous chieftain. In contemporary Brazil, caciques are democratically elected community leaders.
- Equipe da Saúde – Literally translated, means "Health Team." FUNASA-sponsored health team that is supposed to visit each Tupinambá community every month. Ideally, the equipe consists of a doctor, a nurse and a dentist, although oftentimes doctors are absent.
- FUNASA – Fundação Nacional da Saúde – Specifically focuses on indigenous health.
- Mata – Literally translated as woods, or forest.
- Maternal Mortality – As defined by the WHO, maternal mortality include deaths due to both direct obstetric causes and to conditions aggravated by pregnancy or delivery.
- Orações – Prayers and other phrases said and/or sung by midwives when attending pregnant women during pregnancy as well as childbirth. They are generally Catholic in nature, and are designed to help with the birthing process and the health of the mother and child.
- PSF – Programa da Saúde da Familia- Family health program within SUS, the national Brazilian health care system.
- Remedios – Portuguese word for remedies or medications. Typically refers to those medicines known and used by community members, are made from natural substances such as flowers, roots, and other plants.
- STI – Sexually Transmitted Infection.
- SUS – Sistema Único da Saúde – National Brazilian health care system.
- TBA – Traditional Birth Attendant – Term used by the WHO to describe traditional midwives.
- WHO – World Health Organization – Part of the United Nations that is in charge of world health issues.

Introduction

Background Information

Both economists and public health activists agree: maternal mortality is one of the key issues that have plagued developing countries during the last several decades. Today, it continues to trouble development and healthcare specialists alike. Maternal mortality is defined as "…deaths due to both direct obstetric causes and to conditions aggravated by pregnancy or delivery…"[1] It can be used as a measure of women's empowerment as well as health care system efficacy. During the 1990s, the maternal mortality crisis lived by women in developing countries came to the attention of the international community. It became global knowledge that every year, an estimated 585,000 women die from pregnancy-related causes, a toll that amounts to one death every minute.[2] This number becomes even more shocking within the context of developing countries, where 99% of these yearly half-million pregnancy-related deaths take place.[3] In 1988, Brazil's maternal mortality rate or 135 per 100,000 live births was 34 times that of Canada.[4]

In response to the scandalous rate at which women in developing countries suffer from birth-related deaths, several international organizations took action during the 1990s and implemented maternal mortality-reduction programs in developing countries. Similar efforts have continued on into the next decade as well. In 1999, while the Cairo Programme of Action's implementation was deliberated, maternal mortality's position as a top priority was re-established. Similarly, in 2000 maternal mortality reduction was approved as an International Development Goal by the World Bank, the International Monetary Fund, the United Nations and the Organization for Economic Cooperation and Development. This decision was accepted by 149 heads of state during the Millennium Summit.[5]

Today, maternal mortality continues to plague developing countries, proving particularly harmful for women living in rural, marginalized communities who have little access to healthcare services supplied by the government or other healthcare providing organizations. Due to the difficulties faced by rural communities, traditional midwives serve as integral healthcare providers for pregnant women in developing countries. Traditional midwives, also known as Traditional Birth Attendants (TBA) by the World Health Organization (WHO), are defined as "…an individual, generally female, who assists other women for varying degrees of time during pregnancy, labour, delivery, and the postnatal period. She is usually non-literate and often without any formal training. She learns her skills from older TBA or through her own experience. The TBA is well accepted in the community and her advice is respected."[6] As of 1997, traditional midwives attended 60% of all births in developing countries, assisting an estimated 95% of all births in rural communities within those countries.[7]

In the past, because many indigenous communities in Brazil were rural and largely inaccessible, traditional midwives played a major role in the provision of healthcare services for pregnant women, both throughout pregnancy and during the actual birthing process. In Brazil, indigenous Brazilians constitute a population that both historically and today suffers from a lack of healthcare services. The barriers to access endured by indigenous Brazilians are caused by both physical and social marginalization. However, since the inception of the Fundação Nacional da Saúde (FUNASA) in 1991, access to healthcare in rural indigenous aldeias has improved, causing the role of traditional, indigenous midwives in rural communities to change. More indigenous women than ever before give birth in hospitals, and pre-natal care has become more accessible to rural indigenous women through FUNASA's decentralized healthcare system, which mirrors the Sistema Único da Saúde's (SUS) Programa da Saúde da Familia (PSF).[8]

Within this system, community health workers known as agentes da saúde have become important providers in the health of pregnant indigenous women, serving as the liaison and integral link between the pregnant women and FUNASA-provided maternal healthcare services.

However, FUNASA still has a long way to go before it can claim to provide truly effective universal healthcare provision for pregnant indigenous women. The barriers to access created by distance and cultural factors are great, even given the decentralized and localized nature of the health services offered by FUNASA. In many indigenous Brazilian communities, traditional midwives help to make up for the access barriers to healthcare left by FUNASA. Very little printed information exists regarding traditional indigenous midwives in Bahia. However, FUNASA has recently expressed interest in the practices of these informal healthcare providers, as evidenced by a FUNASA-sponsored midwife training course, the first of its kind in Bahia. This event is a recent development in Bahian indigenous healthcare, as it took place during October of 2006. While the existence of this course indicates that midwives are important to the provision of obstetric care for pregnant women in indigenous aldeias, it is a stated reality within indigenous communities in Southern Bahia that the role of midwives has greatly diminished during the last 6-8 years.[9]

Structure of the Paper:

Although more and more babies from rural indigenous aldeias are being born in hospitals, community inhabitants are highly critical of maternal and other health services provided by FUNASA. In response to these realities, I decided to focus my research question on the current status of maternal health within the indigenous Tupinambá community in Bahia, relating this discussion to the obstetric services provided both by FUNASA and traditional midwives. From this research, I hoped to provide context for the October 2006 FUNASA-sponsored midwife

training course, with the aim of offering policy suggestions regarding the structure of FUNASA's maternal health system in Bahia as well as their newly sponsored midwife training initiatives.

Therefore, this study is formed around the following research question: "what is the contemporary role of traditional midwives with regards to the provision of healthcare for pregnant women in indigenous communities?" In order to answer this question, it is broken down into three sub-questions, each to be explored during the study. These questions are: 1) pregnant women's access (both official and real) to FUNASA's health services, 2) the official and actual relationship between FUNASA health services and indigenous midwives, and 3) the relationship between indigenous midwives and pregnant women in the community. By researching and analyzing these three questions, this study seeks to understand whether contemporary indigenous traditional midwives are more important, less important, or if their role in indigenous communities has been re-defined. After determining that the role of traditional midwives has taken on new dynamics, this study seeks to provide a new definition for the role of traditional midwives in maternal healthcare provision. Concluding my research, I make policy recommendations for FUNASA regarding the way in which its healthcare services should formally interact with traditional midwives.

Literature Review:

Limited information exists regarding the present-day role of traditional midwives in rural indigenous Brazilian communities. However, the practices of traditional midwives constitute an issue that has received a great deal of attention by policymakers looking to reduce maternal mortality in developing countries. A debate has emerged, focusing on whether or not governmental initiatives created to improve healthcare services for pregnant mothers in rural

communities should work with traditional midwives, and if they decide to, the form that such a partnership should take. There are three sides to this debate; each holds varying opinions on the relationship that governmental healthcare institutions should maintain with traditional midwives.

The first perspective held by policymakers looking to reduce maternal mortality states that it is neither cost-effective nor beneficial to train traditional midwives to provide obstetric services.[10] The second side of this debate holds the belief that, due to logistical and cultural reasons, governments would be foolhardy to overlook to tremendous healthcare potential offered by traditional midwives. Those who ascribe to this point of view recommend that governments provide educational sessions and healthcare materials for midwives that will help them to assist births and also provide other necessary reproductive health services for their communities.[11] The third perspective held within this debate argues that in addition to providing training for traditional midwives, these informal healthcare providers should be formally linked to the governmental system of obstetric service provision for women in rural areas. This viewpoint implies a more sustained, official relationship between the governments of developing countries and traditional midwives.

I will now enter into a detailed discussion of the three competing opinions regarding the roles of traditional midwives and governmental institutions in the provision of healthcare services for pregnant women in developing countries. I begin with the first stance, which establishes that the training of traditional midwives by the governments of developing countries is an ineffective waste of money and manpower. Advocates of this position argue that midwife training programs have failed to produce adequate results. They cite studies which point to the inexistence of unambiguous evidence demonstrating that midwife training programs reduce maternal mortality rates.[12] In addition, supporters of this policy stance indicate the difficulties

that such training programs face: most traditional midwives are older, illiterate women, and as a result the barriers to teaching are varied.

As many traditional midwives are illiterate, their ability to maintain records and refer patients to healthcare professionals is severely compromised. In addition, as occidental obstetric services become increasingly accessible to rural communities, midwives' work loads diminish, causing advocates of this perspective to argue that midwife training programs are not cost-effective. As midwives attend fewer and fewer births, they will not be able to maintain their skills through practice; as a result, the government will be responsible for providing refresher courses, which can be expensive.[13] Therefore, instead of wasting money on ineffective programs, advocates of this position argue that professional healthcare providers must take the health of pregnant women into their own hands, abandoning the training of traditional midwives as an effective strategy to promote reproductive health.

While midwife training programs can be expensive, the second opinion held on this debate argues that such programs constitute money well-spent by governmental institutions seeking to diminish maternal mortality rates and increase reproductive health services in rural communities. Advocates of this position argue that "…it could be very unwise to abandon traditional midwives, given logistical limitations to providing adequate women's health services & also cultural sensitivity considerations."[14] The logistical limitations noted by policy makers and analysts include barriers to access created by distance and cultural factors, and the inability of local healthcare providing institutions to overcome these obstacles to adequate healthcare coverage. Promoters of midwife training programs argue that because traditional midwives already possess strong midwifery skills and are familiar with the medical and cultural needs of their communities, training programs are both appropriate and cost-effective.[15]

In fact, it is argued, traditional midwives may have the potential to work in areas of healthcare provision other than the prevention of maternal mortality. Traditional midwives' skills as well as their intimate relationship with the communities in which they live make them excellent candidates to work on other reproductive health-related issues, such as the prevention of STIs and AIDS, as well as the promotion of family planning. [16] In some countries, traditional midwives practice outside of the reproductive health sphere as well, helping to promote immunizations as well as oral re-hydration therapy.[17]

In summary, advocates of this position argue that the training of traditional midwives is an excellent strategy for promoting both obstetric and family health in rural, marginalized communities. They do not diminish the importance of local healthcare services as well, but do emphasize the importance of training programs for TBAs. The strength of this position in the international community was demonstrated in 1999, at the Special Session of the UN General Assembly held to commemorate the International Conference on Population and Development held in Cairo, Egypt. At this summit, it was declared that all countries should work to train birth attendants with the goal that by 2005, 80% of all births in the world would be attended by skilled attendants.[18]

The third side to this debate, drawing its conclusions from both the first and second positions, recommends a new, dynamic role for traditional midwives. This function draws upon the knowledge possessed by traditional midwives as community health providers and members, while at the same time recognizing the importance of governmentally-provided obstetric services. Advocates of this position agree that traditional midwife training programs are both useful and cost-effective. They point to programs that consist of traditional midwife training in conjunction with "…larger interventions that involve…other components including improved

transportation [and] improved emergency obstetric care facilities…"[19] In other words, efforts to reduce maternal mortality and improve obstetric services should seek to develop local maternal healthcare plans that connect traditional midwives with governmental health services, thereby maximizing the skills held by TBAs.

Policy makers who support this policy stance argue that traditional midwives cannot be expected to reduce maternal mortality rates on their own. At the same time, they recognize the severe limitations encountered by occidental healthcare services in rural communities.[20] As a solution to these dilemmas, it is advocated that governmental health institutions combine their own obstetric services with community-based, traditional healthcare providers. Formalizing the role of traditional midwives within the local healthcare system, it is argued, will help to circumvent logistical issues such as access and transportation, thus improving the quality and efficiency of attendance at birthing, and lowering maternal mortality rates.

Methodology:

The methodology employed by this study involves four major data-gathering techniques. Answering my research question involved the exploration of several major aspects of indigenous women's health, as mentioned above. Therefore, it was necessary that I use a variety of research methodologies. The four methodologies utilized by this study are the participant observation, formal interview, informal interview, and photography techniques. This study employed three indigenous Tupinambá communities as case studies. These communities are located in Southern Bahia near the town of Olivença. Their names are: Aguas de Olivença, Curupitanga, and Aguipe da Cima.

First, I begin by discussing the methods used to gather basic demographic and geographic information regarding each community studied. In order to obtain demographic and geographic

context to the three case studies in this study, I utilized the formal interview, participant observation, informal interview and photographic techniques of data collection. It should be noted that the investigation into the demographic and geographic aspect of each case study also yielded important data for issue #1 (see "structure of the paper"), which is the "reality of access question" that I explore during the study.

The formal interview technique was used to gather demographic information about each community studied. These interviews were conducted with the agente da saúde in each community. I chose to interview agentes da saúde because they are frequently traveling between Ilhéus and their communities. In addition, their job requires them to be familiar with basic demographic information about the community in which they work. I found agentes da saúde to be the most knowledgeable and reliable sources of demographic and geographic information. Questions asked during the formal interviews revealed information about the number of indigenous families living in each aldeia, whether or not the community has a parteira, if any of the aldeia's inhabitants have cars, how many people in the community have cellular phones, and whether or not the community has cell phone reception. Please see Parts A and B of the appendix for a complete list of the questions asked during formal interviews with the agentes da saúde.

The second method utilized during this portion of the study is the participant observation technique. When visiting each aldeia, I made sure that I traveled just as any inhabitant would. The two forms of transportation utilized were bus travel and foot travel. This form of participant observation helped me to geographically place the communities in relation to the town of Olivença (where the posto da saúde is located), as well as the city of Ilhéus (where FUNASA health services are located). It also gave me insight into the realities of the access question. When traveling to each community, I always recorded the amount of bus and foot travel required. I also

took mental note of the road conditions (Were they paved? Are there bridges to be crossed?), and the nature of the walk (Were there many hills? If so, were they steep? Would a person in labor/an older person be capable of making the trip?).

The third method which yielded insight into demographic and geographic data from each community was the informal interview technique. I always traveled with another person during my trips to each community. Normally, this person was the aldeia's agente da saúde. These informal interviews, just like the aforementioned methods, also revealed information regarding the access question. While traveling to each community, the questions asked during these informal interviews would generally relate to road conditions and travel time. I asked questions about road conditions when it rained (How are the roads when it rains? Can cars reach the community in the rain?), and the way in which inclement weather affected travel time (How long is the trip from Ilhéus to the community by car? How long does it take when it is raining?). The fourth technique used to gather demographic and geographic data from each case study was the photographic technique. While traveling to each community, I took pictures of the roads, the surrounding land, and some houses. These pictures reveal insight into the physical setting, lifestyle and quality of life of each community. They also provide visual evidence for the access question. Please Part C, Sections 1-3 for the photographs taken of community roads and homes.

The next type of data that I attempted to collect during this study dealt with the evolution of maternal health in each case study. In order to investigate this topic, I needed to obtain statistical, time-change information regarding the number of babies from my case studies that were born in hospitals vs. at home during the last 8-10 years. This time range was selected because I had been informed by several of my agente da saúde informants during informal interviews that up until 6-8 years ago, the majority of births in their communities had been

attended by midwives. In order to obtain such data, I contacted the Ilhéus FUNASA office on several occasions and remained in communication with them following the conclusion of my field research. However, in spite of my persistent contact, the FUNASA office failed to provide me with the data by the time this paper was to be completed.

I will now enter into a discussion of the methodologies employed by this study to reveal insight into question #1, which asks about both the official and actual relationship between FUNASA obstetric services and pregnant women in each community. This study defines official FUNASA obstetric services as the formal maternal healthcare role of agentes da saúde, pre-natal care provided by FUNASA, and FUNASA-offered birthing assistance. Information regarding the access issue was gathered using the formal interview technique. My informants were the agentes da saúde in each community, and each interview took place in the home of the agente da saúde. Questions designed to reveal insight into the "official access" of pregnant women were asked within the context of official FUNASA-mandated protocol. They included, "What does the agente da saúde do when he/she becomes aware that there is a pregnant woman in the community," "What does the agente da saúde do when he/she becomes aware that the woman has gone into labor?," and "What does the agente da saúde do in an emergency birthing situation?"

In order to gather more data regarding the realities of access to FUNASA healthcare services, I also utilized the photographic technique by taking photographs which reveal the state of several FUNASA vehicles, as well as a FUNASA ambulance. The cars in these pictures are the actual vehicles used to provide transportation for equipes da saúde, as well as community members in emergency health situations. The photographs were taken during a trip to the

FUNASA headquarters in Ilhéus. Please see Part C of the appendix for all photographs taken during this study.

In order to gather information regarding the reality of pregnant women's access to FUNASA-provided maternal healthcare services, questions were phrased in a different manner. Before asking each question, I clearly stated that I wanted to know about the day-to-day realities in each community, as experienced by the agente da saúde (my informant). These questions included, "Does the FUNASA equipe come to visit the community each month?," "If the equipe does not come, when will their next visit be?," "In emergency situations, are the FUNASA cars reliable?," and "If it is raining and the roads are impassable, what do you/FUNASA do?"

Next, I will enumerate the methodologies utilized to answer research question #2 (see "structure of the paper"), which addresses the official and actual relationship between FUNASA health services and indigenous midwives. The participant observation, informal and formal interview and photographic techniques were employed to investigate this question. Prior to beginning my ISP, I had the opportunity to attend the first FUNASA-sponsored traditional midwife training course in Bahia. This event represented an aspect of the official relationship between FUNASA and traditional midwives. I used the participant observation technique in order to gather information. Following my arrival in Olivença, one of my first research activities was to use the informal interview technique to inquire about the official community-based relationship between FUNASA health services (understood as the Olivença posto da saúde as well as agentes da saúde) and traditional midwives.

Following my investigation of the official relationship between FUNASA health services and traditional midwives, I moved on to utilize both the formal and informal interview and participant observation techniques in order to research the actual relationship between FUNASA

services (understood as agentes da saúde) and traditional midwives. My informants were the agentes da saúdes in each case study community. Questions included, “Does the agente da saúde ask the parteira for remedies for ailments afflicting pregnant women?,” and “Would the agente da saúde seek out the parteira in an emergency birthing situation?” Again, the interviews were conducted in the homes of each agente da saúde interviewed. The participant observation technique proved very informative when investigating this question, as I was frequently in the presence of both the agente da saúde and the traditional midwife at the same time. On more than one occasion, I witnessed several agentes da saúde asking the midwife for remedies regarding women’s reproductive health. I recorded these experiences in my field journal each time that they took place, and included them in the study.

I will now provide insight into the methodologies used to answer research question #3 (see “structure of the paper”), which deals with the relationship between traditional midwives and the pregnant women in each community studied. In order to investigate this question, I utilized the formal and informal interview techniques to interview both agentes da saúde as well as the traditional midwives in each community studied. I asked questions aimed to understand both the contemporary relationship between midwives and pregnant women, as well as the way in which this bond has changed during the last decade. Questions for the agentes da saúde included, “Do women still seek out the parteira will pregnancy-related questions?” and “Do you think that the family members of a woman in emergency labor would seek out the community midwife?” Some of the questions asked of the midwives were, “Do women still seek you out for assistance during pregnancy (e.g., remedios, counseling, etc.) or labor?,” and “Do you assist fewer births today than you did 10 years ago?” These interviews were conducted in the homes of the agentes da saúde or the midwives.

In order to augment the data collected for question #3, I chose to utilize the informal interview technique in order to gain insight into the medicinal knowledge held by the traditional midwives in each case study community. These informal interviews consisted of loosely-phrased questions designed to reveal insight into the way in which the midwife formerly interacted with pregnant women, both during and after pregnancy, as well as during childbirth. The questions inquired about remedios and other practices that midwives used when treating pregnant women. This information will be used in order to demonstrate the role occupied by traditional midwives in the past. It will also provide insight into the potential held by traditional midwives in the provision of maternal healthcare services in rural indigenous communities.

Exposition and Analysis of Data

Exposition of Demographic and Geographic Data

I will now present the demographic and geographic data collected for each community. It is important to remember that this data will prove very useful in my discussion of the reality of access to FUNASA healthcare services. This section will be broken up into individual descriptions of each case study, using the data collected with each technique. In order to give some context to my discussion of the demographic and geographic features of each case study, I will first enter into a brief description of the region in Bahia in which I conducted my field study. Olivença, where I lived, is a small town located about 40 minutes (by public bus) south of Ilhéus, a medium-sized city in Southern Bahia. The town of Olivença is ethnically mixed, housing both indigenous and non-indigenous Brazilians. Scattered throughout the jungle surrounding Olivença are 22 aldeias; these small communities are home to indigenous Brazilians of the Tupinambá tribe. Including the indigenous inhabitants of Olivença and the aldeias' residents, 5 thousand members of the Tupinambá tribe live in the region. Almost every aldeia has its own agente da

saúde, except for those communities such as Serra Negra, with 7 families, who share their agente da saúde with a nearby aldeia.

Aguas de Olivença

I will now provide the demographic and geographic information collected for the community of Aguas de Olivença. First, I will describe the data amassed over a 2-day period using the participant observation technique. Aguas de Olivença is a small Tupinambá community located approximately 40 minutes from Olivença, and roughly an hour and 20 minutes from Ilhéus. The 40 minute travel time from Olivença can be broken down into 25 minutes by bus along the main highway, and 15 minutes by foot along a dirt road that leads into the "mata," meaning forest or woods. It is important to note that it takes 15 minutes to walk reach the *first* home in Aguas de Olivença. The houses are extremely spread out, and it can take 2 hours by foot to arrive at the homes of some of the community's families.

As seen in the photographs of Aguas de Olivença (please see Part C, Section 1 in the appendix), the road to the community is made of dirt and sand. It is distinguished by deep ruts created by rainfall as well as overuse, and does not appear to have received attention in a long time.[21] In order to learn about the realities of car travel along Aguas de Olivença's roads, I interviewed Manuco, the aldeia's agente da saúde. He told me that when it rains, cars are unable to enter the community. In fact, Manuco noted, if he calls FUNASA requesting emergency transportation during a rain storm, he will be told to wait until the rain passes. This has serious implications for the health of Aguas de Olivença's 57 families, all indigenous. Manuco's responsibility as a FUNASA agente da saúde is to serve as a health liaison for these families. Manuco informed me that many members of the community do have cellular phones, and that

there is cell phone reception in the community. However, he told me, many people do not use their cell phones due to the cost.

Houses in Aguas de Olivença do not have electricity, and I did not see any evidence of running water. Homes are constructed from a basic wooden infrastructure that is covered with packed earth. Walls are composed of packed earth, the floors are made of cement, and the roofs are wide pieces of flat metal. Manuco informed me that Aguas de Olivença does not have a traditional midwife; in the past, there were many (his own mother was a midwife), but today the majority of women either give birth in the hospital, or they give birth at home without a midwife present. When women give birth at home in Aguas de Olivença, family members usually help out, cutting the umbilical cord or providing moral support for the pregnant woman.[22]

Curupitanga

Curupitanga is the second community case study that I researched. Its geographic positioning is considerably different from that of Aguas de Olivença, as no buses run to Curupitanga. From Olivença, one must walk approximately an hour and 15 minutes along a dirt road. The road appears well-groomed nearer to Olivença, but upon entering into the mata, it soon becomes bumpy, full of potholes and deep ruts caused by rainfall. Previous to beginning the field study period, I traveled to Curupitanga by taxi. It had not rained in days, but the taxi became stuck in holes at least three times. Due to road conditions, the car nearly failed in ascending a particularly steep hill. Even when traveling by foot, the road to Curupitanga is difficult. The hills are very physically demanding, and would be impossible for elderly members of the community to traverse by foot. However, as there is no bus and only one family owns a car, walking is a necessity for many inhabitants of Curupitanga, regardless of age or health status. Photographs of the roads to Curupitanga are available in Part C, Section 2 of the appendix.

Curupitanga houses 18 indigenous families and several non-indigenous families as well. The non-indigenous inhabitants are not privy to the health services provided by FUNASA. Therefore they are not the responsibility of the agentes da saúde that I worked with in Curupitanga. Houses in Curupitanga are similar to those in Aguas de Olivença. They are made out of earth, and their floors consist of packed dirt. Curupitanga does not have access to electricity, nor running water. From my formal interview with Elieze Gomes do Nascimento (his indigenous name is "Mucunã Tutuiute"), the agente da saúde in Curupitanga, I learned that many people in the community have cellular phones. However, Elieze's cell phone was broken at the time of our interview. Therefore, for him to call FUNASA for any health-related reason, he had to walk to Olivença in order to place a collect call to FUNASA from a public phone. FUNASA does not buy cellular phones for the agentes da saúde.

During my interview with Elieze, I gathered further information regarding road conditions in Curupitanga. He informed me that when it is not raining, the trip from Olivença to Curupitanga by car is at minimum 20 minutes. When weather is inclement due to rain, cars simply cannot reach the community. One family in the aldeia has a motorcycle; no one has a car. Curupitanga is home to two traditional midwives, one indigenous and one non-indigenous.[23] The indigenous midwife is Dona Pedrina (the motorcycle is her husband's); a photograph of her home can be viewed in Part C, Section 2 of the appendix.[24] The non-indigenous midwife is named Dona Baubina.

Aguipe da Cima

The third case study in this study is the community of Aguipe da Cima. In order to arrive in Aguipe da Cima, one has to catch a bus from the center of Olivença. The bus ride lasts approximately half an hour. From the bus stop, it is an hour and 15 minutes to hour and a half

walk to Aguipe da Cima. The community is scattered throughout densely forested hills sprinkled with farming fields. The walk to Aguipe da Cima was the longest and most challenging of my three case studies. It consisted of several very steep hills, and two bridges. While one of the bridges was sturdily built, made out of planks and thick wooden poles, the other was extremely rudimentary, made out of two logs placed across the river. Walking to Aguipe da Cima would be incredibly challenging for a person who was either older, sick, or in poor physical condition. Please see Part C, Section 3 for photographs taken of the roads leading to Aguipe da Cima.[25]

Aguipe da Cima's agente da saúde is named Adnoelson, and I expanded my demographic and geographic knowledge about the community by conducting a formal interview with him. Adnoelson informed me that he is the agente da saúde for both Aguipe da Cima and Aguipe do Meio, another aldeia located next to Aguipe da Cima. There are 26 families in Aguipe da Cima, and 19 in Aguipe do Meio. The houses in Aguipe da Cima are identical to those encountered in Aguas de Olivença and Curupitanga, made out of packed earth. Aguipe da Cima does not have electricity, and only some of its inhabitants own cellular phones. Cell phone reception in the community is unreliable and only works in certain locations.

With regards to road conditions, Adnoelson informed me that when it is raining, cars are either delayed in their arrival to the community. Sometimes when it rains heavily, cars are unable to reach the aldeia. Given optimal weather conditions, it takes approximately 3 hours to travel from Ilhéus to Aguipe da Cima (in other words, this would be the amount of time required for emergency FUNASA transportation, which is located in Ilhéus, to arrive in Aguipe da Cima). Aguipe da Cima has two indigenous parteiras, each with varying degrees of experience. One, Dona Alicia, is Adnoelson's mother and the wife of the "cacique" (meaning indigenous chieftain).[26]

Analysis of Demographic and Geographic Data

The demographic and geographic data collected with the participant observation, interview, and photographic techniques provide both social and physical context to my study. This data also yields considerable insight into the "access issue" raised in the "structure of the paper" section. All of my case studies are small, rural indigenous community. In order to reach each community using the transportation utilized by aldeia residents, one must traverse a dirt road and a variety of physical obstacles. Aguas de Olivença is the most easily accessible community studied, while Aguipe da Cima (with a total travel time from Olivença of 2 hours) is the most difficult to reach. The data also reveals that when it rains, all three neighborhoods become nearly or entirely unreachable. Each community shares relatively the same economic and developmental level; poor living conditions and difficult access to healthcare services are endured by the residents of each case study.

Exposition of Data Regarding the Official and Actual Access of Pregnant Women to FUNASA Services

Information about the official protocol followed by agentes da saúde as well as FUNASA healthcare professionals was gathered during formal interviews with each community's agente da saúde. The answers to these questions were nearly identical for each agente da saúde, as they regard official FUNASA protocol that affects all indigenous communities. The three agentes da saúde interviewed were asked about their actions when they become aware that a woman in the community is pregnant. The agentes da saúde replied that they approach the woman in order to perform an initial evaluation of her health. They mark a day with her to visit the posto da saúde for an initial prenatal care visit. Women have the option of receiving prenatal care at the posto da saúde, or of waiting for the monthly equipe da saúde visit.

I then asked about the realities of prenatal care in the communities. All three agentes da saúde informed me that the equipe da saúde frequently fails to appear. The reasons for their absence are varied. The most frequent excuse given to the agentes da saúde is that the FUNASA car is broken, or the driver has not shown up for work. In the event that the equipe does not appear, Adnoelson explained that it will not come back to the community until their planned visit during the next month. "...outro mes. Quando [os equipes] não vem, tem que vir outro mes. Até agora, estamos com 7 meses sem atendimento medico (...next month. When they [the equipes] don't come, they have to come the next month. Right now, we haven't had medical attention (meaning that the equipe has been without a doctor) for 7 months)."[27] Due to the unreliability of the equipe da saúde, many women choose to seek out pre-natal care at the posto da saúde in Olivença, or at FUNASA-affiliated hospitals in Ilhéus. The capricious nature of the equipe's visits is a fact recognized not only by the community agentes da saúde, but also by the healthcare professionals who work at the FUNASA headquarters in Ilhéus. Early during my field work I visited the FUNASA office to try and set up transportation to the communities with the equipes. I was told by a FUNASA nurse who works on one of the equipes that this was a bad idea, and that I should not waste my time; the equipes' visits were too unpredictable.[28]

During a different visit to the FUNASA headquarters in Ilhéus, I took pictures of the vehicles used by FUNASA for emergency transportation as well as the monthly transport of FUNASA equipes da saúde. These photographs can be viewed in Part C, Section 4 of the appendix.[29] The FUNASA headquarters is a multi-functional office, serving both as an administrative headquarters, pharmacy, and garage. The photographs display vehicles in varying degrees of decay. Some cars appear useable, but are receiving some kind of under-the-hood work. Other vehicles are missing one or two wheels, and are ridden with rust. One picture

reveals a car with its hood open; the engine is missing, and any remaining internal hardware is covered in rust. While the photographs only show cars that are receiving mechanical attention, it is important to note that every single FUNASA vehicle parked at the headquarters was being worked on by a mechanic.

In order to gather information regarding the realities of childbirth in my case study communities, I asked questions regarding the protocol to be followed when pregnant women are nearing their due date. Manuco answered this question very thoroughly. He explained that woman receiving prenatal care from FUNASA set up a day during her last month of pregnancy to come to Ilhéus. On this day, which ideally takes place several days before the she goes into labor, the woman travels to Ilhéus. There she stays in a hotel provided by FUNASA. When the pregnant woman begins labor, she is near the hospital and will be readily attended.[30]

However, when asked about whether or not most women actually arrive at hospitals in time to give birth, the reality of the childbirth process in my case study communities did not precisely match FUNASA's official protocol. All three agentes da saúde informed me that while they constitute a minority, a small number of women still give birth in their aldeias. There are even some women in Aguas de Olivença who give birth at home, in spite of the fact that there is no midwife in the community. During an informal interview with Alicia, one of the midwives in Aguipe da Cima, I was informed that during recent years, women have given birth in the road while trying to reach the hospital by foot.[31]

I then inquired about the agente da saúde's protocol during an emergency birthing situation. If a woman went into labor earlier than expected, what would the agente da saúde do to ensure that she receives medical attention? The agentes da saúde replied that in such a situation, they would call the FUNASA office and request either a car or the ambulance. The woman

would then be taken to the hospital, where she would give birth. During my interview with Elieze, he told the story of a woman who went into labor in Curupitanga. He called the FUNASA office, and they sent a car to pick her up and carry her to the hospital.[32] However, all three agentes da saúde also responded with stories about past community healthcare emergencies that did not work out so well. On multiple occasions, all three of them have called FUNASA to request a car and have been told one of three responses: the cars are already in use, the cars are broken, or the driver is not working.

Next, I asked a question designed to reveal certain realities regarding emergency transportation during urgent health situations. I posed a potential situation to the agentes da saúde, asking them what would happen in the event that it was raining when a woman went into labor in the community. They replied that they would call FUNASA in order to request emergency transportation. However, all three agentes da saúde replied that most likely, FUNASA would tell them to wait until the rain stopped. In such a situation, the agentes da saúde informed me that they would seek out the community midwife in order to assist the birthing. In the event that they could not contact her, they would aid in the birthing themselves.

Analysis of Data Regarding the Official and Actual Access of Pregnant Women to FUNASA Services

By conducting formal interviews with the agentes da saúde in each of my case studies, I revealed considerable insight into both the official and actual status of pregnant women's health services in indigenous Tupinambá communities. While my interviews revealed that FUNASA does play a major role in the provision of maternal health services in my case studies, both the efficacy and efficiency of its services are questionable. The unreliability of the equipe da saúde visits represents a major hindrance to women's access to prenatal care. The absence of prenatal

care, while dangerous to the health of the mother and unborn child, also has the potential to affect a pregnant woman's birthing experience. After all, it is during prenatal care appointments that doctors set up transportation and housing for women during the last month of pregnancy.

My questions regarding emergency birthing situations reveal considerable insight into the realities of pregnant women's access to FUNASA's services during labor. As mandated by FUNASA, during an urgent birth situation the agente da saúde would call FUNASA and request emergency transportation. However, as recorded during my interviews, it is all too common for FUNASA to respond that transportation will be delayed due to logistical problems. The photographs of FUNASA vehicles appear to confirm the complaints launched by the agentes da saúde regarding the quality and reliability of FUNASA transportation. During my trip to FUNASA in which I took photographs of the vehicles, every single car or ambulance was receiving mechanical attention. This suggests that it is possible for the FUNASA vehicles to be frequently out of service and inaccessible to community inhabitants. With regards to health crises that take place during inclement weather, my interviews and photographs reveal that FUNASA's emergency transportation system becomes nearly useless.

Within some communities, such as Aguipe da Cima, transport may be delayed for hours due to rain. In others, rainfall renders FUNASA vehicles (both cars and the ambulance) entirely unable to reach the rural communities that they serve. One important point to take away from this section of my research is the fact that in a true emergency situation during which transportation was impossible, both Elieze and Adnoelson (the agentes da saúde in communities with midwives) would seek out the community midwife in order to assist the birth. This has strong implications for question #2, which investigates both the official and actual relationship between FUNASA health services and traditional midwives. It indicates that in actuality,

midwives fit into the healthcare provision protocol employed by agentes da saúde in emergency birthing situations.

Exposition of Data Regarding the Official Relationship between FUNASA Health Services and Traditional Midwives

In order to investigate the official, FUNASA-mandated relationship between FUNASA health services (understood as local and state-level programs as well as official protocol of agentes da saúde) and traditional midwives, I undertook two different research activities. One of these utilized the informal interview technique. I asked different members of the local Olivença community (agentes da saúde, nurses, and parteiras) if the Olivença posto da saúde had any contact with the traditional indigenous midwives in the community. Such contact may have included outreach or training programs. I also inquired as to whether or not FUNASA had an official protocol for agentes da saúde with regards to traditional midwives (e.g., are they instructed to seek a community midwife out in emergency birthing situations?) All of my informants answered that both in the past and today there is no official relationship between the posto da saúde/agentes da saúde and the community's midwives.

The second research activity undertaken to investigate the official relationship between FUNASA health services and traditional indigenous midwives employed both the participant observation as well as the photographic technique. First, utilizing the participant observation research method, I attended the first ever FUNASA-sponsored indigenous midwife training course in Salvador, Bahia during October of 2006. The course was a four-day event in which approximately 30-40 indigenous midwives from communities all over Bahia attended lectures and participated in educational activities. The course was designed to provide traditional

midwives with information on women's maternal health as well as wider reproductive health issues such as STI (sexually transmitted infection) transmission and prevention.

All of the midwives were indigenous women, and nearly every single one of them was from a rural community. The average age of the midwives was between 50 and 70, with the majority of the women appearing to be in their 60s. There did not appear to be any midwives under the age of 40. During an STI learning activity, it became very clear that the vast majority, if not all, of the midwives were illiterate. The organizers of the event split the midwives into 5-6 groups and handed out butcher paper and pens, asking the women to write down answers to a variety of questions about STI transmission and prevention. After a great deal of confusion about the objective of the activity (the midwives could not read the questions that they were supposed to answer), different organizers of the event stepped in to help facilitate the activity. In not a single group did a midwife write the answers to the activity's questions; instead, the organizers and event volunteers did it for them.

Women's reproductive anatomy was also taught and discussed during the course, and the midwives were instructed about professional birthing methods used by medical professionals. At the conclusion of the program, each midwife was given a "midwife kit," which included different medical instruments used during childbirth. They were educated on how to use and maintain these birthing tools (e.g., proper sterilization practices, etc.). FUNASA also provided each midwife with written information on the various issues covered during the course, including the proper use of their newly-acquired birthing instruments. One of the midwives who attended this event is Dona Pedrina, the indigenous midwife in Curupitanga. During one of my numerous visits to her home, I took photographs of the birthing instruments and written materials that

FUNASA gave her during the course. These photographs can be viewed in Part C, Section 5 of the appendix.[33]

Analysis of Data Regarding the Official Relationship between FUNASA Health Services and Traditional Midwives

As evidenced by my research regarding the official relationship between FUNASA health services and traditional indigenous midwives, any formal association between these two heathcare providers is very recent. At the local level in Olivença, my research revealed that no contact had been established between FUNASA and traditional midwives. This is contrasted, however, by the fact that at the state level FUNASA is making an effort to educate traditional midwives and value the services that they provide. While only one official encounter between FUNASA health services and traditional midwives has taken place, the event that I attended might represent an important development for women's maternal health in rural indigenous communities. It may provide insight into the way in which traditional midwives' roles within rural communities are changing, indicating a move towards the professionalization of their practices.

Exposition of Data Regarding the Actual Relationship between FUNASA Health Services and Traditional Midwives

When researching the actual interactions between FUNASA health service providers and traditional midwives, I conducted both formal and informal interviews and also used the participant observation technique. My interview subjects were the agentes da saúde from Curupitanga and Aguipe da Cima, Elieze, and Adnoelson. Manuco, the agente da saúde in Aguas de Olivença, was not asked these questions because his aldeia does not have a traditional

midwife. I began by asking questions such as, "Does the agente da saúde ask the midwife for remedies to cure ailments afflicting pregnant women?"

In response to this question, Elieze answered that he approaches Dona Pedrina with healthcare issues affecting members of the community: "...Vou prá saber dela, prá saber é que pode fazer um remedio prá tomar, e eu passo prá o doente... ela me ensina (I go there to learn from her, to know what it is I can do to make a remedy to take, and then I pass it [that information] onto the sick person…she teaches me)."[34] Adnoelson also confirmed that he seeks out Alicia, his mother and the midwife in Aguipe da Cima, with various health concerns afflicting members of the community. Interestingly enough, though, Adnoelson informed me that the majority of women in the community are already familiar with natural remedies to cure a variety of illnesses or pains associated, and therefore his intervention is not always needed.[35]

The data collected using the participant observation technique confirmed the above statements by the agentes da saúde. On two separate occasions, I witnessed Valdeci, an indigenous agente da saúde, asking Dona Pedrina (the midwife in Curupitanga) to give her remedies for women suffering from STIs. One of the women had HPV, and the other gonorrhea. Valdeci asked Dona Pedrina for a remedy to treat the HPV, and asked if the woman with gonorrhea could come to visit Dona Pedrina in Curupitanga. Valdeci is a former resident and agente da saúde of Curupitanga; she now lives in the center of Olivença. As stated during an informal interview, she both values and reveres Dona Pedrina's extensive medical wisdom. During this interview, she called Dona Pedrina a kind of "community doctor" because of the abundance of her knowledge about illness and curing.[36]

Analysis of Data Regarding Both the Official and Actual Relationship between FUNASA Healthcare Services and Traditional Midwives

It is clear from the data presented above that the official relationship between FUNASA and traditional indigenous midwives in Bahia is very limited. In fact, it is solely represented by the one-time midwife course provided by FUNASA. As the course was the first of its kind, it is difficult to foresee the way in which the official relationship between FUNASA and traditional midwives will evolve. From this perspective, the role of traditional midwives in maternal healthcare provision appears very limited and insignificant. However, when the realities of FUNASA-provided healthcare services are taken into account, traditional midwives may be seen in a very different light.

By expanding the definition of FUNASA healthcare services to include both the official and actual actions of agentes da saúde within each community, my data demonstrates that midwives do play a role in the provision of maternal, as well as other health-related, services. Agentes da saúde seek out traditional midwives for a variety of healthcare services, including the provision of remedies for pregnant women and emergency birthing assistance in the event that FUNASA proves inaccessible. My data suggests that a working relationship between FUNASA (represented by indigenous agentes da saúde) and traditional midwives does exist; the association simply lacks recognition and a formal, authorized structure.

Exposition of Data Regarding the Relationship between Traditional Midwives and Pregnant Women

The third and final component of women's maternal health in Tupinambá communities is the relationship between traditional midwives and pregnant women. In order to gather information on this subject, I chose to perform formal and informal interviews with both agentes da saúde as well as the traditional midwives themselves. This portion of my research is somewhat limited, as I did not interview pregnant women or women who had given birth within

the communities studied. These interviews were impossible to conduct due to time constraints. Because of this limitation to my research, I asked the agentes da saúde if they were aware that pregnant women in the community seek out traditional midwives for pregnancy-related concerns. Elieze answered that some women in Curupitanga seek out community midwives for advice or remedies to help with illnesses or health-related concerns. However, he commented that the majority of these women are older, and likely have a stronger connection with the indigenous movement and natural medicines; younger women in Curupitanga are less likely to trust traditional natural remedies.[37]

Adnoelson's response to this question differed from that of Elieze. He replied that pregnant women in Aguipe da Cima do not seek out midwives for natural remedies or other health concerns. "Elas não procuram a parteira, não. Ela mesma da um maisagem, toma algum remedio natural. (The [pregnant] women don't seek out the midwife. They give themselves a massage, or take some kind of natural remedy)."[38] I also asked both Elieze and Adnoelson whether or not they thought that the families of a pregnant woman who has gone into labor would seek out a midwife. Elieze responded that in a normal birthing situation (a non-emergency), the answer is no:

> "...é muito dificil hoje ter uma mulher na comunidade procurar á parteira porque o marido só tem fé de procurar mais ao medico. Acha que o médico é melhor, mais sabem que a parteira tem suyo poder também, mostrar suyo poder, sua corajem, sua fé, primeiro que elas tem uma fé em Deus, chama o poder de estar lá prá a criança (*...it's very difficult today to have a woman in the community seek out a midwife because husbands only have faith in seeking out a doctor. He thinks that doctors are better, but he also knows that midwives have their power as well; they show their power, their faith. Before anything else, they have a faith in God, and they call the power of god to be there for the child*.)"[39]

Adnoelson confirmed Elieze's assertion, agreeing that under normal birthing conditions, family members would first seek out a doctor to assist the birth. However, both of them concurred that

during an emergency situation in which FUNASA transportation was unavailable, members of the community would seek out the community midwife to attend the birth.

Next, I conducted both informal and formal interviews with the midwives of Curupitanga and Aguipe da Cima in order to gather data regarding their relationship with pregnant women in the community. First, I asked Dona Pedrina, Curupitanga's indigenous midwife, if women turn to her with pregnancy-related questions, or when they are going into labor. Dona Pedrina is a 67 year old woman who has attended over 20 births in her lifetime. She assisted her first childbirth when she was 9 years old, and today is revered as a kind of indigenous natural healer within the community of Curupitanga.[40] Dona Pedrina attended the midwife encounter sponsored by FUNASA in Salvador that I attended. Along with the majority of midwives at the encounter, she is illiterate. In response to my questions regarding her contemporary role as a midwife, Dona Pedrina replied that women no longer seek her out during their pregnancies. A decade ago, many women would ask her for remedies or massages to use during pregnancy. During that era, women would also approach Dona Pedrina late during pregnancy, asking her: "…da prã a senhora me ajudar quando está na hora (…can you help me when it's my time [to give birth])?" Dona Pedrina would respond: "Si, claro (Yes, of course)."[41] Dona Alicia, one of the midwives in Aguipe da Cima, confirmed Dona Pedrina's experiences.

Dona Alicia is an outspoken, powerful Tupinambá woman in her sixties. It should be noted that while she is a midwife, she is not the most experienced midwife in the community of Aguipe da Cima. She did not attend the FUNASA midwife encounter in Salvador. Dona Alicia has only attended 2 births during her lifetime as a midwife. However, she has helped other midwives during childbirths, having cut the umbilical cords of 5-6 children. I was unable to interview Dona Geunilda, the more experienced midwife in Aguipe da Cima, because of time

and transportation restraints during the closing stages of my field research. In spite of her limited birthing experience, Dona Alicia possesses extensive knowledge of remedies for pregnant women and other midwife practices that were passed down from her grandmother, to her mother, and finally to her. She agreed with Dona Pedrina that in the past, pregnant women used to seek her out for remedies; today, they do not.[42]

During my interviews with the agentes da saúde as well as Dona Pedrina and Dona Alicia, an interesting dynamic emerged when discussing the willingness of midwives to assist births. Elieze, Adnoelson, and Valdeci (the agentes da saúde whom I worked with) told me that midwives are reticent to attend birthings. They commented that nearly all midwives will initially direct any woman in labor to the western medical services provided by FUNASA. As explained to me, traditional midwives are afraid of being held liable for anything that may go wrong during childbirth. They feel that their services are limited and perhaps inadequate during emergency situations caused by difficult births (babies positioned incorrectly in the birth canal, etc).

Dona Pedrina echoed the agente da saúde's sentiment when she told me that she did not like to assist births. They exhausted her, and she explained that certain complications that occur during difficult births are terrifying. However, Dona Pedrina did tell me that during a birthing where hospital services were inaccessible, she would fulfill her duties as a midwife. This sense of responsibility for the health of others, Dona Pedrina told me, comes from her faith in God and the teachings of Jesus Christ.[43] In contrast, Dona Alicia provided a perspective that differed from the opinions expressed by Dona Pedrina and the agentes da saúde. During our interview, she was highly critical of the maternal health services provided by FUNASA-affiliated hospitals. She herself had given birth to 17 children, all in the community of Aguipe da Cima; not a single one had been born in a hospital. Dona Alicia acknowledged the fact that women in the community

were afraid of giving birth at home, but also expressed concerns that indigenous women were not well-attended at hospitals.[44]

During my interviews with Dona Pedrina and Dona Alicia, I asked them open-ended questions in order to gain a better idea of the manner in which traditional midwives used to interact with pregnant women in the Tupinambá communities studied. I hoped that knowledge on this subject would also help to provide context for Dona Alicia's comment about the superiority of traditional midwifery practices. Dona Pedrina explained to me that in the past, although she never sought out pregnant women in order to assess their health, she had consistent contact with them throughout the pregnancy. Women came to her at various times during pregnancy to ask her questions or to obtain remedies.[45]

Depending on the ailment, both Dona Pedrina and Dona Alicia provided the pregnant woman with the appropriate remedy. I asked both Dona Pedrina and Dona Alicia about the ingredients and preparation of some of these remedies. Interestingly enough, they knew many of the same remedies (oils for massages, etc.). A list of the natural remedies given to me by Dona Pedrina can be found in Section D of the appendix. They include cures for venereal diseases that can affect pregnancies (syphilis), anti-eclampsia remedies, oils to be used in post-birth massages, syrups to strengthen children in-utero and prevent uterine cysts, and a medication to stop post-partum hemorrhaging, one of the chief killers of mothers in developing countries.[46] Both Dona Pedrina and Dona Alicia keep medicinal plants in their gardens and in the yards surrounding their houses. They informed me that they are willing to provide remedies for members of the community, although they are no longer sought out as they once were.

Analysis of Data Regarding the Relationship between Traditional Midwives and Pregnant Women

The data presented above indicates that the relationship between traditional midwives and pregnant women in rural Tupinambá communities has changed a great deal during the last decade. While older members of the Curupitanga community may still seek out Dona Pedrina, my interviews with both Elieze and Dona Pedrina revealed that younger women of child-bearing age no longer approach her for maternal health advice or remedies. A similar situation exists in Aguipe da Cima, where women no longer look to Dona Alicia for remedies. Instead, if women choose to use natural medicines, they make them themselves. Both the agentes da saúde and the midwives interviewed informed me that during normal labor conditions, no pregnant woman or indigenous family will seek out midwives to attend their births. Dona Pedrina expressed relief in response to this new reality, while Dona Alicia felt that pregnant women's dependence upon western obstetric care was harmful to the health of the woman and her child.

As indicated during my investigation of the official and actual relationship between FUNASA healthcare services and traditional midwives, the data presented here further suggests that traditional indigenous midwives have come to occupy the role of emergency maternal healthcare provision within their communities. However this is a recent development and traditional midwives continue to retain their knowledge of traditional medicines and natural remedies. While agentes da saúde continue to seek out traditional midwives for natural remedies (which are then taken by members of the community), pregnant women themselves no longer procure natural remedies from midwives. This may be due to the prejudice against natural remedies that has developed in indigenous communities during the last decade.[47] Indigenous midwives are intimately linked to traditional medicine and do not have a strong connection to western forms of healthcare, as indicated during the investigation of the official relationship between FUNASA and traditional midwives. It is possible that community members are more

willing to accept natural remedies when they are provided by community health workers linked with FUNASA, officially a supplier of western health services.

Discussion of Data in Relation to Research Question

The data presented above, along with the separate analyses provided for each section of data, provide a striking picture of women's maternal health in rural Tupinambá communities. The outstanding barriers to access to healthcare services evidenced by my demographic and geographic data demonstrate that FUNASA still has a long way to go before it can claim to provide equitable healthcare for all members of the Tupinambá community, both male and female. As shown in my exposition of the official relationship between FUNASA services and pregnant indigenous women, in theory FUNASA's system of healthcare provision should ensure that all women in the community should give birth in hospitals. However, it is clear that such an idealistic goal has yet to be reached. Due to the physical restraints on access caused by road conditions as well as FUNASA's logistical shortcomings due to poorly maintained vehicles and unreliable staff, agentes da saúde and pregnant Tupinambá women continue to rely on indigenous midwives in emergency birthing situations.

While this portion of my research indicates that the role of traditional midwives diminished during recent years, it also confirms that their importance as healthcare providers has not disappeared entirely. Traditional midwives continue to provide necessary emergency obstetric services. In addition, my data regarding the actual relationship between FUNASA services (understood as agentes da saúde) and traditional midwives indicate that the role of indigenous midwives in Tupinambá communities has taken on a new dimension. Today, traditional midwives enjoy an informal relationship with agentes da saúde that includes the dispensing of natural remedies and traditional medicines for pregnant women and ill people in

their communities. A particularly fascinating aspect of this relationship is that members of the aldeias no longer seek out midwives themselves. Instead, the agentes da saúde serve as an intermediary between traditional midwives and community inhabitants. As such, agentes da saúde simultaneously act as both formal and informal liaisons between their aldeias and healthcare providers. Formally, agentes da saúde connect FUNASA health services with indigenous communities; informally, they link aldeia inhabitants with the knowledge and remedies known by traditional midwives.

The existence of an informal relationship between agentes da saúde and traditional midwives sharply contrasts with the reality that little to no official interactions occur between FUNASA healthcare service and traditional midwives. The FUNASA-sponsored midwife encounter in Salvador indicates that FUNASA recognizes the existence of some kind of healthcare role for traditional midwives within their communities. However, I have reservations regarding the tactics employed by FUNASA to train the midwives. Given the observations made during my field research concerning the relationship between agentes da saúde, midwives, and pregnant women, I do not feel that FUNASA's attempt to establish an official relationship with indigenous midwives reflects the health realities lived in Tupinambá communities.

First of all, the information (sterilization processes, proper use of birthing instruments) that FUNASA gave to the midwives during the encounter was written in Portuguese. As the majority of traditional midwives are older, illiterate women (such as Dona Pedrina), their ability to utilize this information is limited. FUNASA did verbally communicate the same information to the midwives during the encounter. However, as midwives now occupy an emergency assistance role, the number of births that they attend is limited. The likelihood that they will be able to maintain this knowledge through consistent practice is unlikely. Both of these training

constraints are raised during my literature review of traditional midwife training programs in developing countries. It is necessary that traditional midwives be able to read the information provided by FUNASA regarding appropriate midwifery practices and the maintenance of the midwife instruments (see Part C, Section 5 of the appendix). It is my belief that the community agentes da saúde represent a potential solution to this problem. They also demonstrate an innovative solution to the pitfalls of traditional midwife training programs raised by policy makers who seek to reduce maternal mortality by teaching traditional midwives.

Before, during and following the FUNASA midwife encounter, none of the community agentes da saúde that I interviewed had any knowledge of the information or materials given to the midwives. However, many of these agentes da saúde are younger Tupinambá community members who do have a certain level of schooling, and each agente da saúde that I interviewed could read at varying levels. Given the literacy of the agentes da saúde as well as the already-existent informal relationship that exists between them and traditional midwives, I believe that FUNASA is missing out on a potential policy option that could help to improve the health of pregnant women who find themselves in emergency birthing situations within their communities.

The development of a formal relationship between agentes da saúde and traditional midwives in indigenous communities would help to consolidate and maintain the training received by indigenous midwives. Agentes da saúde could help traditional midwives to understand and retain FUNASA materials simply by them reading aloud. Such a relationship would also allow for an elevated exchange of information and healthcare knowledge between the agente da saúde and the midwife. The medicinal knowledge possessed by traditional midwives is both culturally sensitive and extensive, and also at a risk to be lost, as many midwives are illiterate, older women.

FUNASA could establish a formal partnership between agentes da saúde and traditional midwives by sponsoring a formal encounter that included FUNASA doctors, nurses, maternal health educators, and most importantly, community agentes da saúde and traditional midwives. I believe that a formal relationship between agentes da saúde and midwives would not be hard to cultivate, given the fact that an informal relationship based around the provision of healthcare for pregnant women and other community inhabitants already exists. The potential demonstrated by the cultivation of a formal relationship between agentes da saúde and traditional midwives is tremendous, and should be recognized by FUNASA policy makers in order to improve the face of maternal health of rural Tupinambá women.

Conclusions

This study researched the contemporary role of traditional midwives in rural Tupinambá communities in southern Bahia, Brazil. It sought to demonstrate the way in which this role has changed over the last decade by taking into account the evolution of women's maternal health. In order to accomplish this goal, I collected and analyzed data regarding the demographic and geographic characteristics of each case study community and the official and actual relationship between FUNASA healthcare services and pregnant Tupinambá women, the official and actual relationship between FUNASA healthcare services and traditional midwives, and both past and present interactions between traditional midwives and pregnant community members. This data demonstrates that the role of traditional midwives has evolved to occupy a role in the provision of emergency obstetric services. I then analyzed this new role of traditional midwives within the context of FUNASA's efforts to improve maternal health in rural indigenous communities.

I conclude that given the already-existent informal relationship between traditional midwives and agentes da saúde as well as the constraints on midwife training programs caused

by illiteracy and infrequency of practice, FUNASA should consider a different, innovative approach to improving maternal health in rural indigenous communities. This approach involves the official affirmation of an already-existing informal healthcare partnership in order to capitalize upon the health knowledge, both western and traditional, possessed by two community healthcare providers: agentes da saúde and traditional midwives. Both culturally sensitive and sustainable, this approach could have a tremendous impact on the arduous realities faced by pregnant women not only in Tupinambá communities, but in the rural districts of other developing countries as well.

Indications for Further Research

Given the data collected during this study as well as the conclusions reached through analysis and discussion, there are several topics that should be studied regarding the maternal health of Tupinambá women and the practices of traditional midwives. As demonstrated in this study, both agentes da saúde and members of Tupinambá communities continue to use natural remedies to treat illnesses and other health concerns held by both pregnant women and other people as well. Indigenous traditional midwives are community members who possess a particularly strong knowledge of traditional remedies. As many traditional midwives are older, illiterate women, research should be conducted in order to record these medicines so that they are not lost forever.

Research should also be performed to record the thoughts and actions of pregnant indigenous women regarding FUNASA health services and the practices of traditional midwives. One serious limitation of my study is that it does not include interviews with rural indigenous women who are either pregnant or gave birth in the past. A study into their opinions regarding both traditional and western obstetric services could help to inform the execution of new

FUNASA policies designed to improve maternal healthcare. It would also help to strengthen this study's policy recommendations by further tailoring the recommended approach to each community's particular needs. Another weakness of my study is the fact that due to time constraints, I was only able to study 3 out of 22 indigenous Tupinambá communities. Therefore in addition to expanding the number and type of person interviewed, future studies on this topic should seek to use each of the 22 Tupinambá communities as case studies.

Personal and Professional Motives for Choice of Research Topic

Women's reproductive health is an issue that, during the last five years, has influenced a great deal of my academic and extra-curricular activities. My activism with reproductive health issues is both personally and professionally motivated. I intend to attend medical school, and my enthusiasm for women's heath issues has led me to plan to become either a gynecologist or an obstetrician. I am also involved with activist organizations that support women's reproductive health in the United States. As a Political Science/International Relations major, another subject that I have focused on during my time at college is healthcare in developing countries, particularly in Latin America. However, due to the limited course selection at my college, I have not been able to take many courses that focus specifically on healthcare in developing countries, let alone women's reproductive health issues in Latin America. Therefore, I viewed this ISP as an opportunity to learn about an issue that I care passionately about but cannot study in the United States.

My initial inspiration for focusing on rural women's reproductive health came from my experiences living in an indigenous community in rural Paraguay during the summer of 2001. During my time in Minas Cue, Paraguay, I was introduced to the barriers to healthcare access created both by distance and culture-related factors. This experienced marked the beginning of a

strong commitment to social justice and development studies that have deeply influenced the decisions that I make in both my personal and academic life. Combined with my interest in pursuing a career in women's health in developing countries and marginalized communities, I was naturally drawn to the decision to focus my ISP on the practices of traditional midwives in rural indigenous Bahian villages.

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[21] Photographs taken on November 20th, 2006.

[22] Formal and informal interviews conducted with Manuco on November 17th & 20th, 2006

[23] Formal interview with Elieze on November 24th, 2006.

[24] Photographs taken on November 26th & 28th, 2006.

[25] Photographs taken on November 29th, 2006.

[26] Informal interview with Adnoelson on November 29th, 2006, and formal interview with him conducted on December 1st, 2006.

[27] Formal Interview with Adnoelson, December 1st, 2006.

[28] Participant Observation data collected during visit to FUNASA headquarters on November 23rd, 2006.

[29] Photographs taken on November 27th, 2006.

[30] Informal interview with Manuco, November 20th, 2006.
[31] Informal interview with Dona Alicia, November 29th, 2006.
[32] Formal interview with Elieze, November 24th, 2006.
[33] Photographs taken on November 28th, 2006.
[34] Formal Interview with Elieze, November 24th 2006.
[35] Formal Interview with Adnoelson, December 1st, 2006.
[36] Data collected during numerous informal interviews with Valdeci during field research.
[37] Formal Interview with Elieze, November 24th, 2006.
[38] Formal Interview with Adnoelson, December 1st, 2006.
[39] Formal interview with Elieze, November 24th, 2006.
[40] Informal interview with Dona Pedrina, November 22nd, 2006.
[41] Informal interview with Dona Pedrina, November 28th, 2006.
[42] Formal Interview with Dona Alicia, November 29th, 2006.
[43] Informal interview with Dona Pedrina, November 28th, 2006.
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