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Migration, Education, and Health Policy: A Closer Look into the Reasons Behind Poor Health Outcomes in Rural Ecuador

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Migration, Education, and Health Policy: A Closer Look into the
Reasons Behind Poor Health Outcomes in Rural Ecuador

by

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A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts
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Abstract

Despite an increase in the number of Ecuadorian medical professionals, health outcomes in rural areas of the country have steadily declined over the past decade. Using a political economic framework and data collected from interviews with Ecuadorian doctors, government officials, policy makers, and local rural populations, this thesis investigates how the interplay among medical migration, educational structures, and public health policy contributes to growing health disparities between urban and rural dwellers. Addressing each of these factors both individually and collectively, this thesis also outlines a series of policy recommendations that will allow the Ecuadorian healthcare system to better meet the needs of its rural population.

Introduction

The word “brain drain”, defined broadly within the medical context as “the migration of medical professionals from developing countries” (Pang et al. 2002: 499), elicits a picture of intellectuals racing to the developed world, leaving the rest of their country struggling to survive on the setting dust. While brain drain has greatly impacted populations across the globe over the past century this phenomenon is not negative in and of itself. Brain Drain is only harmful if there are not enough competent doctors to adequately care for the population (rural and urban) of the source country. To understand the actual effects that medical migration has on a specific country’s population, it is important to understand how it connects with the existing public health and education systems in place within that country.

This became clear to me during my fieldwork in Ecuador. As part of a larger interdisciplinary project entitled “The Crisis of Medical Worker Brain Drain: A Comprehensive Case Study of Medical Labor Migration from Ecuador, Jamaica, and the Philippines,” I left for Ecuador with the intention of studying the intricacies of medical migration and the detrimental effects this movement was having on the country. The main questions of the study included: How had the Ecuadorian government encouraged/discouraged emigration and return migration? Where do the

majority of doctors migrate, and why? What are the specific ‘push’ and ‘pull’ factors for medical worker migration, and how amenable were these policy decisions?

(Brain Drain Proposal, 2008)

Only a day or so into my trip to Ecuador, however, I realized I was asking the wrong questions. Instead of telling me about the need for more doctors, my key respondents emphasized over and over again the *surplus* of medical universities in the country. Instead of telling me how difficult it was to find a doctor to fill positions at the local hospitals, they talked about the vast number of newly graduated physicians working as taxi cab drivers and construction workers in the urban cities of Quito and Guayaquil. Instead of discussing the negative effects of brain drain on the country, government officials told me over and over again, “We have too many doctors!”

Having conducted three months of fieldwork in the rural areas of Ecuador four years prior, I found these results puzzling. My experience living in these remote areas of the country did not include massive distributions of public medicine or healthcare by skilled physicians. Instead, my experience was one in which abandoned government clinics were commonplace, where the provision of allopathic medical treatment was rare if not nonexistent. It was a world in which cases of death from tuberculosis and malaria, diseases considered curable in most developed countries, were common and where the process of giving birth was for every mother a risk. During the time spent living in these rural enclaves, I did not see this “surplus of doctors.”

If there were an excess of physicians in the country, why was I seeing such an absence in the rural areas? And if this was truly the case, what strategies could be used to address the situation? Applied anthropology provides a perfect platform to address these quandaries. As a researcher working in applied anthropology, one's objective is to use the knowledge, skills, and perspectives of the discipline to help solve human problems and facilitate change. By investigating the policies and motivations behind poor health outcomes in rural Ecuador, I went into this research with the intention of upholding the goals of applied anthropology by providing information that would help policy makers address the existing challenges in the form of actual laws, policies, or incentives.

In this thesis I will approach the above question by indicating the number of physicians that exist currently within the county and investigating the potential effects that medical migration could be having on these numbers. Then, using information gathered from qualitative interviews in education and health sectors, I will explain the actual policies and motivations behind the current discrepancy. The specific roadmap for my argument is as follows:

Chapter 1 will situate the study within the broader theoretical frameworks of political economy, anthropology of policy, and medical migration. Political economy, which is broadly used to describe the interaction between political and economic systems, situates the existing health, education, and migration policies within an economic and historical context. Anthropology of policy takes the analysis a step further by helping to explain specific policies from a social and political perspective. Medical migration, which is actually a collection of theories, explains

the movement of medical professionals between developed and developing countries. Each of these phenomena forms the theoretical foundation upon which my argument is based.

Chapter 2 will look at Ecuador's situation specifically in areas of health, educational, and health systems, and medical migration. Indicators on maternal and child health within the country demonstrate a major discrepancy between the rural and urban areas (for example, maternal deaths in urban and rural areas are 65 and 35 percent, respectfully). The education and health systems are essentially in conflict with one another; there is an excess of private medical universities funneling out physicians and a health system that cannot support them. While medical migration plays a role in providing some of these doctors with work elsewhere (A PAHO Bulletin (2007) showed that 10% of the Ecuadorian Medical Federation members had left the country in 1999), the larger question as to whether or not this migration is having an impact on health outcomes has not yet been answered. As PAHO states in its most recent report, "the almost non-existence of studies [on medical migration in Ecuador] means that it is difficult to assess correctly any shortage or oversupply of professionals" (Muula 2009: 79).

Chapter 3 will describe the methodology I have used to address this research question. The evidence upon which I draw my arguments is based on two different trips to the field, one during the summer of 2004 and the other during the spring of 2009 as part of a larger project at University of South Florida. While the project fell between the fields of anthropology and public health, I chose to take a more qualitative approach, relying primarily on three methodologies: participant

observation, semi-structured open-ended interviews, and a review of secondary sources.

Chapter 4 will describe the results of the study. According to the WHO guidelines, 35 physicians are needed per 10,000 inhabitants to meet the health Millennium Development Goals (MDG's) (Scheffler 2008). Ecuador has 14.8 according to the Global Health Atlas (WHO 2000). While the number of physician is half of what it should be by MDG standards, the data are deceiving because the distribution is actually very uneven, with a high concentration of physicians in urban areas and a much lower concentration in rural ones. Also, there are thousands of doctors living in Ecuador who are not working as physicians because there are few, if any, urban positions available. I will attempt to demonstrate with my results that the problem is not medical migration in and of itself, but rather, the current health, education, and migration policies that exist in Ecuador.

Chapter 5 will tie the results of the study back to the theoretical frameworks outlined in the first chapter, showing how macro-structural forces like globalization and neoliberal politics and policies in conjunction with local constructions of power between socio-economic classes in rural and urban settings shape current practices. It will illustrate that without a change in policy and incentives for emerging doctors to work in Ecuador's rural areas, the discrepancy in urban/rural health outcomes will continue to persist. This chapter will end by outlining specific policy recommendations to address the issue. These include providing incentives for new doctors to work in rural areas, establishing specific entrance and exit criteria for

medical institutions, and task shifting within remote communities to insure that some of the main health needs of the population are being met.

Chapter 1: Background: Theoretical Frameworks

To understand the current health care discrepancy in Ecuador, it is important to situate the phenomenon within the larger theoretical frameworks of political economy, anthropology of policy, and medical migration. The situation in Ecuador is not unique, nor is it independent of outside processes. It is a product of many different political, social, and economic forces, driven by both national and international governments and organizations. In addition, the market (the operation of medical systems defined by capitalism) also plays a part, something that can be separate but that also depends on certain institutions like the state, government entities, and private enterprises. Policies manifest themselves differently depending on the country or region, therefore it is essential to understand the specific context within which these relationships are born. This chapter will outline the theoretical frameworks that serve as the backbone for this thesis, beginning with a brief background of political economy, then illustrating the major tenants of anthropology of policy, and finally describing medical migration both as a theoretical framework and as a product of neo-liberal politics.

Political Economy

Political economy, understood very broadly as the interactions of politics and economics, has taken on many faces throughout the years, beginning with Marx's

theory on the historical conditions that shape capitalism as a socio-economic mode of production (Marx 1867) and eventually changing to accommodate the local and international changes brought on by globalization. Within the realm of anthropology, theorists of observe political economy within the context of social determinants. Wolf and Mintz (1956), among the first influential political economic anthropologists, pointed out the importance of a historical approach to understanding local communities. They argued that modern anthropological subjects are the products of social, political, economic and cultural processes over many centuries (Roseberry 1998).

In the 1980's, anthropologists applied these emerging ideas about political economy to specific local groups of people, investigating the role that agency played within economic world systems (Behar 1986, Brow 1988, Di Leonardo 1984, Donham 1984, Fox 1985, Muratorio 1980, Ong 1987, Roseberry 1988, Scott 1986, Sider 1986, Smith 1984, Stern 1983, Stoler 1985). Through their efforts to reconcile structure and agency, the global and the local, historical and modern, scholars effectively fused political economy with anthropology, "placing the social and cultural phenomena that they investigated within an examination of circumstances associated with getting a living and the structures of power that shape and constrain activity" (Roseberry 1988: 174).

Over the past two decades, many anthropologists have used this framework to explain phenomena within a number of different subfields. Environmental anthropologists, for example, have used political economy to explain land degradation (Robbins 2006), or conflicts between local people and pharmaceutical

companies over intellectual property rights (Greene 2004). Medical anthropologists have used political economy to understand the HIV/AIDS epidemic both locally and internationally (Kim and Farmer 2006, Lockhart 2008, Singer 1998, Romero-Daza, Romero-Daza and Himmelgreen 1998). Applied anthropologists have used principles within political economy to advocate for indigenous rights and community development projects (Henrich 2008, Hampshire et al. 2005, Lyon-Callo 2008).

As the connection between culture, globalization, state, politics, and development became clear, anthropologists began to realize the importance that policy played within these relationships. According to Shore and Wright, policies are “inherently anthropological phenomena. They are codifications of norms and values, charters for action; blueprints for a future society and guides to conduct practice” (1996: 475). Policies are, in essence, important keys to understanding society. They not only dictate how people act, but also reflect the entire history, the culture of the society that created them (Shore and Wright 1996). They shape the way that we understand and interact with our community, dictating what we understand to be “normal” in health, education, security, or social relationships. Policies also reflect the rationalities that underlie decisions made by institutions of power (Foucault 1980).

Within the context of this paper, an anthropological approach to political economic theory is important because it helps explain local constructions of power among different socioeconomic classes and geographic groups (i.e. rural vs. urban). It also puts into context the assumptions that underlie certain health and educational

policies in Ecuador. The neoliberal model, for example, has built into it certain assumptions about the positive effects of privatization without taking into consideration the social motives and realities that guide consumption of health care, education, and migration.

Anthropology of Policy

The “anthropology of policy” is an approach that studies these specific relationships, making public policies established by political actors such as states, governmental and non-governmental institutions, NGO’s, and other corporations the object of analysis (Wedel et al 2005). Anthropological insights have proven to be very effective in the study of policy, helping to identify problems within existing political structures and illustrating the assumptions underlying policies that legitimize certain groups and marginalize others (like the privatization of certain goods that then become available to the wealthy and inaccessible to the poor) (Wedel et al 2005).

According to Wedel and colleagues (2005), an anthropological analysis of public policy helps to counteract three dominant trends: 1) the tendency to treat policy as an unproblematic given without reference to the socio-cultural contexts in which it is embedded and understood, 2) the control of public policy and debate by dominant discourses like globalization, democratization, and privatization, and 3) the dichotomous frameworks that obfuscate the real workings behind policy practices (2005).

According to Shore and Wright (1995), much of the inspiration for an anthropology of policy approach began with Nader’s work in 1972 with dominating

organizations, what she referred to as the “culture of power.” Rather than focusing solely on the dominated (like most of the anthropologists before her), Nader decided to study the hidden hierarchies and bureaucracies of government and industry (Shore and Wright 1995). Since Nader’s work “studying up,” many other anthropologists have adopted this approach, exploring how state policies and practices are understood and experienced both at the local level and by those creating policy.

According to Shore and Wright:

Anthropologists are no longer content, it seems, to limit themselves to providing information about indigenous cultures or societies that are the intended targets of Western development schemes. Understanding the plight of the tribal or ‘Fourth World’ peoples today, perhaps more than ever requires an understanding of the way banks, governments, multinational companies, global economics and geopolitics operate to draw peripheral areas into the modern world system. (Shore and Wright 1995: 475)

Public policy projects often follow a distinct methodology that separates them from traditional anthropological works. According to Cochrane (1980), policy-based anthropologists tend to have projects that are very short in duration, their choice of and access to research situations are very distinct, and they need to attempt to assess future events. “Analysis of the relations between actors, both individual and collective (such as network analysis reveals) enables an ethnographer to see different levels and arenas of activity in one frame of study and to observe how they are interwoven.” (Wedel 2005: 41). Evaluating these complex and/or loosely woven networks can lead to important insights into social processes, often shedding light onto policy activities, policy learning, or the ebb and flow of concepts across cultures (Abram 2003).

A common debate among anthropologists who study policy is whether or not advocacy or an involvement in implementation is necessary for successful analysis (Cochrane 1980). Cochrane argues that the best test of policy study is whether its advice actually works. It is immaterial whether advice about land reform is called pure or applied, theoretically oriented or ‘reality’-oriented, as long as it is successfully implemented (Cochrane 1980). If this is the case, it is very important for researchers to present and adapt their findings and recommendations to the specific group of people with or for whom they are working.

Anthropologists in this field of policy have covered vast amounts of territory with their research. For the sake of brevity I am going to focus on only three specific areas: links between processes of globalization and policy, social welfare, and the impacts of structural adjustment and economic restructuring on migration and labor force incorporation. Each of these forces is important in that it has contributed significantly, both directly and indirectly to the current situation in Ecuador.

Globalization, a phenomenon described by economists as “international economic integration that can be pursued through policies of ‘openness’, the liberalization of trade, investment and finance, leading to an ‘open economy’” (Khor 2001: 7; Collier, 2002: 23), has had one of the greatest influences on national policies across the globe.

Today the important changes that have taken place within and among international and regional policy making institutions, states, and multinational quasigovernmental institutions and multinational private corporations shape the contours of much of what is called economic and social policy (Okongwu and Mencher 2000: 110).

It is now no longer just governments that influence national policy. As a result

of globalization, there are other bodies that have come to be influential, some of which include the World Bank, World Trade Organization, European Union, Pan American Health Organization, and multinational corporations (Okongwu and Mencher 2000, Deacon 1995, Baker 1994, Brodie 1994). As a result, anthropologists are now expanding their analysis to explain the interrelationship between economic, cultural, social, and political dimensions of globalization (Okongwu and Mencher 2000, 114). International competitiveness has also been adopted by many national governments of developing countries, leading in many cases to the disempowerment of entire populations (Barnet et. al 1995, Bowles and Wagman 1997, Bello et al 1994).

The people most often affected by competition between countries and structural adjustment (market oriented policies implemented by the World Bank and the International Monetary Fund) in both the developed and developing worlds are those in the lower economic classes (Burbridge 1993, Dalla Costa 1995, Seavey 1996). Across the globe, neo-liberal policies have lessened the power of national governments to provide public welfare services to their people (Okongwu and Mencher 2000: 114). Many anthropologists have studied these social welfare policies (or lack thereof), using them to better understand the underlying ideologies of these governmental and international entities, and to measure the effects that forms of oppression have on marginalized populations (Farmer 1996).

Another major area that anthropologists studying policy have analyzed is the impact of structural adjustment and economic restructuring on migration and labor force incorporation (Khor, 2001). There is a significant connection between

globalization, international trade, national safety nets, and patterns of labor force incorporation in developed countries. Economic restructuring has had a ripple effect throughout the developing world, resulting in high unemployment rates and extreme poverty (Okongwu and Mencher 2000). Because so many governments have cut social welfare systems, many skilled and unskilled laborers end up migrating to more developed countries in search of work (McAfee 1991).

Medical Migration

Each year, a significant number of health care workers leave their homes to pursue careers in other countries. The term “brain drain” was coined in the 1960’s by the British Royal Society to describe the medical workers and scientists migrating to the United States and Canada (WHO 2004). Now, the term mostly refers to the movement of professionals between developed and developing countries, a phenomenon that is increasing with globalization and the growing economic gap between countries throughout the world.

Medical migrants immigrate for a variety of reasons. “Push factors,” or conditions that push people to seek work in developed countries include low pay, lack of supplies, limited prospects for advancement, dangerous work conditions, and low morale in their countries of origin (Buchan 2006). Involuntary reasons for migration include ethnic tensions, human rights violations, political instability, and wars (Buchan 2006). In many cases, these factors are made worse by a lack of investment in public medical education, which forces people to seek out private organizations that provide specialized training. When these medical migrants finish their degrees, their skill sets often do not fit the needs of their home country, thus

encouraging them to seek work elsewhere (Kearney 1995; PHR 2004; Mensah 2005: 4; WHO 2006; GFMD 2007).

There are also market-driven economic forces that push people to seek out jobs in more developed countries (Public Services International, 1996). The World Bank, the International Monetary Fund, and the World Trade Organization contribute to these migration patterns by pushing for the privatization of medical services in developing countries. For example, a study conducted by Liese and Dussalt (2004) indicates that factors such as decreasing wages and reduced benefits packages (results of privatization) were encouraging workers to migrate from Sub-Saharan Africa to countries that could provide them with higher salaries and a better quality of life for their families.

There are also conditions in receiving countries (“pull factors”) that encourage medical migration. Some of these factors include higher pay, better job security and professional development, and expanded visa conditions. Other factors include market demand, active recruitment, and common language or similar health systems (Dolvo 2003; Liese and Dussault 2004; WHO 2004; Buchan 2006; Bach 2006, PSI 1996).

In addition to affecting the lives of individuals, medical migration also has significant effects on the sending country. Positive effects of this phenomenon are remittances that are sent to an immigrant’s home country. According to World Bank Reports, remittances to developing countries reached \$80 billion dollars in 2002 (Martin 2003). However, while these remittances add significantly to the national incomes of developing countries (Kapur and McHale 2006), there are also a great

number of negative effects that these exchanges have on sending countries. One of the main consequences of medical migration is the loss of human capital. According to Saravia and Miranda (2004), 70% of physicians trained in Zimbabwe migrated to more developed countries in the 1990's, and 60% of physicians trained in Ghana immigrated in the 1980's, leaving their countries with few doctors to serve the remaining population. A village elder from the Ashanti region said:

When I was a young man, people would wait in long, often very long, lines to see a nurse or doctor. This was normal back then and we complained about having to endure these terribly long lines. But at least then we had something to wait for. Today, the long lines in so many areas are gone; people simply have no one to consult. Now we are dying of ailments that used to be so simple to treat. We are wondering where our health workers have gone. Are they with you in America? They are not here (Millan 2008: 8).

While medical migration has occurred for decades, it has only recently gained attention from the international community. Worried about the potential failure of the Millennium Development Goals, the World Health Assembly passed a resolution that asked members “to develop strategies to mitigate the adverse effects of migration of health personnel and minimize its negative impact on health care systems” (WHO 2004: 59).

While a great deal of attention has been paid to the economic factors that shape this phenomena, there are also social and cultural effects that this movement has on the migrants themselves and the community they are entering or leaving. Medical professionals use migration as a means of improving their professional, social, and/or economic status, and in doing so have a very unique experience that is worth observing through an anthropological lens. It is not just a movement in a geographical sense, but a process in which the migrants themselves renegotiate their

positions within their families and communities, and in which personal ideas about age, sex, ethnicity and affiliation are renegotiated.

Applying Political Economy, Migration and Policy

Drawing on the three areas of literature above, the ultimate goal of this thesis is to use the theoretical frameworks of political economy, migration, and policy to make useful recommendations to key stakeholders in Ecuador. For example, how best could policies be changed to redistribute doctors to the rural areas? Is it possible to link education and health systems, and if so, what kind of effect would this have on the attitudes and practices of newly emerging doctors? Are there certain migration-related models that would help retain doctors in the areas where they are needed most? To address these questions, it is helpful to understand how these theoretical frameworks fit within the policy realm.

For example, medical anthropologists have used political economy to critique the imperialistic relations that exist within capitalist health policies (Baer 1982). This research has also been done on socialist and communist countries (Navarro 1976). Political economy of health should, however, go beyond these approaches to include a historical perspective as well as a conflict or dialectical model of social change. Morgan (1987) writes:

Political economy of health is a macroanalytic, critical, and historical perspective for analyzing disease distribution and health services under a variety of economic systems, with particular emphasis on the effects of stratified social, political, and economic relations within the world economic system (132).

Suggestions about policies to the health or education system should therefore take into consideration the broader economic systems in place as well as the local

constructions of power like the unequal relationship between the developed and less developed countries. Examples in the anthropological literature include critical depictions of health programs and their relationships to sociopolitical formations (Davison 1983; Heggenhougen 1984, Morgan 1987).

Because factors vary from country to country, it is important to create policies around medical migration that are country-specific, rather than universal. “What works for one country may not work for another, and indeed, what works for nurses may not work for physicians” (Dolvo 2005: 379). Also, it is unlikely that any one policy will address the multitude of factors (e.g., health, social, economic, and cultural) that affect brain drain. Instead of coming up with a “universal plan,” the best approach seems to be a variety to policy solutions that attack push and pull factors at different levels (Eden 2007). Countries must “develop strategies that reflect their particular situation. However, the appropriate international environment for managing human resources is necessary if the strategies of developing countries are to achieve meaningful results” (Dolvo 2005: 379).

Policy suggestions can be most easily understood by dividing them into two primary categories: those that attempt to reduce or prevent health workers from migrating, and those that aim to manage the impact of past, current, and future migration. Within the first category, there are a group of policies that have been suggested for sending countries, based on incentives to stay and restrictions on leaving. Because low pay is one of the leading causes of medical migration, increased salary is one of the main incentives that sending countries could offer their skilled medical workers. In April 2005, Malawi’s Ministry of Health decided to use

funding from donors to supplement the salaries of health professionals (Muula & Maseko 2005). Ghana also used this method, offering doctors preference to housing loans and car purchases (GFMD 2007). While some level of success was achieved with these schemes, long-term sustainability has yet to be accomplished (Abuja 2004).

Offering opportunities for training and career advancement is another strategy countries have suggested to retain medical personnel. This can be achieved by

Offering staff the possibility to develop in their professions, steadily acquiring experience and greater levels of competence taking on additional responsibilities, and receiving recognition of this and their growing level of experience and competence through salary increases as they do so (Abuja 2004:12).

Policy makers have also suggested improved work conditions, addressing issues like poor leadership, deteriorating work conditions, and faulty equipment. Another strategy to stop medical migration is for sending countries to make restrictions on leaving. “Bonding,” a method by which recent medical graduates are forced to give their home countries several years of service in return for their training, has been used by developing countries such as Ghana and Singapore (Bayron 2006). While these methods have been successful at halting migration, there are questions as to whether or not these restrictions infringe on people’s individual right to freedom (Mejia 2007). These methods also do nothing to address the underlying “push” factors, and are therefore often considered unsustainable (Mejia 2007).

Policies that are aimed at managing or alleviating the impact of migration attempt “to link international migration to the health policy goals of individual states and to regulate the flows of health workers in a way that is beneficial to source and destination countries” (WHO 2004: 625). Some of the sending country policies that have been suggested include a “pay back” of migrant costs (Record & Mohidden, 2006), voluntary support from diaspora (Tettey 2002), and taxation, which includes exit taxes, income taxes, or remittance taxes (Record and Mohidden 2006). Systems-focused approaches include the training of community health workers to fill in gaps (WHO 2006), expanding existing professional training services (GFMD 2007), increasing training for global markets, and training health personnel specifically for overseas markets (allowing countries to benefit from remittances).

Unfortunately, many of the policy interventions mentioned above have not yet been implemented and those that have been implemented have not yet been assessed, according to a report by the Global Forum on Migration and Development (GFDM 2007). According to Mensah, “the employment of wealthy countries of health professionals trained in staff-short low-income countries contributes to rising international inequity in health care... The objective of policy towards migration should be, not limitation of mobility, but equity in health care as soon as possible” (GFMD, 2005: 4).

Chapter 2: Ecuador: A Case Study

Health System in Ecuador

Ecuador is a relatively small country (276,840 square kilometers) in South America that shares a border with Colombia, Brazil, and Peru. It is divided into 22 provinces and 269 districts and has a population of 13,215,089, with a population density of 49.3 inhabitants per square km (63.4% of whom live in urban areas and 36.6% in rural). Ethnically, 6.1% of the population is considered indigenous, 5% afro-Ecuadorian, 77.7% Mestizo, and 10.8% white (INCE 2001).

When it comes to health indicators like maternal mortality ratio (MMR) and infant mortality rates (IMR), Ecuador falls on the low end of the scale when compared to the rest of the countries in the Americas. It has an MMR of 210 compared to the Americas average of 97 and an IMR of 18.1 compared to 14.8 (PAHO 2009). These statistics can be deceiving, however, due to the noticeable discrepancy that exists between the urban and rural areas in Ecuador (PAHO 2007). In 2003, a total of 3,942 children (2,241 boys and 1,701 girls) died before their first birthday. The majority of these deaths (2,100) occurred in primarily rural areas. The main causes were complications related to the duration and gestation of fetal growth (14.8%), pneumonia and influenza (10.1%), bacterial sepsis in newborns (9.0), and other respiratory difficulty or illnesses in newborns (10.6%) (INEC 2006).

In 2003, the national estimated maternal mortality rate for the country was 77.8 for every 100,000 births (PAHO 2001, 2003). The INEC reported that the main cases of death were eclampsia and other hypertensive disorders (41.7%), complications during labor and birth (31.7%), pregnancy ending in abortion (6.5%), and complications resulting from puerperium (5.8%) (INEC 2004). Of these maternal deaths 65% of the women were from rural areas and 35% from urban (MMESS 2004).

The most common vector-borne diseases that effect the rural Ecuadorian population are malaria, dengue, chagas disease, and acute diarrheal disease. Between 2004 and 2005, 22.5 per 100,000 people reported acquiring malaria. Therapeutic failure was 90% in patients after taking anti-malarial treatment, a number that exceeded the recommended threshold of 25% (MPH 2005). In 2004, 5.44 per 100,000 cases of dengue fever were reported (10,726), 206 of which were hemorrhagic dengue (MPH 2004). Chagas disease, while only affecting 1.3% of the population (.6% in the mountains, 1.9% on the Coast, and 1.7% in the Amazon), poses a threat to three to five million people in rural Ecuador due to sub-standard living conditions (PAHO 2007). The final major illness affecting rural populations is acute diarrheal disease. During the period between 2001 and 2005, 2.7 per 100,000 cases were reported, the highest notification rate (5.9) in the rural eastern part of the country (MPH 2005).

The healthcare system in Ecuador is divided into private and public sectors (see Figure 1). Fifteen percent of the country's health facilities are supported by the private sector, constituting 42% of the annual health spending for the country

(PAHO 2009). This sector consists of hospitals, clinics, dispensaries, medical offices, pharmacies, health care insurance providers, and non-for-profit organizations. The private sector is utilized by about 10% of Ecuador's population, the most elite social class (PAHO 2007). The public sector serves about 80% of the country's population, constituting 50.4% of the annual spending on health services in the country, and 6% of the national budget (PAHO 2007). According to the 2007 Health in the Americas Report, the national health policy in Ecuador is based on:

Principles of equity, universality, solidarity, quality, plurality, efficiency, ethics, and comprehensiveness. Its main objectives are to promote among citizens the guarantee, respect, promotion, protection, and demand of and for human rights in health for the exercise of a dignified and healthy life; to guarantee health protection for the population, facilitating the means to promote both physical and mental health; and to prevent and to address diseases and their causes, mitigating their biological, economic, and social effects.

The public health sector in the country consists of the Ministry of Public Health (MPH), the Ecuadorian Social Security Institute (IESS-SSC), the Armed Forces and Police Health Services (under the Ministries of Defense and Government), the Guayaquil Welfare Board (JGB), the Guayaquil Children's Protection Society, the Cancer Society (SOLCA), and the Ecuadorian Red Cross (PAHO 2007). Ecuador has a Health Bureau in every province, broken down geographically and demographically based on the political-administrative area of a given district.

The Ministry of Public Health (the organization that heads these offices) has 27,761 staff members, 1,644 outpatient health facilities, and 212 hospitals: 25 general, 85 cantonal, and 14 specialized (PAHO 2001). The services provided are based on levels of complexity. At Level 1 (basic complexity) there are 434 posts,

1,222 sub-centers (774 rural and 348 urban), and 153 health centers which offer ambulatory care, health prevention services, birthing facilitation, and basic treatment services. At Level 2 (intermediate complexity) there are 90 basic hospitals and 23 general hospitals that offer short-term hospitalization, general medicine, gynecology and obstetrics, pediatrics, and emergency surgery. These hospitals offer some specialization, auxiliary treatment and diagnostic services. At Level 3 (high complexity), there are 14 specialized hospitals, and 1 reference hospital for treatment of foreigners and other Ecuadorian elite. These hospitals have educational training and outreach programs (PAHO 2007).

The Ecuadorian Social Security Institute (IESS), utilized by 10% of the population, is a subscriber system that provides a social security plan including economic benefits and medical care to workers in the public and private sectors. The rural equivalent of this institute, also within the public sector, is called the Farmers Social Security System (PAHO 2007). Subscribers receive a number of benefits including death and disability pensions and primary health care. An estimated 9.2% of the rural population is covered by this system (PAHO 2007).

Medical Education System in Ecuador

Currently, there are 22 medical schools in Ecuador (over 10 in Quito alone). Since the economic crisis in 1999, private universities have been created throughout the country. The dean of a major university in Ecuador with whom I spoke said, “People discovered that training physicians is a very good business. They have realized that it is profitable to set up a University here in Ecuador” (Personal communication, 3/21/2009). As reported by this dean, the government thought at

first that the large numbers of private universities would offset the number of students attending the public universities. This has not proven to be the case. On average, about 800 medical students graduate from Ecuador each year, according to the dean. He said, “You might think that the number of students is few. It’s not. [The universities] are all full. All of them are full. They receive at least 200 applications each.” According to the dean, each of these universities has its own admission requirements and exit examinations. In other words, there are no national standards that the medical students need to reach in order to become physicians.

Medical Migration in Ecuador

Ecuador has been greatly affected by medical migration (International Migration Review 1970). A Pan-American Health Organization Epidemiological Bulletin (2007) showed that 2,800 (or 10%) of the Ecuadorian Medical Federation members had left the country in 1999. Beine (2006) reported an increase in skilled migration from 5.5% in 1990 to 9.5% in 2000. While some of these people did go to the United States, there was also a very strong pattern of migration of medical workers to European countries such as Spain (the majority), France, Italy, and the Netherlands (Jokishch & Pribilsky 2002).

The most recent PAHO report (2009) stated, “the almost non-existence of studies [on medical migration in Ecuador] means that it is difficult to assess correctly any shortage or oversupply of nursing professionals” (2007:46). The report argues that a study on the particular motivations of medical migrants and the effects that this migration has on Ecuador’s level of healthcare would be beneficial in addressing the current needs of the country. The intention of this study is to fill in

this important gap in the literature, situating medical migration within the greater context of national healthcare policy and educational structures.

Chapter 3: Methodology and Setting

I conducted this study in Ecuador during two separate trips to the field. The first was during the summer of 2004, the fall semester of my junior year of college. Having been granted a scholarship through CISLA (Center for International Study in the Liberal Arts) at Connecticut College, I conducted a three-month internship to investigate the health, beliefs, and practices of the highland and lowland Kichua of Ecuador, as well as the relationship they had to the public healthcare system in the country.

My second trip to Ecuador took place in 2009 for one week as part of an interdisciplinary project at the University of South Florida entitled “The Crisis of Medical Worker Brain Drain: A Comprehensive Case Study of Medical Labor Migration from Ecuador, Jamaica, and the Philippines.” The study, initiated by professors in the anthropology, international relations, and public health departments at USF, investigated the health, social, cultural, and economic effects of medical migration (or “brain drain”) in each of these three countries. As a fellow brought into the study from October 2008 through May 2009, it was my responsibility to investigate the effects of this phenomenon on Ecuadorians both in the United States and in their home country.

Although this study fell between the fields of Public Health and Anthropology, I chose to take a more anthropological approach, relying more on observation and qualitative data than on quantitative information. I chose this methodology because it provided a much broader lens for understanding the issues in Ecuador, leaving space to discover and investigate details that were not necessarily on the immediate agenda. Throughout the research process I primarily used three methodologies: 1) participant observation, 2) semi-structured open-ended interviews, and 3) a review of secondary sources.

Fieldwork Setting 2004

In 2004 I spent a summer in two rural towns in Ecuador (the first in the Andean region, the second in the Amazonian region of the country) trying to understand the health systems that existed and the health, beliefs, and practices of the people who lived there. Clearly, this fieldwork was not designed to answer the questions I want to answer for this thesis, however I feel that it is very valid and worth including. My participant observation in these areas really showed me the local's perspectives with regard to health in these areas. It showed me how the health systems functioned (or did not function) in the rural areas in a way that I would have never known had I based all of my work in Quito. While it may not have been my intention at the time, my fieldwork the summer of 2004 really shaped the main questions that I am now trying to answer in this thesis.

I spent the first half of my trip to Ecuador in 2004 as an intern at *Hospital Andino*, a health clinic in Riobamba, a mountain town in the rural Andean region of Ecuador. For one month I made observations within each section of the hospital

including the infirmary, laboratory, emergency room, physical therapy area, shamanic ward, and the homeopathic medical sections. Each day I observed and interviewed the doctors and patients, inquiring about their attitudes and experiences regarding the healthcare system in their country.

I spent the second half of my 2004 internship at AMUPAKIN (The Kichuan Midwife Women's Association from the Upper Napo), a midwifery that had been funded by the Red Cross. The organization was located in a very small Amazonian town called Archidona, located at the foothills of the Andes. Having been in operation for one year, the objective of the organization was to maintain the traditional practices of the Kichuan midwives while at the same time, providing their patients with the benefits and technologies of western medicine. During my time at AMUPAKIN, I aided the midwives in the birthing process, participated in healing ceremonies of the local shamans, and accompanied pregnant women to and from the midwifery.

Quito: Spring 2009

The major part of my fellowship in 2009 at the University of South Florida took place in the United States. From October to February, I conducted interviews with Ecuadorians and other South Americans who had migrated to the United States in pursuit of a career in the medical field. During this period, I also attended conferences and social gatherings put on by migrant groups throughout the State of Florida.

From March 5 to the 15, 2009, I returned to Ecuador with Dr. Ricardo Izurieta, a professor of Public Health at the University of South Florida to conduct 25 interviews with doctors, professors, and government officials about their perceptions regarding the medical migration phenomenon in their country. Having previously worked in Ecuador as

a physician, Dr. Izurieta set up all the interviews and assisted me with translation where needed. We conducted the majority of interviews in Quito, the central location for the major health centers and public universities in Ecuador. We also carried out a small percentage of interviews in Manta, a coastal town in one of the outer provinces of the country. During our stays in both cities, we spent time between interviews walking through public hospitals, talking with interns and local Ecuadorians.

Participant Observation

Participant observation at every level of this study helped me understand the daily struggles and experiences of the respondents. During my internship in 2004, I spent the majority of my time talking with patients about their ideas surrounding illness and healing. As I observed births in the twilight hours deep in the jungle, I learned from mothers about the fears and hopes that they had for their children. At social gatherings in the United States, I experienced firsthand the joys and concerns of medical immigrants and their families. During my second field visit to Ecuador in 2009, Dr. Izurieta and I spent a considerable amount of time socializing with local doctors, physicians and interns, learning their perspectives and observing their daily interactions.

Semi-Structured Open-Ended Interviews

The central method of data collection that I used throughout this study was semi-structured open-ended interviews. [During my rural visits to the highland and lowland regions in Ecuador in 2004 I formally interviewed six doctors, 10 nurses, two medical technicians, eight shamans, 13 midwives, a representative from local ministry of health, and 23 patients].

During my fellowship at USF I interviewed two medical migrants (both doctors) from Ecuador, Colombia and Peru. The second trip to Ecuador in 2009, Dr. Izurieta and I interviewed six representatives from public health organizations including the Ministry of Public Health, six professors from public and private universities, four working doctors, one representative from the Pan American Health Organization (PAHO), and 16 interns and recent medical graduates.

My interviews with medical personnel during my fieldwork experience in 2004 focused on their perception of the current healthcare system, stories about the kinds of cases participants dealt with on a daily basis, whether they felt patients utilized the hospital/clinic as much as they needed to, and reasons why they did not. The patient interviews focused on opinions regarding the public healthcare system, reasons why they did or did not utilize its services, and what they felt needed to change about the system. I also asked them to share stories about their experiences with various illnesses to gain a better idea of when they might choose to go to a western medical clinic versus a local shaman and their explanations for these choices. These interviews took place within the medical facility and lasted between 30 minutes to an hour.

The interviews I conducted with Ecuadorian medical migrants in the United States in 2009 focused on the stories of their migration, the work that they did in their home countries, the research that they were conducting in the United States, any special training they had in order to work in this country, their current relationships with co-workers, plans they had to return or not to return to their home country, connections they maintained, the help that they received for migrating,

professional or cultural organizations they belong to, their beliefs regarding medical migration, and the way that they saw this phenomenon effecting their home country.

My interviews with key respondents in Ecuador focused on whether or not they believed there was a brain drain of medical professionals in their country, the main reasons why they thought doctors migrated and why they did or did not return to Ecuador, the impact of medical migration on their country (health outcomes and the health care system itself), policies that had been created to address this situation, and any recommendations they had on approaches to curb this migration or better address the healthcare needs of their country. Each interview (in both the United States and Ecuador) took place within the office of the informant and lasted about one to two hours.

Review of Secondary Sources

In addition to these interviews, I evaluated census data relating to infant and maternal mortality rates, infectious diseases that were affecting the rural populations in Ecuador, and the ratios of physicians to civilians in each of the Ecuadorian provinces. Karen Palmer, a Public Health student at the University of South Florida assisted Dr. Izurieta and me with this part of the project.

Data Analysis

The data for this study were analyzed using an informal yet systematic coding system. Throughout the interview process, Dr. Izurieta and I alternated taking notes while the other person interviewed and tape-recorded what was being said. When taking notes, we each attempted to write down everything that was

discussed during the conversation, trying our best to minimize any biases that we carried as researchers. After all of the interviews were completed, I reviewed each of the transcripts, highlighting the emerging codes and grouping them together. I followed the same process with my field note observations. I also took note of specific quotes that reflected the general idea of each group of ideas or concepts that had taken form during the analysis.

After this process was complete, I went back and listened to each of the recorded interviews again, writing down exact quotes. I then translated each of these quotes into English, taking into consideration the context of what the respondents were saying to avoid problems that can occur from direct word-for-word translation. I followed a similar process for the interviews I had conducted in Ecuador in 2004, however, because I did not have a recorder during that trip, all of these quotes came from hand-written notes. All of the names of people, organizations, and locations have been changed in the final version of this thesis in order to protect the confidentiality of the respondents.

Ethical Considerations

Throughout the course of this study, I was careful to adhere to particular ethical concerns. According to the AAA Code of Ethics, an anthropologist must be very open with their respondents about the purposes, potential impacts, and sources of support (in this case the University of South Florida) for each research study. One must also do everything in their power to insure that the research they are conducting does not harm the safety, dignity, or privacy of the people with whom they are working (AAA 1986; IRB 2007, SfAA 2007). By adhering to the IRB

guidelines established through the central Brain Drain project, and strictly following the AAA codes mentioned above, I feel as though I effectively protected the privacy and interests of each of my respondents throughout both the research and writing process.

Limitations

Despite my efforts to acquire and analyze my data in the most objective manner possible, there were several limitations that I feel detracted from the quality of the overall presentation of this thesis. The first of these limitations relates to time. While I visited Ecuador twice for this study, I would have liked to spend much more time in the country observing the public healthcare system within the big urban hospitals in Quito. I feel that this extra time would have given me a better idea of the effects that existing policies have had on doctors as well as on patients.

The other major limitation of this study was that the recorded interviews were not translated word-for-word into English. The original grant for the larger Brain Drain project included these costs in its budget, however toward the very end of the study there was no longer enough funds to pay for these services. While I do feel that my data analysis process was thorough enough to provide accurate results, a complete set of transcriptions and translations would allowed to me to use Atlas Ti, an electronic coding system that would have significantly added to the accuracy of my results.

Chapter 4: Results

Why is Ecuador, a country that should have enough physicians by international standards, experiencing poor health outcomes in its rural areas? Despite the initial hypothesis of the Brain Drain team, I found medical migration to be only part of the reason behind this phenomenon. Issues in three different areas are contributing to poor health outcomes in these settings: the public healthcare institution, the medical university system, and medical migration. Based on the perceptions of the respondents who participated in this research, and on my own observations in rural Ecuador, this chapter will discuss each of these structures in depth, focusing on the weaknesses of policies within each area, the reasons behind their ineffectiveness, and the ways in which each of these systems is both individually and collectively contributing to poor health outcomes in the rural areas.

Health Care System Policies

Only 1.2% of the Ecuadorian national budget is allocated for public healthcare (Regional Health Systems Observatory 2000). According to a respondent from the Ministry of Public Health who helps manage these funds, it would take at least 7% of the national budget “to meet the basic health needs of the country.” This lack of input into the public health sector has contributed to low salaries for doctors, a four hour-a-day work limit, and the shutting down of physicians unions. The same

respondent said, “Simply put, the current system is completely flawed. You can’t expect to be providing good health care if there is nothing to back it up financially.”

Until 2007 the salary of doctors was determined by seniority. Now every government doctor is paid the same amount, a monthly income of \$820.00, according to a government official in the health sector. The new policy of equal pay was created with the intention of encouraging young physicians to take jobs in the public sector. Many physicians argue, however, that the amount is insufficient to live. One doctor said, “The doctors are paid too little to survive.... It’s not enough even to pay the family expenses.” Other doctors talked about budget cuts in different areas of the health sector, claiming that the government had gone so far as to stop giving doctors necessary supplies like towels or soap. A doctor who had migrated to the United States explained what he used to do as a resident to make ends meet:

As a physician in training, part of your job was to have your own stuff [medical supplies]... How do you get this stuff? Well, sometimes you buy it yourself or... if you saw that someone had resources, when you wrote their prescription, instead of ordering one of those silk cords for a suture, you would order two and you kept the second one. We did this because we knew that the next one was going to be someone who didn’t have money to buy the silk cord in the first place and probably needed a more urgent suture than the guy that was being seen. In other words, your job to some degree was to make sure you had the things that you needed to provide the care.

According to a physician working in one of the public universities in Ecuador, the government put a ban on the National Physicians Union in 2007, an organization that had been in place for over 40 years, created with the intention of protecting the rights of physicians in the country. The absence of the physicians union has led to a lack of control over the quality of doctors going into the public health field. Another physician said, “It used to be that in order to be a working

doctor you had to register with the union. You also had to pass certain criteria, uphold a certain code of ethics” Without a union to look over the shoulders of the doctors leaving the university, the physician felt as though there was a lack of quality regulation.

Another policy that has been in effect for the last 20 years stipulates that doctors are only permitted to work four hours a day, a regulation that was created with the intention of cutting costs for the Ministry of Health (WHO 2001). According to a public healthcare physician, He said that the majority of public sector doctors arrive at 8:00am and leave by 12:00pm, leaving all responsibility to the interns and residents in the afternoons. There is no policy in place to encourage doctor’s alternate shifts. One doctor claimed, “The public hospitals are full of patients who are spot number 1200th in a line of people who need to have a surgery to remove a prostate, a hernia, clogged arteries, whatever. And where are the doctors? There are none after 12:00pm.” These observations were verified during my fieldwork in Manta, Ecuador. I entered a hospital at 3:00 in afternoon and instead of speaking to physicians, I entered a hallway of about 70 patients, some very seriously injured, waiting for the few interns on call. A doctor noted:

This is a policy that is completely absurd. The healthcare being provided in the public hospitals is not adequate. If a doctor only works in the morning, it cuts off their ties to the patients they are caring for. It limits their ability to follow the progress of their patients, their ability to maintain accurate medical records, their ability to do research.

Another physician commented on doctors’ lack of responsibility as a result of this policy. He stated:

The senior physicians do not do anything in the public sector. They leave all their work to the young residents and interns. They arrive at 8:00 in the morning, maybe 9:00, look in each room, make sure everything looks okay, and at 10:00 they drink a coffee and leave. And no one says anything because if you say anything you are getting yourself into a very dangerous river.

Permitting doctors to only work four hours a day for minimum pay allows physicians to maintain their private practices on the side (WHO 2004), the largest source of their monthly income according to several physicians. While many doctors do follow this schedule (working in both the public and private sectors), many believe that this policy is further contributing to a low quality of healthcare, even malpractice in some cases. One doctor claimed that many physicians charge patients in their private practices only three or four dollars for a consultation in order to attract more clients. As a result, mistakes are made. “A surgeon for example will charge 30 dollars for a procedure that a person may or may not need. What happens? The surgeons make errors because they are operating just to get more money from the patients.” Another physician working within a public university in Quito said:

In the College of Doctors, a company announced that they were offering pediatric doctors, recent graduates, \$1.70 per consultation. They said ‘you can take it or leave it.’ Of course they take it because there are no jobs. This is what is happening in the big private practices. Realistically, if you are seeing 50 children in a day, you are not going to be able to practice good medicine. I don’t know one physician that can see 50 children in one day and do a good job

The small amount charged by physicians can be deceptive for patients seeking medical care. During my stay in Riobamba I ran across many patients who had been on a waiting list for years to have an important procedure or surgery performed. As a result, many people opted to get treated by a private physician charging a price they could afford. While many of these patients probably benefited

from the timeliness of the private sector, there were a number of other problems this system created. The main one was insurance. If anything goes wrong or needs to be done outside the initial estimated cost given by the performing doctor, the patients have to provide the funds out of pocket. One doctor working in the private sector shared a story of a woman who experienced a complication of this nature:

There was this patient I know that entered a private hospital with some mild symptoms here in Quito. When the doctor saw the patient, he told her she needed a hysterectomy. This type of procedure usually costs no more than \$600 and with the costs of the hospitalization and other accompanying charges, about \$1000. The woman talked extensively to her children and decided to go ahead and have the procedure. But during the surgery there was a complication, hemorrhaging-- a situation that led the doctor to switch the woman over to the intensive care unit. In the end, the woman spent a total of 45 days in the intensive care unit at 1,500\$ a day. When she finally got better the doctor told her, 'It's too bad that there was a complication but you're all better now, you now need to pay us \$500,000.'" She did not have it, obviously, so the president of the hospital told her she couldn't leave. After much negotiation, her whole village reached an agreement with the president of the hospital to pay everything that she and the rest of her extended family had made in their entire lives, including all of their furniture and possessions. This family is now living in the streets. This is an example of practical implications of the current model of medicine in this country.

While these policies contribute to an inadequate healthcare system, there are additional factors unique to rural areas that contribute perhaps even more significantly to low health outcomes. These include: lack of clinics, minimal technology, and the absence of physicians. According to a representative at the Ministry of Public Health, the government shut down 600 out of the 2,616 rural health units in 2009 because there were not enough doctors to fill the posts. According to one doctor, out of 1,300 districts, approximately 200 to 250 have high mortality rates from diseases that were never even diagnosed by a medical

professional. He claimed that these numbers indicated a major absence of medical coverage:

Almost 40% of the deaths in the country could be avoided if they were to have basic medical attention. This demonstrates the inequality that exists... The fact that there are deaths that could be avoidable, or unjustified deaths is a problem of access to government services.

Lack of technology is also a major issue in the rural areas. During my fieldwork in the Amazon, it took me a very short time to realize that there was a limit to what doctors could do to cure illness in a rural clinic. If a patient wanted to be seen for diarrhea or a snakebite, a physician could easily give them an antibiotic or anti-venom, but if someone came in with an appendicitis or a condition that required even minor surgery, they were usually referred to a larger hospital in an urban city.

During my internship in the Amazon, a woman who had just given birth began hemorrhaging. The midwife (who was also a shaman) and the doctor present did everything they could to stop the bleeding including a uterine massage, oxygen, and the administration of Pitocin (a Western drug typically used for hemorrhaging). Several hours later the woman died. While it is impossible to say where exactly the bleeding had come from and whether or not it could have been stopped, it is very likely that the presence of certain basic instruments such as an x-ray machine could have saved the woman's life.

In the past, the Ministry of Health sent specialists (e.g. nephrologists, radiologists) out to rural clinics hoping to solve some of these more serious problems. Unfortunately, however, lack of technology was again an obstacle. One

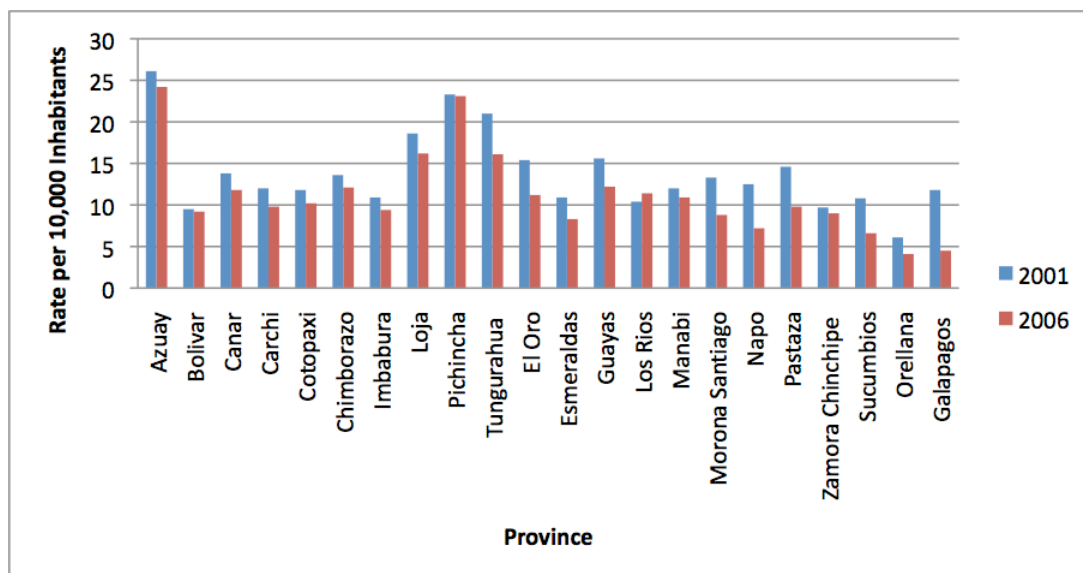
physician said, “most of these doctors realized upon arrival that the appropriate conditions did not exist there for them to be effective.”

In situations in which a patient or the patient’s family has the means, they will travel great distances to get their loved one to a place that has the appropriate technologies. Unfortunately, however, only a very small proportion of the population can afford such luxuries. 38.3% of Ecuadorians live below the poverty line (CIA World Factbooks 2006). This is very high compared to other countries in South America and low compared to most countries in Central America. In Chile, for example, the poverty rate is 18.2 (CIA World Factbooks 2005) and in Haiti it is 80% (CIA World Factbooks 2003). In most cases, the rural patient in Ecuador is forced to endure the pain caused by their ailment, treating it with traditional medicine, and/or waiting for an otherwise avoidable demise.

Beyond poverty, the biggest problem facing the rural population, according to all 25 doctors and government officials interviewed, is the absence of physicians in these areas. According to the WHO guidelines, 35 physicians are needed per 10000 inhabitants to meet the health MDG’s (WHO 2008). Ecuador has 14.8 according to the Global Health Atlas (WHO 2000). While these statistics may indicate that there is a shortage of physicians in the country, my qualitative and quantitative analysis of the situation shows that this is not the case. There are two explanations for the lack of doctors in the country 1) there are thousands of doctors living in Ecuador who are not working as physicians because there aren’t any urban positions available and 2) The distribution of physicians between rural and urban areas is completely unequal.

Data collected from different provinces throughout Ecuador over the past eight years provides quantitative evidence for this phenomenon. Figure 1 shows the rate of physicians per 100,000 inhabitants in different regions in 2001 and 2006. In both years, the province Azuay (which contains Cuenca, the third largest city in Ecuador) had the highest rate, 26.1 and 24.2 respectively. Pichincha (which contains Quito, the second largest city), has the second highest rate. Orellana, located in the rural Amazon has the lowest rates, 6.1 and 4.1 respectively, with the rural Galapagos islands close behind.

Figure 1. Rate of Physicians per 10,000 Inhabitants by Province

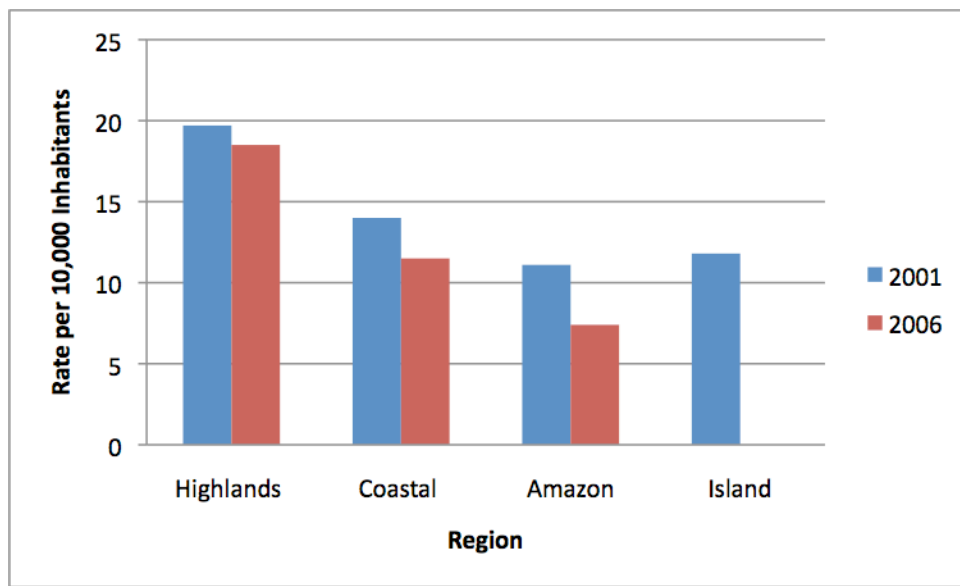


Data for this graph was collected from 2001 to 2006 from by the Instituto Nacional de Estadística y Censos

Figure 2 demonstrates this phenomenon by region, illustrating a very clear difference in the number of physicians per 100,000 habitants in the Andean region (where most of the big cities are located), and the more rural areas including the coast, Amazon, and island regions. In addition to the obvious discrepancy between the rural and urban areas, it is important to note the significant decrease in rates of

physicians in all regions. As these figures demonstrate, between 2001 and 2006 there was a 1.2 percent decrease in physicians per 10,000 inhabitants in the highlands region; a 2.5 percent decrease in the coastal region; a 3.7 percent decrease in the Amazon region, and an 11.8 percent decrease in the island region. This overall decline in physician/inhabitant rates signifies that the situation is clearly getting worse with time.

Figure 2. Rate of Physicians per 10,000 Inhabitants by Province



Data for this graph was collected from 2001 to 2006 from the Instituto Nacional de Estadística y Censos

According to a government official and physician interviewed, doctors who do work in the rural areas leave their posts unattended frequently due to lack of supervision. He said, “I remember one time I went out to check on a physician that was working out in the jungle and when we got there we found a sign posted on the clinic door that said, ‘Attention: Open Tuesdays and Thursdays from 10:00 to 12:00.’” He said this kind of situation is very common, as there is currently no system in place to check whether or not a doctor is continually at his or her post.

Another physician commented, “The doctors that do go to the rural areas go for only a few days and then leave. The people who they are serving are so poor that they don’t have any way to protest. A doctor could be gone from his site for two or three months and still receive his salary.”

Based on my own participant observation in these areas, this situation has caused many local rural people to distrust the government clinics. During house visits that I made in the jungle, people would often ask me to bring a certain medicine the next time I made a trip to their house. When I asked why they did not just go to nearest government clinic (in the town where I was living) most people openly expressed their lack of confidence in the health center. After making what sometimes turned into a daylong trip by foot into town, they would often find that there was either no more of a particular antibiotic in stock or there was not a doctor on duty. If there happened to be a physician present, there was often a long line wrapping around the side of the building, a sign that they would likely not be seen that day. A 51-year old indigenous woman in the Andes told me that she had once shown up at the local clinic only to find that it no longer existed. “There were bars on all of the windows and nothing inside. I just turned around and walked all the way back home.”

According to one medical professor working in Quito, there are a number of reasons doctors do not stay in these rural clinics. Primarily, most rural clinic sites are located in remote areas, far away from the urban cities, He said, “It is easy for me to tell another doctor to go live in the middle of the jungle for years on end. You try doing it. It is by no means an easy situation for anybody.” If a doctor has a

spouse or a family it is even more difficult to practice rural medicine. Many of the clinics are in villages accessible only by canoe or motorboat, far away from good quality primary schools and hospitals. According to another physician, these doctors also get paid much less money than they would in the larger cities because they do not have the ability to maintain a private practice on the side. He said, “The people in these areas don’t have the money to pay a doctor or a specialist and it is through private practice that most doctors survive. The salaries within the public health sector are not enough to live.”

In an effort to get physicians into these rural areas, the government enacted a policy in 1986 that made it mandatory for newly graduated physicians to spend one year working at a rural post, according to a dean of one of the medical schools (Ugalde 1986). The placements are supposedly chosen by lottery, however many physicians commented that the process is much more politically and economically driven than it should be. One doctor commented, “The problem is that many times these doctors can get out of these placements depending on their connections.” He said that newly graduated physician from a wealthy family, for example, could easily convince the university to place him/her in a hospital in Quito or in a military facility right outside one of the big cities. Another physician said,

If I had wanted, it would have been easy for me to get out of it [the rural year]. In fact, people were really surprised-- they even thought less of me when I accepted a post in the jungle. Good physicians are almost expected to stay in the city.

As the above quote illustrates, the general attitude toward the rural service year is very negative. One professor I interviewed said that his students look at it as a punishment. Not only are they paid a small stipend for their services, they also feel

as though they are not growing as physicians because they are treating mostly minor illnesses like diarrhea and malaria. Minimal technologies available, in other words, make it difficult for physicians to develop their specializations. One professor confirmed this sentiment by saying, “Most physicians feel like this year is a lost year. They think ‘If I am far away from an urban city I can not attend conferences and meetings, keep myself updated on the latest technology.’” Another doctor said that this worry was legitimate in many ways. “A physician needs to be constantly learning and developing. When they are completely isolated from the rest of the professional world, they lose out on opportunities that could get them hired by outside hospitals or private practices.” As a result, many of these newly graduated physicians end up making constant trips to the big cities, leaving behind their obligations at the rural posts.

The Medical Education System

One of the other major institutions in Ecuador that is indirectly leading to poor health outcomes in the rural areas is the medical education system. Similar to the public healthcare system in the country, the university system is also divided into private and public sectors. There are four central problems with this education structure: lack of popularity of public universities outside the main cities, too many universities in the urban centers, lack of entry and exit standards for medical students, and lack of collaboration between public universities and the state.

In Ecuador, Universidad Central is considered by most doctors to be the best public university in the country, according to two representatives from the Ministry of Public Health. It is also located in the urban center of Quito, making it prime

territory for forging connections with the main hospitals in the capital. Students who have decided to go to medical school therefore often only apply to Universidad Central regardless of whether there is a public university in their canton. Often, if they do not get admitted into Universidad Central, they will apply to one of the other private universities in Quito or Guayaquil. One doctor said, “This is ridiculous. If all of these students were to go to medical school in their respective areas, there would be tremendous opportunities for both the university and the surrounding hospitals to develop.” He said, not only are these universities lessening in quality, but they are also missing out on the opportunity to train competent medical students that could set up their future practices in these rural areas.

The most commonly acknowledged problem about the medical education system was the fact that there were too many medical students in the country. One professor believed this high number of applicants had to do with students going into medicine for the wrong reasons. He said, “In medicine it is crucial that you love what you do, that you look at medicine as a way of life. Now we are just forming physicians to put out into the work force.” According to another professor, some students choose medicine because their parents push them into the profession; others choose the profession because of the prestige associated with being a doctor. Others do it because they can’t make up their minds. He stated:

Many people get to the last year of medicine and they don’t like medicine anymore. I think this is because in high school there is not a good enough orientation about what career to choose. They choose medicine because they don’t know what else they can do—they need to study something. So most graduated physicians don’t even want to work as physicians. They get the diploma just to be in the university. This has a very huge impact because large numbers of students make our teaching less effective and cost the university a lot of money.

Coupled with this strong demand for medical education throughout the country, a respondent from a government health institution said that the lack of admission standards at many of the universities was leading to a significant decrease in the quality of doctors produced. One professor said:

To give you some idea, at the Universidad Central, we have 3,500 students that apply to our medical school each year, however we only admit 500. This whole population that wasn't let in, they then apply to the private universities. These schools have different selection processes-- some good, some bad. Some don't even have a selection process. Most of these students get in somewhere no matter what their credentials are.... as long as they can pay for their studies they are in.

According to one medical university dean, many universities had what they called a "flexible" admissions process in which the number of medical students applying determined how many students they accepted. Another respondent talked about corruption even after the students were admitted. A professor said, "The university down the street from here-- it is well known for allowing students to pay for their title. It doesn't matter if they attend class or not, whether they perform well on the exams... The dean there is responsible for giving out all the grades." He said that many of these universities have very few resources and training materials, leaving their medical students unprepared to practice good medicine once they graduate.

The final major problem within the medical university system is that schools are producing a surplus of doctors with specializations in areas that are already saturated, according to a government health representative. In other words, many of the specializations produced do not match with the needs of the country. He said that

many new medical students have their mind set on becoming specialized in a very specific area and working in one of the major hospitals in Quito. The reality, however, is that there are not enough spots for all these students to achieve this goal. According to a doctor working at one of the main hospitals in Quito, there are large numbers of newly graduated radiologists and heart surgeons and only three or four hospitals in the entire country that have the facilities to utilize these specializations. One doctor said, “We don’t need to be just giving out diplomas to people. What we need is to have professionals in the areas that the country needs, and in things that will be useful for the country. Otherwise we are just wasting money and time.”

In the rural areas, the places that arguably need the most medical attention, these specializations do not help the majority of the population. One doctor said, “What we really need are basic physicians, family doctors, community doctors. This is by far the most important thing for the country.” This opinion was reaffirmed by one of the doctors I interviewed in the United States who migrated from Ecuador and is now specializing in pediatric oncology:

What am I going to do as a kidney doctor there doing dialysis and transplants in kids? From a public health point of view this would be a ridiculous thing to do. For every one child that dies of kidney failure you have 100 or 200 children dying of diarrhea just because they don’t have running water. If you are the president of government who has limited resources where are you going to put the resources? Toward preventing diarrhea. So here comes me, a doctor trained in this particular specialization, coming to treat this one child with kidney failure when I have hundreds of children dying of more common diseases? Forget it. Maybe he will hire me, but it will be to treat diarrhea, pneumonia, measles and whooping cough.

Medical Migration

Instead of deciding to retire from his specialization to treat these more common diseases, the pediatric oncologist quoted above migrated to the United States, where he would be able to practice his specialty on children who would benefit from his expertise. Many other doctors have followed this path, leaving their home country behind in search of economic security and more professional opportunities. Despite the surplus of medical professionals in the country, this kind of medical migration is still impacting the country.

Public education is paid for by the state, therefore each medical student that enters a public university costs the government \$70,000, and another \$35,000 for a specialization, according to a public university professor. He said, “This money is completely wasted when these students leave Ecuador because, as some of the top medical students in the country, their absence prevents the advancement of the public health sector,” the reason behind the government financially supporting the students. The dean of the same school said:

We need to be more critical and think ‘who are those guys that are leaving and why are they leaving? As the government, if I have a physician who is very talented working abroad, that person is a very valuable asset. I should be doing whatever I can to get that person back... to try to help the people here in Ecuador.

To understand the *degree* to which medical migration is affecting health outcomes in rural Ecuador, it is essential to look at the specific reasons these physicians are leaving, the patterns of migration, and whether or not the *quality* medical professionals return to Ecuador after spending time abroad.

The 16 physicians with whom I spoke all worked in Tampa, Florida, and had all migrated within the past ten years. Each of them had three main motivations for

leaving the country: 1) to receive specialized training outside of the country, 2) to achieve economic security, and 3) to get a better job in Ecuador (upon their return). While some doctors did attempt to receive advanced degrees in their own country, the general perception of all 8 medical students I interviewed was that obtaining a specialization from outside the country would make them a much more qualified doctor. One physician said:

The medicine of the US has a lot of prestige here in Ecuador. To have a specialization from the United States is a very important achievement professionally. A doctor who has a specialization from the US, he will likely be able to climb the professional hierarchy here in Ecuador much more easily. For this reason most doctors want to go to the US. Without a doubt I would say all of them. I don't know one doctor that got their specialization in the US that had a failed practice here in Ecuador. It is considered the best medicine in the world.

For doctors who reached the end of their medical training, economic security was a main motivation for migrating to another country. As mentioned above, the majority of the physicians working in private businesses or clinics make very little money from procedures. A professor said, "There are a small proportion of physicians who are very wealthy, however it is close to impossible to reach this economic level without connections". A doctor commented, "It's like the mafia. The ones who make a lot of money, they are doctors who belong to families of elite physicians. They usually go outside the country to specialize and then return to replace the position of the father or mother of the family." He said that a "middle class" of physicians does not exist in Ecuador. They are either powerful or poor. The public sector is similar. A representative from the Ministry of Public Health said, "The people who get positions in the government- it is very political. It has a lot to

do with your race, your social status, ties to family or friends. If you don't have any connections you may as well throw in your coat." In other words, those doctors who do not have connection to the government or private organizations have a very difficult time finding a position as a physician once they return to Ecuador.

The other main reason doctors choose to leave Ecuador is the lack of job opportunities. The surplus of doctors in Ecuador makes it very difficult for physicians to find work in the private or public sectors. Pulling over a taxi in the middle of downtown Quito, it is not unusual for the driver to be a medical school graduate. One professor referred to this phenomenon as an "internal brain drain." There is a very large proportion of medically-trained professionals who are working a number of jobs that are not related to medicine due to lack of opportunity, he said. Others end up working in alternative medicine, a growing field in Ecuador. One doctor said:

It is difficult. There are probably four or five hospitals in the city that get 60-80% of the private healthcare patients. To work at one of these hospitals you have to have contacts. More importantly, you need to pay to be a member of the hospital. Of course you can open your own private practice whenever you want but it doesn't mean you will get a lot of patients.

While no specific data is available to show to which countries doctors choose to migrate, I learned from my respondents that here are two main patterns of migration in Ecuador, south-to-north and south-to-south. These patterns are very important to point out because they typically represent different motivations for leaving, according to a public medical school professor. He said the doctors that move to the northern countries (mostly the United States, Spain, Italy, and the Netherlands) are typically wealthier. They either have connections to a foreign

University through one of the top private universities in Ecuador, or they receive some kind of scholarship to obtain either a PhD or a medical specialization. He said, “The Universidad de San Francisco, for example, has agreements with universities over in the United States so they can send their students over there for a year to do their residency.”

According to a government official interviewed, Spain tends to be a slightly easier option for newly graduated medical students from Ecuador because of the language and because the country does not require them to acquire a visa. Spain also accepts Ecuadorian degrees rather than requiring them to pass ridged criteria like the United States. One professor said, “Ecuadorian physicians are very well received in Spain. Our physicians get a very good option because Ecuadorian physicians can work nights and weekends, the times that the Spanish physicians do not want to be there.” In both situations, however, the cost of living is much higher, meaning these students usually need to have some level of financial support from home. When asked whether or not he sent remittances to his back family in Ecuador, a medical doctor in the United States said, “Oh no. It’s the other way around. My family is sending me money all the time—otherwise there is no way I would be able to survive here.”

The other, more common pattern of medical migration is South to South. According to a dean of one of the coastal universities, if medical graduates are looking for further training or to obtain a specialization, they usually go to countries like Argentina, Brazil, or Mexico because the level of training is “better than Ecuador” yet the cost of living is relatively low. Like Spain, these countries also

have the language advantage, making it much easier for the students to understand their classes or to carry out their residencies. More frequently, however, doctors migrate to the South in search of job opportunities. The dean said, “70% of physicians who graduate from universities in Ecuador do not have any opportunities abroad, nor can they find work in the hospitals here, so they end up pursuing other careers.” Most of these medical graduates go to Chile. One respondent from the Office of Immigration in Ecuador said:

We have a very good agreement with Chile that makes it very easy for medical professionals to go to work there. It is a very old, very unique agreement that I have never seen anywhere else and that has been very strong and good for Ecuador. It was especially helpful during the economic crisis in Ecuador because it allowed doctors to go and earn a living there.

This agreement, called “Hipolito Unanue” allows Ecuadorian doctors to practice medicine in Chile without having to take any tests or fulfill additional criteria, according to the Andean Council of Foreign Ministries (2001). An Ecuadorian government official said that Chileans like to hire general physicians from Ecuador because they will work in remote areas of the country where most Chilean doctors refuse to go. Ecuadorian physicians choose to work in Chile because they get paid at least \$2,000 a month, a much better option than the \$830 they would receive in their own country. They also do not need to have a specialization. As a result, the government official said that over 500 doctors a year migrate to Chile. This phenomenon is especially common among medical graduates from some of the coastal medical universities, according to the dean of one of these schools. The university we visited in Manta had over 75% of each class leave for

Chile or some other country in the South each year. A janitor working at the local hospital said:

One time we had 19 out of 24 residents leave at the same time to go to Chile. The quality of education at this University is not very good so the students here can't usually get a job in the country. There is also very little opportunity for them to get a post-doctorate. Besides leaving the country, what other option do they have?

More important than the question of which physicians migrate is the question "do they return?" According to the physicians I interviewed in the United States, some do not come back to Ecuador simply because they do not want to leave families that they established during their training or because they think that their children will benefit from the educational systems in more developed countries. The general consensus among the 16 physicians interviewed, however, is that unless a doctor is guaranteed a prosperous position with a family or friend in the private sector, most medical migrants do not return to Ecuador simply because there are no facilities for these newly trained medical professionals to be inserted. One professor talked about his brightest students winning fellowships and scholarships to study abroad, almost all with the intention of coming back to Ecuador. When they came back, however, they found no work. One professor said, "It's very sad and it's frustrating for these guys. They think 'why should I be fighting here when I am well recognized back there?'" Another professor said:

We are losing from the beginning our best people. For example, I put together a group of students during their medical career. All of them applied for a fellowship outside and in the end none of them came back. They call me and say 'Look Professor, I am here with a place to work, a salary and an opportunity to move up. What can you offer me to motivate me to come back?' And unfortunately I don't have anything. I can offer only my friendship. So you see it is very

difficult. They love Ecuador, they want to help Ecuador, but they know that if they come back it will be very, very difficult.

Doctors who obtain their PhDs have an even more difficult time finding work in Ecuador because the infrastructure does not exist to support research. According to a representative from the Ministry of Public Health, the only institution that employs physicians with doctorates is the University of San Francisco, an elite private school in Quito. While some of the professors at the other universities do have PhDs, they are not encouraged or supported to conduct research, according to the dean of an Ecuadorian medical school. One professor at a public university said, “We have not established here a culture of investigation. In my case for example, I conduct research on the side because I want to. In other words, to do research here is something like a hobby.” As a result, these highly trained professionals end up either leaving the country or taking jobs elsewhere. One professor gave an example of one of his fellow classmates:

A good friend of mine received his PhD from England in pharmacology, an area that was very applicable and necessary for this country. He returned to Ecuador and thank god I was here, I was able to set him up with a small group of professors here at the university. But a PhD does not earn enough to live here in this country. It's impossible. He was earning \$230 dollars a month, a PhD! What happened to him? In short, he eventually had to leave the university. What does this say? It shows that there is a major lack of clarity within both the university and in the state about the importance of research. Eventually, my friend, he ate his own shirt. He couldn't make enough money to pay for his own gas. He ended up joining an international pharmaceutical company that probably paid him way more than \$230 a month.

According to a government official, for a period between 2000 and 2006, the Inter-American Development Bank gave a loan to Ecuador which financially supported 100 doctors to obtain their doctorate degrees from the United States and

Europe with the idea that they would eventually use the acquired skills to benefit their own country. Unfortunately, when these physicians did come back, they found themselves unemployed. As a result, most of these doctorates end up leaving the country

In conclusion, three different systems are working independently and in conjunction with one another to create a situation in which Ecuadorians living in rural areas are not being provided with an adequate level of healthcare. Policies within the healthcare system, specifically the low salaries for doctors, a four hour-a-day work limit, a lack of safety net (or insurance), and an absence of unions to hold doctors to particular standard all discourage doctors from choosing to work in the rural areas. Policies within the education system, including the lack of medical universities in rural areas, a absence of entrance and exist standards for medical students, and a lack of coordination between the medical universities and the state are all major contributing factors to the failure of the government's rural year policy and the absence of service provision in the rural areas.

Each of these policies also contributes to a kind of medical migration that negatively impacts the country. Instead of having the surplus of doctors graduating from medical school working at rural posts throughout the country, they are working as taxicab drivers in the urban cities or leaving the country in search of better social and economic opportunities. According to PAHO statistics, Ecuador has half the number of physicians it should have per 10,000 inhabitants and yet returning doctors say there are no positions for them to come back to. There is an obvious discrepancy here that must be addressed.

Chapter 5: Discussion/Recommendations

To understand how the existing health, education, and migration policies interact to create a situation that neglects the rural Ecuadorian population, it is necessary to frame it within a “political economy of health” perspective. Upon what ideologies and histories were these systems built? What sociopolitical formations or assumptions are maintaining policy makers’ belief in the current models? What kinds of social change need to take place for the development of new policies that will actually address the health needs of rural Ecuadorians? This chapter will use the theoretical frameworks described in Chapter 1 to address these questions, ultimately reconciling the discrepancy between “surplus of doctors” and poor health outcomes in rural areas that was posited in the beginning of this thesis. This chapter will also outline a series of policy recommendations that can be used to rebuild a healthcare system in a way that addresses the needs of this vulnerable population.

Understanding Current Policies Using Political Economy and Anthropology of Policy Frameworks

Political economy of health calls for a “macroanalytic, critical, and historical perspective... with particular emphasis on the effects of stratified social, political, and economic relations within the world economic system” (Morgan 1987: 132). In other words, it is important to understand the history and ideologies underlying the

Ecuadorian government's policies and allocation of resources. Furthermore, using an "anthropology of policy framework," I would like to discuss the impact of globalization (Khor 2001) and structural adjustment (Okongwu and Mencher 2000) on current health and educational policies (and the lack of social welfare policies).

During the economic crisis and "dollarization" that Ecuador experienced in the late 1990's, the government adopted a neoliberal framework for healthcare that was being practiced in the United States, with the hope that privatization of public services would help make the economy strong again (Larrea 2006). As the name "dollarization" implies, Ecuador's transition to privatization was very much based on the Western model (more specifically the United States). Most of the health and education policies were therefore capitalist-based-- supporting the commercialization of medicine, urging doctors to establish their own practices, and for the public to utilize these services.

In addition to idealizing privatization, I believe that this transition to a United States-based model also has had a major effect on the way that Ecuadorians view themselves. In her work, Nader makes a lot of references to the "culture of power" (1972). The fact that Ecuador "failed" and essentially had to resort to the United States' economic system has created a power differential, a relationship that is reflected in many of the country's policies.

For example, self-imposed ideas about what Ecuador can and cannot produce in terms of academic research are preventing universities (and the government to some extent) from seeing research as an investment. A governmental official interviewed said, "We still have a very Third World conception that we can not

develop anything, and that we need to wait and receive science and technology from outside.” These negative mental constructions about the capabilities of Ecuadorian doctorates are preventing the government from supporting an area that could not only contribute to further income for the country, but also to an improvement of their universities.

The other major issue with this idealization of U.S.-based policy is that it has caused members of the Ecuadorian government to become blind to differences between Ecuador and the United States that need to be taken into consideration when establishing health policies. They have become convinced that if they just pursue privatization in the same way that the United States did, eventually the majority of Ecuadorian citizens will benefit. This attitude has resulted in the policy makers completely ignoring the needs of the poorest people in the country, the rural populations. They have failed to recognize that neoliberal health ideology is based on a set of assumptions that do not apply within the Ecuadorian context.

The first assumption is that the competition encouraged by privatization will eventually drive the prices of healthcare down, thereby making these services more affordable for the whole population (Polluck 2004). While this phenomenon might hold true in the urban areas of the country, it does not take into consideration the geographic dispersion of people in Ecuador (63.4% of whom live in urban areas and 36.6% in rural) (INCE 2001). Because a third of the Ecuadorian population lives in remote regions, there is a large portion of the population that cannot receive these services. The other problem with this assumption is that while most of the population may be able to pay for an occasional check-up or an x-ray, major medical

care is unaffordable for most socio-economic classes, as is the case in our own country. The story of the woman who had to give up the possessions of her entire family on account of a complication during surgery is commonplace in Ecuador, according to two doctors. The risk involved in receiving care either acts as a deterrent (people choose not to have important procedures done out of fear that something will go wrong) or a possible threat to their future wellbeing (if something does go wrong, they end up living in the streets).

Another major assumption underlying the neo-liberal approach to health provision is that the privatization of medical services will lead to better science and technology, thereby improving the quality of healthcare for the overall population (Polluck 2004). In the private sector, this assumption has proven to be true. Some of the central private hospitals in Quito have technology that is up to date with that of the United States and Europe, according to a government official. These advanced services, however, are only accessible to the very elite class in Ecuador. Many of the machines utilized cost an exorbitant amount of money so the doctors have to charge a significant amount for a consultation. If a patient does not have insurance, it is unlikely that he or she will be able to take advantage of this technology.

A final major assumption underlying the privatization of medicine is that the approach eventually leads to the overall enhancement of health outcomes across socio-economic statuses (Polluck 2004). The problem with this assumption is that competition, the basis of a private health care system, has created (based on my observation and interviews) in Ecuador an attitude of “every man for himself,” or “us versus them,” an idea that a person needs to do whatever he/she can to make

their own ends meet. According to 14 out of the 16 doctors with whom I spoke, this takes away from the feelings of camaraderie and social responsibility that used to exist in Ecuador. The current lack of connection or concern for the rural population reflects this underlying attitude and is ultimately contributing to a lack of interest on the part of young physicians to carry out their rural service year.

The capitalist-based approach to health and education has also (like in the United States) led to the support and perpetuation of social hierarchies on many different levels in Ecuador. It has created a culture that views doctors as being superior to everyone else (despite the fact that they are not paid well). You have, in turn, thousands of young people with money pursuing a medical career, even if the school does not have a good academic reputation. In other words, the very real challenges of finding a job or of having to leave one's family in search of a "better life" has become much less important than the social privilege and respect that comes with obtaining a medical degree. Private institutions have in turn gotten away with becoming moneymaking enterprises that charge phenomenal amounts of money for a degree that is actually worth very little in the end.

In addition to the influence of the United States specifically, globalization has had a major influence on the current state of Ecuador's health and education policies. Because of the increasing dependence on world markets, it is no longer just governments that influence national policy. Other bodies that have come to be influential in Ecuador include the World Bank, the World Trade Organization, the European Union, the Pan American Health Organization, and multinational corporations (Okongwu and Mencher 2000, Deacon 1995, Bakker 1994, Brodie

1994). In Ecuador, the push for the privatization of services by these international institutions has led to the idea of health as a commodity rather than as a human right. This attitude shapes all of the policies outlined in this thesis, leading ultimately to the unequal treatment of the poor and rural populations. The lack of social welfare policies or safety nets (like public health insurance for example) further reflects this attitude.

Policy Recommendations: Health Care and Education Systems

As an applied anthropologist, the ultimate goal I hope to achieve through this thesis is to use the theoretical frameworks of political economy, migration and policy to make useful recommendations to key stakeholders in Ecuador. It is clear from the qualitative data I collected that current migration patterns and the uneven distribution of physicians throughout the country are dependent upon existing health and education policies, therefore it makes the most sense to suggest strategies for working within these systems. To improve health outcomes in the rural areas, it is imperative that the government change the amount and dispersal of funds that it allocates to the public health care system. The government could do this in one of two ways: 1) it could put more money into the current public healthcare system so that the economically disadvantaged do not have to resort to receiving care from the private sector, or 2) it could create an insurance system that covers people who can not afford private insurance.

If the government were to choose to improve the state of the public healthcare system, it would mean paying doctors more and changing the current working schedule, both in rural and urban areas, to eight hours a day instead of the

existing four. One physician said, “If the government were to hire doctors full time, they would be able to concentrate more on the quality of the work they are doing in the public hospitals.” According to this physician, a full time job and salary would ideally instill in doctors a sense of responsibility for the people they are tending to. They would also be able to better follow the progress of their patients’ diseases, which could likely lead to shorter periods of hospitalization, ultimately costing the government less money. A full time staff would also create an environment in which research could be possible (this topic will be further addressed later in this chapter).

If the government wants to leave the public health sector in its current state and continue to encourage the population to seek treatment from private practitioners, it is essential that it create some kind of safety net, a public insurance program (which does not currently exist). This would enable Ecuadorians from lower classes to seek out medical attention when needed. It is important to note that the services from private practitioners would not be free for the patients, but it would provide them with some kind of co-pay, or in extreme cases, full coverage if a complication were to occur so that the cost would not interfere with a patient’s livelihood.

Of course, neither one of these options would be effective in reaching the rural population if there continues to be an absence of medical professionals in these areas. As it stands now, the infrastructure exists for doctors to cover a large portion of the rural population, according to a representative from the Ministry of Public Health. Not only are there clinics established in even the most remote locations, but the government is still financially supporting the rural service year policy, which

could get physicians into these areas full time and consistently. Standing in the way is physicians' lack of desire to carry out this service. Methods that could be used to solve this problem are as follows: 1) change the existing mentality of physicians from within the education system, 2) provide incentives for doctors to want to practice medicine in the rural areas, 3) make the rural clinics sustainable using local personnel, and 4) create a group of traveling doctors.

Each of the six professors interviewed for this study discussed the need to change the current outlook of the medical students toward their rural service year. One doctor said, "We need to communicate to our students that to be the best physician does not mean working in the biggest hospital in Quito. It doesn't matter. You can be the best physician and be working in the jungle saving lives." Young medical students, in other words, need to realize that the first priority of a physician is to take care of those in need. One professor added that it was the job of the universities to instill this sense of responsibility in their students during their training, and the role of the government to make them feel valued. He said:

We need to generate in our students a sense of obligation to do the rural medicine year, to feel justified simply because they are helping the rest of the population. They need to realize the importance, the value in delivering primary care to patients (which is what the majority of them need). We need to instill in them a sense of pride in performing these duties for their country.

While this sense of pride and obligation could be helpful in getting new medical graduates into remote areas, there also need to be incentives to encourage them to stay in their sites. As mentioned in the Results chapter, one of the main reasons that medical students see the rural medical year as a waste of time is that

they are unable to attend classes, conferences, and lectures during this period . Due to the lack of technology and complex cases, they feel they are not developing as physicians, a limitation that could potentially cost them a future job. A method to address this problem would be to bring the education to them. “Telemedicine,” recently being tested by a private organization in Quito that I visited is a program that sets up televisions in remote areas. Through this television system, rural physicians would be able to partake in distance learning and correspond with consultants and professors in real time. The director of the program said,

This is an example of a program that could be easily adopted by rural clinics all over the country. Right now, for example, we are running programs on tropical medicine and other subjects that are proving to be very useful.

Because the telemedicine program requires constant interaction with the physician, it could also serve as a useful tool to ensure that a doctor consistently remains in his/her site.

Another incentive to encourage new physicians to go into the rural areas is to provide them with research opportunities. One doctor said, “We need to wake up and start thinking that our people have the capability to produce ideas, to conduct research, to produce good science” Given the fact that there are many diseases and public health issues in these remote locations, a yearlong study could provide excellent information about tropical diseases. Performing research during their rural year would also make it possible for these doctors to receive research grants from outside countries, or even a postgraduate degree if they chose to spend even more

time at the rural clinic. One professor felt as though this support should come from the government. He suggested the following:

[New physicians] want to do a postgraduate degree or some kind of residency but obviously they can't do it all the way out in the jungle. And these young doctors are in the right. They are losing out. For this reason, we need to create compensation for the best rural doctors. They need to be told and convinced that their rural service is appreciated, that if they are excellent rural physicians they will have better opportunities to pursue a post-graduate degree.

The professor also suggested offering incentives for doctors to work in the more remote areas of the country that are usually the most neglected:

It is not the same to work for example in the Amazonian province of Wayes as it is to work in Tena [a more urban province]. So what happens? They don't want to go to the Amazon. They think they will get lost in the jungle. We therefore need to give them incentives to work in the rural areas that are the furthest away from civilization. We need to make an arrangement in which the young doctors who go the farthest away to do their rural year have first priority when it comes to obtaining post-graduate degree here in Ecuador. I think this is an incredibly important incentive if we want to improve the health care in the rural communities.

In addition to these incentives, it is important to reestablish among the local residents a sense of trust in the government clinics. One method to achieve this trust is to train local people to serve as nurses or "medics." In 2007, I participated in a project that trained Burmese refugees to perform a number of different health services. The program was successful because it not only provided jobs to people in need, but it also cost the organization much less money than it would have to use certified doctors. According to a physician interviewed, the majority of illnesses in these rural Ecuadorian communities are fairly easy to treat (e.g., diarrhea, parasites, malaria), therefore it would be relatively easy to equip a local person with the

appropriate tools and medicine, a concept referred to in the field of Public Health as “task-shifting.” This person would also be useful to the rotating doctors because they would serve as translators for consultations and research in places where Spanish is not the first language. Establishing local nurses or medics in all of the rural clinics would not only improve the local health within each village, but could also establish a level of consistency within the government clinics.

The final recommendation I have in regard to improving the quality of healthcare in the rural areas is to create a group of mobile specialists whose job is to treat hard-to-reach populations. Because limited means of transportation pose a major barrier for people living in remote areas, this kind of service could be effective in treating some of the major illnesses that require specialized medical attention. While the initial cost could be great (depending on what means of transportation the doctors choose to use), this strategy could end up being more cost effective for the government because there would not be a need to provide advanced technology to rural clinics.

In addition to a restructuring of public healthcare, changes need to be made within the current medical school system. As the results of this study demonstrate, there are several problems that exist within the current system: 1) there are too many medical students 2) there are no entrance standards that the universities need to meet, and 3) the students that are leaving these universities are not being tested, therefore there is little accountability.

All of the professors interviewed believe that it is the country’s responsibility to ensure that medical students (regardless of whether they are attending a private or

public university) graduate with a certain level of medical competence. It is therefore essential that the Ecuadorian government establish certain regulations and requirements for the universities themselves, the students who are entering, and the doctors that are being produced. Furthermore, there needs to be collaboration between the government and that university system and new regulations in place to ensure that at least some of the doctors being produced by the state can be absorbed into the current healthcare system. Finally, the universities need to take on the responsibility of creating a culture of investigation in Ecuador so that the students that graduate have an opportunity to pursue medical research.

To develop a level of competence within the established medical universities in Ecuador, certain standards need to be developed and maintained. The first of these standards has to do with the universities themselves. The government (or separate entity) needs to create an accreditation system to which all universities adhere. Criteria that would need to be met include: standards of training capability, facilities, and resources. One professor commented, “This is the first step that we need to take. If a province wants a medical school they can have it, but they need to make sure they have the resources to ensure that it is a university of quality. If not, they need to shut their doors.” The professors interviewed believed that an accreditation system is the only way that corruption within universities is going to come to an end.

The other criterion that needs to be developed is an entrance exam for incoming medical students. Instead of allowing every university to use its own admittance criteria, there should be a standard entrance exam used by every

university. There also needs to be a set number of places for incoming students within each class at each of the medical universities. Not only would this requirement raise the level of competition among students to get into certain programs, but it would also prevent universities from only taking the number of students who could afford to pay for their degree.

A method for determining the quality of a university is to test the medical students before they leave. In the United States, for example, all doctors pass a standard exam (The United States Medical Licensing Examination), which proves their competence as a doctor. In Ecuador, it is essential that an exit exam be established. While it is possible that many of the current medical students would not pass this test right away, it would force the universities to reach to a nationally recognized level of competence. It would also show incoming students what kind of education they would receive at each school, hopefully igniting in universities the effective competitive spirit that privatization is ideally supposed to create.

As mentioned by several of my respondents, another major problem is a lack of coordination between the university system and the public health sector. As the results indicated, the government is pumping phenomenal amounts of money into training doctors. At Universidad Central, they are spending at least \$31,500,000 a year on a class of 300 students alone according to the Dean (as referenced earlier). Many of these students end up leaving to other countries on scholarship, unable to find jobs within the Ecuadorian system. If this money is used to produce a doctor that is going to benefit a more developed country, the government is essentially

wasting \$31,500,000 that could be spent improving other areas of the healthcare system.

In other words, in addition to producing quality doctors, the government must ensure that the doctors produced in the public universities are being educated in fields or specializations that will be beneficial for the country. One professor at Universidad Central felt as though it was the university's responsibility to initiate this kind of collaboration. He said:

We as the public university need to talk with the government and say 'hey, what are the areas that you think we can produce professionals for you and we will take on that responsibility, to train people in the best way.' Generally the conditions are always changing— in terms of pathologies, types of diseases, and reasons for mortality—so obviously we need to change the type of doctors we produce to meet these changing needs. The idea is that we need to coordinate. We need to adapt our doctors to these conditions. This is important because we are then producing doctors that the community needs, and they will find places to work within our society.

He said that realistically, the country needs good quality general physicians trained in tropical diseases that could tend to the needs of the rural populations in need of these types of services. This would require the government to pay these doctors much better wages, a change that could make them feel valued without a specialization. The fact that there are many doctors working in remote areas in Chile demonstrates that the geographic remoteness of these placements is not as much of an issue for Ecuadorian doctors; rather it is the amount of money that they are being paid as well as their sense of worth. According to a physician interviewed, if these doctors are offered a government salary comparable to what they would make in

urban areas as a specialist, it is likely that doctors would be fighting over the rural post positions.

In addition to ensuring that the government only produces a certain number of specializations, it could also be beneficial to cut down on the number of students being produced within the public university system. As discussed in the results section, it is currently impossible for the public health sector to accommodate the number of students being produced. If the public universities were to raise the admittance standards and lower the number of students admitted into medical school, they would be more likely to guarantee that the students coming out were better trained and would have lucrative jobs awaiting them in the public sector. By coordinating with the university system on these various levels, the government could then ensure that their investment in their medical students is contributing to a better standard of health for the entire country.

The final major issue we are seeing within the university system in Ecuador is a lack of interest in conducting research. Research can improve the reputation of a university worldwide. If the Ecuadorian government were to fund research within their private universities, they could attract more qualified professors and students within the country. During their studies, these students would be learning from these very qualified doctors, assisting them with their research and possibly publishing their own papers. When these students apply for doctorate degrees and scholarships, they would likely have a much greater chance of being admitted into the top universities worldwide. As this cycle perpetuates itself, it is possible that this

production of research could end up improving the reputation of the university worldwide.

If some of the public universities in the country have a good reputation for research, it may also encourage private universities to hire more doctorate level professors, and to incorporate research into their institutions. While this change would likely be gradual, it is possible that the entire system of medical education within the country would improve as a result. By opening the door to research, the government would be telling their doctorates that they believe in their ability to improve their own country. Even if physicians were not paid the same amount as they would working for a multi-national pharmaceutical company, one professors interviewed believed that this sense of obligation would be reason enough for many doctors to return to work in their country.

Medical Migration

As discussed in the first chapter, a combination of push and pull factors cause doctors to migrate to other countries. In Ecuador, the “push factors,” or conditions that push people to seek work in developed countries (Buchan 2006) include low pay and “lack of jobs” in Ecuador (factors that can be attributed in part to privatization-oriented policies in the health and education sectors). The “pull factors,” or conditions in receiving countries that encourage migration are better job security and professional opportunities for development (in both technical and academic arenas). Another pull factor for doctors that move to Chile include the common language and the agreement that exists between countries that accepts Ecuadorian credentials without question.

In most of the literature on medical migration, researchers point to the negative consequences of the phenomenon, including loss of human capital and resources (Saravia and Miranda 2004). These consequences, as I mentioned in the introduction, were the original focus of the larger interdisciplinary project “The Crisis of Medical Worker Brain Drain: A Comprehensive Case Study of Medical Labor Migration from Ecuador, Jamaica, and the Philippines.” This case study, however, illustrates a very different phenomenon: My results show that medical migration does not itself affect a country negatively. Rather, it is the amount of *quality* professionals that are leaving the country without returning. It is also the amount of money a government is losing in training professionals that are not being absorbed into the public health sector.

For matters of simplicity, let us divide these physicians into hypothetical thirds. Of these graduating doctors, the top third or “the cream of the crop” (as some doctors called them), are leaving by way of scholarship or fellowship to more developed countries in the North, eventually employed by hospitals or universities in the countries where they obtained their degrees. The lower third, who graduate from less quality universities without a specialization, migrate to countries in the South, employed in remote areas where they are paid much better wages (an observation discussed in the results chapter).

The section of physicians left working in Ecuador, therefore, is the middle third of the graduating doctors. I would like to point out before going further that I am making a major generalization with this model-- there are many very qualified physicians working in Ecuador who have stayed for a number of reasons including

an unyielding commitment help their country (12 of whom I interviewed). The point of this simplified model is that medical migration is not a negative phenomenon in and of itself. The lower third of physicians that are leaving Ecuador to go to Chile are not negatively affecting the country because they are often not qualified enough to be hired by Ecuadorian hospitals or clinics. The problem with the current system is that Ecuador is *permanently* losing the top third of their graduating medical class, a third that could very likely contribute to the development of their country's healthcare system in both practice and research.

What is the best solution to this situation? The ideal model for medical migration, one that would contribute to the eventual improvement of health outcomes in the rural areas, is what one respondent from the Office of Immigration in Ecuador termed "circular migration." In this model, top physicians graduating from the country's public and private universities would migrate to more developed countries to receive their specializations and doctorates. They would then return to Ecuador, using the knowledge and technologies gained abroad to positively impact the hospitals and universities within their country. According to this respondent "The impact on the country is very good when the doctors return. These doctors that study abroad are incredible assets because they bring other technologies, other resources." By re-incorporating what professors called "the top medical minds" into the country, Ecuador would be putting itself in a situation in which improvement is possible, and in which the needs of the entire country (including the rural areas) could be met.

To create this kind of model, many factors need to change within both systems mentioned above. One cannot expect, for example, that a highly qualified medical professional is going to leave opportunities with which he or she is presented in a more developed country for a job that does not pay him/her enough to feed his/her family. In order for this model to work, there needs to be major ideological and physical transformations in the public healthcare system itself, the university structure, and in the pattern and attitude of medical migrants themselves.

To summarize, within the public health sector there would need to be an established set of full time positions (morning, afternoon, and night) available with reasonable wages. These positions would be available within hospitals, rural clinics, or a specialized mobile unit of physicians. If doctors were working in the private sector, their patients would need to have public health insurance so that these doctors could provide appropriate medical care. Before graduating, these doctors would need to have the opportunity to pursue research and further training during their rural medical service year so that they could have a better chance of acquiring scholarships to go abroad.

For these positions to be available, there needs to be collaboration between the universities about number of specializations and job opportunities available so that these doctors being reintegrated into the health system are not competing with hundreds of other applicants. There would need to be an accreditation system for the universities so that the doctors who graduate would not only have better opportunities for receiving scholarships, but would also be positive contributions to their country upon return. There would need to be research opportunities available to

doctors who obtain their PhDs abroad so that they could later produce research that would contribute to the development of the country's universities.

Once these conditions were in place within the country, there would need to be a strong effort on the part of migrating physicians to return to Ecuador once they receive their respective degrees. One professor interviewed said:

We need to get our students to get a very clear idea of why they are leaving and what they are going to do when they return to Ecuador. In my case, I studied in England, and every morning when I woke up I went to my lab and I remembered what I had back in Ecuador. I was all the time conscious that the equipment I was using at that university would never get back to Ecuador... My friends would always joke with me because I was always trying to learn how to use the equipment they used 20 years ago because I was sure that equipment I could get in my country. Otherwise, when came back I would be a very fashionable guy, 21st century, but what could I do for my people in Ecuador? Nothing.

According to another professor, the doctors leaving the country in pursuit of advanced degrees will only return to their country if they know that they are valued and that the fate of Ecuador's healthcare system lies on their shoulders. It is therefore the responsibility of the state and the universities to instill within medical students this sense of obligation to their country. One professor said he always tells his graduating students, "If I leave to the United State permanently, sure, I will get a better salary, maybe work in a more fashionable hospital... But part of our life, to be happy, is to fight-- to change the system and to try to establish a new pattern of thinking."

Conclusion

In conclusion, there is no one system or policy that is responsible for poor outcomes in the rural areas of Ecuador. One cannot simply point to medical

migration for the answer as to why some mothers die of childbirth complications while the rest live. Instead, it is a combination of factors by themselves and in interaction with one another that are responsible for the current discrepancies that exist in the country.

From a political economic standpoint, macro-structural forces like globalization and neoliberal politics and policies in conjunction with local constructions of power between socio-economic classes in rural and urban settings shape current practices. Within the health sector itself, low salaries for doctors, a four hour-a-day work limit, a lack of safety net (or insurance), and an absence of unions to hold doctors to particular standard all discourage doctors from choosing to work in the rural areas are all preventing doctors from reaching the rural areas. Within the education system, a lack of medical universities in rural areas, a absence of entrance and exist standards for medical students, and a lack of coordination between the medical universities and the state are all major contributing factors to the failure of the government's rural year policy and the absence of service provision in the rural areas.

To improve the situation, a multifaceted, multi-level approach must be employed which takes in consideration social, political, and economic influences, makes the most of exiting budget restrictions, and builds on the strengths of Ecuador's health and education systems. Some examples of these recommendations include providing incentives for new doctors to work in rural areas, establishing specific entrance and exit criteria for medical institutions, and task shifting within

remote communities. Only with this kind of approach will change in Ecuador be possible.

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