Maps of Rural Health:
An Ethnography of Access to Care in Peru

by

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I hereby declare that I am the sole author of this thesis.

Alyse Wheelock

For my parents

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Introduction: Rural Health Landscapes

I first traveled to Nuñoa, Peru by one of the small *combi* buses that traverse a winding dirt road off a point in the Pan-American Highway five hours from Cusco. As I looked around at the other travelers packed tightly into the vehicle, I was fascinated by the faces of an elderly couple who sat side by side on one of the seats – their skin was weathered, stretched to the sides with deep smile creases on the outsides of their eyes. I was reminded of this moment weeks later when a woman stopped me one day on the street, greeted me, and clasped my hands. She looked down and commented how cold they were and then laughed aloud, saying that in my time in Nuñoa, my hands would turn from white to black, like hers.

By the afternoon sunlight that splayed sideways when I first arrived, the streets seemed tranquil, dusty, and worn. Looking up, however, mountains rose majestically on all sides. The landscape is treeless, and carries with it the feeling of being quite close to the expansive sky, which is always strikingly blue during the cold season. In fact, at 13,300 feet above sea level, standing there for the first time I could physically sense my vertical displacement. As the sun set beyond the mountain ridges, the sparkling stars testified to the freezing clarity of the air.

Nuñoa's beautiful landscape is harsh, and I soon learned why the woman warned me of my skin "blackening." Environmental and ecological challenges of living in the *altiplano* include hypobaric hypoxia (low-pressure low-oxygen conditions due to the extreme altitude), steep terrain, strong radiation from the sun, and temperatures dropping below freezing, particularly at night (Koss-Chiono *et. al*. eds. 2003:6). Such

challenges manifest themselves in many ways with respect to Nuñoans' health, from the physical implications of stressors to the difficulty posed by travel in order to reach health services. Over the next two months, from early June to early August 2010, my research would seek to illuminate the lived realities involved in and aggravated by these health challenges.

Nuñoa lies in the Province of Melgar, approximately equidistant between the city of Cusco and Lake Titicaca. According to statistics produced by the government of Melgar, the district comprised a population of 13,897 in the year 2005 (Ministerio de Transportes y Comunicaciones 2006). At that time, 79% of the population was classified as "rural," with the remaining 21% as "urban." Forty-nine percent of the district's population is considered to be living in "absolute poverty" (Ministerio de Transportes y Comunicaciones 2006). Nuñoa's town center, often referred to as *la población*, houses the *municipio* (town hall), the office of SENASA (a state agrarian health program), the only high schools in the district, and the Ministry of Health's *Centro de Salud* (Health Center). The land outside of town is referred to as *el campo*, and encompasses many different *comunidades campesinas*, *unidades agropecuarias*, and *cooperativas agrarias*. The collectives, steeped in history of land reforms during the 20th century, are divided into communal and parcelized communities, reflecting collective and private forms of land distribution.

I stayed in Nuñoa at the height of the cold, dry season. At the end of October, I returned for a week of follow-up research. I first learned about this site from my uncle, Jim Dutt, who conducted research on migration in Nuñoa in 1968. My uncle introduced me to Professor Brooke Thomas who has worked in the area since the 1960s, and who

co-founded the Nuñoa Project, an NGO that works in the district. Ultimately, I made my first ascent to Nuñoa along with two other American students. Henry, a graduate student studying biocultural anthropology, was examining the social networks of food, medical advice, and labor sharing in several *comunidades campesinas*. Anna, another undergraduate studying art and anthropology, had traveled to assist Henry and learn about women's traditions of weaving in Nuñoa. We were joined shortly afterword by Meagan, an American geography student investigating issues of water and land resource scarcity in the region. Her project involved satellite mapping of resources, as well as collaborations with community members to draw maps and write chronologies of resource shortages. During my stay, I lived in town with my three friends and colleagues. We rented one large draughty room from a family of two teachers, Sr. and Sra. Cadena.

In fact, there is a long legacy of research and a positive relationship between the district and anthropological researchers, who have studied a broad range of topics, starting with projects focused on the physiological effects of high altitude on the human body (Baker and Little, 1976). The district serves as a unique model to understand rural-urban disparities and the poor-rich divide that are not only found in Peru, but also in many developed and developing countries. Such disparities are particularly evident in health outcomes. For example, in Peru health indicators such as average life span, malnutrition rates, and maternal mortality show a far graver situation in Peru's rural regions than its urban areas. In 1996, life expectancy was 76 years in urban areas, as opposed to 60 years in rural regions (Iwami and Petchey 2002). Chronic malnutrition in children in the rural mountains of Peru is estimated to be 37.9% compared to 10.1% in Lima's metropolitan area (PAHO 2010). The Pan-American Health Organization

(PAHO) reports that urban areas have a maternal mortality rate of 200.0 per 100,000 live births, whereas in rural areas this rate is more than two times greater, at 448.0 per 100,000 (PAHO 2010).

The stark contrast between Peru's rural and urban health indicators speaks to the challenge of rural health delivery across many contexts in both developed and developing nations. Rural health care requires a bi-directional transfer of people and resources: health care systems must move materials and experts from cities and urban centers, and provide patients with the means to access these resources (Ricketts and Randolph 2008). Similarly, retaining patients requires a balance between providing a critical volume of services and knowing when to refer individuals to more centrally located specialists (Berry and Seavey 1994:35). Furthermore, rural residents often hold less political clout than those residing in large cities, a situation aggravated by urban-skewed distributions of monetary resources (Ugalde and Homedes 2004). These urban-rural economic disparities are particularly deep in Peru, where "the wealthiest quintile of rural residents have similar incomes to the poorest quintile of Lima residents" (Trivelli 2006:202). Finally, all of this is compounded in developing countries by the out-migration of physicians from poor, rural areas to rich countries for better economic, research, and post-graduate education opportunities (Bundred and Levitt 2000:245).

In response to some of these challenges, rural health care systems typically focus on general practice and specialize less than their urban counterparts (Miller and Zuckerman 1991). In general, the creation of rural health systems that provide little in the way of specialized services has been sanctioned as politically feasible. Since 1978, when the World Health Organization [WHO] conceived its plans for "Health for All by 2000,"

health care policy in developing nations and rural regions has focused predominantly on primary care (Declaration of Alma-Ata 1978). Meanwhile, many rural regions pose a great need and area of potential for the development of locally funded secondary hospitals (Gaus 2009). In moving towards global health goals in rural care, an interdisciplinary focus on these issues of care delivery is critical.

Modes of Evidence and Meaning

A host of different disciplines have engaged the challenges of rural health and health care using different modes of evidence to parse out causes of urban-rural disparities and to offer solutions. Economists dissect rural health care issues such as fixed-overhead; per-patient revenue; financially vulnerable hospitals; and the diseconomies of scale involved in rural health care (cases where larger firms may not provide smaller per capita fees for users) (Hart et al. 2005). Much economic debate over global health care delivery in impoverished rural areas involves the issue of user fees as beneficial or detrimental tools for improving quality and use of services (Whitehead et al. 2004). Other health economists examine connections between health status, wealth, and happiness in rural areas, such as Banerjee et al.'s work in rural Udaipur (Banerjee, et al. 2004). Health geographers seek to map and analyze correlations between determinants such as location, population density, distance to services, and outcomes such as use of health facilities, hospitalizations, spatial patterns of disease, and mortality (Girt 1973; Stock 1983; Arcury, et al. 2005).

The multiple disciplines that analyze rural health and health care seem to form a consensus on several issues: that rurality is an ambiguous concept not easily defined by one index; rural contexts are heterogeneous; and rural health and health care are complex

(Hart et al. 2005). Several disciplines may categorize spaces and landscapes as rural depending on factors relating to population density, basis of economic activity, extent of infrastructure, or commuting data (Philo et al 2003; Hart et al. 2005). Economic studies have investigated complex phenomena of rural health delivery such as the incongruence between quality of health care and happiness self-rating in rural India (Banerjee, et al. 2004). Geographic studies have produced complex findings in the determinants of health, for example that an exponential decline correlates distance to health care utilization in rural Nigeria (Stock 1983), or that links between distance and utilization differ for chronic and acute care (Arcury 2005).

Empirical scientists are not the only scholars invested in what comprises and characterizes rural space. Raymond Williams' (1973) analysis of literary myths of a rural life ideal offers another view of how the local rural context may resist classification. As Williams writes in his work *The Country and the City*, "This country life then has many meanings: in feeling and activity; in region and in time" (4). Whereas social scientists studying rural health understand rurality through indices and determinants, Williams seeks to understand meaning in relation to space and time. Williams takes texts from the pastoral to Dickens' novels as his form of evidence-making. His analysis extends backwards chronologically through many different texts, in search of the origin of a trend in literature mourning the loss of an unblemished countryside. Importantly, Williams' impetus for this opus was the incongruity that he saw in his own lived experiences growing up in the English countryside and the ideas of rurality promulgated by intellectuals who studied with him at Cambridge.

Like Williams, anthropologists who study rural contexts in Peru bring to the fore the meanings inscribed in rural and urban boundaries, as well as the ambiguities, subversions, and erasures of these divides. In her piece "Women Are More Indian" Marisol de la Cadena (1995), relates rurality and ethnic background with gendered meaning based on her work within a community outside of Cusco, Peru. She identifies these categories as fluid: *mestizo* vs. indigenous identities are relational to other individuals, and increases in migration after the Agrarian reform of the late 1960's have resulted in "the collapse of urban/ rural boundaries" (337). As the boundary between rural and urban has shifted, so has the role of women as property owners outside of large cities; in the community where De la Cadena worked, women commuted to Cusco to sell goods, but transformed into primary property owners in their rural communities. In a later piece, De la Cadena (2000) analyzes the evolution of indigenous intellectuals in Cusco, who seek to separate the notion of indigenous identity as exclusively compatible with rural culture. María Elena García (2005), in her book on indigenous identities and activism, builds on De la Cadena's contribution by illuminating the ways in which rural indigenous parents perform and negotiate identities through their resistance to certain education programs set up by the state, NGO's, and other activists. Deborah Poole (1988) also analyzes rural-urban meanings in her work on cattle rustlers in a community that she likens to the Wild West of southern Peru. She describes a perceived "cultural" frontier and an "alternative geography" that determine authority and justice in this remote community.

A visit to Nuñoa calls forth other notions of what constitutes a rural space. One afternoon, my friend Carlos articulated his own distinction as we were walking through

the streets of Nuñoa's center. Throughout his schooling in Nuñoa and Cusco, Carlos trained to become a priest, but later abandoned this career to run a former hacienda, Toldopampa, that raises alpaca, sheep, and cows in Nuñoa. I met Carlos through Henry, and near the end of my stay, the three of us spent several days working on Toldopampa. Carlos began to talk about what distinguishes a big city and a rural town. It was a topic he had spoken about before, and clearly relished. "What is the difference?"[1] he asked me. I offered my response, that it seemed to me that life in a big city is more isolated. His own answer to the question was this: "In a big city, everything is sold and purchased… in a small town, I help you and you help me."[2] He said that in this way, Nuñoa is a small town.

Many of Nuñoa's rural characteristics, including Carlos's insight, are essential for understanding the rural health system that operates within the district, and the ways in which people navigate this system. Certain demographic and geographic characteristics define Nuñoa as a distinctly rural region. A document produced by the province of Melgar notes that Nuñoa is the district with the lowest population density, with an average of 6.32 people per square kilometer (mostly concentrated in the town).[3]

The current land distribution and population density of Nuñoa reflects a deep history of land disputes and reform throughout the twentieth century that has influenced its current composition of town and rural land. Beginning in 1969, agrarian reforms throughout the southern Andes disassembled *haciendas* in the name of providing more of

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[1] "Cual es la diferencia?"
[2] "En una ciudad grande, todo se vende y todo se compra… en un pueblo pequeño, yo te ayudo y tu me ayudes."
[3] "Del mismo modo el distrito con menor densidad poblacional es Nuñoa con 6.32 Hab./Km^2" (Ministerio de Transportes y Comunicaciones 2006)

the population fair access to the land (Luerssen, 1994; Leatherman, Human Organization, 1994). In Nuñoa, these reforms resulted in a shift from rates of 61% ownership by 2% of the population to 60% land ownership by three cooperatives (Luerssen 1994). Despite the redistribution of land, the newly instituted cooperatives failed to offer sufficient employment opportunities to the rural population in Nuñoa. With the cooperatives employing only 25% of the rural population in Nuñoa, many people abandoned life in *el campo* for the town (Luerssen 1994). As a result, Nuñoa's town doubled in size from the mid-1960s to early 80's, while the district's population stayed stable (Leatherman 1994). On a micro scale, this shift relates to migration from the district to larger cities, and from Peru to other countries. Like many places across the world, out-migration results in rural communities becoming increasingly composed of greater numbers of poor and elderly people.

Means of travel throughout the district are limited. Public transportation between town and the communities in *el campo* occurs only on Sundays. During these market days, hulking buses can be heard arriving in the plaza in the morning and departing in the afternoon. For the remainder of the week, private pick-up trucks and motorcycles only occasionally traverse the dirt roads that branch off from the town; the owners of the trucks often will charge a nominal fee to pick up people traveling by foot. Public transportation to districts outside of Nuñoa essentially occurs exclusively through the transportation hub of Ayaviri, the capital of the province Melgar. Ayaviri lies between Cusco and Puno on the Pan-American Highway, which extends from the southern tip of South America to North America. To access Ayaviri, one boards a *combi* bus, a narrow mini-van vehicle, and takes a dusty hour and a half ride downhill to this larger town. The

combis only loosely rely on a schedule, if at all. The driver will not leave until enough passengers are aboard to make a profit. (I once counted twenty passengers on one such vehicle, which appeared to be made for ten or twelve.)

A livelihood based on camelids determines the rhythm of daily life in most parts of Nuñoa. Alpacas, llamas, sheep, and cows provide meat, milk products, and fibers to sell. Herding animals, especially alpacas, requires spending large amounts of time dispersed across great swaths of the hillsides in the district, and traveling by foot to areas with sufficient grazing.[4] Herders also often must check on their animals during the night, to ensure that predators such as foxes and condors do not sustain attacks. Alpacas are particularly vulnerable to such attacks. Minding the animals obligates many herders to stay in *el campo* to care for their animals, unless they can find someone else to adopt this responsibility temporarily. Such commitments drastically hinder the ability to travel and define a rural life in Nuñoa.

[4] "La cantidad de suelos de capacidad de uso mayor VII, que son tierras para pastoreo extensivo a base de pastos naturales, lo poseen los distritos de Nuñoa, Ayaviri, Santa Rosa y Antauta, que son distritos en donde la explotación de camélidos sudamericanos y ovinos es en mayor proporción, lo que genera la obtención de productos derivados de estas crianzas como son la Fibra alpaca y Lana de ovino, que son comercializados en las ferias y plazas semanales." (Ministerio de Transportes y Comunicaciones
2006:25)

A herd of Diego Tapara's alpaca grazing on the slopes of the community. (Photo credit: Meagan Mazzarino)

In Nuñoa, social interactions are close-knit and often overlapping, and many individuals seem to be closely related by kinship ties. In the rural part of the district, semblances of the old *ayni* system of reciprocal help with labor still live on, even in the face of more modern means of exchange of goods through markets and more widespread travel. Furthermore, several of the communities in *el campo* still operate communally, with the harvesting of collective crops and herding of communal animals. These aspects of Nuñoa speak to Carlos's distinction of the small town community. Brooke once described Nuñoa as a "Tangled social landscape, which is filled with intrigue, alliances, and landmines." Gaining trust within this social environment requires careful commitment, as well as avoidance of violations to these alliances. As a result, both positive and negative reputations travel widely along these networks.

Health care in Nuñoa depends on these realities of a rural life, as well as the ways in which distinctions between rural and urban life in the region have been erased. The multiple indices and meanings of rurality in Nuñoa call for a methodology that can conceive of this diversity. Anthropology grants methodological adaptability and a local eye that are crucial in the study of rural health. In this thesis, I undertake a different methodology from those traditionally represented in the study of global health in rural areas. For example, through my ethnographic content in this thesis, I explore issues such as absenteeism, but also elaborate how the paths of individuals are subtended when *puestos* are left unstaffed. I document the use of different herbs in the district, but also examine how herbs are used in conjunction with western remedies from the *botica* pharmacies. I provide data regarding the distances people travel for care, but also give stories about these journeys of individuals in search of health services. Ethnography brings on-the-ground realities to the fore in the study of health systems. Moreover, this methodology allows me to explore rural health care through the multiple definitions and meanings of rurality in Nuñoa.

This thesis is based on my fieldwork, including conversations, recorded interviews, health access surveys, and participant observation. On Sundays, my research took me blocks away from the Cadena's house to the *Centro de Salud*, the largest Ministry of Health facility in the district. Sunday, market day, is the busiest day of the week in *el Centro* because the town is inundated with people who arrive by bus from *el campo* at dawn. Every other day of the week, there is no public transportation from *el campo*, and the *Centro* is relatively quiet, often even left unstaffed. Sunday mornings in the *Centro*, I observed clinic appointments and spoke to people traveling from *el campo*

as they waited to be seen by one of the doctors. In town, I also worked closely with an herbalist named Teofila. I interviewed two owners of *boticas*, small pharmacies that sell a wide range of Western remedies and pharmaceuticals. At other times, my research and other opportunities allowed me to travel to several different regions of the district. I visited four different communities in *el campo* – a communal community called Diego Tapara, a parcelized community called Caylloma, a former hacienda called Toldopampa that now functions as a ranch, and a *cooperativa* called Sacco.[5]

My research illuminates aspects of Nuñoa's institutional face of health care as well as other nodes of care accessed by individuals within, between, and outside of institutional settings. This thesis organizes my findings into two main parts relating to the institutional space and the trajectories of individuals who seek care outside of that space. Part 1 explores different imaginations of health needs and specialized care through an examination of how Ministry of Health services are organized and received on the ground. Part 2 elaborates how the vectors of doctors and patients construct Nuñoa's health landscape, both inside and outside the clinic space. This paper claims that mapping densities of humans and resources is insufficient in fully representing access to health care in contexts like Nuñoa. Charting trajectories of individuals inside and outside institutions is also critical for understanding the experiences that lead individuals to different forms of health care.

A Passage into the Field

I conclude this opening by providing an introduction into the field, one of the first entry points that led Anna, Meagan, Henry, and me to collaborate with one of the

[5] The names of these communities have been changed, unless requested otherwise.

comunidades campesinas. This encounter, a formal meeting with the community Diego Tapara for permission to interview members, reveals ways in which the community positions itself vis-à-vis outside research and the state. In making us the subject of inquiry, the opinions and concerns voiced in this meeting also challenged certain hierarchies implicit in research. Finally, this encounter highlights certain histories that continue to shape the community's perspective.

We were invited to meet with Diego Tapara in early July. Sra. Gimena, a social worker from Nuñoa, accompanied us at 9:30 in the morning in a *combi* bus that we had rented for the day. On the way out of town, Sra. Gimena's sister joined the vehicle in order to "aprovechar la movilidad" (take advantage of the mobility) and hopped in with a spontaneity that surprised me. She was accompanied by another *campesina* who was also traveling out of town. We arrived after about 20 minutes of driving down the bumpy dirt road, passing only two or three other people walking or bicycling on our way.

Diego Tapara is a communal community of 22 families founded in the 1980s. The closest building to Nuñoa's *careterra* (a dirt road extending north) is the school building. Down the road is the *masa*, a large plot used to grow communal potatoes of many different varieties. Past the *masa* is an adobe outhouse, and on the right, a fenced-in area where tiny black *chuño* potatoes were drying in the sun on a bed of tough *ica* grass. On the left, close to the foot of some hills, lie a group of connected buildings that are all also communal. When we arrived, women were delivering large pots of water to the kitchen for a meal to be served after the meeting (later on, smoke was wafting through its thatched roof). A small *tienda* that Sra. Gimena said sells sodas, crackers, and other non-perishables, connected to the kitchen. Another building was used for storing goods. To

the left, was the meeting room that also functions as the schoolhouse. Finally, an adobe structure with a walled courtyard provided space for working with the animals.

Overlooking Diego Tapara's communal buildings and masa *on an early morning in July*.

When we first parked the *combi* in Diego Tapara, several men and women were guiding the cows to the walled area in order to give them vaccines. A representative from SENASA (a national agrarian health organization) was also helping with the vaccines. The men and women guided the first group of about thirty-five animals in with ropes while vocalizing different sounds *chh-chh-ch-ch tika tika*. Once the first group of cows had exited through the doors with a clamor, another set was allowed in, and then a third. Meanwhile, a group of *campesina* women wearing traditional hats and skirts gathered, sitting and chatting along the wall. We joined them. Meagan took the latitude and longitude coordinates with her GPS and several men gathered around looking on as she

maneuvered the tiny machine that could provide exacting measurements of our geographical location.

Once all the animals were vaccinated, one of the men yelled "Pasen compañeros!" (Enter, friends!) and everyone gathered inside the school room. We were invited to sit in four child-size seats against one of the walls. Although several women had helped prepare beforehand, once the meeting began, only one woman sat in the circle amidst the fifteen community members in attendance. Diego Tapara has recently had a female president, and at least one of its founding members was female. However, the under-representation of women in the meeting context reveals a continued tradition of male-led decision-making among indigenous communities in the highlands. Marisol de la Cadena (1995) identifies women as adopting a more indigenous identity in relation to men as more men travel to work in urban markets. However, even here, in a much more remote community than the one that de la Cadena studied, women did not appear the most active participants in these important collective meetings.

First, the president formally presented us to the members of the community. Then Sra. Gimena introduced us, explaining our projects in Quechua, the native language of most of Diego Tapara's families. After these two presentations, each person stood consecutively to give their opinion of our projects, proceeding around the room counterclockwise. The same formal greeting, addressing us as "Señoritas's visitantes," opened each person's commentary. Many of the men spoke in Quechua. The circular layout and the inclusion of every present stakeholder's voice lent the meeting a sense of communal and egalitarian decision-making. Furthermore, the involvement of a significant number of community stakeholders presented our work as a matter that

concerned the entire community. Instead of giving the autonomy of the choice to be interviewed to the individual, the community meeting shifted that decision to the collective, while maintaining the right of the individual to opt out of a decision to allow our work in the community.

At the start, the community members' commentaries on our project were mainly questions rather than doubts. The community members were interested in having their water tested for harmful heavy metals from a mine that had been built and subsequently abandoned on their property a couple years ago by a Peruvian company. One of the first questions raised by the participants was the water sample that they hoped Meagan's project would include: would they ever get the results of the analysis and how would the results be delivered? Sra. Gimena and Meagan explained that the water sampling would not be part of the study, but rather, a service that Meagan could offer, and that the analysis results could be returned via email. Following this question, another man posed the question of which institutions we represented and Sra. Gimena responded with the names of our universities. In questioning our institutional associations, this man seemed to be asking what type of "other" we represented.

The tone of the meeting changed when an elderly man stood and spoke about fears elicited by the many different offenses that had been committed against Diego Tapara by outsiders in the past. He said that people had come in to "sacar sangre" (remove blood), and the community had received nothing in return. Then he began talking about vaccinations. In an elevated voice, he rattled off a long list of countries, including the United States, Canada, France, Argentina, and Chile, where he said the children did not receive vaccinations. In contrast, when people came in to Diego Tapara

to give vaccinations, the children would die. Once he had come to a conclusion, Sra. Gimena and Meagan responded again. They said that no blood would be taken and then Meagan explained the relations with Padre Pablo that had brought us to this region. With the mention of Padre Pablo, a well-respected American priest who had worked in Nuñoa for about fifteen years, the concerned whispers and anxious expressions in the room eased. It appeared that this connection had clarified the type of outsider we represented.

The fear that the community member communicated about the potential for researchers to do harm by taking blood may stem from past medical and research experiences or stories from the region. Baker (1976) discusses the unanticipated aversion to blood sampling that he encountered in Nuñoa starting research in the early 1960s: "The population generally believed that the blood so removed was not replaced and that the procedure was, therefore, detrimental to their health" (13). The speaker's comments also illuminated how he understands and positions science in relation to the rural community: a force that is foreign, penetrating, selfish, and above all, harmful. This position also relates to a view of a threatening rather than protective state.

Fernando, the son of the current president Don Jaime, stood and spoke next. Fernando voiced his concerns about the integrity of our projects based on our backgrounds as American citizens. Speaking about Meagan's project on the implications of water shortages, Fernando questioned our position to carry out research, coming from the United States, which he defined as one of the most "contaminating" nations in the world. Then he asked what the final end of the research was to be. Meagan addressed the question of our background as citizens of a very contaminating nation, explaining our good intentions and research goals. Sra. Gimena explained that US universities require a

thesis, just as a thesis is necessary to graduate from Peruvian universities, and that this work would inform the thesis.

The discipline of anthropology is inseparable from its methodology of ethnography, which may be practiced in many forms. Within this methodology, however, roles may be subverted. James Clifford opens his book The Predicament of Culture with a poem written by a young doctor, whom he identifies as an ethnographer. "So are many of the people social scientists have called 'native informants,'" Clifford says, and elaborates that ethnography is "perpetually displaced" between increasingly ambiguous experiences (9). In this group conversation, the four of us became the subject of questioning and the community stakeholders of Diego Tapara became ethnographers, trying to unpack the motives, accountabilities, and institutional contexts that we represented.

In the end, the group had come to the decision that they would allow us to work in their community, but the dates would have to be decided upon by the president. After the meeting came to a close, we were invited to eat a *caldo* that they had prepared, with black *chuños*, a large piece of sheep meat, white potatoes, carrots, and broth. We sat in the same seats that we had occupied before and some other men (including the president Don Jaime) came in to eat their *caldo* with us. By the time we had finished eating and were ready to go, the president had determined two days in which we were given permission to begin our interviews.

Within the bright teal walls of the schoolhouse, multiple milieus met. On the one hand, the community members belonged to a long tradition of communal living, far on the periphery of society, pursuing rural livelihoods. Their skepticism and critical

questions spoke to a certain cosmopolitan understanding of their power in the face of research, a power that derived from the strength of their community unit and its ability to restrict access to outsiders. In this meeting, our own trajectories as researchers were in the hands of the community.

Sitting in the schoolhouse of Diego Tapara on a later date with Sra. Gimena and several members of the community.

Part One: Health Care Institutions

Peru's Ministry of Health exemplifies one institutional approach to delivering health services across a vast and diverse country containing large rural regions. Article nine of the Peruvian Constitution (1993) calls for equitable and universal health coverage: "The State determines national health policy. The Executive Branch… is responsible for designing and directing it in a pluralistic, decentralized manner in order to guarantee equal access to health services for all."[6] In its current configuration, the Ministry of Health conceives of a decentralized institution to satisfy the health needs at the peripheries of its governance, including large rural populations. Moreover, the Ministry seeks to lower economic barriers and incorporate poor people into its programs through subsidized health insurance programs, cash transfer programs, and wider distribution of health care sites in poor regions.

Yet, on the ground in Nuñoa, different realities and meanings of the extended reach of the institution surface. Individuals and institutions continuously renegotiate the selective and primary health care aspects of Ministry of Health services in the district, shaping how medical services are provided and received. A local perspective reveals how the state diverges from individuals in imagining the needs of the rural body.

History and Context of Ministry of Health Services

The Ministry of Health's system in Nuñoa is the extension of a model of participatory health care administration that has characterized health care reform

[6] Articulo 9: "El Estado determina la política nacional de salud. El Poder Ejecutivo norma y supervisa su aplicación. Es responsable de diseñarla y conducirla en forma plural y descentralizadora para facilitar a todos el acceso equitativo a los servicios de salud."

throughout Peru. The current "decentralized" organization of primary health care administration has evolved from a political legacy stretching back to the 1960s and 1970s. In the 1990s during the second Fujimori administration, primary health care underwent changes towards a more participatory model of health care administration in the establishment of Local Health Administration Committees [*Comités Locales de Administración de Salud* or CLAS] (Bowyer 2004). These policy changes occurred within a context of neo-liberal reforms aimed at increasing the efficiency of the system in the aftermath of a period of extreme political and economic instability.

Several critical points that occurred on the global and national scene led to the creation of CLAS in 1994. Cueto (2004) charts a transition over the course of the late 1960s and early 1970s, where actors on the global scene began to criticize previously lauded vertical programs in favor of more holistic and participatory health care systems. Cueto posits that the term "primary health care" was probably first used in 1970 by a medical missionary organization that later collaborated with the World Health Organization (WHO). Throughout the 1960s and 1970s, institutions such as the WHO and The United Nations Children's Fund (UNICEF) realigned their missions to emphasize basic health services and community-based measures for improving health.

In 1978, the WHO made primary health care the official health policy of its member states (Rosato et al. 2008). As part of the Alma-Ata Declaration, participation in health care was given emphasis under section IV: "The people have the right and duty to participate individually and collectively in the planning and implementation of their health care." Furthermore, in section VI, the declaration defines primary health care as:

Essential health care based on practical, scientifically sound and socially acceptable

> methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. [Declaration of Alma-Ata 1978]

Here, the Alma-Ata Declaration redefines health care as a responsibility of citizens rather than simply a common good to be delivered by the state. Furthermore, it reproduces ambiguity about the scientific basis of care in directing interventions to be "socially acceptable." This provision implies a context-dependent baseline defining necessary resources of health care.

In the wake of the Alma-Ata agreement, the primary health conception of health care received criticism for its idealism and infeasibility. In turn, critics of the alternative selective health care argued that a selective perspective on health was no better than a "Band-aid" that would fail to address the root causes of health problems (Cueto 2004). A new hybrid movement for selective primary health care began. This movement focused on discrete cost-effective interventions to address the health problems of low-resource countries, including a strategy of growth monitoring, oral rehydration techniques, breast-feeding, and immunization (abbreviated as GOBI). The hybrid vision allayed the concerns of many Latin American doctors who, Cueto writes, "perceived primary health care as anti-intellectual, promoting pragmatic nonscientific solutions and demanding too many self-sacrifices (few would consider moving to the rural areas or shantytowns)" (1871). These historical critiques still resonate across Nuñoa, where doctors and nurses employed by the Ministry of Health provide a hybrid range of care from selective mobile clinics to primary care for children insured in the *Centro*.

Despite the active debates extending from the 1960s through the 1980s, Peru did not take action towards improving the state of any health care until much later than the signing of the formative Alma-Ata agreement. During roughly the same period as international actors reconceived of primary health care in the USSR, political turmoil in *campesino* communities of the Peruvian Andes erupted into a period of widespread terrorism instigated by the revolutionary communist movement *Sendero Luminoso* (Shining Path) (Starn 1995). This sequence of events weakened, and in some regions destroyed, the country's infrastructure from the level of local governments to the national government. By the end of the 1980s, "80 districts and four provinces had no municipal authorities and more than 70% of public works projects in the Andean highlands had been abandoned because of the assassination of 95 government engineers" (Bowyer 2004:132). Nuñoa, distinguished for its quality alpacas, was targeted by the *Sendero Luminoso* and suffered the casualties of its mayor as well as numerous citizens of the district (Leatherman and Thomas 2009).

During the decade of the 1980s, two weak administrations (those of Belaunde and Alan Garcia) floundered in the face of the rising *Sendero* movement and the economic situation of hyperinflation, which stifled any potential improvements in health care. In 1990, Fujimori entered office and brought with him a hard-line approach to countering the on-going terrorism and economic instability. Fujimori's policy mirrored neoliberal reforms enacted across Latin America after the economic crisis of the 1980s. These reforms were characterized by spending reductions in arenas such as education, welfare, and health services, and a common strategy of privatization and decentralization (Gold 2008:96). In 1991, Fujimori introduced neoliberal reforms to the health care system by

charging user fees (Gold 2008). Throughout these transfers of responsibility, the state remained in charge of health care administration for low-income groups (Bowyer 2004:134).

Fujimori's policies led to the end of the *Sendero Luminoso* rule of terrorism, the stabilization of the economic situation, and the possibility to implement more expansive health care programs. 1994 marked the inception of "Salud Básica Para Todos" (Basic Health for All), a program that sought to improve basic health services for the poor living in rural and urban areas. The program was conceived of using the World Bank mindset of primary health care as cost-effective for increasing "DALY's," or Disability-adjusted life years (Ewig 2006:432). Part of the strategy of this program was to increase numbers of medical workers employed in rural areas through a higher-paying temporary contract scheme (Pérez and Lenz 2006:125).

Between 1993 and 1994, the first *Comités Locales de Administración de Salud* (CLAS) were set up to operate parallel to the pre-existing health system (Bowyer 2004). This system established the committees as private, not-for-profit entities still operating under state control, as the government paid the staff and granted three-year contracts to the clinics (Gold 2008). Local administration through elected community members was thought to have the potential for empowerment, quality improvements, and more equitable coverage (Gold 2008). Bowyer (2004) argues that although CLAS reconceived rural primary health care as a symbol of a far-reaching government good, in reality, there was little on-the-ground recognition whatsoever of the program amongst people living in the rural Andes. Bowyer's study of 20 communities (2004) found that 80.8% of those interviewed were unaware that the community and the state administered CLAS jointly,

91.3% did not know who the representatives were, and 84.7% had no recognition of the existence of CLAS and the elections of it representatives. However, more recently, Ewig (2010) found the CLAS system did have a positive effect: CLAS clinics were more likely to be well-received and culturally sensitive than non-CLAS clinics in rural survey sites.

Despite the decades separating the health care debate surrounding the Alma-Ata Declaration and the implementation of extensive health care programs in Peru, the re-imagination of health care in the CLAS system shows how discourse inspired by the comprehensive primary and selective health care debate has reemerged in the political context of Peru. The political vision of the CLAS system echoes Alma-Ata's call for the "full participation" of the people in their primary health care (Declaration of Alma-Ata 1978). In theory, CLAS represents a system in which the health administration is made of and for the people. On the national level, this vision conceives of a health care that involves the vulnerable and often excluded part of the country comprised of rural indigenous populations. Furthermore, in a country now composed of 29% rural dwellers (World Bank 2010), decentralized health care seems to make political sense.

However, the details beyond this vision of health care reveal a different reality mediated by the translations that transfer this vision into on-the-ground encounters of individuals, communities, and health care professionals. David Tejada de Rivero, a minister of health from Peru who worked closely on the Alma-Ata as deputy director-general of the WHO, has noted the Spanish translation of care as *atención* rather than *cuidado* as a sign of the selective health care aspects within re-interpretations of the Alma-Ata declaration in variable contexts (2003). *Atención*, he argues, "is vertical, asymmetrical and never participatory in a social sense. *El cuidado* is intersectorial, while

la atención is the work of a single sector, an institution, isolated programs or specific services" (Tejada de Rivero 2003:3).

Beyond the literal translations between the Alma-Ata vision and health care reform in Peru lie other political, economic, and cultural translations that define lived realities of health care in the country. The ambiguous notion of a hybrid selective and primary health care leads to many questions. If primary health care is "essential health care," then who defines what is essential and what is inessential? If it is to incorporate "scientifically sound and socially acceptable methods and technology," then who possesses the power and responsibility to mediate between these two ideas? How do people engage the system when institutionally sanctioned participation fails?

Institutional Entry Points

In Nuñoa, several entry points lead to services provided by the Ministry of Health. The "formal" health care system comprises one *Centro* (the main Health Center), six rural *puestos de salud* (health outposts) in communities scattered throughout the district, and monthly mobile clinics (termed *actividades de salud*) in six different *communidades campesinas* (rural communities). Through these facilities, the national health system extends far down dirt roads that stretch deep into the rural hillsides of the district, where the communities lack electricity and running water.

The town of Nuñoa contains the *Centro de Salud*, which is staffed by three doctors, several medical technicians and nurses, and a dentist. It is the only health facility in the district with doctors. The health outposts are generally staffed by nurses and are intended to provide 24-hour basic health services. These health posts are located in communities without electricity and are powered by outfits of solar panels and

generators. One unreliable ambulance services the entire district. Patients' experiences with the health system are often determined by which of these entry points leads to his or her encounter.

Rosa, a nurse who works in el Centro*, directs the ambulance over a rock barrier on its way to a rural community for one of the mobile clinic rounds. The medical team speculated that the bed of rocks had been placed by people protesting gas price hikes in the district.*

In Nuñoa, these entry points also depend on the health insurance system, which has a role in channeling patients' paths in seeking care. Nuñoa is considered to be a district of "extreme poverty" by the government, "defined as the inability to cover the cost of a market basket consisting only of food that meets minimum nutritional requirements" (PAHO 2010) and as such, all of its citizens are entitled to *Seguro Integral de Salud* (Integral Health Insurance, or SIS). The Peruvian government instituted SIS in 2001 to reduce economic barriers to health care for the poor (Cotlear 2006:30). This insurance program is different from others in Peru because 67% goes to the poor (Cotlear 2006:30) and as of 2008, 66.2% of its affiliates were rural residents (Ewig 2010:191). SIS has evolved over recent years to provide "universal coverage" for a cost of 2 soles for two years in Nuñoa. However, the SIS system requires its users to be insured in either the *Centro* or in one of the *puestos de salud*. In order to seek the services of one of the other

health facilities, the system demands a reference, which in Nuñoa can be processed in one or two days' time. As a result, this system usually limits Nuñoans' freedom within the network of health facilities to the site where they are insured.

The services that the district of Nuñoa offers with its resources also shape individuals' encounters with the health system. Both health personnel and patients acknowledge that Nuñoa's health system only offers basic health care. As a result, the path to care may lead far outside Nuñoa, to Peru's largest cities, such as Arequipa, Cusco, or even as far as Lima. The closest cardiologist, for example, practices in Puno, at least six or seven hours away by bus. Thus, a more common illness may result in care within a *puesto* or the *Centro*, but an illness demanding the expertise of a specialist often requires encounters with multiple levels of the health care system, when such a far-reaching path to care is possible for the individual. In other cases, the inability to travel truncates the paths of individuals, who are left without options for care.

Stages of Health Care Delivery

Nuñoa's *Centro de Salud* is situated at the end of town, across the Nuñoan River from the plaza, the mayor's office, and the majority of the town's buildings. In order to access the Health Center by foot, one crosses a stone footbridge built centuries ago. This past July, an automobile bridge was constructed close-by, but before that, crossing the river required a wide detour to a bridge much further downriver.

Entering the *Centro* reveals more about its institutional character. The scene looks very different depending on when you enter, but invariably, the space is frigid and cavernous. The *Centro* has no heating, and its tiled floors and walls seem to contain the

cold, even when the outside temperatures have risen in the middle of the day. Yet depending on the day and the hour, it is either bustling with activity or silent. On a Sunday morning at 10am, you will find the space full of men and women who have traveled in on the buses from *el campo* that operate once a week.

At other times during the week, the *Centro* is quieter. On the outside walls, an "horario" (schedule) is posted: 8am-2pm for attention, 4pm-8pm for visitation, 24 hours for emergency. However, my first two morning visits to the *Centro* at 8:30 and 9:00am on different weekdays were unsuccessful because the doctors were not there. Over the course of my two months, I became accustomed to finding the *Centro* unstaffed once or twice a week, with people sitting and standing, patiently waiting for someone to arrive. In one case when the space was at peak capacity on a Sunday morning, all of the medical staff had left the entire *Centro* unstaffed while convening in a meeting upstairs instead of holding their morning appointments. I waited outside with about fifteen other patients. At one point, a woman yelled up to the second floor "¡Atención!" I was reminded of the impatience that mounts in the vans that leave Nuñoa for Ayaviri. Operating without any schedule, these vans sit until they are packed beyond capacity with people traveling out of town. Passengers often yell "¡Vamos!" after about an hour of waiting, their voices unheard in the void left by the lack of a functioning infrastructure.

Other parts of the *Centro* are rarely or never used, such as a room designated as an X-ray room that lacks any equipment necessary for X-rays. In fact, a whole wing of the building, constructed in 2008, remains empty. The three most common patient visits are out-patient consultations, integral wellness check-ups for children, and pre-natal check-ups, according to statistics produced by the *Centro* from 2009 (Micro Red 2010).

The unused space speaks to goals for a more specialized set of services that have gone unfulfilled.

The network of *puestos*, constructed beginning in the 1980s and 1990s, extends the Ministry of Health services into *el campo*. Now, there are six, fairly evenly distributed across Nuñoa, with the exception of a corner in the northern part of the district with no road access. The three *puestos* that I saw during my time in Nuñoa appeared nearly identical in structure. Each was a clean-cut rectangular brick building equipped with a dorm room for the nurses, a bathroom with a toilet and shower, and a well-stocked kitchen. Individuals who are insured at a particular *puesto* are allotted two appointments per month that will be covered by SIS insurance.

However, the quality of services offered by each *puesto* varies significantly. I asked Sra. Gimena, whose mother donated the land to build the Carhuayo *puesto*, whether she thought that the services of the *puestos* had improved since they were first built. Her response was hesitant:

> Well, they've improved, or I wouldn't know how to say it exactly, but… for example, it's good for the people from the *campo*, because now they don't have to go down to the town. But what happens with the health posts? Sometimes the people [nurses] go down to Nuñoa, and there are no personnel in the *campo*, therefore the people continue to be abandoned through their health. Of course, not in all cases, but in some.[7]

[7] "Bueno, mejorado, o no sabría decirle exactamente, pero… o sea, en cuanto a… por ejemplo, es bueno para la gente del campo, porque ya no tienen que bajar hasta la población. Pero que pasa con los puestos de salud? Que a veces las personas se bajan a Nuñoa, y no hay personal en el campo, entonces la gente sigue siendo abandonada por su salud. Claro, no en todos, pero en algunos."

Sra. Gimena voices the concern that even with the extension of an infrastructure to prevent the diffusion of resources out of *el campo*, neglect and absenteeism in some of the *puestos* reinstate the same problems of selective abandonment. Her view complicates an impression of the state actively incorporating rural populations to protect their rights. Instead, health is but another means by which the state abandons rural peoples in Nuñoa.

The *puesto* of the community Caylloma was built seven or eight years ago, and provides about 2,400 consultations a year (Micro Red 2009). Camila, one of two nurses who run the *puesto*, began working only two months prior to my visit. Like many of the nurses and medical technicians, she grew up in the province of Melgar and studied nursing there. Camila explained that a lot of the work that the *puesto* does involves preventative services, because they are the most effective. Yet I wondered if this was another problematic translation of the Alma-Ata ideas surrounding essential health: a "practical" form of care that the community "can afford to maintain," a notion that veils the inability to offer more advanced services.

Although the Caylloma *puesto* mostly caters to the community's population of 1,179 people, it also services some individuals from surrounding communities. In Diego Tapara, for example, Don Antonio's household is insured in the Caylloma *puesto*. Sra. Gimena, Henry, and I met with Don Antonio far into the hillsides of Diego Tapara, where he was occupied herding alpaca. We sat down while Don Antonio remained standing to watch the animals. Don Antonio explained that he has never been to the *Centro* in town. Instead, he goes frequently to the *puesto* in Caylloma, where he is insured with SIS. Don Antonio uses the services for a recurring cough: "'Every 15 days, go for your cough, says

the Sra. Lucía who works there.'"[8] Don Antonio was positive in response to my question about the *atención* in Caylloma. "They treat you well, they give you medicines."[9] Moreover, Don Antonio goes to the clinic for another service that all the *puestos* provide: "I go more than anything because they give a little groceries to the elderly, for example rice."[10]

The accounts of another *puesto* in Carhuayo spoke to the variability of care between these different clinics. The community of Sacco, two hours by car from town, is in the catchment of this *puesto*. I interviewed individuals from this community while sitting outside their *cacerío* (community house). In the interviews, several individuals expressed their frustration with how the *puesto* was operated. The President of Sacco, a young man named Wilver, told me that "The care in Carhuayo is almost deficient."[11] He explained that to improve the health care, the *puesto* needs "one more personnel because now all of them go at the same time to travel."[12] A man named Don Sebastien, who said that he frequently seeks care from the *puesto* for *gripe* with symptoms of stomach problems and cough, explained: "if there are no personnel, we treat it with herbs; we return and wait two days and the third day we travel once more to the *puesto*. At this moment, usually they are there."[13] In contrast, another woman by the name of Vilma said that she simply doesn't bring her children to the *puesto* on account of the uneven health

[8] "Cada 15 días va por la tos, dice la Sra Lucía que trabaja alla."
[9] "Bien le trata, le da medicamentos."
[10] "Voy más que todo porque por los ancianos les dan un poco de viveres, por ejemplo arroz."
[11] "La atención en Carhuayo es casi deficiente."
[12] "Un personal más porque ahora al mismo tiempo todo se van para viajar."
[13] "Si no hay personal, se tratamos con hierbas; regresamos y esperamos dos días y el tercer día viajamos otra vez al puesto. En este momento, generalmente están."

care access. “I don’t bring them because sometimes there are no personnel. I give them a little tea of lime and flowers: *tani tani* and *kello ttica*.”[14]

Oscar also voiced disappointment with the unreliable *atención* provided by the *puesto*, this time speaking of a lack of medicines. When there are no medicines in the *puesto* pharmacies, Oscar says that he waits and returns. Then, if medicines are still lacking, he may buy medicines from *boticas* in town on market day.

The official consultation numbers do not reflect the rates of absenteeism that these community members describe. In 2009, the Micro Red Nuñoa reported that the Carhuayo post had a total of 1,998 appointments, roughly proportional by population of catchment area to the other *puestos* whose consultation numbers had been reported (Micro Red 2010).

I later interviewed Vilma, one of the nurses at the Carhuayo *puesto*, catching her while she exited a meeting in the *Centro*. She described working with *campesinos* to me in this light: “They will always re-infect themselves. If you give them treatment, they will re-infect themselves… because of work with the animals, with the land.”[15] Vilma’s view of the health services provided in the *puesto* speaks to an eroded notion of essential health. She speaks of her patients not as people in need of comprehensive health services, but as re-infecting agents. I asked her about what happens when she and her colleagues leave the *puesto* unstaffed to attend meetings together in the *Centro*. Vilma said that it was a problem, but unavoidable.

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[14] “No les llevo porque a veces no hay personal. Les doy matecito de limón y flores: tani tani y kello ttica.”

[15] “Siempre se van a reinfectar. Si les da tratamiento, se van a reinfectar… por trabajar con los animals, con la tierra…”

A third level of the Ministry of Health's services operates not in a fixed facility, but rather a mobile one that reaches out to patients in remote regions. Nuñoa's small ambulance arrives in six *comunidades campesinas* once a month, leading a trail of dust from the dirt roads. The schoolroom of the community transforms into a public clinic space as the doctors and nurses set up several tables and pile them high with stacks of paperwork including the patient histories of community members. Each mother is required to bring her *seguro* (insurance) paperwork, a green piece of paper encased in a plastic sheath.

The nomadic clinic comprises several stations, including a nutrition station where a nurse lectures mothers and their children on nutrition and tests each family's table salt for iodine content; a measuring station where children are weighed and their height measured against a wooden board marked with USAID's emblem; the main diagnosis station where the doctor asks symptoms and prescribes medications; and a *farmacia*, where the prescribed medicines are distributed. In the measurement station, the doctors write weights and heights in pen on children's hands or on the mother's wrist for infants, and then send them on to the main diagnosis station, where these numbers are recorded in the patient history. The medical team also brings a cooler with vaccines for unvaccinated children.

Although the mobile clinics seem to be a remote replica that transplants expertise, resources, and bureaucracy into *el campo*, several features distinguish the services from the *puesto* and the *Centro* services. Most immediately, one recognizes the public nature of the clinic – the assembly line efficiency that ushers patients through an obstacle course of stations. Secondly, the people bustling through the lines and waiting

outside to have their name called are nearly all women and children. Of two mobile clinic visits that I observed, only two men were visible amongst the throngs of children and women, with their traditional top hats bobbing up and down. The doctors explained to me that all the men were working in the fields, and thus were not able to attend.

Yet another difference became clear as I sat next to one of the doctors in the diagnosis station. Dr. Luis spoke in a low, calm voice that seemed to belong in an intimate appointment room. He listened attentively and then would tell the patient what the prescription was, although he never disclosed a diagnosis or said what type of pill his patient would be taking. The diagnosis was written out of the narrative that connected symptom and therapy. What remained was simply the chronicle of symptoms and corresponding regimen of pills, syrup, or cream necessary to treat them.

As we left the building, the only remnants of the temporary clinic space were handfuls of unused throat swabs that had been previously dropped on the floor. Groups of small children had begun to pick up the swabs and play with them, imagining stories from this medical debris.

Outside the clinic space, the community members gave a gift of warm *huatia* potatoes and fresh *queso* to the doctors. Henry and I were offered to join the other medical staff inside the ambulance. We ate the hot potatoes and cheese and once we had consumed most of the gift, the doctors returned the bag to the community. Retreating to the interior of the ambulance to eat the gift of the community and then returning once we had finished it seemed to create a hierarchy and spatial differentiation between the patients and the doctors. The small act of distancing reinforced the impression that these community members were only short-term patients not in need of a holistic attention.

These scenes from within the mobile clinic speak to a more selective and ephemeral form of health care than that provided by the network of fixed facilities. The paperwork and growth charts maintained by this mobile bureaucracy of paperwork form the only material narrative suggesting a continued presence of the Ministry of Health in this space. In the brief consultations, excluding the diagnosis of the illness implies a care that holds little regard for the participation and understanding of the patients.

Such a broad-reaching but selective health infrastructure may be motivated by goals of targeting specific causes of mortality, such as pneumonia. I discussed the *extramural* program with Dr. Jose who works in the *Centro*. Despite his clear disappointment with the restraints of the program (in the limited medicines that the medical team can administer), he conceded that the government had severely decreased the number of cases of pneumonia in the campo as a result: "there's no pneumonia – almost none – because of this strategy,"[16] he said. Across Peru, pneumonia accounts for 15.5% of mortality for children under the age of five (WHO Peru). However, the Ministry of Health recorded only five deaths of children under age five caused by pneumonia from 2007 to 2009. Meanwhile, the pneumonia incidence rate dropped from 18.2 to 8.8% of children under the age of five in the district of Nuñoa (Micro Red Nuñoa 2010).

Incorporating Rural Bodies

The Ministry of Health incorporates rural populations into its institutions in various ways. In Nuñoa, men and women alike spoke of one obligation to use health services due to a policy put in place in 2000 requiring all expecting mothers to give birth

[16] "no hay neumonia - casi no hay- por esta estrategia."

within the confines of a *puesto* or *Centro*. The policy, I was told, is enforced by a heavy charge of 600 soles (more than $200) for childbirth at home. Its mandate allows the Ministry of Health to ensure that nurses and doctors will be able to attend to the woman if complications arise in giving birth. From 2000 to 2009, the percentage of rural Peruvian women giving birth in health facilities rose dramatically, from 24% to 59% (USAID). Perhaps as a result of the perception of this policy in Nuñoa, there have been no cases of maternal mortality recorded by the district of Nuñoa between the years of 2007 and 2009.

While this policy implicates improvement for access to care for rural women, it has realized other changes surrounding childbirth practice. Don Emanuel, from Diego Tapara, explained that giving birth is "better in their houses or huts because they take better care, give well-prepared nutrients at the right time, and care for the woman who gives birth for approximately one month."[17] In contrast, he explained that "In the hospital, one day after, you have to wash… it's not the custom."[18] Don Emanuel also explained the nutrition situation: "there is no cafeteria in the hospital, therefore for this reason, better in the houses."[19] According to custom, at home the new mother takes a bath of *agua de romero* after a month and follows specific additional traditions regarding her eating schedule. As Don Emanuel explained, she will wake up and drink a little tea in the morning, then eat some food. At 9 or 10 she is served a small soup and at noon, "other foods." In the hospital system, on the other hand, "One must get up and walk."[20]

The requirement to give birth in a clinic space also upsets traditions after birth that are intended to prevent *sobreparto*, or "illness following childbirth" (Larme and

[17] "mejor en sus casas o cabañas porque cuida mejor, dan los alimentos a su hora y bien preparados, y cuida a la señora que da luz aproximadamente un mes."
[18] "En el hospital, un dia despues hay que lavar… no es costumbre."
[19] "No hay comedor en el hospital, entonces por ahí, mejor en las casas."
[20] "En cambio, hay que levanter y caminar."

Leatherman 2003). Sra. Gimena explained that traditionally, for one month after the childbirth, women "don't touch water, they don't go into the sun."[21] Instead, mothers would spend one month in the *cabaña*, barely moving more than sitting up in bed. The husband would adopt all of the work traditionally done by the woman, including the cleaning and the cooking. Sra. Gimena joked that it was a one-month vacation for the mother. However, since the state has begun to require women to give birth in a hospital or *Centro*, this tradition has been abandoned. Sra. Gimena said that now, "they get very sick with *sobreparto*… because of the sun and the cold outside."[22]

Other programs associated with the Ministry of Health operate within Nuñoa to encourage participation in the national system. One such program is called *Juntos*, a Conditional Cash Transfer program that rewards parents with 100 soles (or about $35) each month for sending their children to school and getting wellness check-ups (Gribble 2008). Two families from Diego Tapara were involved in the program, and represented the only households who responded that they always went first to the Ministry of Health facility when someone in the family was ill (Appendix 1).

In incorporating certain populations such as mothers and qualified parents, the Ministry of Health also creates new rural citizens. In the case of expecting mothers, the health care institution imagines a more mobile patient, who must abandon traditions surrounding birth in order to follow the sanctions put in place by the health insurance system. Similarly, the institution conceives of its affiliates as having certain needs, including professional attendants at childbirth and regular wellness check-ups for children. Yet, apart from this imagination, individuals voice different needs for their

[21] "No tocan agua, no salen hasta el sol."
[22] "Se enferman mucho con el sobreparto… por el sol y el frío afuera."

bodies, such as measures to prevent *sobreparto*.

A Selective Care

One way that the Ministry of Health imagines the needs of rural bodies is evident on the façade of the institution's hub in Nuñoa. Walking towards the *Centro* from town, the murals painted onto the high walls surrounding the clinic are the first visible element of the institution. These murals illustrate the various campaigns and initiatives of the health care system. The first one reads "vaccinate them now...! because to vaccinate them is an act of love"[23] and depicts an infant with balloons. Next, begins a mural dedicated to the "Hand-washing Initiative"[24] followed by one about maternal mortality illustrated by the image of an iceberg. A painting of the "position for vertical birthing"[25] shows a mother bearing a child with the assistance of two attendants in front and behind her. Next, an image of a child brushing his teeth accompanies the words "Healthy teeth, happy smile."[26] The final mural is dedicated to el SIS (Seguro Integral de Salud), and reads at the bottom "The SIS guarantees FREE medical attention to Peruvians who find themselves in the situation of extreme poverty and poverty."[27]

These murals, composing the outer face of the institution's main building, speak to the segmented nature of health care delivery within the Ministry of Health's network of facilities. Within this system, services are broken up within a model where health problems are addressed separately by disparate programs and initiatives, revealing an

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[23] "!vacúnalos ya...! porque vacunarlos es un acto de amor"
[24] "Initiativa Lavado de Manos"
[25] "Posición para el parto vertical"
[26] "Dientes Sanos, Sonrisa Feliz"
[27] "El SIS garantiza la atención GRATUITA de salud a los peruanos que se encuentran en la situación de pobreza extrema y pobreza"

approach that assumes a selective rather than comprehensive notion of primary health care. Such selective campaigns change the temporality and experience of health care for Nuñoans. The opportunity to receive certain forms of specialized care in Nuñoa hinges on the timing of such campaigns' visits to the region instead of the timing of one's illness.

The murals on the *Centro* represent a means of distributing services that shapes the reality of care for patients at multiple levels of Nuñoa's health system. Even in the *Centro*, which offers the greatest range of services, patients may access certain forms of specialized care only by waiting for opportune programs. For example, during June and July, the doctors would suggest patients who visited the *Centro* for vision problems (such as cataracts) to return several months later for an eyesight program that would be visiting the area in October. Farther out, in the *actividades extramurales*, educational campaigns formed one approach to a selective health care. One doctor spearheaded a campaign against a particular zoonosis called *Hidatidosis* (Echinococcosis). Once all the mobile clinic's check-ups had concluded, the doctor gave a long lecture about the vectors and symptoms of the disease and proper prevention behaviors regarding household animals. Then, as patients departed, the doctors sold Praziquantel and Albendazol tablets to the few people who had cash on hand. Like the ways in which the health care institution incorporates rural citizens, targeting particular health problems in a selective form of care re-imagines the needs of individuals' bodies as well as the temporality of those needs.

A Basic Health

The three entry points to Ministry of Health care in Nuñoa reflect varying degrees and hybrids of specialized, primary, and selective health care. Yet even in the *población*,

where most people have ready access to the *Centro*'s more extensive services, many people voiced a different imagined body from the one that the Ministry of Health attends to in its conception of a basic health care.

First, people in town yearn for specialized doctors. The Cadenas had a unique perspective on Nuñoa's doctors based on their medical experiences with specialists outside the district. Their experience is uncommon in that they generally avoid bringing their child to the *Centro* in Nuñoa, but rather seek medical care in Cusco, where Sr. Cadena's parents live. I had lived in the Cadenas' house for nearly two months by the time I interviewed Sr. and Sra. Cadena about their experiences with Nuñoa's health system. I asked what influenced their decision to take long journeys to medical care in Cusco, and Sra. Cadena expressed the main reason as related to specialists:

> For the same reason that here there are no specialist doctors. There are only general doctors. In Nuñoa, I think there is only one doctor here for health, and the rest of the doctors rather come to do their practicum. Yes. This is the great problem of Nuñoa that we have. In Nuñoa there is a large population and there must be enough doctors for dental care.[28]

Indeed, many, if not the majority of children and adults in Nuñoa suffer from dental problems. Sra. Cadena, a schoolteacher who is in her forties, is missing one of her front teeth, and wears an insert for special occasions. The *Centro* offers dental care through an office in the main building, but I never saw its door unlocked. According to Nuñoa's records, the Dentist's office has been used for fillings and extractions. In 2009,

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[28] Por lo mismo que en aca no hay médicos especialistas. Solo hay médicos generales. En Nuñoa, solo creo que hay un médico así por la salud, y el resto de los medicos o un medico mas que ahí viene para hacer su práctica. Si. Eso es el gran problema de Nuñoa que tenemos. En Nuñoa hay mucha población y debe haber bastantes médicos para dentadura.

there were a total 1,167 appointments, including 307 tooth extractions. Other people simply wait until an unhealthy tooth falls out on its own. Likewise, another dentist's office a couple blocks away appeared to be open for appointments only twice over the course of my two months in Nuñoa.

Sra. Gimena also commented on the lack of specialist doctors, and the necessity of traveling great distances outside of the district in order to seek attention.

> So, here in the Health Center, there is no specialized attention. So, only… for example, I bring my mother to the hospital only so that they give her a painkiller that lasts during the trip. So, generally, I bring my mother to Puno. And in Puno we do the treatment with the doctor. But here, there are no specialist doctors. For example, my mother had suffered from constipation. They say that she has a very big large intestine. That is, very stretched out in the ultrasound scan. So, she said, why don't we operate? But the specialist in Puno said that it is very dangerous for someone her age to operate. So, we control it with nothing more than diet. So, my mother always needs to drink plenty of water, more or less three or four liters a day… Because of this, the doctors here, no. Yes, it's necessary to take her to Puno. [Sra. Gimena, August 8, 2010][29]

Another desire for specialized services comes from a perception that the medicines given out are not strong enough. As Sra. Gimena puts it, the *Centro* is a simple

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[29] Entonces, aca en el Centro de Salud, no hay una atención especializada. Entonces, solamente… por ejemplo yo llevo a mi mama al hospital solo para que le den un calmante mientras dura el viaje. Entonces, generalmente, yo le llevo a Puno a mi mama. Y en Puno, ya hacemos el tratamiento con médico. Pero en aca no hay médicos especialistas. Por ejemplo ahora mi mama tenía sufre de estreñimiento. Dice que tiene los intestinos gruesos *muy* grandes. Es de muy estirado en a ecografía. Entonces ella ha dicho, porque no hacemos operar. Pero el especialista en Puno nos dijo que es muy peligroso para su edad la operación. Entonces que controlemos con dieta no mas. Entonces mi mama siempre necesita tomar bastante agua, mas o menos 3, 4 litros al día. … Entonces en eso, aca los medicos, no. Si, hay que llevarle hasta Puno.

stopover to seeking care from specialists. This perception depicts the Ministry of Health services as a source of palliative care rather than legitimate treatment. I asked if Luciana frequently went to the *Centro* for help and she said no: "They don't do anything… They only give Ibuprofen, or paracetamol for a fever."[30] Instead, when she is ill she visits the *botica*, because she believes the *botica* medicines are stronger.

In mid-July, the arrival of a group of American doctors associated with a non-profit created a great deal of excitement among people in town because of the possibility of being seen by a specialist. Henry and I had arranged transportation for the doctors to visit Diego Tapara and hold appointments there for one afternoon. At 12:30pm on a Friday, *atención* had ended and we were prepared to head out to the community. Unfortunately, the Ibuprofen was locked in Dra. Lidia's appointment room. Neil, the cardiologist, asked me to look through the boxes of medication for the Ibuprofen bottle while we waited outside for the *combi*. About ten or fifteen people gathered around the box asking what the medications were and why they had not been prescribed them. Even when Sra. Gimena arrived, she was looking intently at the contents of the boxes.

The combination of a care that is at once selective and lacking in specialized services addresses needs of rural bodies that diverge from the ways in which Nuñoans conceive of their own needs. Despite Nuñoans' removal from the center of the institution, these divergences and conflicts do not go unnoticed. Paul Farmer (2005) writes that "an irony of this global era is that while public health has increasingly sacrificed equity for efficiency, the poor have become well-informed enough to reject separate standards of care" (218). Farmer elaborates this claim by emphasizing the voices of a rural group of

[30] "No hacen nada… ibuprofena solo dan o paracetamol para fiebre."

Haitians living with HIV who call for more comprehensive services in addition to anti-retroviral therapy. In Nuñoa, a similar irony is exposed by the experiences and opinions of individuals who reject the variable and basic nature of health services provided by institutions in the area. Nuñoans' trajectories through various levels of the Ministry of Health become another way of voicing a critical position towards their own health needs.

Part II: Human Trajectories and Nodes of Care

Over the course of my two months of fieldwork, I often asked Nuñoans what one does in the event of illness. Occasionally, I became the subject of treatment as I dealt with the various illnesses that often accompany travel to a foreign environment at high altitudes. Most people gave suggestions that entailed some action outside of the Ministry of Health services. One day in late July, Henry was suffering from a violent stomach virus. Over dinner in one of the town's *pensiones*, Sra. Gimena gave me instructions about the best care to provide. Her suggestions bypassed seeking care from the *Centro*. First, Sra. Gimena told me to give Henry a *mate de hierbas* (herbal tea), but hesitated and amended that suggestion, confiding in me that "Enrique doesn't believe in the herbs."[31] Second, she recommended a little hot alcohol with herbs as a remedy: "My mother said that the pills can cause harm to an empty stomach, but a little alcohol will never do harm."[32] Third, Sra. Gimena added, a sick person should eat hot chicken soup for nutrition and strength. Finally, she instructed, put a manta[33] around his stomach to sleep: "it is for the cold… he will see if it [the illness] is due to the cold or not."[34] According to Sra. Gimena, the manta placed around the ill stomach would give not only a therapeutic benefit, but also a diagnostic one, to assess whether the cold was the root cause of the illness.

In part 1, I elaborated ways in which the Ministry of Health imagines different rural bodies and health needs than those that Nuñoans conceive of for themselves; in this

[31] "No cree en las hierbas."
[32] "Mi mama dijo que las pastillas pueden hacer daño en un estómago vacillo pero un poco de alcohol nunca va a hacer daño."
[33] A traditional piece of woven fabric generally worn like a shawl.
[34] "Es por el fríο… va a ver si esta por el fríο o no."

part, I look at how individuals reinvent such institutional spaces and renegotiate ideas of care. I explore the paths by which individuals move within, between, and outside of institutions to access different nodes of care that punctuate the health landscape in Nuñoa. For example, Sra. Gimena's advice speaks to the complex range of medicinal resources that exists outside the bounds of the "formal" health care system. This landscape includes herbalists who sell medicinal herbs on the street, pharmacies called *boticas*, and the hillsides of Nuñoa, where wild herbs cling closely to the steep slopes. Often individuals' paths towards seeking care lead back and forth and in-between the "formal" institutions and "informal" sites of care. The trajectories of people and the maps that their journeys construct constitute and give new meaning to institutional and extra-institutional spaces. Just as these journeys create "becomings," as Deleuze (1997) conceives in his essay "What Children Say," they also create new interfaces, and as a result, new spaces. In Nuñoa, these interfaces conjoin distinct features of the rural and urban, and traditional and biomedical.

City Doctors in Nuñoa

Individuals' vectors that begin, intersect, and terminate with Nuñoa shape the institutional spaces of the Ministry of Health explicated in part 1. For example, the contrary movement of doctors and patients across rural-urban interfaces constructs new relationships and hierarchies at the site of care delivery. These trajectories create hybrid spaces of institutional care delivery.

Doctors who work in Nuñoa's *Centro* and travel to remote regions of the district in medical teams represent a constant presence with an ever-changing face. The state

incentivizes these doctors to perform a year of service in rural areas: working in the rural communities qualifies young professionals for a license to practice in the public sector and gives them preference for post-graduate specialization and scholarship (Frehywot et al. 2010). However, once the year of service has been completed, the state disincentives an extended stay with reduced pay outside of the program. The doctors often bring with them backgrounds and ideologies from an academic urban lifestyle and leave before adjusting to the country lifestyle of Nuñoa.

One particularly hardened face among the cohort of doctors while I was in Nuñoa was that of Dra. Lidia, a middle-aged woman from Arequipa. She is one of three doctors who practices in the health centers and travels with a team of medical professionals in the rickety ambulance to several communities each month to deliver basic health services. On one of the mobile clinic days, I sat on a small bench observing Dra. Lidia's interactions with patients. Like the mobile consultations with Dr. Luis, her appointments were public and pressured by time, leaving little flexibility for more in-depth explanations of symptoms, diagnoses, and treatment. At the moment, she was seeing an elderly woman who said that her eyesight was dark. When Dra. Lidia asked her to read a sign on the wall adjacent to us, the woman said in Spanish that it was still dark. In response, Dra. Lidia reached towards the woman and tapped her traditional bowler hat with her pen, remarking that she needed a wider brimmed hat. The next thing Dra. Lidia said was that she should stay out of the sun. Then the woman was dismissed and moved on to the next set of tables in the one-room clinical rotation.

In this hybrid clinic, belonging both to the community and temporarily to the Ministry of Health, the interface between the milieus of Dra. Lidia and her transient

patient created a problematic space of medical care delivery. The women of *el campo* often spend their days herding animals along the hillsides when they are not preparing meals, performing other tasks, or traveling. The petite bowler-type hat that perched atop this woman's head has been commonly worn by indigenous women across the *altiplano* since the 1920's. In contrast, Dra. Lidia comes from the city Arequipa, where sunglasses are readily available for purchase and most people wear Western clothing.

Dra. Lidia and her colleagues occupy a displaced position that corresponds to an in-between location on the spectrum from urban to rural. In his study based on fieldwork in remote California, Lockhart (1999) draws on Bourdieu to argue that rural doctors often occupy the role of the "dominated dominant," in regard to their urban peers and their rural patients (179). Geographical remoteness, lack of specialization, and shortage of advanced medical technologies place these doctors at a low position within a highly "rigid" and "centralized" biomedical system. However, rural doctors represent the face of the urban relative to their patients, who are even more peripheralized within the urban-rural spectrum of biomedicine. The distinct positionality of the doctors in Nuñoa manifests itself in their view and treatment of the community. These doctors are placed in living situations with few luxuries (no heat or hot water), and are detached from their friends and families in the city. Vilma, a nurse at Carhuayo's *puesto* spoke to me of her concern for finding a boyfriend while living in such a remote community away from the city where she was raised. Dr. Jose bemoaned the time spent away from his friends and family, and the physical difficulties of living in Nuñoa.

The doctors also experience ambiguous community ties associated with their position in-between their home and their new worksites. Dr. Jose has three jobs, two in

Arequipa, and one in Nuñoa. Each week, he works three days in Nuñoa and the three doctors switch off to cover Sundays in Nuñoa. Dr. Jose gave up a job teaching medicine in Arequipa, "la cuidad Blanca" (the white city), because he needed the credit of rural work in order to get a job in the public sector. Now he works on a three-month contract and he will stay for a total of a year, but may be changed to a different rural site at any point between contracts.

The ambiguous hybrid position of doctors in Nuñoa relative to a biomedical hierarchy subtends their agency within the clinic space as well. Several health professionals expressed disappointment at the limitations of tight resources provided by the state. For example, in describing the trips that the medical team takes each month to certain rural communities, Dr. Jose explained with ambivalent terms the tight regimen of antibiotics that the strategy allows them to distribute. Yet, even within the *Centro*'s better-stocked clinic, he must often refer patients to more centralized facilities far away with more specialists and the resources to accompany them. The ability to treat is limited in this regard. As I elaborate in part 1, many Nuñoans recognize this, and yearn for more specialized care and medications that go beyond "lo básico" (the basics).

On one of my observation days in the clinic, Dr. Jose saw a 72-year-old man dressed in tattered clothing, who nearly toppled off the chair when he sat down. The man spoke only Quechua. Dr. Jose unapologetically announced that he spoke no Quechua and beckoned in the sister of another patient to act as spontaneous translator. The patient had come to the *Centro* due to stomach pain. Dr. Jose asked what kind of pain it was and where the pain was located. In response, the man pointed to the upper part of his stomach and said that it burned. The spontaneous translator was dismissed and the doctor asked

the man to lie down on the bed, and take off his outer layers. The man did so, removing a long sash from his mid-section. Dr. Jose did his exam and once it was over began talking to the man in Spanish. Despite the man's persistent protests, the doctor insisted that he was an alcoholic. Dr. Jose thought he had an ulcer in his stomach, but told the man that the only way to get a full exam would be to travel to Ayaviri. He also wrote some pain prescriptions. Once the man had left, Dr. Jose told me that he expected the man to return every three or four weeks with the same problem until he died, simply because the full medical services were not available in Nuñoa and people like him did not have the means to travel. Dr. Jose's concern implied a conflicting relation with the extended reach of the state. "This is my country, what could I do?"[35] he said.

From *el campo* to the Clinic

The journeys and displacements of patients in Nuñoa also construct hybrid spaces and interfaces in sites of medical delivery. For patients, travel in Nuñoa depends on and involves many different types of resources, especially for people living in *el campo*. For example, travel from one's cabaña in *el campo* requires support through social networks in order to entrust others with household responsibilities and herding, economic means to pay for transportation, the physical strength to traverse steep slopes in order to meet the road, and more dispersed social networks in order to stay somewhere great distances from home. Travel takes great sacrifices of time, especially due to the spontaneous nature of public transportation in Nuñoa. With no operating schedules for public transport, travel time is highly variable and unpredictable. For example, the journey from Diego Tapara to the *Centro* is typically two to three hours each way. In non-emergency situations, the

[35] "Eso es mi país, que podía hacer?"

majority of community members traveled by foot or bicycle (nine out of fourteen household heads who had traveled for care). In the more remote community of Sacco, people generally travel to the *puesto* by horse, which takes from one to three hours (Appendix 1). As a result of these factors, travel to health resources often hinges on great motivations or a sense of urgency, obligation (through programs such as Juntos), and convenience (e.g. on market day).

Whether due to motivations related to health or other reasons, Nuñoans do travel large distances against great odds. For many people, the high levels of out-migration result in diffused families and social networks that extend to large cities in Peru. Nuñoa clubs in Cusco and Puno cater to former Nuñoans who seek a community and a voice within these large cities. Some of Nuñoa's rural communities like Diego Tapara also have a large membership of people who live in the town and assist the community during important times of the year, such as sowing seeds, harvesting, and vaccinating animals. Despite the difficulty of travel, Nuñoans are often mobile people due to their agency within a sparse and challenging landscape.

Tía Marta, (aunt to Carlos), who worked to keep up the ranch called Toldopampa, traveled from deep in the hillsides of Nuñoa to the eternally gray city of Lima to have her wrist treated by a specialist there. She had first tried to use a cure for the inflamed nerve by applying an herbal cure of a special kind of *cilandro* that grew in a brook by the main adobe house of the ranch. When she could no longer knit or cook with the troublesome wrist, she said: "My children will cure me."[36] She used 200 soles (around $70) from her savings to travel by bus to Lima, where all of her five children now live. Once in Lima,

[36] "Mis hijos me van a curar."

her children brought her to the specialist. Tía Marta said with a hint of pride that the doctor thought the herbal remedy was good. The doctor had warned her about holding her injured hand near the open fire while cooking. In addition to his advice, the specialist had prescribed medication to reduce the swelling, and Tía Marta demonstrated how she now had the strength to bend her wrist back and forth. Tía Marta's story speaks to a hybrid form of agency where her family enables travel that would normally be constricted to Nuñoa's health services.

Other secondary motivations also come into play in determining if and when patients will travel for health care. In Diego Tapara, two families in the community are involved in the program Juntos, which requires them to give their children check-ups with the Ministry of Health. One former president of the community told me that the only time she had ever been to the health center had been to meet the necessary documentation of health and hygiene that she needed to open a bread bakery. Another person spoke of the convenience of getting health care from the *Centro*: "I take advantage of buying medicines and other products each time I go down into town."[37] These opportunities and obligations variably create and shape individuals' paths to sites of health care delivery in Nuñoa.

Interfaces in the Institutional Space

The Ministry of Health only superficially addresses areas of improvement in the ways in which its services mediate the convergence of urban doctors and rural *campesino* patients in the clinic space. The Micro Red de Salud (Health Micro-Network) of Nuñoa recently produced a "FODA" analysis, which stands for "fortalezas, oportunidades,

[37] "Aprovecho de comprar medicamentos y otros productos cada vez que bajo a la población."

debilidades, amenazas" or "strengths, opportunities, weaknesses, threats," evaluating the services of the clinic. This document lists "cultural misunderstandings" under the category of "threat:" "Predominance of socio-cultural factors and idiosyncrasy of the town citizens, with respect to our health policies."[38] In these words, the official perspective of the Micro Red swallows up a diverse set of clinic interactions and positions the patients squarely against "our health policies." Likewise, another "threat" is listed as: "lack of responsibility and absence of sensitization of the population with respect to their health problems."[39] This chapter intends to show otherwise: Nuñoans are "sensitized" to their health problems, and often mediate several different systems operating within the district in the process of seeking care. Furthermore, the tensions that arise within the clinic space are irreducible to "idiosyncrasies" of Nuñoan patients.

Rather, the hybrid space of the clinic stems from interfaces between several features of doctor and patient backgrounds and the paths that lead to their convergence. One such interface regards language, which serves as an index of rural living in Nuñoa. Peru formalized Quechua as an official language in 1975, and began instituting bilingual education and legal programs (Harvey 2001:200). Many Nuñoans speak Quechua, one of Peru's indigenous languages now spoken primarily by people in *el campo*, especially women (INEI 2008:117; De la Cadena 1995). However, Spanish is the language of the clinic. The doctors at the *Centro* speak Spanish exclusively, and are left to use an uncomfortable combination of gesturing or relying on other people in the waiting area for translation between Quechua and Spanish. On the other hand, several of the medical

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[38] "Predominancia de factores socioculturales e idiosincrasia de los pobladores, con respecto a nuestras políticas de salud."

[39] "Falta de responsabilidad y ausencia de sensibilización de la población con respecto a sus problemas de salud."

technicians and nurses, especially those who grew up in Nuñoa, speak Quechua in addition to Spanish. Understandably, this language barrier often makes patients uncomfortable, and complicates communication about important clinical signifiers, such as symptoms. Don Emanuel, from the rural community of Diego Tapara explained to me that speaking Quechua connects to the more general issue of the doctors respecting *campesinos*. Don Emanuel told me that the greatest improvement to the health services would result from "respecting the customs… giving better treatment to the women more than anything."[40] He explained that often women from *el campo* come to the *Centro* and do not speak Spanish. "They [the doctors] don't understand Quechua… this is important."[41]

Articulating symptoms and etiologies of illness comprise another form of linguistic interface within the clinic. Contrasts in medical articulations came to the fore as I helped translate for a group of doctors who had traveled from the United States to deliver services with the NGO The Nuñoa Project. The group of three doctors, a nurse, and several veterinarians came for a period of five days to help in the *Centro* and Diego Tapara. On the first day of their work in the *Centro*, I assisted two of the doctors, a brother and sister named Neil and Amy, who were a cardiologist and respiratory specialist. Partway through the morning, an elderly woman who spoke jolting Spanish entered the appointment room for *dolor de riñones*, or kidney pain. Amy palpated the woman's lower back, but found no pain upon contact in the region that would normally be associated with kidney pain. Dra. Lidia, overseeing the appointment, jumped in with

[40] "Respetaría los costumbres… dar mejor trato a las señoras mas que todo."
[41] "Ellos no entienden el Quechua… esto es importante."

an explanation. She said that many Nuñoans suffer back pain due to carrying heavy loads and walking great distances; most call it kidney pain, she explained, although they have no other symptoms of kidney problems (e.g. pain upon urination or fever). After hearing this explanation, Amy suggested that the woman take palliative medications and if possible, get a urine exam outside of Nuñoa just in case.

Dra. Lidia's facile translation between the different symptoms and etiologies was not atypical for a clinic encounter. On other occasions, I observed Dra. Lidia and Dr. Jose make similar translations for patients who described *dolor de los pulmones* (lung pain) or *dolor del corazón* (heart pain). In the clinic, when patients described pain in the *corazón*, or heart, Dr. Jose would explain to me that the patient was actually experiencing musculoskeletal pain from over-exertion. When Teofila told me about a pain that she had in her *pulmones* (lungs), she held part of her upper chest near her neck. In the clinic, she was given a prescription of Ibuprofen for shoulder pain. After working in the *altiplano* for only a few months, the doctors seemed to have come to understand terms such as *dolor de riñones* as one-to-one equivalences with biomedical notions of human anatomy.

These distinct taxonomies of the body and sources of pain also exist in other regions of the Andes outside of Nuñoa. Kathryn S. Oths (2003), who did fieldwork in northern Peru, details different taxonomies of the body in a chapter on musculoskeletal distress and the role of the *componedors*, or traditional providers who treat associated pain. In her diagrams of Andean perceptions of the upper body, she indicates that the *pulmones* are relatively higher than Western biomedical location of the organ, and the *riñones* slightly lower than where the biomedical perspective would place them. She writes that, while Andean taxonomies of the body do not recognize different organs, "the

spatial division of the body into definable and understandable units is conceptually distinct from Western notions, especially concerning the head and trunk areas" (70).

The re-interpretation of bodily signifiers through biomedical terms implies a different textualization and embodiment for the rural Andean body. Csordas (1993) posits that "*While existence is not text, it is essentially textualizable*" (152). The doctors in the *Centro* apply a different text to the bodies of their patients than the ones the patients see in themselves. The three doctors frequently spoke of the hard work that their patients performed on the mountainsides of *el campo* and attributed the high rates of musculoskeletal injury that they saw within the clinic to hard work in the field. The translation of illness concepts of *dolor de riñones*, *dolor de los pulmones*, and *dolor del corazón* into diagnoses of musculoskeletal injury spoke to a "frontier mentality" that the doctors seemed to ascribe to their patients (Lockhart 1999). This notion of a "frontier mentality" appeared to define the text that these doctors endowed the bodies of their patients. The most common prescription for these medical problems is also generally an infeasible and unhelpful one: that patients should take a significant period of time off from work, see a specialist outside of Nuñoa, and take a large dose of Ibuprofen.

Translations between different taxonomies and mapping of illness in the body also shape the way medical problems and their treatments are embodied. Csordas engages the work of Merleau-Ponty and Bourdieu to conclude that the relations between embodiment and textuality in understanding the human body are indeterminate (1993). *Habitus*, Csordas (1993) writes, "*can be transcended in embodied existence*" (152). Within the current configuration of the Ministry of Health's services, most patients are left unsatisfied with the therapies that doctors in the *Centro* prescribe. Their

dissatisfaction is not only an effect of the ways in which patients and doctors understand the causes of pain, but also of the lack of specialized services that are accessible to patients, as elaborated in part 1. The disharmony between many patients' body signifiers and the doctors' may have wider implications for how patients relate to their caregivers.

The clinical interfaces of different languages and distinct taxonomies of the body may be bypassed by many patients who seek care outside the *Centro*, in spaces where Quechua is spoken and certain herbs from the mountainsides are advised for health problems like *dolor de riñones*. Patients who travel for care in Nuñoa not only traverse the dirt roads from *el campo* or walk down the quiet streets of the town to reach the *Centro*, but also to visit the *botica* shops or to purchase herbs from the market or from the herbalist whose goods spread across the sidewalk in front of Sra. Maribel's *tienda* on the plaza. These alternatives nodes of care compensate for deficiencies in institutional resources, as well as mediate the interfaces that create tension within the clinic space.

Alternative Modalities of Care

While Nuñoa's *Centro de Salud* is located on the far side of the river, away from the commercial center of town, other locales of health resources abound along the streets that surround the bustling main plaza. From the first day in Nuñoa, I was struck by the number of small shops called *boticas*, their open facades revealing tightly packed shelves of pharmaceuticals. It was several days later, on market day, when I became aware of the presence of other medical providers in the area. A woman with a huge selection of medicinal herbs had set up shop outside of the door to Sra. Maribel's *tienda*, opposite the small green park at the center of the plaza. She sat on a small stool positioned on the sidewalk next to dozens of burlap and plastic bags containing dried leaves, bark, flower,

and thorn samples. Teofila (who wrote out her name on my notebook) had a kind wide face with only one tooth visible in her mouth. In response to the interest that I expressed towards her work, she explained the uses of the herbs for dealing with things like menstruation, the bitter cold weather, and coughs.

Sra. Teofila, posing in front of her collection of herbs on a sidewalk off the plaza.

The health resources in Nuñoa reflect a medically pluralistic landscape with critical nodes in many different localities. Medical pluralism, or "the conflation of an array of medical systems," has an extensive history in multiple contexts, and has been well-documented by anthropologists, sociologists, and geographers (Baer 2004:109). Furthermore, questions of medical pluralism have been one driving force in anthropological studies of Andean health systems. The study of medical pluralism in the Andes has considered the role of a wide range of medical actors and forms of care, including bone setters, herbalists, *curanderos*, midwives, self-medication with pharmaceuticals, and biomedical care in clinics and hospitals (Miles and Leatherman

2003:9). Several Andean anthropologists have written on the interchange between the different components that comprise such systems (Bastien 1982; Bastien 1992; Crandon 1986).

Herbs and *boticas* are used widely throughout Nuñoa. Of the people I interviewed from two communities in *el campo*, a large majority use herbs as remedies for medical problems. In the community Diego Tapara, 13 out of 16 families interviewed use medicinal herbs in cases of illness. Of the five families that I interviewed in the more remote community of Sacco, all used medicinal herbs as a first remedy. Finally, each of the three families that I spoke with at the ranch Toldopampa in *el campo* relied on herbs for medical problems. However, use of medicinal herbs is not limited to people from *el campo*, who are separated from the health infrastructure by greater distances. Of thirteen people that I interviewed at the *Centro de Salud* in Nuñoa, all had used herbs as one method of trying to treat the health problem that had led them to seek the Ministry of Health services. Furthermore, in my conversations with individuals, herbs often came up quickly, whether through a recommendation of which herbs to take or in the form of teas offered during meetings.

In Peru, use of medicinal herbs extends back to ancient history. In pre-Spanish times, herbs were part of trade and household exchange in the *altiplano* (Millones 1992). Today the tradition of using herbal remedies for medical problems also lives on in the Andes in many home gardens, along with the harvesting of wild herbs. The *altiplano* landscape, including that in Nuñoa, is scarcely vegetated, with very few tuber plants, large shrubs or trees (Baker 1976:41). However, dwarf vegetation and many herbs grow in the region. One ethno-botanic study of home gardens (*huertas*) found that in the Andes

of Ecuador, "Of the 194 species found in this moderately large (0.075 ha) but representative garden, fully 132 plants were utilized in herbal home remedies" (Finerman and Sackett 2003:465).

Before the Ministry of Health had set up its network of clinics across the district, Nuñoans used herbs exclusively to treat medical problems. As one woman related to me, when she was a young child in Nuñoa fifty years ago, there was no *puesto* or *Centro*. Rather a woman named Emiliana Sea, who lived about one block away from the plaza, was the doctor of the town. The señora knew everything about herbs and had some from Nuñoa and all over. At one point, this child suffered a dog bite and the señora treated her in the house for two weeks. Yet now in the face of deficiencies in resources and medical professionals, individuals in Nuñoa often return to these traditional nodes of medicine in order to complement institutional care.

Boticas, on the other hand, are a relatively new phenomenon, at least in their current manifestation in Nuñoa. Carla, Sra. Gimena, and others told me of the proliferation of the *botica* business through town over recent years. Carla the *botica* owner explained, "before, there were no *boticas*. Ten years ago, there were only two *boticas*."[42] Now, just in the plaza area there are four, and others are scattered further out along the streets of Nuñoa. Carla attributes the increase in *boticas* to the greater number of people who are studying nursing now. Additional economic factors may be at play as well. Leatherman et al. (1986) argue that over the past two centuries, "adaptive activities on the altiplano have increasingly been reorganized within the context of a growing cash economy." In Nuñoa, these authors associate the resulting dearth of local employment

[42] "Antes, no había boticas. Hace 10 anos, solo habia 2 boticas."

with the appearance of great numbers of small shops (selling identical selections of goods from soft drinks to candles) lining the streets (21). *Boticas* in this context are possibly an outgrowth of this form of cash economy. The small shops allow former nurses to earn a more comfortable living wage, according to two *botica* owners that I interviewed. Furthermore, the types of interactions that may take place in the *botica* are more flexible than in the bureaucratic Ministry of Health system.

In many cases, the sheer lack of sufficient clinical services and medicines diverts the paths of individuals from town and from *el campo* to other sites of care outside of institutions. For example, in the community of Sacco, herbs play the role of a substitute form of treatment when the *puesto* is left unstaffed. The *Centro* is two and a half hours by car, but no public transportation runs on days other than Sunday. The inaccessibility of Ministry of Health services causes some people to turn to herbs as an alternative form of care. For example, one man told me that when the herbs are no longer "effective" to treat a medical problem, he will travel to the *puesto*, where he is insured. However, in the event that the *puesto* is unstaffed, he will treat the problem with herbs, while waiting a few days until the nurses are more likely there.

Herbal remedies in Nuñoa also instantiate their own meanings of the body, health, and healing outside of the referential sphere of biomedicine. Herbs address specific body taxonomies, illnesses, and etiologies that are not recognized by the doctors in the *Centro*. In addition to treating certain pain such as *dolor de riñones*, herbs are also used to abate the symptoms of *sobreparto*, and several other illnesses that are associated with the cold.

Different understandings of the relation between illness and a hot-cold spectrum are well-documented in anthropology across many different contexts. George Foster

(1994) describes his conclusions about hot-cold syndrome that originate from his fieldwork in the first half of the twentieth century. Foster observed during his fieldwork in Mexico and Peru that many diseases were explained and addressed through a hot-cold opposition, e.g. that certain diseases associated with cold could be treated with methods that stemmed from a hot source. Foster's book aims to describe and analyze what he understands as a "humoral system" of medical beliefs that exists across Latin America. Yet this illness metaphor extends through other parts of the globe as well. Byron Good (1994) similarly writes that "'warming' is revealed as a central metaphor generative of much of the theorizing in Galenic-Islamic medicine" (108).

Although my conversations and interviews with people in Nuñoa would not lead me to believe that a simple system based on temperature exists in the way that Foster describes other sites in Latin America, I picked up on traces of these distinctions. Most notable to me was the focus on illness caused by the cold. Among Sra. Teofila's herbs and the other herb names from *el campo* that I collected, I looked for patterns among the most common usages of the herbs. One such pattern was the common use of herbs for bearing the cold weather. Out of the collection of 51 samples of herbs, 8 of these herbs addressed medical problems associated with the cold: Pura pura[43], Flor Blanca, la ruda[44], Mully, Romero[45], Escursunera[46], Piacuya, and Chachacuma[47].

My day-to-day observations also led me to believe that associating illness with temperature remains an important way of rationalizing and understanding medical problems. The cold (*el frío*), especially, was a major explanation of illness, while using

[43] *Cyperus articulatus* L.
[44] Ruta graveolens
[45] rosmarinus officinalis
[46] Perezia multiflora
[47] Escallonia myrtolloides

heat to counteract illness constituted a common treatment technique. The instances where I encountered this belief included several conversations and recommendations about which herbs to take for certain medical problems. Sra. Gimena said that now, "people get sick a lot from *sobreparto* [illness associated with giving birth]… due to the sun and the cold."[48] Other illnesses associated with the cold include "mal de viento" [sickness from the wind], which carries severe symptoms: chills, headaches, and nausea.[49] Sra. Gimena said it is particularly dangerous for the infants: "the baby cries, cries, cries, and then it is dead."[50] Raul and Sra. Gimena said the best remedy was to take a steam bath with the herb chachacoma.[51] Carla, speaking about her work in the *botica*, also emphasized the damage inflicted by the cold. She explained that "they [her patients] come due to the climate more than anything… with colds."[52] Looking up at the shelves upon shelves of different varieties of pharmaceuticals, I asked Carla what she gave out most to people seeking help. She pointed to Dristan caliento and a "Vick's vaporub" brand of medicated tea called Vitapyrena. Carla also linked the second most common illness that she treats with the cold. "Diarrhea comes with the cold,"[53] she explained.

A conversation with Sra. Cadena, the mother of the family that hosted me, revealed more about the use of herbs for illness associated with cold or heat. Here, she responds in an interview to my question of whether she also treats her daughter with herbs:

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[48] "Se enferman mucho con el sobreparto… por el sol y el frío afuera."
[49] Escalosfríos, dolor de cabeza, nauseas.
[50] "Llora, llora, llora el bebe y despues esta muerto."
[51] "Humear con chachacoma"
[52] "Por el clima vienen mas que todo… con resfrio."
[53] "Diarrhea está viniendo con el frío."

> Yes, when the cough doesn't pass, and we give her [herbal] teas. I make it for her with the three classes of flowers, tani tani, panti panti, and ica. And this, one half toasted and one half raw; cinnamon, cloves, one half cooked, one half raw. Then lemon, one part toasted, the other raw. This I give in equal portions, this I boil, and this is what I will serve her. And this has for the heat, for cold. And therefore, if the cough has been given to her from the heat, it will cure her, and also if the cough has been given to her from the cold. The lemon is for the heat. The icas, the flowers, for the heat. And for the cold is the cinnamon.[54]

Herbs also come into play as preventative medicines for the cold. On one occasion when I was preparing to go to *el campo* for several days, Teofila, an herbalist in town, presented me with a large bag of herbs for *el frio* in *el campo*. She said it included a little bit of everything, a little bit "so that the stomach doesn't loosen, for the kidneys, for the cough."[55]

Connections between temperature and illness also surfaced when I became the subject of treatment. In the room, the Cadenas and another friend strongly admonished me for drinking room-temperature liquids like water and sports drinks, and they handed me cups of hot maté instead. Sra. Cadena and Sra. Teofila also advised me not to keep open bottles of water in the room.

In attending to illnesses caused by the cold or by heat, *Boticas* and medicinal herbs contribute to the hybrid landscape of health that individuals may access in Nuñoa.

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[54] "Si, cuando no le pasa la tos y le damos los mates… yo le hago las tres clases de flores son. Tani tani, panti panti y ica. Y esto una mitad tostado y una mitad crudo; canela, clavo, una mitad cocida, una mitad cruda. Luego limon, una porción tostado, otro crudo. Eso doy en porciones iguales, eso lo hago hervir, y eso es que le voy a servir. Y eso tiene para calor, para el frio. Y entonces, si la tos le ha dado de calor, ya le va a sanar, y si la tos le ha dado del resfrío, también. El limón es para el calor. Las icas, las flores para el calor. Y para el frío es la canela."

[55] "Para que el estómago no suelta, para riñones, para tos"

Understandings of etiologies associated with cold-hot metaphors do not resonate within the clinic space of the Ministry of Health. But outside of the institutional space, alternative nodes of care instantiate other meanings of illness and healing. In addition to my conversations and interviews with individuals from three different communities in *el campo*, and with those who had traveled to the *Centro de Salud* in town, I learned about use of herbs and *boticas* from three women who made their living in these areas: the herbalist Teofila and two *botica* owners and former nurses named Carla and María. Their backgrounds, personal experiences, and expertise illuminate the ways in which individuals interact with and mediate the interface of multiple healing resources within Nuñoa's medically plural landscape. These local experts and entrepreneurs create and negotiate their alternative nodes of care, but also lead their own paths between yet other sites of health care in the face of illness.

Teofila

"Many people ask me who taught me [the herbs.] I say 'Jesus taught me.'"[56]

When Teofila receives a request for something to cure a particular medical problem, she works adeptly and nimbly to prepare a cocktail of herbs that she mixes in a small plastic bag. Once when I asked for an herbal remedy for a sore throat, she included several spiny plants (and got a thorn stuck in her finger when she was ripping apart a branch for me). She said the *espinas* (spines) would assure that the infection would not enter my body, and my heart. The *espinas* point the infection out. The *espinas* speak to a different conception of how a therapeutic agent interacts with the body. Instead of working invisibly to target microscopic infection in the body like the agents in

[56] "Muchos me preguntan, quien me enseñó [las hierbas]. Yo digo 'Jesús me enseñó.'

biomedicine, the *espinas* are a visible sign outside the body that communicate with the illness on the interior.

Each time I spoke to Teofila, she would invite me to sit on a little stool next to her by her stand of herbs. Sitting here and looking out onto the plaza, I learned about her life, her health conditions, and her collection of herbs. Teofila grew up in a community in *el campo* of Nuñoa. As a child, when her family had little to eat, she and her siblings would herd a neighbor's alpacas in exchange for receiving *cebada*, a type of grain similar to quinoa. "That's how we grew," she explained. "And when we were bigger, we started to study up until the third grade, in the community Quitampari, further down."[57] Later, it was a desire for education that led Teofila to leave *el campo* and the auspices of her parents' care. Teofila was the only one of her siblings to continue schooling past the third grade. After this point, she moved into town and supported herself financially while going to school. "I alone maintained myself. My elders… my mother and my father, told me, '*Ay*, if you want to study, study. I can't give you the money, because your older siblings are going to say that you are making it unequal.'"[58] Thus, the years of education that Teofila pursued in town displaced her from the life of *el campo*, and from the life trajectory of her family members. These experiences endowed her with the autonomy of a self-made woman whose exposure to the world outside *el campo* lent her a different form of hybrid authority.

After finishing high school when she was about twenty, a damaging fall from a horse in *el campo* catapulted Teofila into several years of ill fortune with her and her

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[57] "Así crecíabamos. Y ya cuando estaba más grande recien comenzamos de estudiar también hasta tercer grado en la comunidad Quitampari, por el bajo"

[58] "Yo solo me mantenía. Mis mayores… mi papa, y mi mama me dicían, 'ay si quiere estudiar, estudia. Yo no te puedo dar la plata, porque tus mayores van a decir que está poniendo desigual.'"

family's health. Teofila connects her own accident with her father's experience of illness that followed. "After, when I was finishing my twentieth year, I fractured my arm on the horse. After I fractured my arm, my father became ill and had four operations in Arequipa. Cancer of the neck, my father had."[59] The following ten years were marked by illness for Teofila: "I was sick for 10 years… I didn't walk, I stayed in bed… only my heart was alive."[60] In articulating the living heart within an injured and ill body, Teofila located the life force that allowed her to overcome the damage done to her body. This source also spoke to the burgeoning of her faith during those years. She had endured several operations to treat the fractured wrist. While the years of illness afflicted her whole body, and her heart was the source of her will to survive, the main physical marks of those years remain on one of her arms. Pulling up her sleeve, Teofila revealed two deep scars lengthwise along the inside of her wrist. Teofila literally embodies her faith through the medical history inscribed in her arms. These signs of a physical knowing act as another index of her medical and religious authority in the way that Teofila reconstructed her narrative for me.

Teofila continued her story, shifting in and out of present tense, and weaving in the formative experiences she had sustained outside of Nuñoa with religious foreigners, whom she referred to as "the ones who spoke of Jesus." When she was around twenty-three years old, she came into contact with these religious people who also leveraged her ability to access biomedical resources outside of Nuñoa. "And after… we are in Juliaca. And these doctors, from the United States, the ones who spoke of Jesus, told me that 'I

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[59] "Despues, cuando estaba acabando veinte años, facturé mi brazo en el caballo. Despues de fracturar mi brazo, mi papá se ponó enfermar y tenía cuatro operaciones en Arequipa. Cancer del cuello, tenía mi papá."

[60] "me enfermaba por 10 anos… no andaba, quedaba en la cama… solo estaba vivo mi corazon"

have a friend in the hospital, you and all of your arm can be seen with the ultrasound. Let's see, from which part are we going to cut, today, from here to here...' In order to cut, they brought me to the hospital."[61] However, through a complication with the fracture of the bone, her recovery was slow. "So, when they've looked at my hand, all with the ultrasound scan, 'so, this is how the bone is ruptured.' It's not possible to cut like this… and the foreigners, praying, praying. *Ay*. They told me 'you have to put faith in Jesus in order to get well,' they said. And I have recovered, putting faith in Jesus. Little by little, little by little."[62] Moving her arm upwards by small increments, Teofila explained: "My hand is reaching here, another day up to here, another day up to here. After fifteen days, it reached my mouth. Yes. After three months, up to my hair."[63]

When Teofila speaks of learning about the herbs, she weaves this part of her life into the tapestry of experiences that comprise the foundation of her faith in Jesus. It is hard to locate the place and time when she acquired the skills that would later serve as the basis for her career selling and working with herbs. "During ten years, I have already learned, what is this, what is this, what this is for, for everything, already I was learning,"[64] she explained of the ten years of illness that spanned her twenties. When I asked Teofila who taught her about the herbs, she began by giving an account of learning from other herbalists about the different herbs. However, she quickly re-articulated her

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[61] "Y después… estamos en Juliaca. Y estos doctores, de Estados Unidos, que hablaba de Jesús, me decía que 'tengo amigo en el hospital, te hago ver con ecografía, todo el brazo. A ver, de que lugar vamos a cortar, hoy, de aca de aca.' Para cortar, me llevaba al hospital."

[62] Entonces, cuando me han hecho ver la mano, todo con ecografías, entonces, asi porfora el hueso. No se puede ya para cortar… y orando, orando los extranjeros. Ay. Me dicen, 'tiene que poner fe a Jesús para sanar,' me dicían. Y me he sanado, poniendo fe en Jesús. Poco a poco, poco a poco."

[63] "Mi mano asi está alcanzando para aca, otro día para aca, otro día para aca. Para quince días, me alcanzó a la boca. Si. Para tres meses, ya mi caballo."

[64] "Dentro de diez años ya he conocido, que es esto, que es esto, para que es, para todo, ya estoy conociendo.

story, giving more weight to the role of God. "It's that… I asked like this, to the people selling herbs… but I asked God, Jesus, 'Teach me the herbs.' And like that, no more, I learned. Trusting, giving faith to Jesus, like this, no more, I learned."[65]

Teofila articulates her first experiences in learning the herbs as part of adopting a categorical knowledge of specific treatment regimens. "This is for this, for that. I took this, it made me well. I cured myself, it made me well. I say to the people: This is good for the liver, for the womb, for everything. At first, I didn't sell much, I only knew the herbs, bought them, and cured. I did nothing more. So, the years passed, seven years."[66] Teofila's interest in working with the herbs also has a bodily origin in the pains that she experienced during those years of illness. She began learning the herbs "Because of the pains in my body… Because of the pains, there I couldn't bear the cold. I also knew the heat, I also felt the sun, and there are other [herbs] for the sun. I took those as well."[67] Teofila's use of herbs began as a means of treating herself, and protecting her body from a harmful environment. Only later, it grew to sharing with others and then taking on an entrepreneurial character. In this framing of her medical expertise, Teofila garners an authority that is both local and divine. The materials that she works with are the herbs of the people, while her knowledge is derived from a holy source, and the impetus to learn comes from within her own body.

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[65] "Es de.. yo preguntaba así, que vende las hierbas, así… pero, a dios decía, a Jesús, "Enseñeme las hierbas." Y asi no más aprendí. Confiando, con fé poniendo a Jesús, así no más aprendí."
[66] "Esto es para esto, para esto. Yo tomaba, me hacía bien. Yo curaba, me hacía bien. Yo digo a la gente. Esto es bien para las fracturas, esto es bien para higado, para matriz, para todo.. Primero, no vendiá nada, las hierbas solo conocía, y compraba, y curaba yo. Nada mas hacía. Entonces, ya pasaba años, siete años…"
[67] "Por las dolores de mi cuerpo… por las dolores, ahí no aguantaba frío. También, los calientes conocía, también sol sentía, también para sol hay otros. Estos tomaba también."

Teofila's wrist injury was also a point of origin for the positive force that her faith had played in her life. After the conventions where she received aid from "the people who spoke of Jesus," Teofila became an *hermana* (sister) in the church. She didn't marry until the age of 36. Without the use of her hand, many men didn't "want" her. However, her encounters with the man whom she would later marry – who said to her "it doesn't matter to me"[68] – also originated with the church. Her husband works now, but it is not *seguro* (secure), so some days he is at home. She only works with the herbs, "no más." As a result, Teofila yearns for stability, and particularly the ability to purchase her own house. For now, she and her husband live with their two young daughters in a room that they rent from an elderly woman. The same room acts as a kitchen where the family cooks their food in an open wood-burning stove.

Thus, the origins and evolution of Teofila's work with herbs reflect a complex background of influences, starting from the injury of her wrist to the aid that she received from the religious "foreigners." Unlike most people in the area who share knowledge of herbs, Teofila's work has taken on a modern entrepreneurial character. While use of medicinal herbs in Nuñoa is generally located in private spaces such as in the home, or through sharing amongst social networks, Teofila has made a small business for herself. She travels between town centers in the area to sell her collection of herbs on each town's market day. Her collection of herbs contains both herbs from different parts of Nuñoa and from other regions of Peru. Every other month or so, she must travel to the distant district of Macusani to purchase herbs from Peru's jungle regions to replenish her supply of marketable goods. As Ann Miles (2003) has suggested in her work on *curanderos* in

[68] "No me importa."

Cuenca, Ecuador, the "informal" economies that intersect Teofila's path lend legitimacy to her work, since it is located in a different moral space from the work of the state.

Teofila's work places her at an interface of multiple medicalities and localities. As a visible town "herbalist," she bears the public face of what is seen to embody the indigenous, traditional, and the rural. Knowledge of herbs has been passed down through generations upon generations of Nuñoans. Furthermore, many of the plants grow directly in the rolling hills and mountains of the district, linking these medical resources closely to the land. Yet, Teofila's work brings her into contact with other systems of healing as well. Some of her patients call on her for home visits, and she told me once that she sometimes visits women who have recently given birth in the *Centro* in order to provide the proper herbs to prevent against *sobreparto*. In this way, Teofila is able to intervene in the work of the state medical care that overlooks *sobreparto*, an illness afflicting many women after giving birth (see part 1). Through intermixing her own health services with those of the Ministry of Health, Teofila locally circumvents some of the policy implications of the obligation for women to give birth in Ministry of Health facilities.

Teofila, as well as many of her patients, use the services of the Ministry of Health for the same problems that her herbs address. When the group of American doctors came to Nuñoa, Teofila asked me to walk with her to the *Centro* so that she could be seen about her aching shoulders and occasional heart pains. She spoke with excitement about seeing the "*médicos gringos"* (Gringo doctors). However, she was disappointed when they only prescribed Ibuprofen and vitamins for the pain in her shoulder. The next time I saw her, she had made a puree of herbs that she had spread up and down her arm to heal it.

The ways in which Teofila simultaneously engages the traditions of an involved Christian faith with Nuñoa's herbal remedies brings to the fore the multiplicity of her identity and of the medical landscape of which she is a part. Her own exposure to "the people who spoke of Jesus" took place outside of *el campo* and away from Nuñoa. The spread of Christianity through *el campo* of the Andes, as well as across Latin America, is linked to a deep history of colonialism that replaced or often commingled indigenous religions with Western ones (Gose 2008). Degregori and Sandoval (2008) liken chroniclers of the Spanish Conquest to proto-anthropologists concerned with the "intercultural translation" of their religious concepts and moralities in the face of the "radical Otherness" of the Incans (152). When Teofila sells herbs for market day, her rows of herbs sit side by side with a complementary stand of neatly organized Bibles and religious texts that she sells in Quechua and Spanish.

Teofila not only exists within and because of a region of "intermedicality" – which Greene describes as "a contextualized space of hybrid medicines and sociomedically conscious agents" (641); her agency within this environment allows her to shift within and engage multiple parts of this space at once. As a result, Teofila is in contact with people from many different spheres of the complex, multi-layered matrix of health resources inside and outside of Nuñoa. She is able to address illness and disease as understood from several different orientations. Her folk enterprise reproduces aspects of biomedicine, but also fills in for its lacunas based on her local authority of the peoples' needs and desires. Using a derivation of biomedical diagnostics, she prescribes certain herbal agents to intervene in the experience of symptoms, yet these remedies diverge from the biomedical therapeutics in that their exterior acts as a visible sign rather than an

invisible one. Her work takes place and gains local legitimacy outside the institutional space of the Ministry of Health, but in treating individuals who are also patients of the state's health services, she is able to intervene within the institution as well.

A selection of Sra. Teofila's medicinal herbs, collected in my journal. See Appendix 2 for names.

Carla and María

"The people have more faith in the botica*" - Carla*

Carla and María – two of the *botica* owners in town – are also oriented in a space of in-between-ness that endows them with a unique perspective on the different

trajectories that people take when faced with illness in Nuñoa. Their stores offer western biomedical remedies, but within a context that is void of the extensive bureaucracy and surveillance of the Ministry of Health.[69] Nonetheless, they see patients who have often interacted with the Ministry of Health doctors for official prescriptions. Additionally, Carla and María have both worked in the *Centro de Salud* in the past and continue to seek health services from the biomedical resources of the Ministry of Health. Thus, the care that they provide through their *boticas* is interwoven into a health care landscape that also includes institutionalized biomedicine.

Carla owns a *botica* right off the main plaza, next to the rotisserie chicken restaurant in town called "Superchicken." Ever since she was a girl, Carla would tell people that she wished to go into *la enfermería* [nursing]. She also describes her motivation to become a nurse as originating from an experience with illness during her youth and a yearning to learn about the diseases that were unknown during that time: "Because in high school, I got sick with a disease that I didn't know about. Before, we didn't know about diseases. We only had herbs."[70] Carla described the symptoms of the unknown disease: "I had a burn on my side, an irritation."[71] Carla pointed to the side of her stomach. She explained that her experience with this unknown illness and the desire to learn more motivated her to be a nurse. Now she knows that the disease she suffered from was herpes. Continuing, Carla explained that it is still quite common here, that

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[69] DIGEMID is the agency within Peru's Ministry of Health that regulates pharmaceutical products and Peru's Consumer Protection Law dictates regulation of food and drugs distribution throughout the country (Llosa 2006). It is unclear how this agency regulates the diffusion of pharmaceuticals in Nuñoa.

[70] "Porque en el colegio, me enfermó con una enfermedad que no sabía. Antes casi no sabíamos de las enfermedades. Solo hierbas teníamos."

[71] "Tuve un quemado en mi lado, un picazón."

people expect to get it "once during one's life."[72] For example, just the day before, a patient had visited her *botica*, seeking treatment for his herpes.

Carla began her nursing career working in the *Centro*. "I did my practicals in the same *Centro*. My practicals lasted three months and I stayed two years more as a support to gain more experience. But they didn't pay me and I retired."[73] Finding her work at the *Centro* to be a dead-end, Carla was open to others' suggestions. "People and the mothers said to me, 'with your experience, why don't you open a *botica*?"[74] So she began her *botica*, and stocks it with supplies herself. The store has only been open "un añito."

Carla has her own protocol and process for advising patients about which medication to purchase. "We take the temperature, listen to respiration,"[75] she said, and she prescribes different drugs based on the results. Carla stocks the *botica* based on her knowledge of the most common needs of the people. Sometimes people come in with requests for her to stock certain medications.

Carla's *botica* maintains a distanced relationship of reciprocity with the Ministry of Health's *Centro de Salud*. "When it's very serious, I always refer them to the *Centro*,"[76] Carla explained. In addition, there are many who travel first to the *Centro*, and then walk to the *botica* to purchase the prescribed medication. "Everyone is insured,"[77] said Carla. Then why does her *botica* see so many patients? Carla explained that "Sometimes they have no medications, the people have more faith in the *botica*… others

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[72] "Una vez siempre en la vida"
[73] "he hecho mis prácticos en el centro mismo. Mis prácticos duraron tres meses y quedé dos años mas cómo apoyo para ganar mas experiencia. Pero no me pagaban y me retire…"
[74] "La gente y las mamas me decian, 'con su experiencia, porque no abre una botica?'"
[75] "Tomamos temperatura, eschucha su respiración"
[76] "Siempre cuando está muy grave les refiere al centro"
[77] "Todos están asegurados"

always go to the *Centro*."[78] Another element that determines the choice of medical care is time. "In the *Centro*, it sometimes takes all day… people say 'I can't cook for my children.'"[79] The *botica*, on the other hand, minimizes the time away from other daily tasks. In addition, with her close contact with many people in town, some people pay her with credit instead of paying her right away.

Carla's *botica* sees many patients who also seek to treat their medical problems with herbs, even in conjunction with the pills that she sells. "Yes, they use herbs, how many herbs they have!... they take their pills in their herb teas."[80] As Sra. Gimena later told me, "In the *boticas*, when you buy a remedy, they always give it to you, for example, with advice about what you can drink, in what *mate*, for example, no? A *mate* of, let's say, you take it in a little mate of sage, for example. Or you take these pills in a little *mate* of oregano, they say. They complement with herbs."[81] In their role of "complementing," the herbs take on a secondary form of therapeutics, acting to allay side effects. Sra. Gimena described the same process with Sra. María: "The *botica* over there, Sra. María's, she always says after the appointment… I tell her my stomach is hurting a lot, and what do I do? And she tells me, Señorita, take these pills in a little *mate* of manzanilla."[82] In mixing *mates* with pharmaceuticals, the herbs seem to remediate

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[78] "A veces no tienen medicamentos, tienen mas fe en la botica… otros siempre van al centro."
[79] "En el Centro, se demora, a veces todo el día… las personas dicen 'no puedo cocinar para mis hijos'"
[80] "Si, usan hierbas, cuantas hierbas tienen! … en matecito de hierbitas están tomando sus pastillitas."
[81] "En las boticas cuando ud. compra un remedio, ellos simpre te dan por ejemplo, consejos de que lo puedas tomar en que mate por ejemplo, no? Un mate de, digamos, tomate en matecito de es de salvia, por ejemplo. O te tomas estas pastillas en un matecito de oregano, te dice. Complemente con hierbas."
[82] "La botica de aca, de la Sra. María, ella después de la cita, siempre te dice… le digo esta doliendo mucho mi estomago, que hago? Y me dice, señorita, tómate estas pastillitas en matecito de manzanilla."

another aspect of the biomedical system, this time not to do with the institution, but with the biological agents themselves.

Sra. María, whose *botica* is about two blocks away from Carla's, also has experience working in the *Centro* as a nurse, before she left her work there to open her *botica*. The store is impeccably clean and organized with boxes and bottles of medicines lining one small room. The *botica* has been open for two years now. Before that, Sra. María worked in the hospital eight or ten years. However, "There was a lot of competition due to the *concurso*, and it was too much."[83] I asked what the *concurso* was and Sra. Gimena explained that it was a test that you must take every two years or so. Sra. María also said that her income was hardly livable, 200 soles per month (about $70). She said "We didn't have the right to rest."[84]

Sra. María still maintains some degree of connection with the *Centro de Salud* in town. When dealing with clients, Sra. María explained, "I always demand that they bring their prescription from the hospital."[85] In the case that the patient does not first go to the hospital, could she also evaluate them? She said yes. For example, she will tell them to return to her *botica* after visiting the *Centro*, but they will come back later saying "no está" [nobody's there]. In these cases, Sra. María engages a remedial science, standing in for the services that should be offered at the *Centro*: "you have to ask about the symptoms,"[86] she explained. She also records the temperature of her patients.

However, when Sra. María gets ill, she follows a very different trajectory to medical care than the one she recommends to her patients. Instead, Sra. María goes to

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[83] "Había mucha competición por el concurso, y era demasiado."
[84] "No teníamos derecho de descansar."
[85] "Siempre yo exigo que traiga su receta medica del hospital."
[86] "Hay que preguntar las sintomas"

Arequipa in order to see a specialist. She gave examples: "If I have problems of the heart, I see the cardiologist, if I have a urinary tract infection, I go to the urologist."[87] Her willingness to travel so far for high-quality care also derives from her family connections in Arequipa, where her brother lives.

María and Carla both base their work on their complementary experiences as nurses within a larger health infrastructure and on their backgrounds as involved community members of Nuñoa. Through their consultations, they work to facilitate patients' access to the Ministry of Health services by encouraging them to see doctors for prescriptions, but also provide a means of bypassing this highly bureaucratic system. Like Teofila, they also embody both a local face and a more western scientific one.

Teofila, Carla, and María speak to the fluid nature by which Nuñoans pursue and engage different forms of health care in the region. Depending on the situation, Nuñoans may tap into one node of health resources over others; at other times, individuals may use varying combinations of these resources. New combinations of different traditions and institutions of care subvert the boundaries between these forms of health care. As a result, medical pluralism in Nuñoa is not merely a stable co-existence of different mutually exclusive paths to care. Rather, patients and healers create exchange that directs the local evolution of these diverse nodes of care.

[87] "Si tengo problemas del corazón me voy al cardiologo, si tengo infeccion urinaria, me voy al urólogo."

Conclusion: Cartographies of Care

In Nuñoa, the maps created by individuals in search of care include landscapes constructed by human trajectories and varying densities of resources. Disciplines involved in the study of rural health represent these local realities in a number of ways. Doctor-patient ratios often act as an important indicator of health care delivery in rural areas. Similarly, doctor or nurse densities (per 10,000 population) have been used as a variable linked to human resources in health care delivery (Anand and Bärnighausen 2004). This way of framing shortage may be employed on different scales of aggregation, such as districts, postal codes, or countries.

While such maps of human density yield significant correlations with health determinants (Anand and Bärnighausen 2004), they omit important aspects of barriers to accessing care. Martin et al. (2002) have developed ideas and models for incorporating a more "sophisticated" access measurement that incorporates travel time and cost for the individual. These authors argue that "population density is not necessarily a good proxy for transportation isolation," (4) and advocate sensitivity to local variation in public and private transportation information beyond "crow-fly distances" (6). Other health geography studies (McGrail and Humphreys 2009) have similarly sought methods that more specifically represent the experience of health care accessibility for individuals on the ground.

This recent work in health geography advocates an understanding of accessibility grounded in nodes and human trajectories in addition to the "proxy" indicator of human densities. New methods of assessing accessibility create different types of maps from those based on doctor-patient ratios. While still based on aggregates of people, indices of access that incorporate travel time and consider infrastructural factors such as public transportation give greater consideration to the movement of humans, and represent more than a static impression of populations.

Anthropology has the ability to deploy both density and trajectory maps and include in these cartographies the nodes of care that lie outside "formal" institutions of medical service delivery. Biehl and Locke (2010) write that "Anthropologists demarcate uncharted social territories and track people moving through them. The maps we produce allow the navigators – the interpreters – to consider these territories and their life force (their capacities and possibilities as much as their foreclosures)" (318). In the study of rural health, creating maps of resource densities and humans' trajectories across different systems offers a unique local perspective into the "possibilities" and "foreclosures" experienced by those seeking care.

Such health maps are important for the territories of health in Nuñoa. Deleuze (1997) points out that we should not neglect "maps of intensity, or density, that are concerned with what fills space, what subtends the trajectory" (64). When Nuñoans find a *puesto* or the *Centro* unstaffed or under-stocked, often their paths to alternative nodes of care are diverted or truncated. Yet, despite limited agency, other people travel great distances outside of Nuñoa for care. Many of the health care nodes visited along the way

belong not to an institutional space, but to individuals' folk enterprises and micro-economies of care.

Mapping health realities not only produces usefully organized and integrative information, but also involves a process whereby lived realities and subjectivities may be voiced. At the end of "The Name of the Disease" (Banerjee et al. 2006), a community in rural Rajasthan, India gathers to map viable resources and individuals' common paths to health care. In collaborating on this map, certain truths emerge. Instead of 15 minutes to an hour, the trip to the nearest health center takes two to three hours. Community members must carry the sick in order to make this journey and pay exorbitant prices for injections upon arriving at the health center. These lived realities and veiled truths are only articulated when the community gathers to map their trajectories and encounters with the health care system. "The Name of the Disease" shows mapping to be a powerful method of exposing unheard voices and producing new collective knowledge.

A Local Health Map

Poor, rural places like Nuñoa call for both literal (drawn) and figurative (narrative) maps of health. In 2008, community members of Diego Tapara drew a map of the health resources across their territory. The *Mapa de Salud* (Health Map) inscribes densities of herbal resources, directionalities of patients, and speaks to a historical evolution of certain nodes of care. During my visit to the community in July, several members of the community narrated the map, explaining its symbols and arrows. The map's vocabulary of symbols and arrows represents densities and trajectories, combining to reveal emergent local realities.

The map shows the outline of Diego Tapara, with its boundaries touching the community of Yaruwilca to the South and Caylloma to the North. The Río de Nuñoa and the parallel *Carretera* (a dirt road extending north from the town) lie along the Eastern border, and the Western border is defined by the Camino *Herradura*, a well-traversed footpath that connects the town to the communities that lie in *el campo* to the north. The *Camino* is about five or six kilometers uphill, or an hour by foot, away from the *Carretera* and is used frequently for transporting herds to and from town, as well as for travel by foot. Natural landmarks are notated as well: the small run-off streams drawn as narrow blue lines, and the mountain ridges depicted in brown.

Within these natural geographic boundaries, Diego Tapara is divided into two halves, one occupied during the rainy months and the other occupied during the colder, dry months. The community encloses about 12 *cabañas*, small stone and thatched-roofed huts, with names based on their original inhabitants at the time that Diego Tapara became a community. During the *tiempo de sequía* (dry season), the community moves to occupy the southern part of the region, which is lower in altitude, and thus receives water run-off and some protection from the bitter cold winds. During the *tiempo de lluvias*, the *cabañas* in the higher half of the community are used instead. Thus, territory enclosed by Diego Tapara is variable throughout the year and closely interrelated with the climate.

The most abundant health resource on the map is the herbs, drawn to represent their unique shapes and representations. *Pinco pinco*, a leafy green plant that is used for back pain, grows in the eastern part of the land inhabited during the *tiempo de lluvias*. On the northern edge lie *Tani tani*, flowers that can be used to calm cough and the flu. In the

Tiempo de Sequía section of the district grow *Qata*, a plant with pointy green leaves that treats toothache, and *Qellotica*, a yellow flower used for cough and fever.[88] More than ten different herbs have been mapped across the district and the map is missing several more zones of herbs at the center of the community. Everyone knows how to mix herbs from past generations, I was told, and each family picks part of the herbs each year.

The Ministry of Health services are super-imposed, or co-written into, this map of herbal resources. In the lower left hand corner, the *Carretera* leads to a building that represents the *Centro de Salud* in town. Small arrows depict movement of *enfermos* (sick people), across the landscape. In cases of emergency, community members may use the community car, which is parked in town.

Two other features stood out to me as evidence of changes in the landscape of health resources in Diego Tapara over the past several years. First, the word *gestantes* (expecting mothers) was inscribed next to a two-headed area pointing to and from the community and Nuñoa, the town. The movement of *gestantes* in the directions indicated by the arrows reflects the policy implemented in 2000 requiring women to give birth in a *Centro* or *puesto*. Likewise, it has introduced new vectors of patients to and from the town and *el campo*. Another arrow pointed from the community center to a label for the *promotor de salud*. This label reflects a past health resource that no longer serves the community. Until 1998, a *promotor de salud* (community health worker or promoter) was paid by the state to travel with sick people to the *Centro* or the *puesto* and also dispense help with the use of herbs. Pedro told me that the *promotor de salud* position had been

[88] The remaining herbs from the map are listed in Appendix 3.

terminated by the state because "there are no young people anymore"[89] due to the extent of out-migration from the community.

Through its consolidation of community knowledge, the *Mapa de Salud* visualizes temporalities, histories, and directionalities inscribed in the landscape of Diego Tapara. Such a map poses the potential to bring to light emergent realities in the relations between diverse components of the landscape. Mapping health resources in Diego Tapara produces local knowledge that would be important for shaping the structure of health care in their community. For example, we see that although the community encloses different land during different seasons, no adaptable mechanisms of health service delivery accompany that shift. Likewise, the arrows of *enfermos* moving across the landscape do not coincide with an infrastructure that would channel and support these vectors. Finally, the herbs on the map are visually striking because they are so diffuse, whereas the Ministry of Health nodes of services lie close to the edges of the map. The contrast between how these herbs and institutional facilities fill the space of the map create possibilities for re-envisioning health care delivery in Nuñoa.

A hybrid landscape of health that encloses variable densities and human trajectories calls for an integrative, local methodology. Making rural health maps is an important way to begin.

[89] "Ya no hay jovenes."

Appendices

I. Access to Health Care Survey Data: Summary of Findings

Diego Tapara

16 out of 22 household heads were surveyed about access to health care resources.

1. Only one household had visited a *puesto de salud*.
2. 13 households had visited the *Centro*, three had not.
    a. Of those who did not visit the *Centro*, the reasons given were: "I had no one to leave my animals to, and not enough money" and "I only treat myself with herbs from *el campo*."
    b. Reasons for traveling to the *Centro* included sever illness; proximity to the community; and obligation due to pregnancy, participation in *Programa Juntos*, or hygiene certification for selling bread.
3. A decision to travel for health care was generally supported by someone else: a son or daughter (five responses), a coordinator of *Juntos* (two), a parent (one), or a husband (one).
4. In traveling for health care, five people responded that they received no help, four people responded that they received help from sons or daughters, two were aided by the community, and two by the *Centro's* ambulance.
5. Four people traveled by foot to access medical services, four traveled by bicycle, five people traveled by car or ambulance.
6. The trip took between 15 minutes (for those members of the community living in town) to two hours (for those living on Diego Tapara's land). Journeys outside of Nuñoa to Juliaca and Arequipa took an additional three and eight hours, respectively.
7. The closest Ministry of Health facility was between one and 15 kilometers from community members' houses or *cabañas*.
8. Fourteen out of 16 people responded that in the past there had been times when someone in their family was sick, but they did not travel to a medical facility.
9. When asked what they do in the event that someone from their family becomes ill, two household heads responded that they take the ill person to the *Centro*, 11 responded that they treat the illness with traditional herbs, and two responded that they go to a *botica*.

Sacco

Five household heads were interviewed.

1. All five household heads had traveled to the *Puesto de Salud* in the past
2. One individual responded that he had traveled to the *Centro*.
3. All five individuals had received help with the decision to travel for care from a spouse.
4. All five responded that they traveled without help to the *Puesto*.
5. All five traveled by horse; two of those five sometimes traveled by foot; One sometimes traveled by bicycle.

6. The distance from the *Puesto* to households' *cabañas* ranged from 3 to 15 kilometers.
7. All five responded that they had, at other times, stayed at home in the event of illness.
8. Two households responded that they take someone who has fallen ill to a Ministry of Health facility; three responded that they treat the person with herbs.

II. Herbs from Sra. Teofila's Collection

Achiwa achiwa; para prostata, cuando no se puede orinar [for the prostate, when one cannot urinate]; de San Goban
Ahinjo; para cólico/ digestión [for colic/ digestion]; de Nuñoa
Ayapira; para matriz [for childbirth]; de selvas diferentes
Buldo; para hígado [for liver], de Sandia
Cala wala; para riñon, purifica la sangre [for kidney, purifies the blood]; de Ayapata
Canchalawa; para vesículas [for gallbladders]; del lado de Cusco
Chachacuma; para mal de viento [for sickness caused by wind]; de Nuñoa
Chichira; para hemmoragia, sangre de la nariz o del parto [for hemorrhage, bloody nose, or blood from giving birth]; de Nuñoa en bajado
Chiri chiri; para golpes, dolores [for injuries, pains]; de Nuñoa
Clavel; para tos [for cough]; de Nuñoa (Enero- Marzo)
Cula de caballo; para riñon [for kidney]; de diferentes selvas
Diente del león; para vesícula [for gallbladder]; de Nuñoa
Escursunera; para desfrío [for colds]; de Nuñoa
Eucalypto; para tos [for cough]; de los arboles de Nuñoa y Cusco
Flor amarilla; para el quemada del sol [for sunburn]; de Nuñoa
Flor blanca; para regla/ menstruacion blanca, para el frio [for menstruation, for the cold]; de San Juan del Loro
Furajas; para sobreparto [for illness after childbirth]; de las selvas
Hinchu hinchu; para vesículas [for gallbladder]; de Nuñoa
Hojas de Igo; para inflammación [for inflammation]; de la selvas
Hojas de sangre degrado; para infección [for infection]; para sobreparto
Hualwa; para dar parto [for giving birth]; de Sicuani
Huarezmiro; para tos [for cough]; de las Alturas de Nuñoa
Huecunto; para tos, para casi todo [for cough, for nearly everything]; de Asarumu
Huichullo; para dolores, fracturas, torceros [for pains, fractures, twists]
Jallu jallu; para tos y los pulmones [for cough and for lungs]; de Nuñoa, de sus Alturas
La ruda; para banarse, para frío [for bathing, for the cold]; de Nuñoa
Llawa chonqa; para golpes, fracturas [for injuries, fractures]; de la selva de Sandia
Malva blanca; para infección de matriz [for uterine infection]; del lado de Sicuani
Mana Yupa; para sobreparto [for illness after childbirth]; de Maldonado
Marco; para banarse, para omearse [for bathing, smoke baths]; de Nuñoa
Matiqu matiqu; para inflammación de matriz [for inflammation of the uterus]; de diferentes selvas
Menta de lenasa; para gastritis [for gastritis]; de selvas diferentes

Mully; para frío [for cold]; del lado de Cusco
Nabu; para infección, sobreparto [for infection, illness after childbirth]; de Nuñoa
Ojas de achuite; para prostata [for prostate]; de la selva
Ortega negra; para dar parto, para botar toda la sangre mala [for giving birth, for removing all the bad blood]; de Nuñoa
Paeca; para diarrhea [for diarrhea]; de Nuñoa (bajada)
Piacuya; para mal de viento [for sickness caused by wind]; de Nuñoa, de las Alturas
Pura pura; para inflammación, fríos [for inflammation, cold]; de Nuñoa
Qana qana; para vesícula, estómago [for gallbladder, stomach]; de Nuñoa, cerca del río
Retama; para bañarse, lavarse la cabeza despues del parto [for bathing, cleaning the head after giving birth]; del lado de Cusco
Romero; para frío [for cold]; de Sicuani
Salca; para fracturas, golpes [for fractures, injuries]; de Nuñoa
Sano sano; para riñones [for kidneys]; de Maldonado
Sasahuil; para tos [for cough]; de las Alturas de Nuñoa
Suelta que suelta; para riñon, para fracturas [for kidneys, for fractures]; de la selva de Ayapata
Talho sangre degrado; para infección, las heridas [for infection, wounds]; de Maldonado
Tiquil tiquil; para infección [for infection]; de Arequipa
Uña de gato; para quistes, vesículas [for cysts, gallbladders]; de la selva
Vela vela; para golpes, fracturas [for injuries, fractures]; de selvas diferentes, Maldonado

III. Herbs from Diego Tapara's Health Map

Accanas: para dolor de estomago y espalda [for stomach and back pain]
Chachacoma: para mal de viento (crece en el tiempo de sequía) [for sickness caused by wind (it grows in the dry season)
Chanqorama (raiz): para resfrío [root, for the cold]
Ortega: mate para el parto [tea for giving birth]
Pinco pinco: para dolor de espalda [for back pain]
Qata: para dolor de los mueles [for tooth aches]
Qellotica: para tos y fiebre [for cough and fever]
Ruro ruro
Tani tani (flores): para tos, gripe [for cough, flu]
Warismiro: para tos [for cough]

Bibliography

Anand, Sudhir and Till Bärnighausen
2004 Human resources and health outcomes: cross-country econometric study. The Lancet 364(9445):1603-1609.

Arcury, Thomas A., Gesler, Wilbert M., Preisser, John S., Sherman, Jill, Spencer, John, and Jamie Perin
2005 The Effects of Geography and Spatial Behavior on Health Care Utilization among the Residents of a Rural Region. Health Services Research 40(1):135-56.

Baer, Hans A.
2004 Medical Pluralism. *In* Encyclopedia of Medical Anthropology: Health and Illness in the World's Cultures. Carol R. Ember and Melvin Ember, Eds. pp. 109-116. New York: Kluwer Academic.

Baker, Paul, and Michael A. Little
1976 Man in the Andes: A Multi-disciplinary Study of High-Altitude Quechua. Stroudsburg: Dowden, Hutchinson & Ross, Inc.

Banerjee, Abhijit V., Banerjee, Arundhati Tuli, and Bappa Sen
2006 The Name of the Disease. Poverty Action Lab.

Banerjee, Abhijit, Deaton, Angus, and Esther Duflo
2004 Health, Health Care, and Economic Development: Wealth, Health, and Health Services in Rural Rajasthan. American Economic Review 94(2):326-330.

Bastien, Joseph
1982 Exchange between Andean and Western Medicine. Social Science and Medicine 16:795-803.
1992 Drum and Stethoscope: Integrating Ethnomedicine and Biomedicine in Bolivia. Salt Lake City: University of Utah Press.

Berry, David E., and John W. Seavey
1994 Assuring Access to Rural Health Services: The Case for Revitalizing Small Rural Hospitals. Health Care Management Review 19(2):32-42.

Biehl, João
2007 Will to Live: AIDS Therapies and the Politics of Survival. Princeton: Princeton University Press.

Biehl, João, and Peter Locke
2010 Deleuze and the Anthropology of Becoming. Current Anthropology 51(3):317-351.

Bowyer, T.
2004 Popular participation and the State: democratizing the health sector in rural Peru. The International Journal of Health Planning and Management 19(2):131-61.

Bundred, Peter E., and Cheryl Levitt
2000 Medical Migration: Who Are the Real Losers? The Lancet 356:245-6

Carey, James W.
1993 Distribution of Culture-Bound Illnesses in the Southern Peruvian Andes. Medical Anthropology Quarterly 7(3):281-300.

Crandon, Libbet
1986 Medical Dialogue and the Political Economy of Medical Pluralism: A Case from Rural Highland Bolivia. American Ethnologist 13(3): 463-476.

Constitución Política del Peru.
1993 Online Access at http://www.tc.gob.pe/legconperu/constitucion.html.

Cordero, Marisol
2006 Políticas que Promueven el Acceso a los Medicamentos en América Latina. Lima: Observatorio del Derecho a la Salud-CIES.

Crandon-Malamud, Libbet
1991 From the Fat of Our Souls: Social Change, Political Process, and Medical Pluralism in Bolivia. Berkeley: University of California Press.

Csordas, Thomas J.
1993 Somatic Modes of Attention. Cultural Anthropology 8(2):135-56.
1994 Embodiment and Experience: The Existential Ground of Culture and Self. Cambridge: Cambridge University Press.

Cueto, Marcos
2004 The Origins of Primary Health Care and Selective Primary Health Care. American Journal of Public Health 94(11):1864-1874.

Declaration of Alma-Ata International Conference on Primary Health Care
1978 Alma-Ata, USSR, 6-12 September.

De la Cadena, Marisol
1995 Women Are More Indian. *In* Ethnicity, Markets, and Migration in the Andes. Brooke Larson and Olivia Harris, Eds. Durham: Duke University Press.

De la Portilla, Elizabeth
2009 They All Want Magic: Curanderas and Folk Healing. Texas A&M University Press.

Deleuze, Gilles
1997 Essays Critical and Clinical. Minneapolis: University of Minnesota Press.

Etkin, Nina
1988 Ethnopharmocology: Biobehavioral Approaches in the Anthropological Study of Indigenous Medicines. Annual Review of Anthropology 17:23-42.

Ministerio de Transportes y Comunicaciones
2006 Plan Vial Provincial Participativo de Melgar.

Ewig, Christina
2006 Global Processes, Local Consequences: Gender Equity and Health Sector Reform in Peru. Social Politics 13(3):427-455.
2010 Second-Wave Neoliberalism: Gender, Race, and Health Sector Reform in Peru. University Park: The Pennsylvania State University Press.

Foster, George McLelland
1994 Hippocrates' Latin American Legacy: Humoral Medicine in the New World. Langhorne: Gordon and Breach Science Publishers.

Foucault, Michel
2004 Security, Territory, Population: Lectures at the College de France, 1977-1978. Graham Burchell, transl. New York: Picador.

García, María Elena
2005 Making Indigenous Citizens: Identities, Education, and Multicultural Development in Peru. Stanford: Stanford University Press.

Gaus, David P.
2009 The Rural Hospital in Ecuador. Health Affairs 28(4):1003-1010.

Girt, John
1973 Distance to General Medical Practice and its Effect on Revealed Ill-Health in a Rural Environment. Canadian Geographer 17(2):154-66.

Glasgow, Nina, Morton, Lois Wright, and Nan E. Johnson
2004 Critical Issues in Rural Health. Oxford: Blackwell Publishing.

Gold, Leah.
2008 Cloaked Selective Primary Health Care? Local Observations of Rural Primary

Health Care Clinics in Perú. *In* Primary Health Care: People, Practice, Place. Crooks, Valorie and Gavin Andrews, Ed. Abingdon, Oxfordshire: Ashgate Publishing Group.

Goldenberg, Efraín and Germán Suárez
2000 Letter of Intent of the government of Peru to International Monetary Fund. Lima, Peru. http://www.imf.org/external/np/loi/2000/per/01/index.htm.

Good, Byron
1994 Medicine, Rationality, and Experience: An Anthropological Perspective. Cambridge: University Press.

Gose, Peter
2008 Invaders as Ancestors: On the Intercultural Making and Unmaking of Spanish Colonialism in the Andes. Toronto: University of Toronto Press.

Greene, Shane
1998 The Shaman's Needle: Development, Shamanic Agency, and Intermedicality in Aguaruna Lands, Peru. American Ethnologist 25(4):634-658.

Gribble, Jay
2008 Conditional Cash Transfers Offer the Poor an Incentive to Attend School and Use Healthcare Facilities. Population Reference Bureau https://prb.org/Articles/2008/healthservices.aspx?p=1.

Hart, L. Gary, Larson, Eric H., and Denise M. Lishner
2005 Rural Definitions for Health Policy and Research. American Journal of Public Health 95(7):1149-55.

Harvey, Priscilla
2001 Landscape and Commerce: Creating Contexts for the Exercise of Power. *In* Contested Landscapes: Movement, Exile, and Place, Barbara Bender and Margot Winer, Eds. pp. 197-210. Oxford: Berg.

Heady, Hilda
2002 A Delicate Balance: The Economics of Rural Health Care Delivery. Journal of the American Medical Association 287(1):110.

Instituto Nacional de Estadistica e Informática (INEI)
2008 Censos Nacionales 2007: XI de Población y VI de Vivienda: Perfil Sociodemográfico del Perú. Lima. http://www.inei.gob.pe/Anexos/libro.pdf.

Iwami, Michiyo and Roland Petchey
2002 A CLAS Act? Community-based Organizations, Health Service Decentralization and Primary Care Development in Peru. Journal of Public Health Medicine. 24(4):246-251.

Kearns, Robin A., and Wilbert M. Gesler, Eds.
1998 Putting Health into Place: Landscape, Identity, and Well-being. Syracuse: Syracuse University Press.

Kokotovic, Misha
2005 The Colonial Divide in Peruvian Narrative. Brighton: Sussex Academic Press.

Koss-Chiono, Joan D., Leatherman, Thomas, and Christine Greenways, Eds.
2003 Medical Pluralism in the Andes. London: Routledge.

Kleinman, Arthur
1980 Patients and Healers in the Context of Culture: An Exploration of the Borderland between Anthropology, Medicine, and Psychiatry. Berkeley: University of California Press.
1995 Writing at the Margin: Discourse between Anthropology and Medicine. Berkeley: University of California Press.

Kristiansson, C., Reilly, M., Gotuzzo, E., Rodriguez, H., Bartoloni, A., Thorson, A., Falkenberg, T., Bartalesi, F., Tomson, G., and M. Larsson
2008 Antibiotic Use and Health-seeking Behaviour in an Underprivileged Area of Perú. Tropical Medicine and International Health 13(3):434-441.

Larme, Anne C.
1997 Health Care Allocation and Selective Neglect in Rural Peru. Social Science and Medicine 44(11):1711-1723.

Leatherman, Thomas
1994 Health Implications of Changing Agrarian Economies in the Southern Andes. Human Organization 53(4):371-380.

Leatherman, Tom and R. Brooke Thomas
2009 Structural Violence, Political Violence, and the Health Costs of Civil Conflict: A Case Study from Peru. *In* Anthropology and Public Health: Bridging Differences in Culture and Society. Hahn, Robert and Marcia Inhorn, Eds. Oxford: Oxford University Press.

Leatherman, Thomas, Luerssen, J. Susan, Markowitz, Lisa, and R. Brooke Thomas
1986 Illness and Political Economy – The Andean Dialectic. Cultural Survival Quarterly 10(3):19-21.

Llosa, Alicia
2006 *Boticas y Bodegas*: The Development of Food and Drug Regulation in Peru. University of Miami Inter-American Law Review 38(2):279-348.

Lockhart, Chris

1999 Biomedicine on the Spatial Periphery: The (Re)Production of a Metaphorical Landscape by Rural Health Care Practitioners in Northern California. Medical Anthropology Quarterly 13(2):163-185.

Martin, D., Wrigley, H., Barnett, S., and P. Roderick
2002 Increasing the sophistication of access measurement in a rural health care study. Health and Place 8:3-13.

McGrail, Matthew and John Humphreys
2009 Measuring spatial accessibility to primary care in rural areas: Improving the effectiveness of the two-step floating catchment area method. Applied Geography 29:533-541.

Micro Red Nuñoa
2010 Evaluación Anual 2009.

Miles, Ann
2003 Healers as Entrepreneurs. *In* Medical Pluralism in the Andes. Koss-Chiono, Joan D., Leatherman, Thomas, and Christine Greenways, Eds. London: Routledge.

Miller, Mark E., and Stephen Zuckerman
1991 Comparing Rural and Urban Physicians. Health Affairs 10(4):243-53.

Millones, Luis
1992 The Time of the Inca: the Colonial Indians' Quest. Antiquity 66:204-216.

Oths, Kathryn
1998 Assessing Variation in Health Status in the Andes: A Biocultural Model. Social Science and Medicine 47(8):1017-1030.
2003 Setting it Straight in the Andes. *In* Medical Pluralism in the Andes. London: Routledge.

Pan-American Health Organization
2001 Regional Core Health Data System - Country Profile: PERU. http://www.paho.org/english/sha/prflper.htm.

Peréz, Betty Alvarado, and Rony Lenz
2006 Pro-poor Policies in the Peruvian Public Health Sector. *In* A New Social Contract for Peru: An Agenda for Improving Education, Health Care, and the Social Safety Network. Daniel Cotlear, Ed. pp. 107-152. Washington, D.C.: The World Bank.

Philo, Chris, Parr, Hester, and Nicola Burns
2003 Rural Madness: a geographical reading and critique of the rural mental health literature. Journal of Rural Studies 19:259-281.

Poole, Deborah
2008 A Companion to Latin American Anthropology. Malden: Blackwell Publishing.

Price, Laurie
1989 In the Shadow of Biomedicine: Self-medication in Two Ecuadorian Pharmacies. Social Science and Medicine 28(9):905-915.

Ricketts, Thomas C.
2000 The Changing Nature of Rural Health Care. Annual Review of Public Health 21:639-57.

Ricketts, Thomas C., and Randy Randolph
2008 The Diffusion of Physicians. Health Affairs 27(5):1409-1415.

Rosato, Mikey, Glenn Laverack, Lisa Howard Grabman, Prasanta Tripathy, Nirmala Nair, Charles Mwansambo, Kishwar Azad, Joanna Morrison, Zulfi qar Bhutta, Henry Perry, Susan Rifk, and Anthony Costello
2008 Community participation: lessons for maternal, newborn, and child health. The Lancet. 372:962-971.

Seble Frehywot, Fitzhugh Mullan, Perry W Paynea & Heather Rossa
2010 Compulsory Service Programmes for Recruiting Health Workers in Remote and Rural Areas: Do They Work? Bulletin of the World Health Organization 88:364–370.

Starn, Orin
1995 Maoism in the Andes: The Communist Party of Peru-Shining Path and the Refusal of History. Journal of Latin American Studies. 27(2):399-421.

Stock, Robert
1983 Distance and the Utilization of Health Facilities in Rural Nigeria. Social Science and Medicine 17(9):563-70.

Strathern, Andrew, and Pamela Stewart
2010 Curing and Healing: Medical Anthropology in Global Perspective. Durham: Carolina Academic Press.

Taussig, Michael
1980 Reification and the Consciousness of the Patient. Social Science and Medicine 14B:3-13.

Tejada de Rivero, David A.
2003 Alma-Ata Revisited. Perspectives in Health Magazine 8(2).

Trivelli, Carolina
2006 Peru. *In* Indigenous Peoples, Poverty and Human Development in Latin America: 1994-2004. Gillette Hall and Harry Anthony Patrinos, Eds. Hampshire: Palgrave Macmillan.

Ugalde, Antonio
1984 Where there is a doctor: Strategies to Increase Productivity at Lower Cost. The Economics of Rural Health Care in the Dominican Republic. Social Science and Medicine 19(4):441-450.

Ugalde, Antonio, and Núrida Homedes.
2004 Why neoliberal health reforms have failed in Latin America. Health Policy 71(1):83-96.

United States Agency for International Development
February 2011 Peru: Health Fact Sheet. http://www.usaid.gov/pe/downloads/health-englishversion-february2011.pdf.

Van der Geest, Sjaak
1987 Pharmaceuticals in the Third World: the Local Perspective. Social Science and Medicine 25(3):273-276.

Williams, Raymond
1973 The Country and the City. New York: Oxford University Press.

Whitehead, Margaret, Dahlgren, Göran, and Timothy Evans
2001 Equity and Health Sector Reforms: Can Low-income Countries Escape the Medical Poverty Trap? The Lancet 358:833-6.

World Bank
2010 Data – Indicators: Rural Population (% of Total Population). http://data.worldbank.org/indicator/SP.RUR.TOTL.ZS

World Health Organization (WHO)
2011 Global Health Observatory Database. http://apps.who.int/ghodata/

I pledge my honor that this thesis represents my own work in accordance with Princeton University regulations.