Where There Is a Doctor: An Ethnography of Pediatric Heart Surgery Missions in Honduras

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ABSTRACT

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Traveling teams of cardiovascular specialists visit poor countries to treat children born with life-threatening heart defects. Working within challenging settings, volunteers may need to build temporary operating theaters and neonatal intensive care units before beginning their work. They also try to extend their humanitarian reach beyond the confines of an in-country visit: they train locally-based personnel in surgical and critical care techniques considered routine in rich countries yet locally unavailable; they donate machines, hardware, and disposable materials to local hospitals; they even build permanent surgical centers. Pediatric heart surgery missions thus define a new context where medical technologies circulate globally. It is well-known that medical technologies have far-reaching effects, transforming societies while at the same time being transformed by them, but few scholars have explored these processes in medical humanitarian arenas.

This study investigates the moral logic, medical logistics, and unanticipated effects of short-term surgical missions. The setting is Honduras: a known hub of medical mission activity. The study begins with an examination of why Honduras attracts scores of medical missions, and why children with heart defects have emerged as central objects of humanitarian concern. I argue that humanitarian sentiments dovetail with other interests and desires on the part of surgical volunteers, such as adventure travel, learning, and the allure of practicing an alternative, low-tech version of biomedicine as a corrective to disappointments, frustrations, and lulls in their everyday professional lives. I then describe how this humanitarian ethos reconfigures biomedical practice. This is followed by a discussion of the implications of pediatric heart surgery missions for host countries, such as how they inadvertently re-inscribe social hierarchies and place strain on existing health services. Finally, I follow the lives of pediatric heart patients following their surgeries, show how their parents contest any stereotypical assumptions about humanitarian aid beneficiaries, and unpack the logic underpinning consent for especially high-risk procedures. My analysis emerges from 13 months of ethnographic field research primarily in Tegucigalpa, the nation's capital, during which I participated in six pediatric heart surgery missions, and observed and interviewed volunteer clinicians, locally-based clinicians, and the parents of pediatric heart surgery patients.

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LIST OF ABBREVIATIONS

ASD	atrial septal defect*
CF	Children's Fund
GHF	Global Heart Foundation
ICU	intensive care unit
OR	operating room
PDA	patent ductus arteriosus*
TAPVC	total anomalous pulmonary venous connection*
VSD	ventrical septal defect*

*see Glossary for definitions

GLOSSARY

aorta	the largest artery in the body, which arises from the left ventricle of the heart	
atria	two upper chambers of the heart	
atrial septal defects	congenital heart defect where there is a hole in the septum or wall that separates the heart's two upper chambers	
clubbing	a clinically descriptive term that refers to the swelling of the fingertips. It is caused by chronically low blood levels of oxygen associated with a heart or lung condition	
consulta externa	outpatient care	
cyanosis	when blood oxygen levels are low, the skin and the mucous membranes turn a bluish color	
hyperplastic left-heart syndrome	complex heart defect where the left ventricle of the heart is severely underdeveloped	
intensivist	a doctor who works specifically in an intensive care unit	
maquilas	foreign-owned manufacturing operations	
overriding aorta	heart defect where the aorta is enlarged and misplaced	
patent ductus arteriosus	where a blood vessel called the ductus arteriosus remains open at birth	
perfusionist	a health-care professional who operates the heart-lung bypass machine during cardiovascular surgery	
pulmonary stenosis	heart condition where the pulmonary valve is narrower than usual	
pulpería	small store	
rheumatic fever	inflammatory disease of the heart brought on by a throat infection. It is the main acquired heart condition found in children.	
soplo	a heart murmur. In Honduras it was a catchall phrase for congenital heart problems.	

susto	one of the main "culture-bound syndromes" in Latin America and the Caribbean. Literally translated as "fright," it refers to feelings nervousness, anorexia, insomnia, listlessness, fever, depression, and diarrhea.
tetralogy of Fallot	a heart condition caused by a combination of four heart defects that are present at birth
total anomalous pulmonary venous connection	a heart condition where the pulmonary veins do not attach normally to the heart causing oxygen-rich blood to enter the right atrium instead of the left.
transposition of the great arteries	a heart condition where the two main arteries leaving the heart are reversed (transposed)
transposition of the great veins	a heart condition where the two main veins leaving the heart are reversed (transposed)
ventricle	two lower chambers of the heart
ventricular hypertrophy	heart condition where ventricle grows in size
ventricular septal defect	congenital heart defect where there is a hole in the septum or wall that separates the heart's two lower chambers

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INTRODUCTION The High Stakes of Heart Care

When I first laid eyes on Hector, I stopped dead in my tracks. It was September 2011. By then, I had been living in Honduras for ten months, and I had already met well over a hundred children who, like Hector, were in critical need of surgery to repair their defective hearts. But never had I seen a child with skin as blue as his. Not all heart defects cause cyanosis, or bluish discoloration of the skin and mucous membranes, and among those that do, the effects are usually localized in the beds of a child's fingernails and toenails and on the child's lips and tongue. Hector's skin, however, was blue from head to toe. He was three years old at the time. "For three years, we've been waiting for surgery," his mother, whom I call Alejandra, told me when I introduced myself to her in the hospital lobby. She was among dozens of parents who had come to the hospital with high hopes that their children would be screened and selected for surgery by the pediatric heart surgery team in residence at the time. Hector was crying, most likely because he was hungry. He had been fasting all day in case he would need to be sedated for the examination. Before the end of the day, Hector would receive an echo (short for echocardiogram), a test which uses ultrasound to look at the size, shape, and motion of the heart. Based on that, the team would make their determination.

Hector was not selected for open-heart surgery or even a less invasive catheterization procedure for reasons that were never made clear to his parents. In speaking to the surgical volunteers¹ directly, I learned that Hector's heart was considered to be

¹ By surgical volunteers, I refer not only to surgeons but also to cardiologists, perfusionists, intensive care unit (ICU) doctors and nurses, operating room (OR) scrub nurses, and

inoperable. The volunteers reasoned that his heart defect had gone too long without repair for his body to respond favorably to surgery.

Hector's regular cardiologist in Honduras was not convinced that his fate was sealed. Neither were surgeons associated with a different pediatric heart surgery mission that was scheduled to visit Honduras a month later. This mission, unlike the above, was sponsored by the humanitarian NGO, Global Heart Foundation (GHF),² whose teams have a reputation for taking on difficult cases, especially those rejected by other surgical centers. Hector was indeed sick. Now age three, he had never learned to talk or walk,³ and he was often too tired to play. He spent most days in his parents' bed watching TV. When he came for screening by the GHF mission, his blood oxygen level had fallen below 50 percent. A normal blood oxygen level would be between 96 and 98 percent. It was so low, in fact, that it did not register on the oximeter, a small sensor that attaches to the finger and noninvasively measures the percentage of hemoglobin saturated with oxygen. Hector was admitted to the ICU immediately, placed on breathing support, and scheduled for a catheterization procedure that afternoon.

Hector suffered from a condition known as tetrology of Fallot (see Figure 1), a combination of four different congenital heart defects that appear simultaneously. The first is a ventricular septal defect (VSD), a hole in the septum or wall that separates the heart's

respiratory therapists—in other words, all members of a pediatric heart surgery mission. I call them surgical volunteers as opposed to medical volunteers to underscore the highly specialized nature of their work and to stress that, unlike the title "medical volunteer" would suggest, they are providing far more than primary care services.

² Global Heart Foundation sponsored the majority of volunteer surgical teams I observed for this study. Its name is a pseudonym, like the names of all people, organizations, and institutions that I will mention, with the exception of the two research assistants who worked on this project.

³ Congenital heart defects that go untreated can cause developmental delays in children.

two lower chambers, which allows oxygenated and deoxygenated blood to mix. The second, called pulmonary stenosis, is where the pulmonary valve is narrower than usual, thus restricting blood from passing through it. Because the right ventricle must then work harder than the left to pump blood through the valve, the right ventricle grows in size. This constitutes the third defect: right ventricular hypertrophy. The fourth is an overriding aorta (labeled Ao in Figure 1), which means that the aorta is enlarged and misplaced. Rather than



Figure 1: Illustration of tetralogy of Fallot compared to a normal heart⁴

being located above the left ventricle as in normal hearts, it arises from the VSD, which means that the combined oxygenated-deoxygenated blood is sent throughout the body when only oxygenated blood should be. With one or two surgeries performed in the first few years of life, a child with this condition can grow into adulthood and lead a full and active life.

⁴ Image is available at http://www.rch.org.au/cardiology/heart_defects/Fallots_Tetralogy/.

Two-time Olympic snow boarding gold medalist, Shaun White, was born with tetralogy of Fallot in 1986 and underwent two open-heart surgeries before the age of one.

When Hector was born in 2008, 22 years after Shaun White was treated, Honduran surgeons had only treated a handful of patients with his same defect. This was not for lack of knowledge on their part, but materials. The Honduran government allocated some money each year for them to perform pediatric heart surgeries in the public sector, that is, at no cost to patients and their families, but this only covered a fraction of the need. Surgeons were willing to operate on additional patients as long as their families could contribute US\$10,000 each to help pay for supplies. For many families, this was prohibitively expensive. Many earned at best a minimum wage salary, which at the time of my research was US\$280 (5,800L) per month. While it is difficult to know how many Honduran children needed heart surgery in 2008, there were likely hundreds. One Honduran pediatric cardiologist I met in 2010 had diagnosed over 200 patients who needed surgical intervention, and by then she had only been in practice for a year. A different pediatric cardiologist who had been in practice slightly longer reported diagnosing approximately seven new patients each week, more than 50 percent of whom would require at least one surgery in their lifetime.⁵ Given the difficulties of receiving treatment in country, the alternative was for Hector to travel abroad for surgery with the help of a charity organization. His parents had solicited such help but without success.

In the catheterization lab, two North American surgical volunteers, working with a team of Honduran nurses, sedated Hector, and placed a stent, or mesh tube, in his heart. This

⁵ Of course, many other children who have never seen a cardiologist are living with heart defects and are also in need of surgery. There are an estimated 203,400 live births in Honduras each year (CIA 2014). Extrapolating from global incidence studies, 2,034 of these children will have a heart defect, of whom 1,017 will require surgery at some time.

would give his body some relief and allow his pulmonary branches to grow. Stenting, in this case, was considered a partial as opposed to complete repair. In a best case scenario, Hector's heart would become strong enough to withstand a second procedure, this time open-heart, within a few years, and if his heart did not grow stronger, then at least the stent would buy him more time. In a worst case scenario—what the first pediatric heart surgery mission had feared—was that the procedure would be fatal.

Hector survived the procedure. His recovery went smoothly. His body immediately returned to a healthy hue of pink, and within hours of being in the ICU, he was sitting up in his hospital bed, smiling, and blowing bubbles, an exercise the respiratory therapists do with patients to strengthen their lungs. His parents, doctors, and nurses could not have been more pleased. A month later I visited Hector and his family in their home in the northern part of the country. They owned a modest sized house that they had bought with the help of a government loan they received when their previous home was destroyed by Hurricane Mitch in 1998. They had converted the front of the house into a *pulpería* (small store), which Alejandra managed, while her husband worked in the fields, either on his own land or someone else's, for which he was paid US\$5-10 per day. They both used to work in the *maquilas* (manufacturing plants), the major industry in that part of the country, but the work was unreliable because they were laid off every time the factory started on a new product. Further, Alejandra preferred to work at home so she could look after her two children. With violent crime escalating throughout the country, especially in the north, she was reluctant to entrust them to the care of someone else.

Hector's story illustrates the high stakes of humanitarian heart care. Pediatric heart surgeries are risky endeavors anywhere in the world. During humanitarian missions,

however, the risks are exacerbated. In Hector's case, heart repair was risky because, as mentioned, his body might not have responded well to a change after having grown so accustomed to surviving with the heart he did have. Further, as evidenced by his low blood oxygen level, fatigue, and immobility, Hector's body was weak and thus potentially unable to withstand the stress posed by a surgical procedure, even a less invasive one performed in the catheterization lab. The surgical mortality risk was exacerbated by other contextual factors, such as the speed at which surgical teams moved patients through recovery and the poor conditions of the public hospitals where they worked. Regional Hospital, where Hector was treated, had out-of-date, unreliable, or nonexistent machinery and a low stock of medications and supplies.

As with any high-stakes endeavor, the pay-offs of humanitarian heart surgery are equally pronounced. As I sat with Alejandra on her back porch, chickens running under our feet and laundry hanging overhead, she told me how much she had suffered with Hector prior to his surgery. In the months leading up to surgery, his medications had stopped working, making him increasingly fatigued and immobilized. Not only did Alejandra fear that she might lose him at any moment, it pained her to watch him in such physical distress. Further, she felt powerless being unable to pay for his surgery either in Honduras or abroad. "Under the circumstances," she asked, "how was I supposed to take action?" There were days when she and her husband did not have enough money to buy food, let alone send their children to school, and had to subsist on what was available in their *pulpería* or whatever crops were in season. The cost of Hector's medical care was an additional strain. Since he was often sitting or crawling on a cement floor, he was frequently sick with an infection, which then involved a trip to the hospital in the nearby city of San Pedro Sula. Travel was

expensive because they had to pay for taxis, food, and diapers while they were away, not to mention the medications and exam costs.

Against this backdrop, the value of surgery becomes all the more palpable. In the month since his procedure, Hector had not been sick once. He had also started to talk, walk, and run, bringing him up to speed with other three year olds. "He doesn't stop moving!" Alejandra exclaimed. As Hector ran in circles around us while we spoke, it was impossible not to think positively about the future. I could not help but be convinced, even if only momentarily, that the danger had passed, that Hector's heart was strong, that he would grow up to lead a full and content life, and that his condition would no longer weigh on his parents emotionally or financially.

I tell Hector's story because it defines the official tale of pediatric heart surgery missions—it follows the standard narrative of success that dominates funding reports, promotional brochures, and the national and international press. It attests to the transformative power of missions, not only to save a child from the grips of death and ease the emotional and financial burden posed by chronic illness, but also to imbue his or her future with new hope. In fact, Hector's parents were asked to speak on Honduran national television about their experience in receiving this "gift of life," as the surgery was called, brought to Honduras from abroad. Further, Hector's story was the sort that parents, doctors, and nurses collectively hoped for when they worked together during missions. It was the story that kept them engaged. Such stories inspired surgical volunteers to devote their lives to missions, compelled Honduran doctors and nurses to collaborate with them, and convinced parents to consent to high-risk procedures. It was around such stories that

humanitarian heart care was "consolidated" (Livingston 2012:78) and a "medical imaginary" (DelVecchio Good 2001) appeared closer within reach.

Hector's story is by no means representative of every family's experience, however. Over the course of two weeks, Hector was treated alongside 26 other pediatric patients, six of whom died following surgery, which brought the surgical mortality rate of that mission up to nearly 25 percent, five times the average mortality rate for pediatric heart surgery in the U.S. Further, there were many patients who never made it to a mission because they were too sick to travel or because their parents lacked the resources or feared a negative outcome. Still there were others who came to the mission and were not selected for surgery. Moreover, Hector's story is not a complete one in the sense that his future is still unknown. Will his pulmonary branches grow enough to allow for a second surgery? Will the second surgery be a complete repair? Will it involve a heart valve replacement, which will most likely guarantee the need for further surgical invention in ten years? Will pediatric heart surgery missions still be visiting Honduras at that time, and, if so, will Hector be among the patients selected for care? Answers to these questions would be provisional at best, thus highlighting the incredible uncertainties that surround not only the surgery itself but also its aftermath. At the time of my visit to Hector's house, he had not had an echo exam since leaving the hospital, making it difficult to know how well his body was recovering. This was because the echo machine where he regularly sought cardiac care in San Pedro Sula had been broken for weeks on end.

Children and their parents are not the only protagonists of missions. Honduran and international medical professionals from a wide range of specialties have stakes in humanitarian work. Their own stories about caring for heart patients and working together

across steep socioeconomic and cultural divides are also seldom heard. Further, missions comprise clinical practices, bodies of knowledge, and material objects whose "social lives" (Whyte et al. 2002) have similarly escaped notice. For example, medical journals are inundated with editorials that stress the importance of surgical missions but fail to discuss the practicalities of performing high-tech surgeries in poor countries, such as how surgery is adapted to local biologies and clinical terrains, how repurposed machinery becomes both a conduit and obstacle to care, and how the meaning of "good care" is contested and reworked when the patient demand is high and the resources scarce. Moreover, much of the published literature on surgical missions overlooks the fact that host countries often have histories of pediatric heart surgery that predate their arrival. In the case of Honduras, clinicians employed in the public sector remember closed-heart procedures beginning in the 1970s, followed by open-heart procedures in the early 2000s, whereas missions did not begin visiting Honduras on a routine basis until 2007.⁶

This study will examine the official and unofficial stories of pediatric heart surgery missions—that is, the stories that receive high accolades alongside the many others that are silenced, erased, or hidden from view. My vantage point was a 13-month stay in Honduras while I observed surgical missions cycle in and out of an underfunded public health sector and came to know pediatric patients and their families. In the chapters that follow, I will describe the mechanics of pediatric heart surgeries under conditions of scarcity, and, in turn, I will discuss how Honduran public hospitals come to host missions and what appeals to the surgical volunteers who become devoted to this work. Moreover, I will explore the day-to-

⁶ Closed-heart procedures do not require that the patient be placed on the heart-lung bypass machine, whereas open-heart procedures do. Typically simpler defects, such as patent ductus arteriosus (PDA), where a blood vessel called the ductus arteriosus remains open at birth, can be repaired with a closed-heart procedure.

day realities of hospital life in the aftermath of missions, alongside the joys, hopes, disappointments, and frustrations of raising a critically ill child when household resources are already stretched thin. While I focus on a single humanitarian NGO during visits to one public hospital in Honduras, the study has broader implications. Honduras is a medical mission hotspot. It is reported to host more medical missions than any other country (Martiniuk et al. 2012), thus making it an ideal site to examine the dynamics between medical volunteers, in-country collaborators, and humanitarian beneficiaries. Pediatric heart surgery missions are also one of the most common types of medical missions traveling the globe despite the fact that heart defects are not a leading cause of child mortality, thus raising questions about the logics underpinning humanitarian approaches to triage. Further, as an especially technologically-sophisticated form of humanitarian intervention delivered under some of the most challenging of circumstances, pediatric heart surgery missions expose the sheer logistical challenges associated with humanitarian work and the kinds of improvisations that follow suit. It is already known that improvisation is a defining feature of global biomedicine (Livingston 2012), yet, as I elaborate on below, few scholars have considered the practice in humanitarian or emergency contexts.

Theoretical Foundations: Medical Technologies and Humanitarian Biomedicine

This study initially emerged from an interest in how and why medical technologies conceptualized as material objects, practices, and ideas—are adapted and reworked as they travel transnationally. Medical missions, surgical missions in particular, provide fertile ground for such an endeavor given their emphasis on technology transfer: the transfer of objects, practices, and ideas from rich to poor countries as a humanitarian good. My interest in the circulation of medical technologies developed in response to two gaps in the literature. Regarding the first, anthropologists who study medical technologies do not usually consider settings outside Europe and the U.S. (Hadolt et al. 2012); even fewer look at technologies designed to address humanitarian emergencies. Second, among those who do study non-Euro-American contexts, their primary objectives have been important but limited in scope. One objective is to understand how medical technologies are received and taken up crossculturally. Studies emblematic in this regard include work on reproductive technologies (Inhorn 2003; Roberts 2012); pharmaceuticals (van der Geest & Whyte 1988; van der Geest et al. 1996; Petryna et al. 2006), including antiretroviral drugs (Robbins 2009); and transplant technologies (Lock 2002). Another objective is to trace the effects of these technologies, usually in an effort to qualify their global dissemination as either good or bad, "gift or curse" (Wendland 2010:15). For example, as Lock and Nguyen have observed, "some of the research makes abundantly clear the positive effects of biomedicine technologies, but a great deal more leads to startling cautionary tales about the limits of a standardized, largely unreflective approach to the delivery approach to health care" (2010:2).

What has remained undertheorized is how biomedicine is transformed through encounters with different cultural values, social and political interests, institutional contexts, and political economics. Wendland articulates this best when she writes that "indigenous biomedicine" is assumed to be an "oxymoron": biomedicine is known to "[remake] people and the world [but]... it is not itself remade to any great extent" (2010:15). While anthropologists would agree that biomedicine is by no means monolithic, few have explored how localized forms of biomedicine developed abroad. Before I began fieldwork in 2011, several studies stood out as exceptions. A special issue of *Social Science & Medicine*,

published in 2004, would be the most widely cited example. Taking the hospital as "the premier institution of biomedicine cross-culturally," the authors challenge the view that hospitals are "identical clones of a global medical model" (van der Geest & Finkler 2004:1996). Finkler (2004), for example, demonstrates how doctors in a Mexican hospital transformed biomedical diagnostic categories and therapies, while Zaman (2004) describes various inventive techniques employed by doctors in Bangladesh faced with resource shortages. A less well-known example would be Ortiz's study on self-proclaimed "barehanded doctors" in the Dominican Republic who practice biomedicine in a "low-tech, innovative, and unorthodox fashion" (1997:270).

Much has changed in recent years. Since 2011, a modest but growing number of ethnographies have examined how biomedicine and its associated technologies are reconfigured in different settings. A special issue of *Medical Anthropology*, for example, focuses on processes of "appropriation," which refers to how "biomedical techniques are (made) fit to specific local worlds, and consequently are changed and simultaneously bring about sociotechnical changes" (Hadolt et al. 2012:168). Yet another special issue, this time of *Space and Culture*, draws on Foucault's notion of heterotopias in order to "trace the contingent configuration of hospital space through relationships between the physical environment, technologies, and persons" (Street & Coleman 2012:6). Here, the authors build on earlier hospital ethnographies, but shift the attention from how hospitals are permeated by culture to how they are "made up" by "multiple orderings" in complex, variable, and unpredictable ways (Street & Coleman 2012:8). In addition, several full-length ethnographies have furthered this research trajectory. Wendland's own ethnography, for example, shows how medical trainees in Malawi are indoctrinated into a different moral

order of biomedicine, one that reflects Malawian history, cultural values, and institutional structures. Other notable examples include Livingston's (2012) ethnography on cancer care in Botswana and Street's (2012) on biomedical practices in Papua New Guinea. All of the above works underscore the improvised nature of biomedicine, where exaggerated forms of tinkering come into view.

The chapters that follow are inspired by this recent turn in anthropology, which foregrounds the appropriation and reconfiguration of biomedicine in localized settings, yet I also refine it slightly. In Honduras, as in many places, different versions of biomedicine are practiced side-by-side. No studies, however, have looked at them comparatively. One of my central concerns, therefore, is to examine how humanitarian biomedicine is similar to and different from everyday biomedicine as practiced in Honduran public hospitals. The comparison is important because it allows us to see that both parties are driven by the same clinical imperative to improvise. Their improvisations take different forms, however, and are assigned different meanings. For example, surgical volunteers tend to take greater liberties when improvising medicine. They push patients faster through postoperative recovery and agree to operate on higher-risk patients. How "imperative" some practices are is also questionable. While such an exaggerated approach has saved many lives, it has jeopardized others and left some volunteers feeling that missions have done more harm than good. In addition, whereas volunteers find the need to improvise to be inspiring, exhilarating, and even fun, Hondurans find it to be loathsome, demoralizing, and mundane. What is one group's thrill is thus another's disdain, which illuminates the inequalities between them. To find improvising "thrilling," in other words, is to occupy a place of privilege. Finally, whereas volunteers are applauded for their efforts and innovative thinking, Hondurans go

unnoticed; their actions may even be called corrupt. Chapters Three, Four, and Five will take up these issues specifically.

A focus on the biomedical practices of humanitarianism has further relevance for the anthropology of medical humanitarianism, a growing scholarly field. As Ticktin notes in a review of this literature since the 1980s, anthropological interest in the topic has proliferated in accordance with "the increasing importance of humanitarianism around the world" (2014:274). This is because both anthropologists and humanitarians have increasingly shown concern for "universal suffering" (Ticktin 2014:275). One trend within this body of work is to select, as the object study, one of the world's largest and most renowned medical humanitarian organizations: Médecins Sans Frontières (MSF). Three especially prominent anthropologists, namely Peter Redfield, Miriam Ticktin and Didier Fassin, have all published extensively about this organization. This warrants attention because MSF is by no means emblematic of humanitarianism at large given its distinctive history and political orientation. For instance, MSF places strong emphasis on shaming governments into action alongside témoignage (witnessing), principles that not all humanitarian organizations share. The organization also has a particular style of intervention, where it tries not to work too closely with the state.

Yet another tendency within existing studies of medical humanitarianism is to privilege the perspectives of aid workers, as opposed to aid beneficiaries or local partners, and to examine the work in real-time as opposed to tracing its aftermath. Further, this literature tends to bracket and set aside the clinical and logistical aspects of humanitarianism, instead investigating such topics as what mobilizes humanitarian sentiment and action (e.g., Brown & Wilson 2008; Redfield 2013); what categories of

humanity are protected by organizations (e.g., Ticktin 2006; Redfield 2013), and how organizations confront moral dilemmas and struggles (e.g., Fassin 2007; Fox 2014). As a complement to this literature, I examine actual biomedical practices during missions, with an emphasis on how high-tech biomedicine is appropriated for low-tech environments, and how a mission's aftermath may have unforeseen effects. I also privilege the views of multiple stakeholders.

Congenital Heart Defects: A Primer

Hearts work like a pump, pushing blood first to the lungs to be oxygenated and then to the rest of the body. They have two sides separated by a wall called a septum, four chambers or rooms, and four valves. The left and right atria are two chambers that receive blood returning from the body through veins, whereas the left and right ventricles are two chambers that pump blood to the body through arteries. The four valves include the mitral valve, which controls the flow of oxygen-rich blood from the left atrium to the left ventricle; the tricuspid valve, which controls the flow of oxygen-poor blood from the right atrium to the right ventricle; the aortic valve, which controls the flow of oxygen-rich blood from the left ventricle to the body; and the pulmonary valve, which controls the flow of oxygen-poor blood from the right ventricle to the lungs (see Figure 2). Congenital heart defects are abnormalities that develop before birth and can affect any part of the heart's structure: the integrity of the inner walls, the shape of the chambers, the function of the valves, or the placement or size of the many arteries and veins that carry blood to the heart or out to the body. There are 18, and some calculate 35, types of congenital heart defects classified as either simple or complex. In the case of a simple defect, for example, there might be a hole in the septum, which would allow blood from the left and right sides of the heart to mix. As



was true for Hector, if the hole is in the septum separating the lower chambers, then the defect is called a ventricular septal defect (VSD). If the hole is in the septum separating the

Figure 2: Illustration of a normal heart⁷

upper chambers, then the defect is called an atrial septal defect (ASD). These holes can range in size, and smaller holes may close on their own as the child develops. Larger holes usually need to be sewn closed, sometimes with a patch. As another example of a simple defect, a valve may not fully open, which blocks the blood flow to the lungs or to other parts of the body. Heart valves can be repaired surgically. They can also be replaced with

⁷ Image available at http://www.rch.org.au/cardiology/heart_defects/Normal_heart/.

prosthetics, including either a mechanical substitute or a bovine or porcine valve. There are problems with the implantation of either type of valve during missions. Both are expensive and difficult to access. Mechanical valves also require the use of lifelong blood thinning medication and are not recommended for girls who, in the future, plan to bear children, whereas bovine or porcine valves calcify within ten years and need to be replaced. Bovine and porcine valves must also be kept on dry ice, making them difficult to transport. As an alternative, humanitarian heart surgeons remove the damaged valve and put nothing in its place. A newer method is to fashion a prosthetic value from the patient's own pericardium or a type of animal tissue that the body comes to recognize as its own. Currently, the latter constructing a valve from animal tissue—is preferred because pericardium also calcifies, although the long-term effects of this valve are still unknown.

Complex defects, such as tetrology of Fallot, may involve a combination of simple defects. They also refer to more complex abnormalities. An example of the latter would be transposition of the great arteries, where the two main arteries leaving the heart are reversed or transposed, thus changing the direction of blood circulation through the body. In effect, oxygen-poor blood is sent to the rest of the body instead of being sent to the lungs. As another example, coarctation of the aorta refers to a constricted aorta or the large blood vessel that extends from the heart and sends oxygen-rich blood to the rest of the body. As in the case of pulmonary stenosis, the heart must work harder than usual to send blood to the rest of the body, causing fatigue and putting the patient at risk of heart failure. Congenital heart defects are often lumped together under the heading "congenital heart disease," but this would be misleading. Not all heart defects are symptomatic, and, in the absence of imaging technologies, easily detected, which makes it difficult to call them a disease.

Further, not all heart defects that affect children are congenital. Some are acquired as in the case of rheumatic fever.

Pediatric heart surgery is a highly specialized field. Each of the 18 or 35 defects can have infinite variations or combine with other defects in unexpected ways. As such, physiologically no pediatric heart is the same. Further, a pediatric heart is small in size, potentially no larger than a plum, making it a challenging work object. It is also a highly complex mechanism, a "small miracle" (Ruhlman 2004:35) owing to its intricate, delicate design. For example, the heart is not like any other muscle in the body in that it does not all contract at once. Rather, a beat anywhere in the heart reverberates throughout the entire cell system, "like a line of dominoes toppling over" (Ruhlman 2004:35). It is therefore no surprise that pediatric heart surgery requires tremendous craftsmanship. Pediatric heart surgeons need more than skill, however. Decisiveness, nerve, invincibility, and heroism are other core qualities they typically possess, all of which are well-matched to the attenuated nature of the surgical event (Cassell 1991). Pediatric heart surgeons who work in poor countries in a short or long-term capacity must have additional capabilities. They must have a high tolerance for risk, frequent death, and exceedingly imperfect working conditions. To develop and sustain such a tolerance rests on their ability to be flexible, humble, and willing to challenge long held assumptions about what is and is not clinically possible; it also demands quick recovery after a setback or patient mortality. Regarding the latter, religion, for many, is a helpful resource as it allows them to cope more easily.

Disparities in Care

The incidence of congenital heart disease is relatively constant worldwide, affecting roughly eight to 12 children per 1,000 live births (Hoffman 2013). Survival rates are highly

inconsistent, however, thus exposing the deep inequalities that exist in terms of access to care. I had been in the field only six days when I encountered my first death. Juan had been born with a defect called total anomalous pulmonary venous connection (TAPVC), where four veins that take blood from the lungs to the heart do not attach normally to the heart's upper left chamber. Instead, they attach to other blood vessels or areas of the heart. Common symptoms include fatigue and difficulty eating. Even at eight months, the age of his death, Juan only weighed 11 and a half pounds. He was scheduled to receive surgery by a surgical mission on the very day that he died. He had died at dawn, however, while everyone else in the ward, including his mother, was asleep. According to the American Heart Association, TAPVC must be repaired in infancy. For some children, in the case of "obstruction," the repair is performed immediately upon diagnosis. If there is no obstruction, then surgery is done in the first or second month of life. A delay of six or seven months, as Juan's case attests, is not inconsequential. It can be fatal. If Juan had been born in the U.S., then he would have most likely undergone a surgery procedure that carries a 20 percent mortality risk in more severe cases (Padalino et al. 2014). Because Juan was born in Honduras, however, early mortality was nearly guaranteed (Burroughs & Edwards 1960; Padalino et al. 2014).

Such inequalities are not only evident globally. In the U.S., survival rates following pediatric surgery, and heart surgery in particular, differ along lines of race, class, insurance status, and quality and volume of the surgical center, with low volume centers having higher mortality rates (Haider et al. 2013; Nembhard et al. 2013; Soskolne et al. 2013). Further, because Juan's defect was especially severe, comparing his actual mortality risk in Honduras

(nearly 100 percent)⁸ to a hypothetical mortality risk in the U.S. (20 percent) may seem exaggerated. Nonetheless, disparities in survival rates are amplified on a global stage regardless of the complexity of the defect. In countries that are well-equipped with cardiac centers, death occurs in three to seven percent of children born with congenital heart defects, whereas in countries where such services are largely lacking, this number increases to 20 percent (Bernier et al. 2010). In Honduras, the mortality risk of congenital heart defects is likely to be higher. A Honduran surgeon estimated that the surgical mortality risk was closer to 30 percent in the absence of missions; if we take into account the fact that many Honduran children with heart defects still do not have access to surgery, the risk of death may be as high as 40 or 50 percent.

Several factors contribute to the poor prognosis of children with heart defects. Studies show that they fare worse in poor countries because they have less access to specialized centers for diagnosis and treatment, more co-morbidities affecting operability and surgical outcomes, late presentation, delayed referrals, and limited insurance coverage (Kowalsky et al. 2006; Rao 2007; Saxena 2009; Vaidyanathan & Kumar 2005). At the time of my research in 2011, there was only one public hospital, Central Hospital, in the entire country, equipped to perform pediatric heart surgery for all pediatric patients who required it and did not have insurance, which would be true for the majority, since 88 percent of the Honduran population is uninsured (Secretaría de Salud Honduras et al. 2013). Also, only three public hospitals out of 28 were staffed with formally trained pediatric cardiologists,

⁸ Calculating the mortality risk for untreated cases of TAPVC is difficult, since much depends on the specific presentation of the defect and whether it was obstructed or unobstructed, which in Juan's case, is not information I have access to. Nonetheless, before surgery was widely available for this condition in the U.S., few patients lived into adulthood (Burroughs & Edwards 1960).

who numbered six at the time, one of whom was retiring. These three hospitals were located in the country's two largest cities: Tegucigalpa, the nation's capital in the south, and San Pedro Sula, the main industrial center in the north (Figure 3). Travel to either city was expensive and could take a family two days if their children were very weak. Even if a family was able to travel to one of these institutions, it did not ensure a diagnosis or treatment. As mentioned, a hospital's echo machine was not always in service, and, in the case of surgery, which, once again, was only available at Central, families were often required to help cover the cost of supplies, which was prohibitively expensive for some.



Figure 3. Map of Honduras⁹

Surgeries were further restricted at Central because, prior to 2011, the hospital had only a partial surgical team. To perform surgery thus required assembling personnel from other

⁹ The red arrows point to Tegucigalpa's two largest cities, where Honduras' only pediatric cardiologists can be found.

specialties, such as a perfusionist, a health professional who operates the heart-lung by-pass machine, and an anesthesiologist, whose schedules were already likely to be filled. It also meant contending for space in the surgical unit, which was typically overwhelmed with emergency trauma cases that would take priority.

Patients, too, were not usually diagnosed at birth given the few trained personnel in this area, or a diagnosis was suspected but not verbalized given the limited options for treatment. Further, defects frequently went unnoticed in the labor wards at public hospitals given the high volume of women laboring there each day. A late diagnosis could mean that a heart defect was fatal before a child had an opportunity for treatment. It could also make surgery too risky, thus leaving the child inoperable. Surgical outcomes were also influenced by the health of the child prior to surgery. Many children with heart defects suffered from malnutrition and viral or bacterial infections, which easily compromised a patient's ability to recover post-surgery.

As the foregoing discussion illustrates, the absence of pediatric cardiovascular centers in Honduras contributes significantly to the poor prognosis of heart patients. As mentioned in the case of Central, even a hospital *with* a center faces considerable challenges, which I elaborate on below.

System Failure

Central Hospital (Figure 4) opened in 1969 as a pediatric hospital. In 1979, after nearly a decade of construction and remodeling with funding from the World Bank, it was inaugurated for adult care. In its current state, with peeling paint, cracked cement floors, old rusted hospital beds, non-working elevators, and empty blood bank and pharmacy, it is hard to imagine that it was once an emblem of hope, national progress, and government concern

for the poor. Rosa, a Honduran auxiliary nurse now in her sixties, who was working at Regional Hospital at the time that Central opened, described it as a "*gran novedad* (great



Figure 4. Photograph of Central Hospital in 2015¹⁰

novelty)." It held so much promise that many of Regional's specialists, including its entire cardiac team, transferred to Central with their equipment in tow. One Honduran doctor, Dr. Ramirez, started training at Central in 1980, the first year that it accepted interns. He concurred that it was a "five-star" institution. As yet another doctor pronounced, it was the "insignia of development in health care."

Central's fame was short-lived, however. It ended when it became clear that the hospital would not live up to its promise. Dr. Ramirez attributed this to the sheer demand. Within a few years, he explained, the hospital was overwhelmed by an "avalanche of patients," which caused "system failure." The health-care system was decentralized in the

¹⁰ Image available at http://www.laprensa.hn.

1980s. With the new reforms, patients were supposed to first visit health outposts, which were labeled CESARs and staffed by nurse auxiliaries. From there they would be referred to health centers staffed by physicians (referred to by their Spanish acronym as CESAMOs), area hospitals, regional hospitals, and finally, national hospitals, in that order. But patients went directly to Central Hospital for several reasons. It was one of seven national hospitals, and the only one with 24 hour emergency care in all specialties for children and adults. In effect, it was the only place patients could go without a referral. In addition, health posts and centers quickly earned a reputation for being poorly equipped and staffed. When I asked Rosa why they were so loathed, she shared a story about her nephew, who had gone to a health post for an injection. The nurse had already gone home, however, leaving the custodian in charge. The custodian administered the injection, which turned out to be fatal. Such stories circulated widely, including via the media, and many patients, understandably, chose to bypass small health facilitates and head straight to Central.

Further, despite its crumbling façade, Central is still home to the country's best doctors and nurses. Many of these doctors, including all pediatric cardiologists and pediatric ICU doctors whom I met, trained overseas in Spain, Venezuela, Mexico, Guatemala, and the United States and returned home either for personal reasons or because they want to serve their country. They chose Central as a place to work because it is the only institution to represent all medical specialties and one of few institutions equipped for tertiary care. Regional Hospital, for example, has a surgical unit but it focuses exclusively on lung and infectious diseases. Many patients treated at Regional must be referred to Central if they require other services. The professional nurses at both Central and Regional are also highly skilled. Many had wanted to study medicine but were unable to afford eight years of medical
school plus living expenses in one of the country's two major cities. Further, while their roles were narrowly defined by law, in practice they assumed a wider rage of responsibilities that were normally assigned to doctors. This was because doctors were not always physically onsite at the hospital during their shifts. The relatives of admitted patients also regularly assumed multiple functions within public hospitals, since nurses, too, were stretched thin. On the pediatric floor, for example, they bathed their children, fed them, did their laundry, and administered medications.

Dirty. Smelly. Dangerous. Depressing. Crowded. Chaotic. These were the words the patients and employees of Central Hospital used to describe it. From my standpoint as an observer, it was easy to see why. Custodians mopped almost hourly to cover up the smell and stave off hospital-borne infections. But the smell of bleach was almost as overwhelming as the smell of crowds of people milling around the first floor, lining the halls outside the emergency room, or gathered in front of the offices in consulta externa (outpatient care). Danger took two forms. Patients were at high risk of acquiring an infection inside the hospital worse than the ailment with which they arrived. In 2011, for example, a massive bacterial outbreak in the surgical unit killed 12 patients in a matter of days. Patients were also at risk of muggings inside the hospital and even murders. For me, the most difficult sights to bear were the patients visible in the corridors whose bodies showed signs of a neglectful state. Some patients were lying on metal gurneys without mattresses and sheets. Others were on the floor. Still others displayed bandages that appeared dirty and soaked in blood, which lent the impression that either there were no new bandages to replace them or that doctors and nurses simply did not have the time. Families were camped out in stairways, presumably visiting a family member or without the financial means to return home after

being discharged. Death was pervasive. It was not uncommon to stumble upon a patient's body that had been pushed to the side and covered with a sheet, or witness a child's body being carried out of the ICU or emergency room in garbage bag because there were no available linens to transport the body to the morgue. These were the very indignities that hospital personnel contended with daily and fought hard to change.

Some battles were won. Whereas some wards were dark and run down, others had been recently remodeled or were in the process of renovation at the insistence of Central's doctors and nurses. Which areas were prioritized, however, reflected the interests and concerns of international donors (Street 2012). The neonatal ICU had undergone the most impressive renovation, followed by the pediatric ICU. In 2011, renovation of the pediatric emergency room were also underway, but, as one ER nurse informed me, there would be no kitchen or break room for nurses in the new design. Their needs had not been considered.

Hospital landscapes generate affect. When they show visual signs of ruin, they can produce feelings "of outrage, of resigned defeat, of hopelessness, of abandonment" (Street 2012:54). When I asked medical personnel at Central how they managed day-to-day, they would answer, "We conform." By shadowing them during their daily routines, I learned that conforming was not a passive activity; it took work. I spent most of my time with Dr. Cardona, a pediatric cardiologist who at the time of my fieldwork was in her early thirties and had just returned from residency training in Venezuela. During residency, she had observed patients with all types of defects, from simple to complex, undergo surgical treatment. It was a harsh adjustment to return to Honduras, where she was fortunate to have any of her patients surgically treated at all.

Dr. Cardona's day started early. She arrived at Central Hospital at 7:50AM to begin seeing patients in *consulta externa* (outpatient care) at 8AM. She shared a small office with another pediatric cardiologist a few years older than she. There was space for two small desks and an exam table. The echocardiology machine, which was twice the size of newer models, was located at the end of the hallway behind a curtain. In the course of three hours, Dr. Cardona would see anywhere from 20 to 26 patients—at least that was the most I ever counted. By law, specialists are only supposed to see four patients an hour in order to give each patient adequate attention. In effect, she was seeing double that amount. She told me that she felt badly turning away patients who had traveled from far way. Many patients indeed had made sacrifices to get there. They had to arrive at the hospital at 5 or 6AM to register and then wait their turn to be seen. A visit to the hospital, in other words, was often a full-day commitment and also a loss of a day's wages.

At 11AM, Dr. Cardona began making rounds. She visited the emergency room, pediatric ICU, and pediatric floor to check on any in-patients with known or suspected heart defects. If she finished by 11:30AM, she would eat a quick lunch, usually leftovers she brought from her parents' house, whom she visited every other weekend. She would eat alone in the staff kitchen, a windowless room in the back of the office. At 12PM, she quickly made her way through the crowds of people on the ground floor to clock out on her time card. She then exited the front gates, climbed into the same taxi that waited for her each day, and traveled across town to Regional Hospital, where another dozen or more patients were waiting for her. She saw them one after another from 1PM to about 4PM, which left her an hour to catch up on charts. Even then, her work was not finished. She usually had one or two insured patients that needed examinations at one of Tegucigalpa's private clinics.

Oftentimes they were newborns with suspected defects. Due to evening rush hour traffic, she might not return home until 7 or 8PM. Dr. Cardona followed the same schedule Monday through Friday. She worked half a day on Saturday. On Sunday she did laundry and rested. Her professional life, in other words, consumed nearly all her time and resources; to also maintain a personal life was nearly impossible.

I will return to a discussion of the day-to-day realities at Central in Chapter Four. I have introduced them here to begin to explain why even those hospitals that are equipped for cardiac care struggle to provide it. Even GHF surgical missions refuse to operate at Central Hospital on account of the crowds. They would never be able to occupy as much space as they do at Regional. Second, because Central was where nearly all pediatric cardiac patients without health insurance sought care, it was the benchmark against which their parents evaluated international surgical missions. In other words, the conditions at Central set the bar low for what would constitute good or quality care. The bar was so low, in fact, that any care that was not government care would be viewed as superior, a point I develop in Chapter One.

A Brief History of Pediatric Heart Surgery Missions

While medical missions are by no means new, and while charities, church groups, and humanitarian NGOs have long shown concern for children with congenital heart defects living in poor countries, pediatric heart surgery missions are a relatively recent phenomenon. In the past, charities transferred these children to resource-rich countries for treatment and care. One of first groups, for example, arguably one of the most renowned, was founded by a physician who first encountered cardiac patients in need of surgery during his service in the Vietnam war. He sent several of them to Minneapolis to be treated by his father. In 1969,

he and his father established a charity to bring many more children to Minneapolis from all over the world. Various rotary clubs began similar work in the 1970s, and by the 1990s, there were dozens of organizations that shared this same mission. Global Heart Foundation (GHF), established in 1993, was among them.

This model of care shifted in the 1990s, however, at a time when the field of humanitarianism, more generally, was in crisis. Humanitarian NGOs were becoming higher profile and at the same time more harshly critiqued. The most vocal critics were humanitarian actors themselves who worried that their efforts were aiding crises and weakening local economies and thus harming the very people they wished to help (Pupavac 2004). NGOs committed to heart care, too, wondered about how to improve their activities. But at a time when other organizations, such as Médecins Sans Frontières, increasingly dedicated missions to national issues in France because they wondered about their true impacts abroad (Ticktin 2011), NGOs focused on heart defects sent their missions overseas. The rationale was that by bringing surgical care directly to patients in their home countries, NGOs could extend their humanitarian reach. These same NGOs then started to emphasize the training of in-country personnel in an effort to have a broader, more permanent impact. Currently, there is not a single group that coordinates pediatric heart surgery missions that does not endorse this dual focus on direct patient care and the training of personnel-at least in theory.

The late 1990s and early 2000s were also a time when select pediatric heart surgeons called upon others in the field to participate in the emergent field of "global health." They published articles and editorials in medical journals outlining the scope of global disparities in access to heart care and the various ways in which an individual surgeon could intervene,

including volunteering for a surgical mission (Abdulla, 2002; Cox 2001; Neirotti 2004; Pezzella 1998). The general message was that surgical services were nearly nonexistent in most of the world, and that surgeons in rich countries had a moral obligation to take action. At the same time, champions of global health were naming surgery "the neglected stepchild of global public health" (Farmer & Young 2008:533), thus bolstering the call to pediatric heart surgeons. Access to surgery as a global health issue was gaining visibility in other circles, too. In 2005, for instance, WHO launched the Global Initiative for Emergency and Essential Surgical Care, an international collaboration of health ministries, WHO country offices, local and international organizations, and academics, to improve surgical service delivery. This was followed in 2006 by the inclusion of a chapter on surgery in the second edition of the influential Disease Control Priorities in Developing Countries (Debas et al. 2006).

GHF never travels to a country without an invitation. The invitation to Honduras, however, was extended under unusual circumstances. In the early 2000s, hospitals in the U.S. accepted some international heart patients as charity cases not because they were so inclined, but because they were required by government insurance programs. Medicaid, for example, required hospitals to spend a certain percentage of their total operating budget on international cases each year; in the case of one GHF surgeon, where he worked in this U.S., this amounted to about a million dollars. A number of actors who helped coordinate the travel of international patients to the U.S. explained to me that this has changed in recent years. Hospitals have smaller charity budgets and, as a result, have been less willing to accept international patients, especially if there is any chance their surgery will have

complications. If they accept any patients at all, they are those who could easily be treated in less-equipped facilities anyway.

Ed and Anie, a North American-Honduran couple living in Honduras, were pivotal in bringing GHF missions to Honduras in 2008. Together they run a small charity, which they established in 2001 as a way to make a living after Ed left the priesthood. Initially, they sent children with all types of congenital defects to receive surgery in the U.S. They started to focus exclusively on hearts when they learned that most children with congenital heart defects required relatively straightforward repairs. Within one or two months of receiving surgery, their assumption was that the patients would be cured for life. As U.S. hospitals became more selective, however, Ed and Anie struggled to find placements for Honduran patients. 2006 marked a peak, when they sent a total of 58 children to the U.S. for heart surgery. The following year, they could only find placements for ten children. The problem was exacerbated when one U.S. hospital, which had accepted many of their patients, closed after reports of surgical malpractice. In turn, three Honduran patients, who had previously been treated there, died. These three patients needed follow-up surgical repairs but no other U.S. hospital would take them on as charity cases. Not only were they accepting fewer international patients overall, they were also reluctant to take any patients whose first surgery has been performed elsewhere. This prompted Ed and Anie to contact GHF about the possibility of sending teams to Honduras. GHF, in turn, was already looking for a way to establish itself in Central America, and they were interested in Honduras in particular given the country's intense poverty. GHF prefers to travel where it feels that it its services are needed most. The arrival of pediatric heart surgery missions in Honduras in 2008 was thus a response to a dual crisis. Hundreds of Honduran children needed heart surgery, and at the

same time patients who had once been treated in the U.S. were being denied much-needed follow-up care.

The costs of GHF surgical missions in Honduras are shared among Ed and Anie's NGO, GHF, and the Ministry of Health. With donations from private corporations and Honduran politicians, Ed and Anie pay for the volunteers' hotel accommodations, air travel, local ground travel, some meals, and some medical supplies, such as oxygenators, which are used with the heart-lung bypass machine during open-heart surgeries. GHF, who is funded by rotary clubs and other private donors, pays full or partial salaries of its core clinical staff, namely Dr. Cooper (the surgeon), Dana (an OR scrub nurse), Jack (an ICU nurse), and two bioengineers, which in this case refer to biomedical technicians; staff members then augment their salaries through fundraising efforts of their own. Dr. Cooper, for example, does research with biotech companies, who cover part of his salary, whereas Dana sells jewelry that she collects on her trips. As for the Honduran state, GHF actually requires its involvement in an effort to avoid a relationship of dependency. The state pays for all cardiac medications and the salaries of Honduran support staff brought in to help with each mission.

Two Weeks in the Life of a Surgical Volunteer

Most volunteers first learn about surgical missions from colleagues who have returned from trips with photographs of smiling children and firsthand accounts of miraculous saves, or blogs and listservs, where groups such as GHF post solicitations for a perfusionist or OR scrub nurse able to travel with a mission on short notice. Volunteers then submit an application, including their passport number, medical specialty, secondary specialty, and resume. Their work begins at home. First, they must request a two-week leave from work, usually using paid vacation time. Then, once they are confirmed for a specific trip, they

receive an email that includes general information about the site along with an inventory of what supplies are already there so they can supplement as needed from items available at their own hospital. They may also use this time to collect nonmedical items for pediatric patients, such as box juices, candy, toys, clothes, blankets, pillows, and stuffed animals. They may even call biotechnology companies to solicit new, state-of-the-art materials, such as heart valves, balloons for use in the catheterization lab, and other special equipment, some of which is given on loan.

Surgical missions always begin on a Sunday. GHF volunteers typically arrive in Tegucigalpa around noon when nearly all flights coming from the U.S. land. The volunteers are met before immigration and customs, and escorted to a special counter, so that they bypass the lines of other travelers. Once outside customs, they are welcomed by Ed and Anie, their local liaisons to the hospital. They may also be met by TV reporters who announce their arrival on national television. Surgical teams range in size. They always comprise a cardiologist, perfusionist, surgeon, intensivist (ICU doctor), scrub nurse, anesthesiologist, respiratory therapist, and four to six critical care nurses. They may also include a bioengineer.

From the airport, the volunteers are taken in a private van to one of Tegucigalpa's nicest hotels, the Honduras Maya, a known North American enclave. After checking in and meeting for a drink and snack by the pool, they are taken directly to Regional Hospital, where they begin setting up for surgeries to begin early the following morning. During the first few missions I attended, Dr. Cardona, introduced above, would have already screened patients and created a surgical schedule for Dr. Cooper, the North American surgeon who typically travels to Honduras with GHF missions, to review. After some disagreements over

surgical candidacy, however, Dr. Cooper decided that he and the visiting pediatric cardiologist would screen all of the surgical candidates themselves. During later missions, Dr. Cooper and the cardiologist then arrived earlier than the rest of the team and spent the weekend screening as many as 100 patients. Dr. Cardona was not involved.

In setting up on the first day, the volunteers unpack boxes of supplies, either new shipments or surplus items from the previous mission, inventory materials, assemble and test ventilators, and organize medications and supplies on makeshift shelves in the OR and ICU. In the evening, Ed and Anie host a welcome dinner at one of Tegucigalpa's main tourist restaurants for the volunteers and a few of the Honduran doctors to socialize and enjoy *anafre* (a melted bean-and-cheese appetizer), heaping plates of grilled meats and vegetables, and tortillas. Rum flows freely. By 7AM the next morning, the volunteers reconvene in the lobby of the hotel. The volunteer surgeon, anesthesiologist, perfusionist, and OR scrub nurse go directly to the hospital, while the ICU doctors, nurses, and respiratory therapist receive a brief orientation from Jack, an ICU nurse and full-time GHF employee.

For the next two weeks, the surgical volunteers will operate on approximately three patients a day Monday through Friday, beginning with the first at around 8AM and continuing to operate, if needed, until past midnight. The pace is accelerated and exhausting even for those who self-identify as adrenaline junkies. The team usually begins the week by repairing less complex defects, such as ventricular septal defects or atrial septal defects, because the patients are known to recover quickly. This boosts the team's morale and builds trust in the eyes of the public. As the week progresses, the team takes on more difficult cases. A series of deaths or surgical complications, however, will reverse the trend: the team will take on easy cases, once again, until they regain their bearings. The work flow,

however, rarely slows down, and even less commonly do they cancel surgeries altogether. Of the six GHF missions I observed, only once were surgeries cancelled for the afternoon because there were no available mechanical ventilators and a box of much-needed supplies was held up at customs. The availability of supplies will also dictate which patients are selected for treatment. If the team has received a special donation of heart valves or balloons used in catheterization procedures, for example, patients who require these devices will jump the queue.

The team usually occupies two operating rooms, which it alternates between. Volunteers and Hondurans work side-by-side in the surgical unit. The surgery is usually led by Dr. Cooper or one his Honduran counterparts, Drs. Avila or Baca. Dr. Avila, in his fifties, was formally trained as an adult heart surgeon but operates on adults and children in Honduras. Dr. Baca, in his thirties, had completed a pediatric cardiothoracic surgical residency in Mexico. At the time of my research, he was the only officially trained pediatric heart surgeon in Honduras, though he was relatively inexperienced. Either of the other two surgeons then assumes the role of "first assist," or the lead surgeon's assistant. Nurses, medical students, and even college students are known to serve as first assists in the case of personnel shortages. The lead surgeon and first assist are each paired with an OR scrub nurse who passes them instruments during the procedure. Nurses usually can anticipate which tools are needed, in which case few words will be exchanged. Dr. Cooper knows few words in Spanish, whereas Drs. Avila and Baca are both fully bilingual. Dr. Cooper always works with a scrub nurse from the mission, usually Dana, whereas Drs. Avila and Baca usually work with a Honduran scrub nurse. There is a third scrub nurse positioned at the end of the surgical table to retrieve any tools from outside the sterile field. Dana is often the

person who calls out for these items. She, too, speaks little Spanish but, because she travels with missions to a number of different countries, can recite the names of all the surgical instruments in several languages.

In the ICU, there may be anywhere from one to seven pediatric patients in recovery at a time. There are two ICU doctors, one Honduran and one volunteer, and ten to 12 nurses, mostly Hondurans. There is also a respiratory therapist, always a volunteer. Personnel are split among the patients. Although the work is billed as a partnership or collaboration, labor is structured hierarchically. The volunteer and Honduran doctors work together to determine care plans, although, in the case of disagreements, the volunteers have authority. In addition, volunteer nurses carry out the more sophisticated tasks, whereas Honduran nurses are asked to carry out more mundane responsibilities, such as administering medications and measuring and discarding blood and urine. This changes, however, as the week progresses. The volunteers model for the Hondurans how to carry out other tasks, such as how to receive a surgical patient from the OR. They then assume a more supervisory role. Surgeries proceed until the last or second-to-last day of the mission. On the last day, the hospital hosts a special lunch with tacos and live music to honor the volunteers while they inventory materials, pack up boxes, and carry their supplies back to the bodega, which is then locked shut. The volunteers have a celebratory dinner that night. By the next morning, they are on their way to the airport, while any patients still in the ICU are transferred to other hospitals for ongoing care.

Regional Hospital, unlike Central, is usually a quiet, sleepy space. Its ICU, which normally accommodates adults, can only accommodate three patients at a time due to staffing shortages, and it is not usually at capacity. In the OR, surgeries are scheduled only

during the morning shift, and they are not everyday. The first day *after* a mission, therefore, is a stark contrast, as the ICU and OR are returned to their original appearance, the foreigners clear out, the sights and sounds of pediatric patients disappear, and Honduran doctors and nurses fall back into their normal routines and the day-to-day provision of care. The mission is not forgotten, however. As I walk the corridors, I am invariably asked by hospital workers when the next mission will return.

Así Se Matan (That's How They Kill)

This study is not only about pediatric heart surgery or surgical humanitarianism. It is about operating on hearts in one of the most dangerous parts of the world, as one of my research assistants, Darwin, a historian, never failed to remind me whenever we started to talk about the significance of the project. The threat of violence dictated our every move in the field. For example, when were walking through *el centro* (downtown area) in San Pedro Sula in broad daylight, Darwin instructed me to take a sharp left because *pandilleros* (gang members) were eyeing us ahead. Or when we were about to board a city bus heading to an outlying area, he had second thoughts, suggesting that we travel by taxi instead. He worried that someone had spotted a *gringa* boarding the bus and would decide to hijack it en route. As yet another example, at a *feria* (fair) in Olancho, a part of the country known for heavy drug trafficking, Darwin and I had to take cover when a man was murdered—shot in the head—no more than 50 yards away. As we huddled with others behind the pillars of a government building, one of our neighbors, to make light of the situation, joked that a *feria* was not a *feria* without at least one murder.

I had not intended to work with research assistants. The project involved following up with families whom I had met during missions in their homes. I spent the first six months

visiting some families on my own. But every time I wanted to visit a family in one of Tegucigalpa's more dangerous *colonias* (neighborhoods), I was challenged to find a taxi driver who would take me there. Nelson, my other research assistant, used to work as a taxi driver. He knew every corner of the city. Most importantly, he knew which blocks to avoid. He would point them out to me as we passed by. *"Esa, sí, esa está caliente* (That one, yeah, that one is hot [i.e., dangerous])," he would say. By contrast, a safe neighborhood was referred to as *sano* (healthy). He also knew which neighborhoods we could visit in the morning versus the afternoon based on when gangs would be out collecting *el impuesto de guerra*, or war tax that all taxi drivers, bus drivers, businesses, and storefronts, and some households, had to pay. The amount was not insignificant, and not paying could mean death.

I tell these stories not to be dramatic but rather to be forthright about the reality. In her book on Honduran subjectivity, Adrienne Pine (2009) explains that she wrote about violence not because she had planned to, but because it pervaded everyday conversation.¹¹ Not writing about violence would have been to "miss the revolution," to borrow Orrin Starn's term (Pine 2009:23). Violence came up in nearly every conversation indeed. While I was never mugged or assaulted, nearly everyone I came to know in Honduras had a firsthand account of having been held up by gunpoint or knifepoint—on one occasion on the way to an interview with me—or having lost a loved one who had been killed randomly or for reasons that were not always fully clear. The subject of violence entered into conversation in other ways, too. I would overhear conversations on the bus about common mugging scams, be warned, even by strangers, about the risks of riding the bus or walking

¹¹ The pervasiveness of talk about violence and crime has captured the attention of anthropologists writing across a range of contexts in Latin America. Caldeira (2000), Goldstein (2013), and Moodie (2010) are prime examples.

on the street, or talk amongst friends about whether the homicide rate was real or intentionally inflated to keep a population docile, paralyzed by fear.

For many Honduras, the violence was so extreme that it resembled war, a situation that seemed to be getting worse. As one taxi driver said to me when the topic arose, as it usually did, "They [assassins] even kill women and children!" His point was that not even innocent bystanders are spared. As further evidence that the violence has been worsening, a Honduran friend was mugged once in 2011, the first time since his childhood. He was then mugged two or three times during 2012 and 2013, respectively, and more than a dozen times in 2014, without making any changes to his normal routine. A recent YouTube video drives home the point. It was a report from a major Honduran news channel with the subtitle: Así Se Matan en Honduras (That's How They Kill in Honduras). The footage was of two men on a motorcycle, which was actually outlawed in 2011 precisely because it facilitated assassinations. One got off the bike, walked up to another man on a busy street, and shot him in the head. The man fell to the ground. People scattered. What was newsworthy was not the murder itself—20 people are murdered in Tegucigalpa each day—but that the victim had been holding an infant in one arm, and, in his other hand, he held onto a child. "That's how they kill in Honduras" is to say that the "assassins" of late, which could refer to gangs, hit men, or state-sponsored death squads-the reference was not always clear-have even lost respect for the most innocent of all: newborns.

Hondurans, as a result, are on high alert at all times. They, too, alter their daily movements. Nurses walk quickly to and from work. People pray each day before they leave home. They do not go out at night. If they can afford to, they avoid public transportation. Everyone knows not to answer unknown calls to their cell phone as it could mean extortion.

Nearly every taxi driver travels armed. Similar to what Linda Green encountered in Guatemala in the 1980s, "fear was a way of life" (1994:94). In Honduras, violence was as fear-inducing as it was normalized. An especially telling example was when I asked a tenyear-old boy, the brother of a heart surgery patient, what he wanted to be when he grew up. His answer: "A surgeon who sews up gunshot wounds."

Ethnographic Approach

This study began in October 2010 with a preliminary two-week visit to Honduras during GHF's first surgical mission at Regional Hospital in Tegucigalpa. I should note that this was not GHF's first visit to Honduras. Previously the organization sent missions to one of Honduras' "social security" hospitals (IHSS in Spanish). When GHF clinical staff and their local liaisons, Ed and Anie, began to suspect that IHSS doctors were accepting payments from Honduran parents to jump the surgical queue, they ended the partnership, reclaimed the machinery they had donated, and selected Regional as their new partner.

Formal data collection began in January 2011, when I returned to Honduras and remained in country for 13 consecutive months. This allowed me to track the subtle and not so subtle shifts in hospital life as missions came and went and to follow the lives of pediatric patients and families. Five surgical missions visited during that time. Toward the end of my stay in Honduras, I participated in yet another pediatric heart surgery mission sponsored by a different U.S.-based NGO that I call the Children's Fund. I will elaborate on that aspect of the project below. Also in 2011 I took a side trip to visit GHF's program in the Dominican Republic, which is described as one of its success cases.

When missions were in residence at Regional, I observed clinical practices and social dynamics in the OR, in the ICU, and on patient wards. I sought explanations from volunteer

doctors and nurses about a patient's diagnosis, course of treatment, and progress in recovery. I inquired about how clinical practices differed in home countries and what participation in a mission meant to them. Although I made a point never to assume a clinical role during missions (despite being offered), I participated as much as possible. I helped with language translation, and at times was the only translator available. I took photographs of patients and recorded stories about them for GHF to use for reporting and promotional purposes. I provided emotional support to parents before, during, and after their children's surgeries. I escorted patients and families between different areas of the hospital. I ran errands for the volunteers and responded to requests for food or coffee.

Although I had my own place to stay in Tegucigalpa, I spent anywhere from a few days to the entire two weeks residing in the same hotel as the surgical volunteers during missions, sometimes as a roommate. Downtime during meals, by the hotel pool, or out at bars and clubs allowed for more candid conversations, rapport-building, and insights into the camaraderie built up through mission experiences. In most cases, in-depth interviews with surgical volunteers took place at the hotel in the evenings or during their days off. Some indepth interviews were done by phone once the volunteers had returned home.

My living arrangements changed over the course of my stay. I spent the first five months in the home of a Mexican couple who had been living in Tegucigalpa for 20 years. The husband, having worked for many years with the government, had intimate knowledge of national politics and corruption, which informed my own understanding of these issues. I then rented an apartment from a Honduran family; it was one of four apartments located directly above their home. Doña Belinda, who managed the property, was a retired social worker, and her husband, Dr. Sanchez, the former chief of surgery at Regional. They had

four adult children, two of whom lived at home and the other two, nearby. I ate lunch and dinner with the Sanchez family almost daily. Usually these were larger gatherings that included Doña Belinda, Dr. Sanchez, their children and grandchildren, and other renters. At other times, I ate in the company of Dina, their live-in cook and housekeeper. Doña Belinda and Dr. Sanchez had both survived stage four cancers, experiences that turned them both into devout Catholics. Their experiences with illness, health care, and religion were illuminating for my project. Two of the other renters, professionals in their early thirties, also became close friends and key informants.

During the day, I balanced my time between visits to Regional and the homes of pediatric patients who had undergone surgical intervention. On average, I spent one to two days per week at Regional to debrief with Honduran doctors and nurses after a mission had ended, invite them for in-depth interviews, and continue observing clinical practices and patient care. I spent two to three days per month at other hospitals where pediatric patients were treated in the absence of the surgical volunteers. Interviews with Honduran medical personnel were carried out in their homes or at establishments near the hospital.

When not spending time at hospitals, I visited patients and families in their homes and accompanied them during medical appointments. In-depth interviews were conducted during home visits. Although most home visits were one-time events, lasting two to four hours, I maintained phone contact with families over the course of my stay. It was also not uncommon to have chance encounters with families at one of the public hospitals, during which I gathered updates about their lives and their children's health. In addition to visits with families in Tegucigalpa, I took monthly trips to conduct home visits in other areas of the country. These visits were longer in duration, lasting up to six hours. In some cases, they

involved an overnight stay with the family. Two research assistants, Darwin and Nelson, accompanied me during the majority of home visits. While I sought research assistance primarily for logistical and safety purposes, they both quickly became active participants in the data collection process. They were crucial for building rapport with parents and children. They also helped with interviews by interjecting with thoughtful questions and steering the conversation in unanticipated yet fruitful directions. We then debriefed after each home visit, where they invariably called my attention to details I had missed. Darwin also helped with the transcription of interviews, and both he and Nelson helped me unpack the meaning of the data in the process of data collection.

In the field, I introduced myself as an anthropologist interested in understanding missions, the Honduran health-care system, and the experience of raising a critically ill child. Different parties drew their own conclusions about my identity and role. The parents of heart patients often saw me as another volunteer. When I visited their homes, some parents mistook me for the surgeon who had operated on their children, while others assumed I was there to assess their children's recovery. The majority, however, saw me as someone interested in writing a book about their lives. The medical personnel at Central also mistook me for a volunteer, at first, and the nurses in particular kept their distance. In fact, it took nearly six months before any of the nurses would agree to an interview with me. After that initial interview, I was allowed into their circle, or their "family," as one nurse pronounced. I interacted with the nurses mostly at the hospital, where I shadowed them, hung out their break room, and joined them during lunch, which was always communal. Soon the nurses also invited me to their parties, on outings, usually to the mall, and less occasionally into their homes. As for the surgical volunteers, they were generally receptive

to my research interests and accepted me as part of the team. Some were surprised that I was there to study clinicians—they assumed my interests as an anthropologist would be to study the culture of patients. Some were also less comfortable with my note taking. They were used to being observed, but, as one ICU doctor said to me, it was standard practice in hospitals to memorize information, not to record it. As such, I only directly recorded information when I had the opportunity to ask permission first.

I analyzed three types of data. The first was a set of 94 in-depth interviews. Twentythree interviews were with international volunteers, including surgeons, anesthesiologists, perfusionists, ICU nurses, OR scrub nurses, bioengineers, perfusionists, and respiratory therapists. Thirty-three were with Honduran clinicians, including surgeons, anesthesiologists, perfusionists, cardiologists, and ICU and emergency room nurses (professionals and auxiliaries). Thirty-six were with parents of pediatric patients who had undergone heart surgery; these included parents from rural and urban settings and whose children had pathologies ranging from mild to severe. Sixty-three interviews were audiorecorded and transcribed. Interviews were not audio-recorded at request of the interviewee. In these cases, I took hand-written notes of the conversation, which I typed up within 24 hours of the interview. The second type of data were field notes, which I wrote almost daily from jottings I had taken throughout the day. Third, I took notes on archival materials, such as old newspaper articles on health, hospitals, and international medical aid, which I accessed from the national archive in Tegucigalpa, current newspaper articles downloaded from the Internet, and promotional materials associated with missions also found online. Analysis began immediately in the field. Monthly or bi-monthly, I read these textual materials for themes and wrote "in-process memos" (Emerson & Shaw 1995). My process

was iterative in that I used insights from memos to refine research questions, devise new ones, and redirect my attention in the field. For example, I had not gone into the field planning to write about religion, corruption, or "MacGyvering." These were themes that emerged spontaneously and thereafter become part of my interview guides. Upon returning from fieldwork, I continued to read and re-read my data and write memos. I did not code at first, but once a storyline emerged that would serve as a chapter, I coded field notes and interviews for themes relevant to that story.

While the study focuses primarily on the work of GHF and the experiences of its Honduran collaborators and beneficiaries, it was not the only NGO I partnered with for research purposes. Soon after my arrival in Honduras in January 2011, I learned that two other NGOs, one from the U.S. and the other from Costa Rica, also sent missions there. The Children's Fund (CF), based in the U.S., sent two surgical teams to a private hospital in San Pedro Sula each year: one to screen patients and the other to perform surgeries and catheterization procedures. I participated in CF's surgical mission in September 2011 to gain a comparative perspective.

CF and GHF are similar in many ways. Both enlist the world's best surgeons to operate on patients; both attract committed volunteers that work tirelessly during their visits; both have an eye toward building sustainable surgical programs. There is also some overlap between the groups in terms of volunteers and patients. One volunteer I met, for example, had worked with both NGOs, and, as was the case with Hector above, many patients turned away by one surgical team sought treatment from the other. Lastly, surgical volunteers affiliated with both NGOs emphasized the need to improvise medicine, and more specifically "MacGvyer."

As for their differences, GHF is non-denominational, whereas CF is Christian. GHF also recruits surgical volunteers from different institutions and countries and works directly with Honduran personnel during missions, whereas CF recruits surgical volunteers from only two U.S. hospitals, and takes a less collaborative approach to clinical care. Further, CF brings in more of its own supplies and its surgeons are more conservative when selecting surgical candidates. As a policy, CF does not operate on any patient in need of a staged repair. The organization also only rarely agrees to operate on patients deemed inoperable by U.S. standards. Finally, CF is perhaps best known for its "place of healing," where patients and their mothers are sent before and after surgery for room and board, medical care, and health education.

I introduce CF here to emphasize that surgical volunteers are by no means a homogenous social group. Instead, NGOs and their volunteers approach surgical humanitarianism in different ways depending on personal and institutional priorities, morals, and ideals. While it would be important to explore these differences more fully, I have chosen a different approach in this study. Rather than look at internal divisions within a single social group, namely, humanitarian actors, I found it more compelling to compare humanitarian actors with the clinicians who do the same work as an everyday profession. This is both a strength and a weakness of a study. The approach admittedly glosses over these internal variations, which would be important to explore elsewhere. Yet the comparison is also striking in that it illustrates that very similar practices are assigned vastly different meanings.

As for patients and their families, I entered the field intending to analyze differences within this group, too. For example, I was prepared to consider how social class,

geographical location, or age of the pediatric patient would shape a surgical experience. What I found, however, was that these variables were less relevant analytically. Social class did not differ greatly among the families I interviewed, and it mattered little whether families lived in urban or rural settings. Further, parents showed the same determination in accessing surgical care for their children regardless of age.

Where There Is a Doctor

"We are bringing knowledge [to Hondurans] they wouldn't otherwise have." -GHF surgical volunteer from the U.S.

"I'll tell you why so many missions come to this country. They assume we can't solve problems on our own" -Honduran doctor

As the above quotes suggest, it is sometimes assumed that Hondurans lack specialized biomedical knowledge and expertise and even a general ability to "solve problems." The GHF surgical volunteer, for example, proclaims to be a carrier of new knowledge to those who otherwise would not have access to it. The Honduran doctor, in turn, is acutely aware of the image that outsiders hold of Hondurans: as lacking in know-how. *Where There Is a Doctor* has been chosen as a title to remind readers that biomedical expertise is never merely a foreign import in poor countries. In contrast, in the case of pediatric cardiology in Honduras, there have long been in-country doctors and nurses who have demonstrated expertise through the care of heart patients. This title was inspired by the classic publication, *Where There is No Doctor*, written by David Werner, a biologist and public health educator, and first published in English in 1977. *Where There is No Doctor* is intended as a how-to manual for laypersons and village health workers who "want to do something about... [their] own and other people's health" (Warner 2009[1977]). It includes information about

symptom recognition, medication dosing, home cures, measuring and administering injections, first aid, nutrition, personal care, among many other health topics. The book has been wildly popular. Since 1977, it has undergone many revisions and been translated into more than 80 languages.

This how-to manual thus embodies the same sentiment as surgical missions: that medical expertise is lacking in most of the world and must be introduced from abroad—a sentiment this study challenges. My point is not that medical manuals, or surgical missions for that matter, are not helpful; nor do I mean to downplay the severity of global health disparities and assume that knowledge transfer has no value. Rather, I wish to stress that, even where health-care systems are limited, local knowledge, expertise, and problem-solving skills are by no means absent. In other words, to assume that there is *no* doctor is to erase the local systems of care that are in place and to assume that expertise is not already locally generated. Second, I intend to challenge the assumption that importing knowledge and skill is enough to address the inequities in access to health care. As the Honduran medical personnel I met made clear, it is not knowledge they are lacking but the material resources that would allow them to translate their knowledge into action.

Before continuing, it is also important to note that, whereas the global health literature, this research study included, describes different parties by using terms like "national/international," "local/global," "hospital worker/humanitarian actor," these terms are imperfect. The Honduran doctors and nurses that appear in this study are as international and global as the surgical volunteers with whom they work on missions. As mentioned, all of the doctors are highly credentialed. They sought specialized training outside Honduras in countries like the U.S., Spain, Mexico, and Venezuela. Some had also grown up in other

countries or else gone to elementary and high school at Tegucigalpa's highly elite American School, a North American enclave where students pledge allegiance to the American flag and where all classes are taught in English. Some nurses had also traveled abroad for shortterm study and nearly all of them had relatives living and working in the U.S. or Spain. Many of them would have studied medicine instead of nursing if given the opportunity. Moreover, all Honduran doctors and nurses had intimate knowledge of U.S. culture, clothing brands, music, and fast-food chains, either because they were, or desired to be, consumers of U.S. products. Apart from being as international and global as the surgical volunteers, Honduran doctors and nurses are just as humanitarian, evidenced by the weeks and months they work without pay, as I elaborate on in Chapter Four. At the same time, some GHF surgical volunteers are actually paid staff members; they receive a modest part- or full-time salary for their participation in missions.

Organization of Chapters

The sequence of the first five chapters reflects a timeline of sorts. I begin in Chapter One thinking historically about why Honduras is a primarily destination for missions from the U.S. Chapter Two then looks at how GHF fits into the field of humanitarianism more broadly. Next, in Chapter Three, I hone in on the actual practices of surgical volunteers during missions to highlight the urgent, heroic nature of the work alongside its less glamorous moments. Chapter Four turns to Honduran doctors and nurses as a point of comparison. They "make do" in similar ways, but their practices are not viewed as heroic, nor are they a source of exhilaration. This is followed in Chapter Five by analysis of hospital life in the aftermath of missions. Lastly, in Chapter Six, I describe the experiences of parents, primarily mothers, in accessing heart care for their children. I will conclude by

exploring the paradoxes of surgical missions with respect to patient livelihoods, that is, how the hopes and expectations that patients and their parents bring to surgical missions spar with everyday realities in Honduras.

CHAPTER ONE Honduras in Crisis

If you were to travel to Honduras from the U.S., you would most likely change planes in Miami or Houston, where you would be joined by at least one medical mission on your flight into either San Pedro Sula or Tegucigalpa. These groups are easily spotted at the boarding gate with their colorful, matching t-shirts, and once again at customs, once they have collected their duffle bags full of medical supplies. The encounter would not be merely coincidental. According to a recent review of published articles about short-term medical missions, Honduras was found to receive more medical missions than any other country (Martiniuk et al. 2012). It was also the most common destination for missions from the U.S., receiving nearly 13 percent of all U.S.-based missions (Martiniuk et al. 2012). Elsewhere it has been estimated that seven to ten missions, mostly medical, may be arriving to Honduras daily (Cáceres 2011). In effect, as many as 50,000 to 72,000 volunteers may be entering the country annually (Cáceres 2011).

In this chapter, I will explain the appeal of Honduras as a medical mission destination. A partial explanation is that Honduras is a poor country, with more than half of the population (64.5 percent) living below the country's national poverty line (World Bank 2013), and more recently it has been recognized as a failed state. A more complete explanation, however, requires a deeper look into the historical roots of crisis as well as the country's geopolitical ties to the nation most commonly represented by missions: the U.S. Here I draw inspiration from Scheper-Hughes and Roberts (2011), who also seek to explain why particular countries become the sites of specific forms of medical migration. They ask, for example, "Why... is Thailand and not Laos a destination for medical tourists? Why have

India, China, South Africa, Singapore and Turkey become destinations for very distinct kinds of organ trade and not Japan, Zimbabwe, Korea or Greece? Why is Barbados made into a research laboratory destination for medical researchers and not Trinidad?" (Scheper-Hughes & Roberts 2011:14). They contend that while patients, providers, researchers, and biomedical therapies may move in unexpected directions, their departure and arrival points are by no means arbitrary. Instead, they are determined by "historical, economic, political and institutional characteristics of place," which are not intrinsic to place per se but rather are produced through global structures of inequality (Scheper-Hughes & Roberts 2011:14). Extending this point, I will describe the regional particularities that draw primarily U.S. medical missions to Honduras.

Medical missions are not a recent phenomenon in Honduras, nor are they isolated events. They are better understood as part of a larger aid apparatus that not only has shaped Honduran history but also been embodied by Hondurans as part of their national identity, as self-referential statements of Honduras as "a nation of beggars" would suggest (Indiano 2013). In addition to medical missions, this aid apparatus includes international NGOs, of which there are roughly 1,000 in Honduras (Cáceres 2011), if not more. Yet another high profile group comprises aid workers. In describing Tegucigalpa in the 1990s, for example, one social scientist found it to be "swarming with international aid agencies and expatriate 'experts,'" not unlike what James Ferguson encountered in Lesotho two decades earlier (Jackson 2005:2). Such an apparatus is further supported by aid dollars. Honduras has long been the recipient of large sums of development assistance, mostly from the U.S. In the 1950s, the U.S. provided US\$27 million in aid to Honduras, followed by US\$94 million in the 1960s, US\$193 million in 1970s, and US\$1.6 billion, in the 1980s, making Honduras the

largest U.S. aid recipient in Latin America after El Salvador (Library of Congress 2010). In the 1990s, even when levels of U.S. aid to Honduras dropped significantly, the country continued to be largely aid dependent, with foreign aid accounting for seven to 16 percent of its GDP (Jackson 2005:25). From 2000 to 2012, when U.S. aid was restored, the total amount of U.S. assistance to Honduras once again exceeded US\$1 billion, 15 times more than Costa Rica received (USAID 2015). These figures do not include the large sums of money and other donations brought in by international NGOs and other charity groups. U.S. aid dollars have continued to flow into Honduras to support its security forces despite widespread allegations of human rights abuses and resistance from within the U.S., including from Members of Congress. A story about what draws medical missions to Honduras is thus also a story about what has made it a highly aid-dependent country more generally. Jackson, in fact, calls Honduras a "lesson in dependency," given that it "has always had agents of modernization and development from one or more powerful nations 'helping' it to become more prosperous, and most importantly, more readily exploited" (2005:5).

Historically, Honduras has earned several titles that, however unfortunate, offer cues as to what place-based characteristics have facilitated the entry of medical missions into the country and authorized their presence and authority. As I will elaborate on below, in 1904, Honduras was named the original "banana republic," having been the first country U.S. banana companies brought under political and economic control. Jumping ahead threequarters of a century, in the 1980s, Honduras earned a second title, the "pentagon republic," when it became an ally and launching pad for the U.S. to fight communist insurgency in neighboring Central American countries (Chomsky 1985). At this time, it was also dubbed

"U.S.S. Honduras," referring to its function as a kind of land-locked U.S. aircraft carrier (Shepherd 1985). The shift from a "banana republic" to a "pentagon republic" illustrates that Honduras never ceased being under U.S. domination. The nature of that domination merely shifted in focus. More recently, Honduras has been designated the "world's most murderous capital" after the UN Office of Drug and Crime found it to have the highest homicide rate in 2011, a status it has maintained ever since. While banana production, military occupation, and, more recently, violence, may seem to have little to do with medical missions, I will argue that these phenomena are deeply intertwined. More specifically, I will explore the associations between medical missions and four intersecting trends: the prominence of Honduras within a global emergency imaginary, a history of foreign domination and U.S. military occupation, the rise of neoliberalism, and the legacy of elite corruption. With respect to the latter, I refer specifically to the abuse by state officials who use public health resources to seek or maintain political power. This chapter is not intended as a comprehensive overview of Honduran history. Rather, I highlight particular historical moments or time periods that have relevance for understanding current medical mission activity in the country.

The geographical proximity of Honduras to the U.S. has been a key factor in shaping these interconnections. For example, in the case of banana production, U.S. companies selected Honduras as a site for production because the country's northern coast was the most convenient access point in Central America. Then, during the Cold War, Honduras was yet again a geographically ideal site from which to launch attacks against so-called communist factions in neighboring countries, which in themselves were a perceived threat to U.S. democracy given their geographical proximity. Finally, in the case of short-term medical

missions, some volunteers felt an affinity toward Honduras as a geographical neighbor. They also appreciated that they could travel to Honduras in less than a day, as opposed to an entire day or two if they were to travel to Africa or Asia, because it allowed them to make the most of their visit.

I will begin my discussion by locating Honduras in the international media that perpetuates its image as a country in crisis. I will then turn to the historical roots of crisis to illustrate how foreign, namely U.S., political, economic, and military involvement becomes a conduit for aid and gives missions both purpose and authority. Finally, I will discuss the social and health impacts of neoliberalism and corruption in Honduras, which, as has been widely noted by scholars, has weakened public health sectors and created "a vacuum in social provision" for non-state entities to occupy (Harvey 2005:177; see also Pfeiffer & Nichter 2008, Foley 2009, Pfeiffer & Chapman 2010, Mosse 2013). In other words, as the Honduran state allocates fewer resources to the public health sector, government hospitals and clinics are unable to purchase medical supplies and machinery and pay the salaries of medical personnel. Increasingly, they must rely on NGOs to bring in medical supply donations and provide direct patient care. Some national governments formally contract out services to NGOs (Loevinsonh & Harding 2005). The value of missions in a neoliberal context, however, is not only material (Bassett et al. 1997, Foster 2005, Lundy 1996, Kyaddondo & Whyte 2003). Missions also have an affective dimension that serves as a counterpoint to the widely felt "culture of dispassion" (Muehlebach 2012:107) produced within Honduran government hospitals.

Imagining Emergency

North Americans figure prominently in the Honduran imaginary as the quintessential aid worker. This came to my attention one day while waiting with one of my research assistants for our bus to depart for Olancho, Honduras' largest department (or state) located on the eastern part of the country. We were on our way to visit a patient's family. A man came on board introducing himself as a representative of Operation Smile, an NGO that coordinates surgical missions that repair children's cleft lips and palates. He was soliciting donations to support the organization. While a number of Honduran passengers handed over a few *lempiras* as he passed through the aisle, I could not help but doubt his true identity. Operation Smile is one of the largest, most well-established charities in Honduras, making it hard to believe that its representatives would be involved in such piecemeal fundraising efforts. Further, while he tried to appear North American by speaking Spanish with a gringo accent, making predictable grammatical mistakes, and occasionally inserting a word in English, I was not convinced. I mention the encounter not to pass judgment on his behavior or praise his ingenuity. Rather, I find it telling that, of all the socially-sanctioned and empathy-worthy identities to choose from, he elected to be an aid worker, a North American no less. This illustrates the degree to which aid workers are deeply integrated into the social fabric of everyday life in Honduras.

As a mirror image of this phenomenon, Honduras figures prominently in a global imaginary as a country in crisis. In fleshing out this point, I find Calhoun's (2010) concept of an "emergency imaginary" to be useful. There is a growing literature in the social sciences about what drives humanitarianism; I discuss it in depth in the following chapter. As part of this conversation, Calhoun (2010) argues that humanitarianism has flourished, especially since World War II, not because more crises have occurred, but because certain

technological, ideological, and institutional shifts that have made more events appear as emergencies whether or not they feel or look that way on the ground-hence, his reference to an "imaginary." He writes, "emergencies can be imagined as such because media exists to see its effects in nearly real time, because an ideological framework exists to frame a sense of connection to those suffering at a distance, and because organizational capacities exist that make it possible to have effective action" (Calhoun 2010:54). The fact that emergencies may not actually feel or look like emergencies is key. For example, the displacement of Palestinians or the partition of India and Pakistan are called "emergencies" despite having played out over months or years, if not decades. This is not to minimize the suffering that such situations produce, but rather to underscore that they only come as a shock or surprise "to those who learn about them only when they finally reach the evening news" (Calhoun 2010:33). The evening news constructs emergencies by selecting images and narrative that emphasize two themes: a sense of urgency and a sense of rupture, that is, the idea that the event has occurred unexpectedly. The urgency and suddenness of emergencies, in turn, downplay the structural causes of suffering and prefigure a particular response: the provision of immediate, targeted relief. In other words, an unforeseen event calls for immediate action. As part of the emergency imaginary, the responses by outsiders, usually "moral white people from the rich world," are therefore also widely publicized (Calhoun 2010:54).

As historian Diana Frank writes in a *New York Times* Op-ed piece, international "headlines have been full of horror stories about Honduras" (Frank 2012). Although she is referring to the period following the 2009 military coup, her words are relevant for thinking about Honduras for the past decade. In 1998, for example, Hurricane Mitch swept through Central America, capturing international attention. It was a category five hurricane,

described as the deadliest hurricane to hit the Western Hemisphere in more than 200 years. In Honduras alone, 5,657 people were killed, 12,272 were injured, 8,058 were unaccounted for, and 441,501 had to seek temporary shelter (Ensor 2009:24). News stories emphasized the urgent, exceptional nature of the event by calling the world's attention to massive floods and mudslides; disturbing death tolls; the complete disappearance of homes and communities; the mass displacement of people and associated wave of migration to the U.S. that was described as yet another horror for the migrants as they tried to pass the U.S.-Mexico border; the emergence of a new population in need, "Mitch kids," or children who had lost their parents during the hurricane; and an overbreeding of disease-carrying insects and rodents. I do not mean to suggest that such portrayals are inaccurate or that Mitch did not cause tremendous damage and suffering. The point, rather, is that media coverage of the event made it seem like death, disease, and massive out-migration were unprecedented in Honduras, thus constructing missions and other forms of relief work as the seemingly only logical answer.

Ten years later, in 2009, Honduras once again assumed center-stage within an emergency imaginary with the ousting of democratically-elected president Manuel Zelaya. To some Hondurans, the coup was not necessarily a surprise. As one friend said to me, "It confirmed what we already suspected—that we don't live under a democracy." In fact, for many, Zelaya's time in office, as opposed to his ousting, was a break from the past, as he was pursuing social welfare policies no other president had. To outsiders, however, the coup came as a shock. The fact that it was the first coup in the region since 1993 was emphasized in the media and academic literature. Booth, for example, describes the coup as a "shocking

reversal" of what appeared to be the region's more recent democratic process following the

political turmoil of the 1980s and 1990s (2009:1).

Since 2011, a sense of emergency has been sustained if not heightened, as headlines press the point that Honduras is not only politically unstable but also excessively violent and corrupt. For example, a UN report that found Honduras to have the highest homicide rate has received considerable media attention. Below are just a few examples of headlines that appeared in the international press between 2010 and 2014:

"Honduras: 'We are Burying Kids All the Time'" (Guardian 2010)
"Honduras Murders: Where Life is Cheap and Funerals are Free" (BBC 2012)
"Corpse Found Hanging From Bridge Suggests Mexican Cartels In Honduras" (Huffington Post 2013)
"Honduran Police Accused Of Running Death Squads" (AP 2013)
"Political Doubt Poses Risk to Honduras, Battered by Coup and Violence" (NYT 2013)
"Honduras: Where the Blood Flows and the Rivers are Dammed" (Aljazeera 2013)
"Which Countries have the World's Highest Murder Rates? Honduras Tops the List" (CNN 2014)

The content of the articles bears resemblance to the urgent, dramatic language used in the media coverage of Mitch. Here I quote from the first headline listed above: "What are the words for what is happening in Honduras? Slaughter, tragedy, waste? On average three young people are murdered daily—more than 1,000 a year. The annual death toll is almost 6,000, an extraordinarily high number, which makes this central American backwater of 7 million far more murderous than Mexico. 'We are burying kids all the time,' says José Manuel Capellín, the head of Casa Alianza, a charity for street children. 'It's horrific, the figures are going up and up and up" (Guardian 2010).

Describing rates of violence as "going up and up and up" is a rhetorical strategy intended to sound an alarm. These headlines also lend the impression that the violence has emerged suddenly. For example, the 2014 headline from CNN, which asks readers to guess

which countries "top the list," suggests that the answer is not intuitive. Nor do these articles offer a historical analysis of the roots of crisis instead chalking it up to an encroaching drug trade, gang activity, a failing court system, and police and government corruption. Accompanying these articles are tragic images that further indicate catastrophe, such as innocent youth who have been killed in the crossfire, bodies strewn on the ground, grave sites, and the tattooed gang members who are deemed responsible. The national news in Honduras is no different, suggesting that global and local registers contribute equally to an emergency imaginary. Pine (2008) has described national media coverage in Honduras as "media violence" and "death porn" to highlight the degree to which it is flooded by stories and images of horrific, gut-wrenching deaths.

Most recently, the international media has emphasized the influx of unaccompanied minors into the U.S., which President Obama has named an "urgent humanitarian crisis." Immigration to the U.S. by Hondurans is not new. Nor are the factors propelling greater numbers of Honduran children to leave their country. How many of the migrants would identify as children is also contested. Yet the media frames child migration as an emergent phenomenon, a tragedy emblematic of a state that has fallen deeper into disrepair.

In response to these emergencies, news stories, in turn, highlight the efforts of outsiders who step in to help. During Mitch, for example, a newspaper describes British crewman who rescued a woman who was swept out to sea during the storm, while another noted the efforts of a man who traveled the country in his personal 1942-era Beech Twin aircraft to deliver supplies to areas of the country no else could reach. Still other news sources commemorated the charities and church groups that brought to Honduras large containers stocked with clothes, shoes, school supplies, and construction materials. Hardly
any attention is paid to the efforts of Hondurans assisting other Hondurans. Positive news coverage of medical missions to Honduras has been ongoing ever since, where teams describe tending to "desperate need" and "suffering." Medical missions are applauded for bringing more than basic necessities, such as vaccines, medications, and personal items, to Honduras. They are also recognized for contributing hard currency to the country. Some estimate that they may be contributing as much as US\$85 million to US\$125 million annually when accounting for what they spend on food, lodging, transportation and other traveler expenses, what they spend on airline tickets, and how much they leave behind in terms of material donations (Cáceres 2011).

By calling attention to an emergency imaginary, I should reiterate that I do not mean to suggest that violence and suffering are not real, everyday threats for Hondurans or that the situation in Honduras does not merit global attention or is not a global responsibility. Rather, my point is to draw correlations between media portrayals of suffering as sudden and shocking, on one hand, and international responses in the form of targeted mission-style visits, on the other. In other words, it should come as no surprise that a country that has become nearly synonymous with deadly storms, violence, corruption, and political instability is also a revolving door for short-term medical missions, as they are precisely the kind of intervention that an emergency calls for. The depiction of Hondurans as violent, corrupt, and incapable of providing for younger generations, further legitimizes missions because it lends the impression that the country needs outside help. This is part of a broader trend. As Mullings and colleagues found in the case of Haiti, for example, media discourses of Haitians as criminal and dangerous "provided the rational for a new set of actors,"

international NGOs, "to take increasing responsibility for the governance of the country" (2010:288).

From Railway Tracks to Maquilas: A History of Domination

Foreign aid is not distributed in accordance with actual need. Rather it flows most freely between countries that have strong, pre-existing political and economic ties; this is especially true when the recipient country is a former colony of the donor country (Alesino & Dollar 2000). Honduras is no exception, although the key relationship is not its colonial relationship to Spain but its neo-colonial relationship to the U.S. After independence from Spain in 1821, Honduras never functioned as a completely sovereign state. As Pine observes, "political decolonization from Spain was immediately followed by a regionally specific economic recolonization by the United States and northern Europe" (2008:17). Recolonization began in the 1860s with a U.S.-sponsored railway project. At the time, Honduras was in turmoil. As Schulz and Schulz note, after the retreat of the Spanish, "anarchy became a way of life. There was no national nucleus, no unifying force that could bring together the various factions vying for power" (1994:6). In fact, between 1839 and 1900, there were 62 presidencies, with 32 transfers of power taking place over the span of 14 years between 1862 and 1870 (Schulz & Schulz 1994:6). While funding for the railway was first granted by U.S. investors, the project failed before a single section of track had been placed. The U.S. inventors sold the project to the British, but they made no further progress.

In 1876, Marco Aurelio Soto became president of Honduras and tried to revive the railway project by acquiring additional loans from the British and French. His efforts, however, only plunged the country further into debt, since little of the funding was actually

put to use on the railroad, if the funds made it to the country at all (Euraque 1996:4). By 1888, the national debt in Honduras was said to be so high that it exceeded the value of the entire national territory (Euraque 1996:4). It was the highest per capita foreign debt the world had known at the time (Schulz & Schulz 1994:7). The railway was never completed yet Honduras was required to repay the debt over the next 65 years. This became the pattern. Since the railway project, the Honduran government has consistently had to pay off foreign lenders, money that could have gone to develop its own institutions and infrastructure.

The next wave of investors to take an interest in Honduras, also North Americans, were gold and silver mining companies. President Soto helped establish the largest among them, the New York and Honduras Rosario Mining Company, which was granted tremendous autonomy in Honduras as well as tax exemptions on the importation of machinery and exportation of silver. The profits and power afforded to the company were exorbitant; in fact, the company's owner, Washington Valentine, was known among his contemporaries in New York as the "King of Honduras" (Euraque 1996; Pine 2008). A link between the Honduran government and U.S. mining companies then paved the way for the entry of U.S. banana companies, which quickly dominated the banana trade and assumed considerable political and economic power—so much power, in fact, that in 1904 North American fiction writer, O. Henry, coined the term "banana republic." The term, although contested, makes clear that Honduras was still a "de facto colony" (Vine 2014:29). Bananas were first shipped from the country's northern coast to New Orleans in 1899 under the auspices of three Italian brothers, known as the Vaccaro brothers, who had immigrated to the U.S. in the mid-1880s. The "greatest banana entrepreneur," however, was said to be Samuel Zemurray, also known as "Sam the Banana Man," who took an interest in the region

in 1895. By 1910, he owed 20,000 acres of land to be used as plantations (LaFeber 1983:43). The Vaccaros, Zemurray, and United Fruit of Boston, which came in soon after, bought all the smaller banana companies, transforming northern Honduras into a "foreign-controlled enclave that systematically swung the whole of Honduras into a one-crop economy whose wealth was carried off to New Orleans, New York, and later Boston" (LaFeber 1983:43). Hondurans, in effect, were "cut off... from their own wealth" (LaFeber 1983:43), which set them apart from elites in El Salvador and Nicaragua, who managed to maintain control of some major exports, such as coffee, despite foreign intervention.

By 1929, bananas accounted for 84 percent of all exports from Honduras, making it the largest banana producer in the world, a status it held through the first half of the twentieth century (Schulz & Schulz 1994:9). During this time, the country did not have its own currency, using U.S. currency instead. Banana companies dominated more than the economy. They also had considerable influence politically. For example, in 1907, Zemurray overthrew the Honduran government with a rebel army trained in the U.S. so that he could instate a new government that would be more aligned with his financial interests (LaFeber 1983).

U.S. investors were not the only foreign economic stronghold in Honduras, a phenomenon that many historians downplay (Euraque 1996). Arab immigrants have been central to the Honduran economy since the 1910s, at which time they had almost complete monopoly of the import and export of commercial products (Euraque 1996). Palestinian immigrants were especially powerful; they were involved in the manufacturing of clothing and had a distribution network that surpassed other investors in the region. While the immigrants, locally called *los turcos* (Turks) because they originally came to Honduras with

Turkish passports, enjoyed economic power, they were not well-received by Hondurans. They also did not assume political office at first. This changed after World War II, when elite families of Arab-Palestinian descent came to dominate the government and much of the country's wealth, thus keeping Honduras under foreign control. Currently, there are no more than a dozen ruling families who own all major newspapers, radio and TV broadcasting companies, banks, fast-food restaurants, beverage companies, pharmacies, and the police, and who dominate the Supreme Court, Public Ministry, and National Assembly.

Until the 1960s, Honduras mostly exported mining and agricultural products. The 1970s marked the beginning of the *maquilas*. In 1976, a law was passed authorizing the construction of free trade zones in the northern part of the country, where bananas companies were also operating. In 1984, much like the rise of the "banana republic," a temporary import law, the Caribbean Basin Initiative (CBI), allowed exporters to bring in raw materials and machinery without being taxed as long as their products would be exported outside Central America. Industrial processing zones were legalized a few years later, and the industry was born. Companies continued to benefit from tax exemptions on imports and exports, while the state paid for improvements in infrastructure. The infrastructural improvements, however, did not extend to surrounding communities, where people who had migrated to the area to work in factories continued to live without water, sewage, garbage, and electricity services. Mostly clothes were manufactured. Output was significant. From 1998 to 2002, Honduras was the world's third largest clothes manufacturer; the U.S., at the time, imported more clothes from Honduras than any other Central American country. As in the case of the industries that preceded it, most of the

market (40 percent) was dominated by the U.S. Thirty percent was owned by Hondurans, and 15 percent by Koreans.

A history of railway projects, mining companies, banana production, and *maquilas* has denied Hondurans economic and political autonomy and kept the country under the strong influence of other powerful nations, namely U.S. This was further intensified under neoliberalism, which took hold in early 1990s, as discussed below. If aid indeed travels down well-worn paths, then it logically follows that Honduras would emerge as a primary destination for U.S. aid, whether aid dollars, aid workers, NGOs, or medical missions. Aid squares nicely with this history for two reasons. First, as a result of a long history of foreign domination and debt, Honduras has been left with few resources to invest in its own institutions, such as hospitals and schools, thus creating a gap for outsiders to step into under the auspices of development or humanitarian relief. Second, this history normalizes the presence of foreigners in the country, especially in positions of power, which gives groups like NGOs and medical missions incredible authority and latitude. Foreign domination has not been exclusive to politics or the economy, however; it has also given rise to powerful, highly repressive security forces. Military domination bears its own relationship to the phenomenon of medical missions, which I describe below.

Honduras as an Occupied Territory

The U.S. military has been present in Honduras for more than a century, beginning with the "banana wars" (1898-1934), which first ushered in U.S. military forces and involved eight interventions or occupations between 1903 and 1925 (cited in Vine 2014). In 1954, the U.S. used Honduran soil to launch an attack against the purportedly left-leaning Guatemalan government, causing Guatemalan President Arbenz to resign. Its strongest influence was in

the 1980s, when Honduras become a staging ground to overthrow the Sandinista government in Nicaragua and crush leftist guerrilla movements in Guatemala and El Salvador. This involved investing millions of dollars in military reconstruction projects, providing Honduran forces with reconnaissance planes, artillery, night-vision capabilities, and patrol boats, stationing U.S. troops at facilities throughout the country, and expanding and training the Honduran military personnel. The Honduran armed forces expanded to 26,000 troops (Ruhl 2010). As many as 800 soldiers were trained in the infamous School of the Americas, known for graduating some of the world's worst human rights abusers (Gill 2004). U.S. military aid increased more than twentyfold between 1979 and 1986 alone (Schulz & Schulz 1994:153). Visually, the Honduran landscape was transformed. What was once a banana republic quickly morphed into a "military fortress" (LaFeber 1983:261). According to Schulz and Schulz, "Society became highly militarized. Everywhere uniformed and armed teenagers could be seen guarding office buildings and private residences. Simultaneously, the U.S. presence grew by leaps and bounds. Joint military exercises, often involving massive numbers of troops, became an almost constant feature of Honduran life" (1994:153). It is no wonder that titles such as "U.S.S. Honduras" and the "pentagon republic" took hold.

A spike in military aid was paired with a spike in development assistance, which served as payback to Honduras for lending its land and security forces. Sixty percent of all development aid entering Honduras at the time was from the U.S. (Jackson 2005:30). At the same time, the number of USAID projects multiplied and the Peace Corps contingent became the largest in the world (Schulz & Schulz 1994:152). The effects, once again, manifested visually. As the Chicago Tribune reported, "shiny new cars appeared in its

[Tegucigalpa's] dusty streets almost overnight and consumer luxuries abounded" (Sheppard 1993).

The Soto Cano Air Base, locally referred to as Palmerola, was the epicenter of military activity. It was built almost from the ground up to include "hangers, an airplane ramp,... [and] a runway capable of accommodating F-16 fighter jets and C-F cargo planes, offices and recreational facilities, twenty-two miles of roads, and extensive water, sewer, and electrical systems" (General Accounting Office 1995; cited in Vine 2014). Soto Cano was a key vantage point for U.S. espionage operations. It was also a training camp for Honduran soldiers to fight Central American counterinsurgency, including within Honduran borders. Regarding the latter, a clandestine military operation called Battalion 316 was created. Overseen by the U.S. ambassador and authorized by the CIA, its officers dressed in disguise and traveled in unmarked cars to track down "suspected subversives—including students, journalists, and union activists" (Pine 2010a:248). So-called subversives were captured, detained in secret jails, interrogated, and tortured. There were anywhere from 180 to 240 reported disappearances, many of whom were never seen again (Pine 2010a:248; Gordon & Webber 2013:23).

By the early 1990s, when Nicaragua, El Salvador, and Guatemala no longer posed revolutionary threats, U.S. funding to the Honduran military dramatically declined. Liberal Honduran presidents between 1994 and 2002 then "shrank the military by more than half and took away most of its powers and pejoratives" (Ruhl 2010:96). The U.S. military never left the country, however. Soto Cano was merely put to new uses. Rather than espionage, it was adapted for "new missions and new justifications... found in disaster and drugs," specifically the reconstruction efforts following Hurricane Mitch and the intensification of

the U.S.-backed drug war (Vine 2014:33). Further, while the military's influence was reduced in the 1990s, the police force quickly remilitarized under President Ricardo Maduro, who was elected in 2001. In response to rising crime rates at a time when there were few economic alternatives for Honduran youth, he launched a highly repressive war on crime, which was essentially a war on poor, urban male youth. His *mano duro* (iron fist) policies, which took a zero-tolerance approach to gang activity, sent thousands of police officers into the streets to identify and detain suspected gang members, many of whom were imprisoned without trial or killed with impunity. Between 1998 and 2002, more than 1,500 youths were murdered (Booth 1989). Prisons were filled to the point of collapse. Two prison fires in 2003 and 2004 suggested that "social cleansing by security forces extended into prisons" (Booth 1989:173). Maduro's war on crime also dissolved the divisions between the military and police as the police officers who were deployed for "street cleaning" purposes under the leadership of a military official (Gordon & Webber 2013).

In addition, state-sponsored death squads never entirely disappeared, as the killing of Ernesto Randoval, a leading human rights activist, in 1989 attests. More recently, political violence has intensified. As Pine notes, most of the victims "have been engaged in grassroots struggle against national and international corporations exploiting lands, water, and subsoil resources of which their communities claim ownership" (2009:1). These include an indigenous group opposing the construction of a hydraulic dam on their ancestral territory and various *campesino* groups disputing land grabs by major sugar and African palm oil corporations (Pine 2013). In connection with the 2009 military-backed coup, security forces have violently repressed the non-violent opposition. Human rights organizations documented 4,000 human rights abuses committed in the first two months following the

coup (Pine 2013). Between 2010 and 2012, there were an additional 10,000 complaints of abuses at the hands of military and police (Frank 2012).

Since 2009, death squads reminiscent of Battalion 316, the clandestine military operation from the 1980s, are believed to have proliferated. In Tegucigalpa, there have been 150 reports of "death squad-style killings" and another 50 in San Pedro Sula (Associated Press 2013). Journalists, human rights lawyers and judges, and candidates and supporters of the anti-coup LIBRE political party are primary targets. In the months leading up to the 2013 elections, National Party candidate and president of the National Congress, Juan Orlando Hernández, created a new military police, which further terrorized activists and journalists, murdering 18 LIBRE candidates, pre-candidates, and their family members, which amounted to more killings than all other political parties combined (Pine 2013). The state is not the only perpetrator of violence in Honduras; nonetheless, its violent, corrupt security forces fuel other forms of violence. Unable to rely on police for protection, for example, many Hondurans take security into their own hands. They hire private security guards, who are usually armed and ready to open fire, even if merely to scare away a suspicious passerby—at least that was my neighbor's explanation for why gunshots could be heard throughout the night in our neighborhood, known to be one of the city's safer neighborhoods.

Another face of remilitarization has been the more recent intensification of the drug war. Approximately 14 new military bases have been constructed throughout the country with U.S. support ostensibly to combat the drug trade in the Americas. As a result, Soto Cano has expanded both in size and personnel and military and police aid has increased. As Vine argues, owing to such developments, it is clear that "U.S.S. *Honduras*" was never

completely dismantled but rather merely "relaunched" (2014:34). The U.S. provides financial and training support to the Honduran military, police, and now the military police. The U.S. military has also been directly responsible for the deaths of Hondurans (Cuffe & Spring 2012), which made headlines when an anti-narcotics operation involving Honduran police, Guatemalan military, and the U.S. Drug Enforcement Administration (DEA) opened fire on a boat carrying 16 people. This was shortly followed by another incident when DEA agents shot and killed two pilots suspected of transporting drugs from Colombia.

Importantly, there are several links between the U.S. military and medical missions, some of which are more obvious than others. First, the U.S. military coordinates humanitarian missions of its own, which may explain why missions in Honduras are never referred to in Spanish as missiones (missions) but rather brigadas (brigades), which means a group of people with shared interests or a group of soldiers. The latter word originates from the Italian word brigare, to fight. Second, Soto Cano serves the interests of international missions because it facilitates the entry of their material donations at no cost to donors and minimal, if any, government oversight. This occurs through the Denton Program, which allows U.S. citizens, NGOs, and other private organizations to use any unoccupied space on U.S. military cargo planes to bring in humanitarian goods, including agricultural equipment, clothing, educational supplies, food, medical supplies, and vehicles. The program was started by Jeremiah Denton, a former state senator, advisor to President Reagan, and prisoner of war during Vietnam, who, having spent time in Latin America in the 1980s, wanted to do more to alleviate poverty. Soto Cano was the program's first site of operation globally. It is the entry point for a remarkable amount of supplies. During Hurricane Mitch, for example, US\$4 million tons of donations came through the base in the first ten weeks

after the storm (Troth 1999). Ed and Anie readily use the Denton program to bring in medical machinery and other supplies for GHF surgical missions. In 2011, a single shipment included US\$75,000 worth of equipment. Such shipments come in year-round. The value of having a direct access point for the transport of supplies cannot be overstressed. One of the organizations I was going to work with for this project canceled its pediatric heart surgery mission to El Salvador when the team did not have the same freedom to bring in whatever supplies they wanted.

State violence maims the bodies of youth, suspected gang members, political activists, and journalists-anyone deemed a threat to powerful interests. It is also a strain on state resources. Public hospitals in Honduras resemble "war hospitals" given the rising number of trauma victims treated daily (Pine 2010a:245). In 2001, the public hospital in Tegucigalpa treated 1,228 nonfatal injuries caused by violence. By 2009, this number had increased four-fold to 5,421 (Navarro et al. 2012). One Honduran doctor I met estimated that most of the budget at Central Hospital went to treating violence-related injuries. The effects extended to pediatrics, where nurses confirmed that patients sustaining such injuries were mainstays of their ICU. Dr. Avila, the Honduran heart surgeon who specialized in adults and children, told me that he spends most of his time repairing bullet wounds. When I asked him how much time, he described a recent weekend on call when he repaired four bullet wounds on Friday, three on Saturday, and one on Sunday. Dr. Baca, who often assisted Dr. Avila in the OR, confirmed that the weekends were "a different world." As he spoke these words, he fired an imaginary gun, signaling that by a different world he meant a violent world. As discussed earlier, this made it difficult to operate on pediatric heart patients, in particular, because they always took a backseat to adult trauma patients. Heart surgeons began their

days early in hopes of completing a pediatric heart surgery before being called in to treat patients who had sustained injuries during the night. When I observed Dr. Avila operate on pediatric hearts, it was not uncommon for him to have to leave the surgery precisely for this purpose.

Medical missions thus enter this picture in two ways. They provide necessary services, such as pediatric heart surgeries, that an overburdened de facto trauma hospital cannot. They are also well-received because they emphasize the importance of life, more specifically saving lives, at a time when the Honduran government has become almost synonymous with being an agent of death.

A Public Health Void: Neoliberalism and the Legacy of Corruption

Militarization in Honduras paved the way for the introduction of neoliberalism in two ways. First, the disappearances of so-called subversives in the 1980s and 1990s kept left-leaning social movements at bay. In effect, when democratic elections began in 1989, the first democratic transfer of power in nearly half a century, they favored candidates who were right-wing and eager to protect the economic interests of the elite. Second, sharp declines in the U.S. military and economic aid in the early 1990s propelled Honduras into one its most difficult periods economically. Public debt at the time amounted to 90 percent of the GDP, while the budget deficit amounted to 12.5 percent (Schulz & Schulz 1994:273-4). The "relative equality" that Hondurans had previously enjoyed was quickly replaced by a polarized system with politicians and military officials on one side and the majority of Hondurans on the other (Ensor 2009:33). In 1989, the newly elected President Rafael Callejas, who coincidently lived on my block when I rented from the Sanchez family, fully embraced a neoliberal agenda in an effort to pull Honduras out of crisis. He agreed to the

first of three structural adjustment programs in early 1990. The others were implemented during successive administrations. His reforms involved devaluing the *lempira*, raising consumption taxes, reducing tariffs, liberalizing price controls, and privatizing state enterprises (Gordon & Webber 2013). These were followed by the promotion of free markets, nontraditional exports, tourism, free trade zones, and *maquilas* (Gordon & Webber 2013).

The ill effects of neoliberal economic policies are well-known. While some segments of the population have benefited, the vast majority have faced lower wages, increased job insecurity, and fewer social welfare protections, thus propelling many into destitution (Comaroff & Comaroff 2001; Harvey 2005; Pfeiffer & Chapman 2010; Mosse 2013). In Honduras, such effects were initially most acutely felt in rural areas. In the 1990s, neoliberal reforms caused agricultural employment to decline and displaced *campesinos* as land that they had previously acquired through agrarian reform was seized and sold to national and international corporations (Gordon & Webber 2013). At the same time, foreign investment rose, especially in the *maquila* sector, whose workforce grew exponentially. A workforce of 9,000 Hondurans in 1990 rose to 100,000 by 2000 (Gordon & Webber 2013). While many displaced *campesinos* found new employment in *maquilas*, the conditions were exploitative and many endured squalid living conditions. Changes in the labor market also did not abate poverty overall, nor did it mean job security across all sectors of the population. Throughout the 1990s and early 2000s, the majority of the population continued to live below the national poverty line of US\$1.25 per day (World Bank 2015).

Poor Hondurans enjoyed some respite following the election of Manuel Zelaya as president in 2006. Although a political moderate, member of the right-wing Liberal Party,

and clear proponent of neoliberalism, evidenced by his support for the Dominican Republic-Central American Free Trade Agreement, Zelaya advanced a number of populist policies. He increased minimum wage by 60 percent, de-escalated the war on drugs, removed school enrollment fees, raised the salaries of teachers, promoted literacy, enforced stricter environmental regulations, reduced the cost of oil, and refused to privatize the phone company and ban the morning-after pill. The effects on poverty and inequality were notable. Extreme poverty, which had been on the rise between 2003 and 2005, was reduced by 20 percent between 2006 and 2009 (Johnston & Lefebvre 2013). In addition, after trending upwards, the Gini coefficient, the most common measure of inequality, decreased at an average annual rate of 3.6 percent (Johnston & Lefebvre 2013). Education, health services, and social welfare services all experienced higher growth, too.

The gains were short-lived, however, ending with the illegal ousting of Zelaya by the Honduran military in 2009. The immediate cause of the coup was the widespread assumption that Zelaya wished to extend his presidential term through constitutional reform, although there was no clear evidence of that intent. More likely, the Honduran elite felt their own political and economic power being threatened as Zelaya increasingly showed support for traditionally marginalized sectors of the population. Following Zelaya's imposed exile in Costa Rica, Roberto Micheletti Baín, then president of Honduras' National Congress, became the de facto president for seven months, but no government or international organization acknowledged him as such given the questionable terms under which he was appointed. When a number of countries also suspended multilateral and bilateral funds to Honduras to show their condemnation of Zelaya's removal, the economy, already under

strain as a result of the global financial crisis and U.S. recession, was further weakened. Micheletti, in turn, instituted major cutbacks in public spending (EIU 2009).

In 2009, general elections were held, as planned, and Porfirio Lobo Sosa of the National Party, Honduras' other right-wing party, was elected president. The fairness and transparency of the electoral process were hotly contested. Given the government's suppression of opposition media and demonstrators, many Hondurans refused to vote, a number of candidates withdrew from the election altogether, and no international observers were present (Meyer 2010; Pine 2010b). Once in office, Lobo Sosa revitalized a neoliberal agenda, essentially undoing many of the policies advanced by Zelaya. In particular, he made attempts to roll back the minimum wage hike, gave mining concessions to corporations, promoted the construction of hydroelectric dams against the wishes of neighboring communities, and increased spending on the military, while, at the same time, reducing spending on education and health care.

Lobo Sosa also primed the country for foreign investment. A watershed event was the 2011 USAID-funded conference held in San Pedro Sula entitled, "Honduras is Open for Business." As stated on its official website, the conference was aimed "at re-launching Honduras as the most attractive investment destination in Latin America."¹² Over 1,000 corporations were invited to attend and propose projects that such as privatizing the phone company, constructing additional dams, further commercializing African palm oil, and producing transgenic corn seed, among dozens of others. Such projects were designed to generate billions of dollars in investments for foreign and national sponsors with little benefit to the poor. Critics of the conference called it a "shock doctrine," drawing on Naomi

¹² http://www.hondurasopenforbusiness.com/SITEv2/index_live.php

Klein's widely-used phrase to describe how corporations contribute to and shape disasters, and then, in their aftermath, capitalize on the suffering and material destruction to earn a profit—otherwise known as "disaster capitalism." Others argued that to make Honduras "open for business" was to make it "open for sickness," thus underscoring its focus on profit at the expense of livelihoods. Indeed, the poor have suffered in the years following the coup. Since 2009, inequality has, once again, increased, and by 2012, the poverty rate was higher than it had been in 12 years (Johnston & Lefebvre 2013).

As yet another neoliberal move, Lobo Sosa supported a "model cities" program inspired by Paul Rome, a U.S. economist who argues that cities and countries are underdeveloped not because of individual shortcomings but because problematic laws and institutions. Rather than approach the problem through reform, however, he suggests building entirely new cities on presumably uninhabited territory, which could abide by their own rules that favor trade and democracy. Such cities, which in Honduras are formally called Zonas de Empleo y Desarrollo Económico (Special Employment and Economic Development Zones), would supposedly benefit not only investors, but also workers, in that the former would be guaranteed profits while the latter would be guaranteed jobs. The program has been widely criticized as a "neoliberal gift to the rich, a continuation of oligarchic rule and a threat to democratic governance" (Phillips 2014). It also extends foreign monopoly of Honduran markets and land. As a Honduran friend commented, "Honduras will no longer be Honduras," meaning that Hondurans will have even less jurisdiction than before. In 2011, the Honduran Congress passed amendments that would make the cities legal. The few parties who opposed the amendments were violently repressed. One of the leaders of the opposition, also an activist, was shot dead in

Tegucigalpa in 2011. Then, several Supreme Court justices who had initially found the program to be unconstitutional were fired. They were officially fired on different grounds, but they were nonetheless chastised by Lobo Sosa for opposing legislation that would have allowed the model cites to pass.

Neoliberalism has become more firmly entrenched with the election of Juan Orlando Hernandez, also of the National Party, in 2013. Under his leadership, the model cities program was voted on again, and after some modifications, it did pass. Hernandez's new military police, although billed as an effort to reduce crime, has also served to effectively protect the interests of the political and economic elite. As Pine has observed, Hernandez has used military and other state security forces "to legitimate and secure the economic violence effected against Honduran citizens by [neoliberal] corporations" (2013).

It is widely documented that neoliberalism devastates government-sponsored health care and, by default, the health of the poor (Kim 2002; Pfeiffer & Chapman 2010). In Honduras, the most visible impact of neoliberalism has been the rapid privatization of the health sector, making health care prohibitively expensive for the many Hondurans who are without insurance and unable to pay for services out of pocket. Government surveys carried out in 2005-2006 and 2011-2012 found that 88 percent of the population had no health insurance; of the remaining 12 percent, ten percent were insured under IHSS, the "social security" system, and two percent were covered by private insurance (Secretaria de Salud Honduras et al. 2013). The early 1990s in Honduras saw a boom in the construction of private hospitals and clinics, which now outnumber public facilities. Currently the private sector comprises 60 hospitals and 1,079 clinics, whereas the public sector has only 28 hospitals alongside a number of smaller clinics and rural outposts (Secretaría de Salud

Honduras et al. 2013). IHSS, which is technically a semi-public service in that it provides highly subsidized medical care to Hondurans who have jobs that allow them to contribute to the social security system, has two hospitals totaling 916 beds (Secretaría de Salud Honduras et al. 2013), although, it, too, is moving toward privatization, as stipulated by a new IMF loan (IMF 2014).

Public facilities are not only fewer in number; they are also less well equipped and maintained. Unlike private clinics, nearly all of which can perform tertiary care, only three public hospitals can provide ICU care to adults, and only two have ICUs for children. Whereas private clinics also have state-of-the-art machines and well-stocked pharmacies, public hospitals are lacking even basic medical technologies and are often stripped bare of medications and supplies. Finally, whereas the private sector pays its workers on time, in the public sector, workers may have to go on strike for months at a time in order to be paid at all. According to an administrator at public hospital that was one of my field sites, to function effectively, the hospital would need 100 million *lempiras* each year. The government only allocated 40-80 million, however, leaving it to seek additional funding from corporations and NGOs. This is emblematic of the void in health services carved out by neoliberal policies.

With neoliberalism, the number of *plazas*, or permanent positions within the public sector, has also decreased. Many doctors, nurses, and other support staff are instead hired under *contractos*, or short-term work contracts, for which they do not have the same job security, are not eligible for the same pay increases, are not allowed to unionize, and are not covered by IHSS. Further, nursing salaries within the public sector are not conducive to a comfortable standard of living. Nearly all of the professional nurses I met held two positions

to compensate for the low wages, and this was if they were fortunate. The sheer demand of working two jobs was considerable, as it involved working *two* eight-hour shifts 20 days a month. In effect, they either went without days off or spent a number of days working back-to-back shifts. Working double shifts was a significant sacrifice, not only because it was physically taxing but also because it meant that the nurses had less time with their families, and even then they could only cover basic household needs. A double salary did not allow for luxury items.

A shift from *plazas* to *contractos* also has an ironic twist: it has meant that there are never enough permanent, salaried personnel to meet the demand, which may even be increasing as fewer Hondurans are able to afford the private sector. The excerpt below, taken from an interview with a Honduran pediatrician who holds a *plaza*, illustrates the sheer challenge of working in this context:

For us, we have a workload that is unimaginable. We are so overwhelmed that, in the end, we are angry... You go to the pharmacy but they don't have your medication. You go to the labs but they won't do your test. The security guard finds you and tells you that you are parked incorrectly. The nurses are on strike. The whole environment gets you down. In emergency, there are only 16 beds but you arrive to find 60 patients. They are in the corridors, lying the floor. Where do you begin? You don't have time to talk to each parent, because if you did [talk to them], you wouldn't be able to give the kids their treatments, and what is the priority? Treating the patient. You can't do everything. There are too many patients... You have to be a doctor, be a nurse, be a professor, put together a ventilator, do cleaning, steal medications [for your patients], give a consult, do a procedure, [and] act as an administrator to ask for things you need but don't have. When I studied abroad, it was like, okay, do a research study for three months, and then attend to two patients for three months. Never here. You do the work of four. [There are ten families lined up outside her office waiting to be seen as we talk].

Because human resources are stretched thin and medical technologies few, public hospitals in Honduras have earned reputations as places of death and even murder. A major public hospital in San Pedro Sula, for example, is locally referred to as "*el matarino* (the killer)," a play on its official name. Public hospitals in Tegucigalpa are no better. Central Hospital, Hondurans lament, is where patients are "allowed to die" or where they are "killed."

Honduran bodies, too, are physically marked by neoliberal policies, which manifests as hunger, illness, disease, scars, injury, and death. I was struck by the number of times health practitioners described Hondurans as a "sick population," which could be taken to mean that they have poorer health indicators or that, by the time they access care, their illnesses have already reached an advanced stage.

The Politicization of Health

There is a common joke in Honduras. Its main characters change with each new presidency. When the joke was told to me in 2011, it involved three presidents: President Barack Obama, President Hugo Chavez, and President Porfirio Lobo Sosa. The former wanted to show off a new high-speed jet that had a special hatch, which allowed passengers to reach out and feel the terrain below. President Obama put his arm through the hatch and said, "I know where we are. I can feel the Empire State Building." Then President Chavez took a turn. As soon as he felt petroleum towers, he announced their arrival in Venezuela. Finally, President Lobo Sosa reached out. He said, "We must be in Honduras because someone just stole my watch."

The joke's relevance is twofold. First, it illustrates that there is a powerful and pervasive public discourse of corruption in Honduras. Much like Smith (2007) finds in Nigeria, and Gupta in India (2012), talk about corruption in Honduras is part of everyday life. Hondurans readily discuss it, debate it, and accuse one another of it. While they insisted that corruption was ubiquitous, spanning all social classes, they most often talked about it in relation to the state, specifically, the state's role in fueling a health-care crisis. This is not to

say that they did not fault neoliberalism and privatization for the shortcomings of the public health sector. Such words also rolled off their tongues. Corruption, however, had a more central role. Second, the joke suggests the public resources, symbolized by President Lobo Sosa's watch, are a primary target of theft and misappropriation. A public sector nurse made this point clear in an interview. When asked to define corruption, she said, "It's when a public official is a thief and takes what actually belongs to the country. You can't define it any other way."

Corruption took many forms. Cristina, for example, had been working as nurse at Central Hospital for over a decade. When I interviewed her in August 2011, she had only recently received her first paycheck of the calendar year. "It's not something I can count on," she said, referring to her wages. When I asked why, she laughed at my naiveté: "It's complicated... We depend on the Secretary of Health [to pay us]. Supposedly funds for our salaries are set aside at the beginning of the year. Our *patron* (boss), the Health Minister, says, 'Look, I have US\$100 available for you, Cristina, each month. But because there are so many other needs, I can't give you anything because I need the money for something else.' So the funds are utilized little by little to cover one thing, and then another... This, unfortunately, is the cruel system we have."

I asked Cristina what she meant by "something else." She said, "We don't have proof but we know that the mentality of this country is corruption. The people who govern us keep the money for themselves." Her claim was echoed countless times during my interviews. I was told that state resources "never reached the poor" and instead "filled the pockets of politicians." When the subject came up with Candela, a professional nurse who had worked in the public sector for 40 years, she said, "How else would the Health Minister

have four houses, four luxury cars, and [be able to] travel so much? When [Hurricane] Mitch happened, we knew all the good donations were divided among those in high-ranking positions. Anything that was useless was given to the rest of us."

Government officials stole in other ways, too. A common practice was price inflation, which was usually a slight variation of the following scenario, as explained to me by one informant: "A hospital administrator needs to buy a medication. Let's say each pill normally costs 7L (~US\$0.30). The seller says to the buyer, 'If you buy each pill at 20L, we'll split the difference.' The administrator agrees. 7L is paid directly to the pharmaceutical company, 6L to the seller, and 7L to the buyer." Yet another practice was political patronage, where doctors and nurses were hired not because of experience or skill but because they were constituents of the political party in power. When I met Ivette, a professional nurse at Regional, she had been on contract with the hospital for 18 months. I asked if she had applied for a *plaza*. She had, but without success. She explained, "It works like this. If I am a friend of a diplomat in the National Congress, when I go to concursar (compete with other job applicants), I call my friend. He then calls the person in charge and says that I am a friend or family member or whatever. They don't evaluate how long you've been here [at the hospital], or if you have sufficient work experience or training. They hire for friendship or money. Capacity doesn't matter at all." Ivette was a member of the resistencia, the resistance movement that sought to reinstate Zelaya after the coup. In other words, she was not an ally but a perceived threat. She captured the point most succinctly when she said, "La política es la que manda (Politics rule the day)."

State officials also created new employment positions in the health sector in order to accommodate a greater number of constituents. The positions, which were mainly

contractos (short-term contracts), were not for doctors and nurses, who were highly needed, but lawyers, secretaries, security guards, and maintenance personnel. Kathia made this point in an interview: "The political party in power influences who is and isn't contracted for work. As nurses, we have jobs—most of us. The rest of the population that needs a job doesn't have training in health. They are people with less education. They use politics to get a job. So every time a new political party takes power, including the current one, the hospitals fill up with employees that are *not* what the institution needs. Priority is given not to doctors or nurses but others who really aren't needed." According to a generalist at Regional Hospital, this is precisely why only half of the nation's 800,000 doctors are employed in the public sector. "It's not for lack of resources or need," he explained to me one afternoon at Regional, "but because few of the job openings have to do with direct patient care."

Dr. Osorio, also from Regional Hospital, echoed this point: "The hospital has five lawyers. For what? One would be enough. Two would be pushing it. There are ten administrative nurses when three could do the job sufficiently. Look at the entrance. You have one person at the large gate, another at the small gate, and yet another just to look in your bag. They could get an x-ray machine and eliminate that third person. Go to maintenance. You'll see 20 people just sitting there, playing *nipe* (cards) or listening to music. They come to work because it's a job but they don't have anything to do." As a regular observer at the hospital, it was hard to deny that hiring practices were not in sync with the need. The ICU cannot reach its full capacity of six patients because the hospital cannot afford to staff all six beds; yet the hospital has employed so many maintenance

personnel that it was not uncommon to find them "hard at work," as a friend remarked, playing pick-up soccer in the afternoons.

Arguably the most blatant misuse of public resources for political ends occurred in 2014. A network of IHSS hospital employees, led by the then director, were accused of stealing more than US\$300 million from the hospital budget by overcharging for medical equipment and supplies that never materialized. In some cases, prices were inflated by as much as 500 percent (Nuñez 2014). In 2015, a Honduran journalist found evidence that the stolen money had been used to fund the political campaign of President Hernandez, who has earned the title "Juan *Robando* (Stealing Juan)," given accusations that, not only did he steal funds to support his campaign, he also stole the election by casting fraudulent votes and intimidating voters (McCain 2015). Hondurans have taken to the streets in protest, both following the election and, later, following news of the embezzlement. The devastating health impacts of a corrupt system designed to defend neoliberal interests cannot be overstressed: at least 3,000 Hondurans are believed to have died as a result of missing medications and other supplies associated with the IHSS scandal.

Corruption, thus, protects the political power of the elite while at the same time exacerbating a health-care crisis by keeping medications and supplies out of stock, flooding hospitals with ancillary workers, barring doctors and nurses from receiving fair, on-time wages, and literally sacrificing Honduran lives, including those who have paid into IHSS over the course of their working lives. It is in this environment—this public health void that Honduran medical personnel have found ways to cope by creatively and strategically using quasi-legal and quasi-moral channels to access medical resources. It is also in this context that medical missions emerge as a visible, accessible safety net for patients who

either cannot afford services at the public hospital or travel to a hospital that has little to offer.

Neoliberalism and corruption in Honduras are felt on multiple registers, including material and affective. Regarding the latter, it was common in Honduras to hear both patients and practitioners lament the fact that health care has been converted from a calling into a business. They would tell me that practitioners "no longer work for love but money," and that practitioners have replaced "amor por el paciente (love for the patient)" with "amor por el billete (love for a bill or bank note)." This is not to be taken literally to mean that doctors and nurses currently practicing in Honduras are any less caring than their predecessors. As I argue in Chapter Four, Honduran clinicians have their own version of a "heart for the work" (Wendland 2010), which they call "entrega (selfless devotion)." More likely, state institutions in Honduras have undergone the same "qualitative shift" found in other countries undergoing neoliberal reform (Muehlebach 2012:107). In Italy, for example, Muchlebach finds that neoliberalism has been generative of a perceived sense of dispassion. Whereas in the past state employees found ways to circumvent budgetary constraints in an effort to assist clients seeking aid, under neoliberalism, they are given far less leeway. In effect, those who feel compassion are unable to act on it.

Similarly, Honduran doctors and nurses have been pushed to this extreme. If they appear dispassionate, it is not a reflection of character but circumstance: given the sheer number of patients seeking care in the public sector, and given the budget cuts they have faced, they are unable to translate compassion into the provision of medical care. Further, if they appear mercantilist, it is because only in the private sector do they have the time and resources to attend to patients properly. Honduran doctors and nurses thus come to embody

government neglect regardless of their own personal orientation toward their work and the patients they see. As such, they have become scapegoats for the state's failure, which is only exacerbated by the fact that they are also demonized by the national media, which, not coincidently, is owned by the same elite families who hold political power.

The production of dispassion has specific implications for medical missions in Honduras. In the same way that medical missions gain credibility and popularity against a backdrop of state violence, they are also a welcomed change from the state's indifference to the health of the poor. Missions, in effect, are valued not merely for the material benefits they bestow. They also fill an affective void left open by heartless government policies.

In returning to the question of what place-based characteristics draw missions to Honduras, there is a cruel irony here: the medical missions that visit Honduras hail from the very country, the U.S., that has been responsible for creating the material and affective needs to which they respond. As demonstrated throughout this chapter, the U.S. has been a major force in shaping Honduran history. It has extracted a considerable about of wealth from the country, helped to keep political power in the hands of an elite few, and ushered in economic policies that do little to help the poor and at the same time erode longstanding assumptions about health care as an altruistic profession. The current state of Honduran public hospitals as spaces of ruination and mistrust is a direct result of these developments. Yet this is almost entirely lost on mission volunteers. My point is not to fault them for not seeing the structural drivers of suffering or knowing the specific history of U.S. involvement in Honduras. Indeed, this is not what they are trained to do. Instead, I wish to underscore the fact that the routes along which aid travels can become so *well*-traveled that they almost entirely escape notice.

CHAPTER TWO

Renegade Brigades, Compassion, and Biomedical Thrill

In early 2010, I visited the main headquarters of Global Heart Foundation (GHF) located in a southern state of the U.S. The space was large, spanning the top floor of a loft building, but not ostentatious. The furnishings were modest, the carpeting showed signs of wear, and the lavender-painted walls—the most lively aspect of the decor—displayed a sampling of medical certificates, awards, and newspaper articles. Here a small group of administrators worked behind the scenes to coordinate the logistics of overseas surgical missions, handling funding, volunteer recruitment, and travel arrangements. One of the major tasks was to oversee the near constant influx of medical supply donations received from hospitals and other NGOs from around the country; these were sorted and shipped to partnering institutions in host countries where GHF hoped to establish independent pediatric cardiovascular programs. In fact, much of the office was devoted to the storage of these supplies, including medications, tubing packs, sutures, surgical tools, bandages, and dressing gowns, as well as other items I did not recognize. Most had been passed on by hospitals either because they had exceeded expiration or because they had been replaced by preferred or more up-to-date products—in other words, they were North America's reject items. Surgical missions, I soon learned, were shoe-string operations, so to speak. They had little funding and were heavily dependent upon such outside donations: the surplus generated by a market-driven model of medicine.

The purpose of my visit was to meet in person GHF's founder and medical director, Dr. Bure, before I left for Honduras, because he was available and not scheduled to be part of any missions I would observe there. This is not to suggest that he was not a regular on

missions. In fact, it was unusual to find him anywhere else, and on this occasion, he would only be in the country for two days before leaving on another mission. As a surgeon, Dr. Bure lets nothing stand in the way of his operating on another child's heart. As memorable field stories later revealed, he was known to carry on with heart surgeries despite bombs flying overhead. He also repeatedly put the care of children above his own health needs. When he received hip replacement surgery, for example, he refused to stay in the U.S. for the recommended recovery time and instead flew to Europe to perform several highly complex surgeries, one of which was for a child whose condition was so severe that he had already been denied by three other cardiac centers. Dr. Bure then delayed a much-needed ankle surgery so as not to miss yet another mission elsewhere. On that trip, he worked long hours with his foot in a medical boot. An abscess formed, which then ruptured—in the middle of a surgery no less-causing his leg to swell excessively. The orthopedic surgeon onsite wanted to operate immediately, but Dr. Bure insisted on first operating on two pediatric heart patients. After foot surgery, he then refused to stay overnight in the hospital, opting instead to return the hotel for a drink and a smoke. The operation landed him in a wheelchair for months, but he was not encumbered. Despite being unable to stand, and thus operate, he traveled the world to check in on mission sites. Such stories are testament to his selflessness, devotion, and passion as a humanitarian, as well as his rebellious spirit, all of which also characterize GHF itself.

I had arrived at the office early that morning, and while I waited for him to become available, a wait that extended into the evening, I met GHF's administrative team, who foreshadowed themes that would become central to my research. Patty, a woman in her fifties, was in charge of fundraising. She shared with me the history of the NGO and

described some of their major challenges, such as when hospitals would invite surgical teams to visit and then appear uninterested or resentful. Also, she said that it was difficult to "graduate" programs, that is, get them to a place where they were operating independently. In fact, these sorts of successes had been rare, numbering approximately three since the organization was founded in 1993.¹³ A new hire named Eric, in his early twenties, coordinated the in and outflow of supplies. He gave me a tour of the storeroom of donations. He explained that a major obstacle he faced was getting any donated materials that had expired past customs in some recipient countries. This was unfortunate because most donations fell into the expired category, despite still being usable. Honduras however, stood out in this regard. It was one of few countries, he said, "willing to take anything," and, as such, it was a good place to "off-load" the items no one else wanted. My time in Honduras confirmed Eric's observation, although not all donations were ultimately usable, an issue I address in Chapter Five.

I spent most of the day with Cathy, an administrative assistant, who was also in her early twenties. While I read through promotional materials, she answered phone calls, ran errands, and drafted funding reports. The reports included the names, photographs, and short biographies of patients treated during missions. Having never met these patients, nor visited the countries where they were from, she pieced together their stories using medical records and a few handwritten notes about their families, living conditions, hobbies, aspirations, and challenges in accessing heart care, along with a little added imagination. At one point during the day, an email came in from a mother in China. Cathy showed me the subject line: "Last

¹³ The meaning of success, however, is contested. A published report from 2014 states that GHF has graduated not three but 17 pediatric heart surgery programs in 13 countries since its inception.

chance for hope." In the body of the email, a mother asked if Dr. Bure would come to Beijing to operate on her child. She had attached the child's photograph and medical records, as well as photographs of their apartment building and bathroom, presumably to show that they were poor. Such solicitations, Cathy explained, were not uncommon. When I asked if they would respond, she said emphatically, "Oh yes! And if we can't do the surgery, Dr. Bure will find someone who will." What surprised Cathy about such solicitations was that so many parents had access to the Internet. What surprised me was that GHF made it a priority to treat every child it encountered. Given the number of children in need of surgery, and the few humanitarian NGOs that help to provide it, this was a major undertaking.

Dr. Bure eventually called out my name from his office. Cathy escorted me down the hallway, where he met us halfway. He was tall, over six feet. His cheeks were flushed, his breathing was heavy, and he walked with a limp. "Cathy, get me some coffee," he said. I stepped into his office where the air was thick with smoke. He was disappointed that I had not come bearing cigars. As soon as I took a seat, it was clear that Dr. Bure would be interviewing me, not the other way around, as I had hoped. He asked about my funding and publishing plans and whether I would submit to him regular reports about my observations carried out in between mission visits. His request was strategic. Echoing Kathy's earlier point, he explained that not all resident¹⁴ teams were eager to collaborate with surgical missions and he wanted a better understanding of why. Ten minutes into the conversation, Dr. Bure's wife called. "You have ten minutes more," he said to me when he hung up the phone. "Ask anything you want." I asked how he became involved in the work.

¹⁴ That is, locally-based in the host country

He launched into a story about a young girl from Nigeria who had been born with a heart defect and later brought to the U.S. for surgery. Having already lived with her heart defect for a long time, however, she was considered inoperable.¹⁵ This haunted Dr. Bure, literally giving him nightmares. He became depressed. At the time, he was working with two doctors from Colombia who suggested that he travel to their country to help with the need. He left almost immediately. During his layover in Miami, he read the headlines: "Troops in Bogota." He hesitated but was not dissuaded. Sure enough, when he landed, there were armored carriers lining the runway. He told me how he was hassled at customs and searched at multiple checkpoints by guards who nearly shredded his belongings with switchblades. He described these encounters in great detail. Then, rather abruptly, he concluded his story: "I did a few operations and realized that this is my niche." When I asked how he knew, he said, "I can change the life of a child who has no chance of survival. Many children are in this predicament, abandoned by the system. It boils down to economics. Surgery is expensive. Medical education is expensive. People who want to become surgeons must uproot their families [to train abroad]. Hospitals can't afford supplies."

This vignette is telling for several reasons. First, like Dr. Bure, many clinicians I met who had dedicated their lives to the needs of poor children with heart defects were initially inspired by a single patient. For Dr. Bure, it was this patient from Nigeria. For Dr. Cooper, another surgeon at GHF, it was a patient named Jesica from Honduras. For Kristie, an ICU nurse I met in Honduras who worked for a different NGO that also brought pediatric heart surgery missions to Honduras, who was not affiliated with GHF but was the first to lead

¹⁵An alternative version of the story, as appears in a local newspaper article, is that she was operated on but given the tardiness of her repair was not able to live into adulthood. She died just after the age of 21.

pediatric heart surgery missions to Honduras under the auspices of a different organization, it was a patient named Sami. In each case, the child had died or nearly died, inspiring them to take further action to save the lives of others.¹⁶ While, within humanitarianism, it is generally assumed that populations are the metric, in this case, it is the individual who matters; my earlier example of the patient from China further supports this point. Concern for individual children is reflected in the promotional slogans that circulate in the name of humanitarian heart surgery, such as "Healing hearts one child at a time," "Save a child's heart," and "No child deserves a broken heart." Second, traveling to a country that is at war, in the midst of a political or economic crisis, or in the aftermath of a disaster is not uncommon for GHF. Dr. Bure has led teams to Iraq, Bosnia, Ukraine (following Chernobyl), Haiti (following the 2010 earthquake), Honduras (coinciding with the 2009 coup), Ecuador, and Libya, among many others. This aligns GHF with more conventional humanitarian groups known to descend on disaster. It also sets surgical volunteers apart from "clinical tourists" (Wendland 2012; see also Whitmarsh 2011), who select destination countries based on safety, ease of travel, hospitality, and tourist attractions, such as pristine beaches or safaris. This is not to suggest, however, that surgical missions are any less touristic or that Honduras does not also afford certain pleasures. More likely surgical volunteers view Honduras, and other countries in crisis, in the same way that North American biomedical researchers view Barbados: as sites of "biomedical desire and indignation: a cathartic science" (Whitmarsh 2011:169). That is, they are safe places to take action against some of the most tragic forms suffering. The experience is safe in the sense that it is temporary and punctuated by tourist pleasures.

¹⁶ Medicine is full of such cathartic stories.

Third, whereas Dr. Bure understands the crisis for children with heart defects to be inherently structural ("It boils down to economics"), his solution is individualized and medicalized. Indeed, as I discuss below, he wishes to strengthen health systems through the transfer of technologies, knowledge, and skill, but this does little to affect the politicaleconomic structures that deny children care in the first place. Further, despite his diagnosis of the problem, his priority is always to repair broken hearts. This correlates with the ethos underpinning other secular, contemporary forms of humanitarianism, such as the "new humanitarianism," which began with the birth of Médecins Sans Frontières (MSF) in 1971. According to Ticktin, the new humanitarianism exemplifies the "contemporary medicalization of the social, where an emphasis on the suffering guides all action," that is, where alleviating immediate suffering takes precedence over enacting long-term structural responses (2011:62). Redfield (2013) echoes Ticktin's reading of the new humanitarianism when he writes that "most significantly, ... [MSF] refocuses political and economic problems through a medical prism" (33). Similarly, pediatric heart surgery missions, with their emphasis on performing surgical procedures on children "one child at a time," epitomize such narrowly-focused, "magic-bullet" approaches that define most contemporary medical humanitarian interventions.

Fourth, and most importantly for this chapter, Dr. Bure was not alone in believing that he had found his niche as a traveling surgeon. Other volunteers described surgical humanitarianism as a "calling" or "ethical mandate." Still a third group wondered if their desire to serve was "genetic" or otherwise "innate" for them as health professionals; indeed, many of them had gone into the health-care profession "to help others." One volunteer, in particular, grew impatient with my questions about what inspired his involvement. As we

were talking one day in the OR—an oddly convenient place to informally interview volunteers—he said that he was motivated by the "humanitarian part." When I pressed further, asking him to elaborate, he said, "If you don't understand *that*, then I can't explain it to you." My objective in this chapter is thus to unpack the emotional and moral logic that inspires surgical volunteers to participate in missions. Specifically I ask, what "calls" them to the work, and why, on their part, do their reasons for participating in missions elude easy explanation?

This chapter is organized into two parts, both of which are in conversation with anthropologists who also seek to understand "what [it is]... about the present that casts the care of strangers in such a leading role" (Redfield & Bornstein 2010:3). This question has generated a sizable amount of scholarship both within and outside the discipline, all of which takes as its starting point the fact that not all forms of suffering are valued equally, despite humanitarianism's claim to the contrary. Given that humanitarianism, therefore, is inherently an exercise in triage, scholars examine whose suffering takes precedence and why. Some link humanitarianism to the rise of an "emergency imaginary" (Calhoun 2010) or "a time of crisis" (Redfield 2013), suggesting that humanitarians go wherever suffering is most blatant, urgent, and critical. Others argue that suffering that is visibly biological (Fassin 2005; Laqueur 1989; Malkki 1996), or biological and "morally legitimate" (Ticktin 2011), is of central concern. It has also been shown that childhood suffering, in particular, is especially poignant in the eyes of the aid world given modern associations of childhood with innocence, vulnerability, and helplessness (Suski 2008; Bornstein 2010; Fassin 2013; Stephens 1995; Malkki 1996; 2010)—in other words, to borrow Ticktin's (2011) language, children would be the most "morally legitimate" of all, or to borrow from Fassin (2013),

they literally "come first." In the first part of this chapter, I will draw on this literature to argue that children with heart defects occupy a privileged place in the humanitarian hierarchy of need because of the symbolic value assigned to their biological affliction. This, in turn, inspires a network of actors, including clinical and non-clinical volunteers, funders, and missions coordinators, to take action on their behalf.

While humanitarian actors are moved sentimentally by poor children with damaged hearts, this is not necessarily what moves them geographically, not what propels them to go "beyond borders." On one level, why surgical missions are borderless hardly warrants investigation. Historically, religious missions usually involved international travel, and further, in an era of globalization, most, if not all, NGOs that identify as "humanitarian" have adopted a global focus. This makes sense given that humanitarianism is premised on a concern for the human race, regardless of national origin. When asked directly why they chose to volunteer internationally, many surgical volunteers insisted that only in other countries could truly needy pediatric patients be found. According to one ICU doctor, for example, we already have "socialized medicine in pediatrics" in the U.S. Any child who requires medical attention, whether it is as sophisticated as a heart surgery or as simple as a flu shot, can walk into an emergency room and receive "quality care without bias," that is, regardless of insurance status or ability to pay: "All they have to do is show up." Pediatric patients in poor countries were the "least of our brothers," meaning they were the poorest of the poor. Of course, this line of reasoning does not stand up to scrutiny, as heath disparities can be found anywhere in the world. Legitimizing missions thus, for some, requires the erasure of health-care inequalities in the countries were volunteers reside.
The innocence of pediatric heart patients and specific needs of populations overseas would constitute the "publically condoned" narrative of surgical humanitarianism (Ager & Iacovou 2014). More privatively, during interviews and casual conversations, surgical volunteers reported being drawn to missions for reasons more aligned with the motivations driving other alternative forms of tourism, such as volunteer tourism, adventure tourism, and "dark" tourism (tourism to places of death and suffering), which have emerged in recent decades as a counterpoint to the hyper-sanitized, inauthentic, and hedonistic nature of mass tourism (Novelli 2005; Stronza 2001; Wearing 2001). In line with these other tourists, surgical volunteers were inspired by more than the moral imperative to "do good." They also sought out missions because they were also an escape, a test of knowledge and skill, and a means for personal growth, reflection, renewal, and enhanced prestige. The second part of this chapter, therefore, draws parallels between surgical missions and other touristic motifs in order to deepen our understanding of humanitarian subjectivities, an arguably understudied field. My point is not that surgical volunteers identify as tourists in the conventional sense of the word, but rather that, by using tourism as an analytical lens, a more nuanced understanding of the motivations for humanitarian work is possible. Border crossings by humanitarian actors are therefore not guided solely by the global distribution of disease or by humanitarian concerns for suffering strangers. Rather, certain rewards that are afforded by overseas travel are also part of the appeal.

The way in which surgical volunteers described their motives for surgical humanitarianism is also similar to the "double narrative" that characterizes medical migration, where traveling patients seek "*both* medicine and scenery" through their transnational journeys (Thompson 2011:207-8; emphasis in original). It also aligns with the

narratives of traveling scientists who are found to be mobilized by conflicting or contradictory but not mutually exclusive interests. North American medical researchers, for example, travel to Barbados because of "the suffering caused by disparities in health affecting the black population..., on the one hand, and the ease of doing research there on the other" (Whitmarsh 2011:163). Similarly, Papua New Guinea is readily sought out by "scientific tourists," who are drawn to study its biological diversity as well as gain an authentic cultural experience, build prestige and social capital, or simply have fun (West 2008). Finally, this double narrative is not unlike that found among the currently popular "service-learning projects in poor countries that blur easy distinctions between humanitarian action, educational experience, and adventure travel" (Wendland 2012:110).

To lend further support to my objectives in this chapter, I must stress that congenital heart problems are not as high-profile as HIV or maternal mortality in terms of attracting large donations and celebrity attention. Pediatric heart surgery as humanitarianism is also met with considerable skepticism. Early in my fieldwork, I interviewed an U.S.-based pediatric cardiac anesthesiologist who participates in a surgical mission to Central America every year. She only travels, however, with groups that repair cleft lips and palates. Pediatric heart surgery, in her view, is risky enough under the best of circumstances. She is not comfortable doing it where resources are in short supply and patients present with heart defects that are more difficult to treat. Moreover, in some circles, there is minimal enthusiasm for short-term medical missions as a model of care; the potential pitfalls of what are called "blitz surgeries" or "medical-surgical safaris" are well-documented in academic literature (Dupuis 2003; Wall et al. 2005; Wolfberg 2006; Nthumba 2010; Welling et al. 2010). Even the strongest voices within pediatric cardiology recognize that volunteer teams

"'parachuting' into remote cites to operate for a week and then leave creates serious problems" (Cox 2001:215). This includes Dr. Bure. When we spoke in his office that day, he said, "I truly believe—and I'll say this before you ask—that there is a better way to do it." By a better way, he means building what he calls "regional centers of excellence" that specialize in pediatric cardiac care. These would be permanently staffed by regional clinicians and visited by international volunteers only intermittently.

Yet despite Dr. Bure's reservations, GHF sends more missions with each new year. In 2008, for example, the organization sent 20 trips, followed by 26 trips in 2009, 32 trips in 2010, 36 trips in 2011, 42 trips in 2012, and 45 trips in 2013; as the number of trips has increased, so have the numbers of countries visited. According to the GHF staff member named Patty, this is a defining feature of the organization: "no one else has the same volume," she said. Moreover, some volunteers become completely devoted to the work. Sophie, an ICU nurse from Canada, is one example. Although her case was exceptional, when I met her in 2011, she had participated in all but one of GHF's missions to Honduras, which meant 13 missions in four years. She was even known to take sick leave from her regular job to travel to Honduras for even just a few days so that she would not miss the team's visit. Others showed the same level of commitment, although they divided their time among different countries. Dana, for example, another ICU nurse, had done 41 missions in four years. Dr. Xu, an interventional pediatric cardiologist, had done 40 missions in seven years. Phillip, a biomedical engineer, had done 25 missions in three years. I also met clinicians who had formalized agreements with their employers allowing them to spend a certain number of weeks on missions each year, or had taken on added responsibilities within GHF, such as fundraising, managerial tasks, and collecting and distributing medical

supply donations. In light of this, my task is to explore what, at present, is pushing this field forward; this involves a look at humanitarian motivations, and more importantly at the multiple rewards that repeatedly draw volunteers back to the field.

Whose Body Matters

Humanitarianism is not easy to define. As illustrated with the literature, its meaning encompasses emotion, morality, and action. Redfield and Bornstein, for example, contend that humanitarianism is "several things at once: a structure of feeling, a cluster of moral principles, a basis for ethical claims and political strategies, and a call for action" (2011:7). Wilson and Brown similarly describe it as an "ethical response [that] arises from emotion: compassion, sympathy (in the nineteenth century), and, more recently, empathy" (2008:2). Fassin reinforces this point, although he more directly links "the moral and the sentimental" when he writes: "On the one hand, we have what we might call 'humanitarian reason': the principle according to which humans share a condition that inspires solidarity with one another. On the other, we have what we will name 'the humanitarian emotion': the affect by virtue by which human beings feel personally concerned by the situation of others" (2010:269).

Other scholars emphasize humanitarianism as action when they refer to it as an "ethical response" (Calhoun 2010), "ethic of refusal" (Redfield 2006), "moral imperative for action" (Ticktin 2011), and "ethical labor" (Feldman 2007). To understand this interplay between emotion, morality, and action, anthropologists argue that it is inspired by "crisis," whether social or biological. Surgical volunteers used spoke in similar terms in explaining their humanitarian motives.

Ruptured States of Being

Humanitarianism, according to Calhoun (2010), has seen a dramatic increase in recent decades, but not because there has been a concurrent increase in crises happening in the world. Instead, the international news media has increasingly brought images of emergencies into global focus. Calhoun defines an emergency as "a sudden, unpredictable event emerging against a backdrop of ostensible normalcy, causing suffering or danger and demanding urgent response" (2010:30). In referring to emergencies as "imagined," he wishes to underscore the fact that they "conform to iconic templates and forms" (Calhoun 2010:33). Rather than showing events as they unfold over time, the media focuses on key images, such as tanks, guns, rows of dead bodies, and children shown naked and with outstretched hands, in order to suggest both a rupture in normal routines and a sense of immediacy. Such images are emotionally and morally charged, appealing to viewers who feel responsible for strangers based on notions of a shared humanity, and moreover, have grown disillusioned with other forms of intervention, such as "economic development and political struggle" (Calhoun 2010:29). The images are especially persuasive to anyone seeking "morally pure and immediately good ways of responding to suffering in the world" (Calhoun 2010:30).

Redfield builds on and refines Calhoun's ideas. He agrees that emergencies are catalysts for compassion and, by extension, moral action, but, that in the case of MSF, the organization "responds to less spectacular forms of suffering and more ambiguous contexts, ones that might or might not represent states of emergency" (2013:30). The archetypical MSF mission nonetheless goes "to the heart of crisis" in an effort to "reach those near the edge of existence" (Redfield 2013:32). In that context, as in Calhoun's analysis, what is most compelling for aid workers is the "state of rupture and through it an imperative need

for action: something must be done and done quickly" (Redfield 2013:14). Also in line with Calhoun, Redfield argues that, when lives are most at risk, or when crisis reaches its peak, tending to the most obvious forms of suffering emerges as the only "natural and noble response" (Redfield 2011:32).

In Chapter One, I argued that Honduras is a common destination point for surgical missions because it figures prominently in the global imaginary as a country in crisis. But this does not explain why GHF missions also visit countries that are not facing social or political crisis. Nor does it explain why they focus exclusively on pediatric hearts. Surgical missions, by definition, are not emergency relief efforts deployed in the immediate wake of disaster. Rather they are planned events, scheduled months if not years in advance. As one volunteer ICU doctor put it, "We are not cleaning up messes, so to speak. We are not coming in to fix a problem. We are coming in to help teach a group of people how to care for a set of patients in a seemingly planned and controlled environment." This doctor strongly disliked terms like *aid* or *mission* because they ran counter to the educational objectives of mission trips. However, surgical missions can easily resemble a crisis situation. This is because surgical teams endeavor to operate on as many as three or four patients a day, double what they would do in most U.S. contexts, and because they face considerable supply shortages and limitations on bed space. Indeed, surgical volunteers used on an idiom of crisis to describe their experiences. For example, they described them as "fast and furious" or as if one were "putting out fires" or being "thrown into the fire."

More importantly, even if surgical volunteers do not feel as if they are walking into a crisis, they view most children with congenital heart defects as being in crisis. They understand their patients' conditions as urgent and critical, which was partly true and partly

imagined. As with other humanitarian interventions, a sense of urgency mobilized compassion and the desire to respond. This played out in several ways. First, it was generally understood that, for most patients, their condition was terminal as long as their heart defect went untreated. As Dr. Gerard, a regular GHF volunteer, said to me, "If we weren't here [in Honduras], these children would die or else live a pretty shitty life." The fear among volunteers that death was imminent was reinforced by the fact that, on several occasions, patients died in the days or weeks leading up to their scheduled surgery by the visiting team. Surgical volunteers viewed these deaths as the most tragic deaths of all, since the child was never given a "chance," as they would say, as in a chance to live. Further, such deaths often received media attention as justification for the arrival of future missions.

Second, surgical volunteers believed that they were a child's only chance to live. As I discuss elsewhere, Honduran surgeons have been operating on pediatric hearts for decades, supplies and an operating room permitting. Nonetheless, this information was largely lost on the surgical volunteers, who were under the impression that the number of operations carried out by Hondurans in their absence, to quote one volunteer, was "next to none." Dr. Cooper was aware that Hondurans surgeons performed operations in between mission visits; in fact, he actively sought out this information, since it was what GHF used as its measure of success.¹⁷ Once the Honduran surgical team was operating regularly without assistance, GHF would graduate the program and move on to a new country where surgery was less readily available. At the same time, however, Dr. Cooper described himself as being the "last hope" for a child and he is not adverse to doing what he called a "very high-risk lastditch" or "salvage-type" procedure. Another volunteer echoed this point: "We work 16-hour

¹⁷ As a point of contrast, for Honduran personnel, success was measured in terms of survivors versus mortalities.

days [during missions], operating until past midnight, because we know, for many kids, we're their only chance." Similarly, I would often hear volunteers cope with surgical complications and patient fatalities by telling themselves that the patient would have surely died *without* surgery, even though this was not always the case. Even patients with complex defects lived impressively long lives in the absence of treatment. Interestingly, not only did the surgical volunteers ignore or downplay the surgeries that Hondurans performed independently, they were also unaware that they were not the only pediatric heart surgery team to visit Honduras. During my time in the field, there were a total of nine pediatric heart surgery missions sent by three different humanitarian NGOs; each visited a different hospital. Most volunteers, however, were surprised to learn that their affiliate organization was not the only one of its kind working in Honduras, which speaks to both the lack of coordination in this field and the importance of believing that they fill a special void and need.

Third, a sense of emergency was intensified during missions, since it was generally understood that any surgical patient left behind in the ICU at the end of a mission would die. Here I quote a volunteer named Mark, who was not medically trained but regularly traveled with missions to help with logistics. On the last day of a mission, he said, "I'm worried that if we leave Erlinda [a patient] in the ICU they [the Hondurans] will pull the plug. At least that's what happened in other years. Even worse, they'll transfer her to the public hospital. Then she'll *really* die." Mark was not the only volunteer with this concern. Others had also heard rumors that Honduran personnel were known to withdraw care after the surgical volunteers had left. Not wanting to leave any patient behind in the ICU then led them to accelerate the speed at which they moved patients through postsurgical recovery. That is,

patients whose recovery time was already expedited under GHF's fast-tracking model, described in Chapter Three, were pushed even faster. At times, however, this became a selffulfilling prophecy, since moving a patient too fast could cause complications, even death. In the case of two patient deaths, it appeared that premature extubation, or removal of the breathing tube, was a contributing factor. In both instances, the tables turned, and the Hondurans felt that the surgical volunteers were the ones to withdraw care. Further, the fear that Hondurans would withdraw care after a mission had ended was unfounded. I never saw it happen and none of the Hondurans I interviewed had heard reports of it happening. Honduran doctors described situations in which they had to remove a patient's breathing tube earlier than they would have liked because another patient needed the ventilator. But it never resulted in a patient's death. The fear that Hondurans would withdraw care, therefore, was a myth. Its reproduction during missions may have been an unconscious effort on the part of the volunteers to make the Hondurans appear either indifferent to cardiac patients or otherwise incapable of caring for them on their own. In either case, this myth provided a strong rationale for their continued presence in the country as international experts and humanitarian volunteers.

It is worth noting that, while surgical volunteers perceived pediatric patients to be in crisis, fixing their hearts did not mean restoring their full potential as children. It did not mean giving them the same chances that a healthy child born in a rich country would have. In fact, volunteers had rather limited expectations. Dr. Cooper, for example, explained that his hope was to make "some kids a little better, a little smarter." A volunteer anesthesiologist had a similar vision: "I hope to improve a child's quality of life, which is not to cure. If the child couldn't walk before, the idea is to that he can walk now." He

clarified further by saying "These kids won't be president. They won't run marathons. But they will be independent and not a burden on their families." An ICU nurse also believed that by operating on Honduran patients she was improving their quality of life, which she defined in relative terms. By quality, she did not mean quality by her standards but what she imagine quality to be "in their [i.e., Honduran] culture." She said, "If you're able to be a kid, play, make friends, feel love, express love, and enjoy... not be incapacitated... [then] that's quality." After a pause she added, "Even though they [i.e., Hondurans] can't enjoy a steak and potato dinner, they can still have, in their world, quality." In each of these examples, the volunteer's words are indicative of a "minimalist biopolitics," a term that Redfield uses to describe the tendency of humanitarian groups in crisis situations to prioritize the mere preservation of life over the fostering of a dignified one (2005; 2013).

My point thus far is that imagining a child to be in crisis mobilized volunteers into action. Their status as children, specifically children with broken hearts, was another key variable.

A Special Kind of Sufferer

Implicit in the foregoing discussion is that biological, as opposed to emotional or psychological, suffering concerns humanitarian actors most. Redfield writes that MSF traditionally focused on crises because it was in such moments that "life itself was the line," and without aid, people "would suffer, fall ill, or even die" (2013:15). But suffering bodies are known to propel humanitarian action even outside crisis moments, a phenomenon that is not at all new. Thomas Laqueur traces the roots of humanitarianism back to the early eighteenth century, when a "new cluster of narratives" emerged calling attention to "people who had before been beneath notice" (1989:177). These narratives, which constituted early

variants of "humanitarian narratives," included realistic novels, autopsies, clinical reports, and social inquiries. According to Laqueur, they depicted for the first time an individual's body as both the site of suffering as well as the common bond across humanity. In addition, they drew connections among a threat, a victim, and the capacity of a third party to intervene on the victim's behalf. In other words, physical suffering became visible in ways that it had never been before, and ameliorative action was recast as "possible, effective, and therefore morally imperative" (Laqueur 1989:178). Even though Laqueur bases his analysis within European history, scholars writing across a range of time periods and geographical contexts have found a similar pattern. They, too, argue that suffering bodies elicit a humanitarian response; in fact, populations seeking aid, such as refugees, are not deemed legitimate aid beneficiaries unless their body, as opposed to their personal testimonies, "displays the evidence of truth" (Fassin 2005:598; see also Malkki 1997; Redfield 2013; Ticktin 2006). Related to this idea, humanitarians focus on biological suffering because biology is what is presumed to unite all humanity.

As I stress throughout this study, many children with heart defects suffer physically in the absence of treatment. Their bodies clearly manifest the signs of distress. They may have difficulty breathing, eating, walking, and talking, and their physiology may change the longer the defect goes untreated. For example, they may become dangerously underweight, their fingertips may begin to "club,"¹⁸ or their lips will turn black. Suffering is structurally produced, the direct result of living in a county that, after more than a century of foreign domination and exploitation, lacks a sufficient health infrastructure. But it is the physical nature of suffering—without attention to how it is structurally produced—that captures the

¹⁸ Defined in Glossary on page 281

surgical volunteers' attention. This is perhaps most clearly evidenced by their promotional materials, which typically take one of two forms. Children are shown either in states of distress, or as looking healthy and happy but with evidence that their bodies have undergone surgical intervention, evidenced by the surgical chest scar.¹⁹

Not all suffering bodies are valued equally, however, a determination that is "exceptional and deeply contextual" (Ticktin 2011:4). Based on her research in France, Ticktin finds that humanitarian sentiment and action are contingent not upon "biological measures" but culturally-constructed ideas about whose bodies are the most "morally legitimate" or "worthy of being saved" (2011:4, 19). Her argument emerges from an analysis of two, what she calls, "regimes of care," namely, an illness clause that grants legal amnesty to immigrants living in France who are gravely ill, and activism aimed at helping women immigrants gain rights as victims of violence. In both domains, the sicker the body or more vulnerable the victim of violence, the greater the sense of compassion, and by default, the likelihood of legal exemption from deportation.

Children with heart disease are more than merely "morally legitimate" sufferers; their cause is arguably "morally indisputable" by virtue of their being children. This stems first and foremost from the modern construction of childhood as the epitome of innocence. As Rieff reminds us, being innately innocent, children are "perfect vessels for the sympathy of strangers" (2002:26). A number of anthropologists echo this view (Fassin 2013; Suski 2008; Malkki 1996; 2010). By this same logic, the nature of their illness, for which there are

¹⁹ Promotional materials for heart transplantation in the U.S. follows a similar pattern. The young smiling child with a well-healed chest scar is an iconic image (Sharp 2006)

no known causes,²⁰ makes their suffering all the more inexcusable in the eyes of humanitarians. For Diana, a nurse practitioner who had done two missions when we met, this was reason enough to participate in a mission: "These kids didn't ask to be born with congenital heart disease. Congenital heart disease is the most common birth defect in the world. Even if it's just an ASD [atrial septal defect] or [something more] significant [like] hyperplastic left-heart syndrome, it's the most common defect... They didn't do anything for this. But yet they are here, and they need somebody to help them." Dr. Cooper, who used to operate on adult hearts, prefers to operate on pediatric hearts for this same reason.

Children are also understood to be powerless and dependent, which furthers the humanitarian impulse to act. Bornstein illustrates this point in her observations about humanitarian campaigns that target orphans, defined as children who are either "bereft of kin" or "orphaned by poverty: the conditions that make parents unable to care for them" (2010:124). She argues that children who are orphaned in both senses are seen as "the responsibility of no one in particular and of everyone in general" (Bornstein 2010:140). As such, they pose a test of sorts: through action, one accepts the requisite caretaking role; though inaction, one is "culpable for a child's suffering" (Bornstein 2010:23). As evidence, she points to humanitarian brochures, which include only photographs of orphans with few contextual details about their predicament. She suggests that the visual image is enough to trigger an emotional response, and, by default, action. Bornstein's insights were reinforced during my interviews. In talking to a respiratory therapist about whether surgery should be

²⁰ The incidence congenital heart defects varies across time and geographical location, which would suggest that genetic or environmental factors play a role. The data, however, is inconclusive (Hoffman & Kaplan 2002; van der Linde et al. 2011), and most clinicians I met, Hondurans and international volunteers alike, generally understood congenital heart defects to have no known cause.

offered if the chances of survival are slim, she said that it is challenging because there are

"emotions at work." She elaborated:

Children are so young and dependent on adults to make decisions for them. We are supposed to be protecting children, keeping them from harm, and making it all better. Across the board, that's a human response to children. Even if you don't know a child, when you see a mom and dad yelling at the kid, maybe a little bit too loud, or a little bit too mean, your instinct is to intervene whether it's your child or not and defend the child. Well, not everybody's, but mine is. By nature, they [i.e., children] are very dependent on adults. Maybe it's maternal instincts. I know we can't get away from it. If we could give our right finger to solve the problem I am sure we could find people to give that right finger.

As this quote suggests, children, by virtue of their dependency, thus demand a response. This volunteer also notes not everyone does respond, however. By suggesting that her "instincts" are not "everybody's" instincts, she furthers the idea that children need special protection.

Moreover, surgical volunteers were propelled by the conviction that not just anyone could intervene on the behalf of heart patients. Pediatric cardiology is a highly-specialized field that requires years of training, and some would argue, innate skill. To quote an ICU nurse named Sara: "Not everyone can take care of cardiac patients... It takes an eye, an intuition, a background." The fact that they possessed this level expertise compelled them to use it. As Sara said, cardiac is her "gift: what... [she] can do." Sophie also saw herself as having a "high-level of training," which made her think: "I got all this... I should use it for good." Others shared her sentiment. Dr. Osborne, an ICU doctor who had done six missions, put it most succinctly: "I think on some level there's an ethical mandate [to work overseas]... I have a certain skill set. I have a certain knowledge base. There is a need for it elsewhere, and so, if not me, then who?" Dr. Cooper spoke along the same lines when he said that he would never "walk away" from a case merely because the child was not likely to

survive. "As a surgeon I feel obliged to help," he exclaimed. "I know I'm good at what I do, and ultimately, it's about the patient, not me." The fact that these volunteers were making use of skills few others had helped to make their presence in Honduras appear all the more important.

As yet another motivation for surgical missions—one that stands in contrast to the low expectations that some volunteers had for surgical patients—children embodied hope for a better future. This came to my attention as volunteers described the ripple effects of heart surgery. Several volunteers suggested that healing a child's heart was like healing a family, since the child would be less of a financial and emotional burden. Further, they believed that healing a child's heart was like healing a country or a culture, since he or she could grow up to be a doctor, a health minister, or even the nation's president. As Dr. Mohl, an interventional cardiologist, said, "Everyone has a humanitarian need. I could give money to someone on the street but this doesn't do any good to change a life. It might even cause harm if that person buys drugs. Here you can improve the lives of individuals and even a whole culture. What if the next VSD closure were the next Minister of Health? Many of my first patients at home are now in college and you can see the incredible things they do. If I hadn't made a difference in their lives, the world would not be as good of a place."

An ICU nurse reiterated this point: patients "feel blessed when... [they] have received something like... [heart surgery]. Maybe it helps you grow, or reflect about life. There will be those people who want to change the world afterwards." Surgical missions, thus, are connected to a larger project of world peace that is seemingly possible yet currently out of reach. By fixing hearts, they believe that they can change a nation and, by extension,

the world. Malkki (2010) finds this same pattern in the field of humanitarianism more broadly.

Hearts are Precious Things

Congenital heart defects are among the top five medical conditions managed on medical missions (Martiniuk et al. 2012). In part, this is not surprising. They are the most common birth defect affecting children anywhere in the world; moreover, poorer countries have fewer cardiac centers and, as a result, a higher prevalence of children living with untreated defects. At the same time, however, open-heart surgery is expensive, and heart problems are not usually among the leading causes of infant morality in most countries. The humanitarian focus on congenital heart problems in Honduras is especially curious, since the arguably more urgent need, even for youth, would not be birth defects but violence-related injuries and death. Why then repair hearts and not gunshot wounds? Why spend US\$40,000-80,000 on a single heart mission, which typically treats 25 to 30 patients, when those funds could be used to deliver basic medical services to hundreds if not thousands?

As mentioned, surgical volunteers typically choose heart missions over other forms of humanitarian work because they matched their skill set; further, it was a specialized skill set that few others possessed, thus making them feel inspired or obligated to use it for the purposes of doing good. But this does not explain the participation of many nonclinical volunteers who become equally devoted to the work. Nor does it account for the emergence of NGOs that exclusively target this patient population and the wide network of financial supporters upon which they depend. To understand what makes humanitarian heart surgery so compelling to them requires unpacking the meaning of the heart as both an organ and symbol, that is, as a biological entity that can be measured, repaired, or replaced, and as a sign that expresses emotion, feeling, or romance. The former is often referred to as the heartas-pump, and the latter, the heart-as-emotion. Historical analysis of the heart in science and in popular culture suggests that, only comparatively recently and in the late nineteenth century, did the "mechanized heart... detach from its spiritual and emotional influence" (Alberti 2010:163). Further, the separation of these two hearts has been neither seamless nor complete. Rather, people have "refused materialist descriptions of hearts as replaceable, removable objects," instead continuing to view it as a repository of feeling and emotion (Alberti 2010:163). Surgical missions are a key domain in which to observe this trend. For example, when surgical volunteers were saddened by a child's case, they said that it "broke" their heart. When they wanted to help a child whose case seemed particularly hopeless, they were described as having "bleeding hearts." Even the desire to help a child gave someone a "big heart," an image that arguably has roots in Medieval writings that connected the heart with self-sacrifice (Jager 1999). Finally, in providing a humanitarian service, volunteers felt that the experience "softened" their hearts, meaning they gained a deeper appreciation for the hardships of others. It is no coincidence, therefore, that one of the primary sentiments believed to reside in the heart-as-pump-namely, love-is akin to the sentiments that propel humanitarianism more generally. In this way, it is as if humanitarian heart surgery would not, or could not, exist without the historical interconnections between the heart-as-organ and heart-as-emotion.²¹ The notion of children with "broken hearts" has further emotive power, inspiring humanitarians to take action.

I turn to a quote from Kevin, a nonclinical volunteer, to demonstrate my point. Kevin helps organize two types of medical missions to Honduras, pediatric heart surgery missions

²¹ Suski (2008) makes a similar argument when she suggests that humanitarianism could not exist without the conceptions of childhood innocence.

and what are called "mountain missions," where visiting medical teams provide primary care services to poor people living in rural areas. The latter are also called "Band-Aid missions," even by those who participate in them, since they offer superficial or symbolic cures to health problems. Kevin prefers cardiac missions, however. He also gets excited when, during a "mountain mission," he encounters a child with a suspected heart defect, since he can then refer that child to next heart surgery mission. When I asked what is so special about cardiac missions, he explained, "The heart is the center of it all: the bull's eye. A good person has a good heart. No one says, "Nancy, you have a good gall bladder." People speak from the heart. They say, "You touched my heart." The heart is always special to me. The heart is so important physiologically. If someone is walking along and grabs their chest, falls over, it's a heart attack. That doesn't happen with any other organ. We are taught to take care of the heart, for example, to eat well and exercise; other organs are not given the same attention. There is just something about the heart."

Kevin's words are telling on two levels. First, he speaks to the significance of the heart organ for the functioning of the body. That is, when the heart comes under "attack," we may "fall over." As such, the heart is a body part deserving of "care" and "attention." Given its significance, alongside its vulnerability, it is therefore fitting that humanitarians would care for or repair the hearts of those who cannot care for their own. Second, in calling the heart "the center of it all," Kevin speaks to its symbolic value. Of particular importance is his contention that "good people" have "good hearts." Heart surgery, then, makes sense because in restoring a child's heart the surgical volunteer also restores the child's goodness. Heart surgery, therefore, may be the ultimate form of "doing good" because it transforms deserving patients into better people. It is also well-suited to humanitarianism because, in

addition to instilling goodness in others, it reflects the goodness of humanitarian actors themselves. If we extend this point, repairing a child's heart is not only a reflection of a volunteer's goodness, it is also a means through which an individual can gain moral ground. This suggests that humanitarianism is as much about personal transformation as it is about transforming others. In fact, surgical volunteers talked about how missions made them into better people. They described coming away feeling "humbled" or having "a softer heart." Missions also made them more aware of the excesses of medical care in rich countries and the resource needs in poor countries.

Relative to other humanitarian or global health concerns, damaged pediatric hearts therefore "come first," literally and symbolically (Fassin 2013). The fact that pediatric surgical missions target lives that are in the balance, pediatric as opposed to adult patients, and sufferers of a disease that affects a highly valued bodily organ—the heart—makes the work especially valuable. At the same time, however, this conceptual clarity was gained through contrast with other less needy or deserving patients. As mentioned above, surgical volunteers argued that pediatric patients in their home countries had equal access to care. In their eyes, these patients had their bases covered. Thus, health disparities were understood to be an exclusively global phenomenon, and the needs of marginalized patients in the U.S. were actively erased in order to bring the needs of patients in poor countries into sharper focus.

The heart is also an important site of humanitarian activity because, as a mechanical part, it is an intriguing object. Many surgical volunteers reported that they "loved hearts" or that they "loved *to do* hearts," meaning that they enjoyed working with heart patients, and more specifically, fixing the organ itself. This was true wherever they worked, regardless of

national setting. Even before Adel, a volunteer ICU nurse, encountered "hearts" during her training in a U.S. hospital, she already knew that she "loved working with really sick kids." Part of the allure was the fact that they recovered quickly. "You can really see the progression," she explained. Hearts, however, became her "true passion" because they demanded a higher level of "critical thinking." They were not like other pathologies found in most neonatal ICUs, many of which were more "straightforward." By contrast, to help heart patients in recovery, nurses had to be able to "see the whole picture": they had to understand how the heart was affecting blood flow to the rest of the body. In short, they had to be "on top of their game," one of many sports metaphors used to describe heart care, which underscores the importance of skill and situational awareness. Similar to the nurse from above who told me that caring for heart patients required an "intuition," Adel believed that it took a certain personality type, someone who was "easy-going," "did not take things personally," and "learned quickly." At her hospital, nurses could not choose to "do hearts"; rather they had to be selected, and being selected was an honor as it signaled their intelligence. If hearts already have a strong appeal because doctors and nurses must be "on top of their game," hearts outside the U.S. are even more appealing in that the pathologies are often more complex and the environment more unpredictable. In other words, missions take the notion of being "on top of one's game" to a higher level because the game is all the more challenging.

Thus far, I have argued that pediatric heart patients are distinctive objects of humanitarian concern. They mobilize action because they are perceived to be in crisis. Moreover, they suffer from an indiscriminate illness that affects a morally charged bodily organ. That organ, in turn, is one that clinicians love to work with. Pediatric heart surgery

missions have further appeal because they satisfy other interest and desires characteristic of contemporary travelers.

Touristic Accounts

At first glance, medical humanitarianism and tourism appear to have little in common. Perhaps most obviously, they differ in terms of intent: while medical humanitarianism is widely viewed as an ethical mandate, tourism is understood to be a self-indulgent choice, a reward for sacrifices made in other aspects of life. Moreover, medical humanitarianism and tourism rest on very different understandings of humanity. Medical humanitarianism, for example, is mobilized by visions of a shared humanity, where identification with a universal image of humankind makes people feel obliged to care for the poor regardless of national origin. Tourism, by contrast, celebrates cultural and national differences; tourists travel to other parts of the world not because they identify with them but because they are curious about them, even if they ultimately seek out rather inauthentic experiences. If medical humanitarianism homogenizes difference, then tourism reifies it by exoticizing others. Further, these two social forms are associated with different economies. Medical humanitarianism is often described as a moral economy (Fassin 2010), held together by affective ties, whereas tourism is understood to be a market, perpetuated by profits and high spending. Finally, tourism is an especially poor marker for humanitarian activities that strive to be anything but fleeting and instead endorse more development-oriented goals, even if misdirected. Pediatric heart surgery missions are emblematic in this regard, since they try to extend their humanitarian reach through project development or the transfer of knowledge and skills.

Nonetheless, it is impossible to ignore how medical humanitarianism is touristic. That the two domains overlap should not be surprising. Overseas explorations, particularly into unfamiliar, "exotic" territories, have long been intertwined with accounts of medical salvation. In her discussion of missionary medicine in colonial Africa, for example, Vaughan describes David Livingstone as "the great nineteenth century hero of British missionary medicine," "an explorer-cum-healer" who "performed a dual role" (1991:57). He both "opened up' large parts of central Africa" through exploration, and "finding Africa 'wounded' by the slave trade,' then called for the 'wound' to be healed" (Vaughan 1991:57). Further, tourism has already been used as an analytical lens to understand the experiences of other travelers, such as traveling scientists and biomedical researchers (Whitmarsh 2011; West 2008) and even global health trainees and professionals (Wendland 2010; 2012), whose motivations for travel are complex and in some cases contradictory. Surgical volunteers share an affinity with these travelers. They also have much in common with a wider cast of alternative travelers seeking out unconventional touristic experiences (Novelli 2005; Stronza 2001; Wearing 2001).

As mentioned, GHF does not usually select destination countries based on safety or ease of travel. Known for high rates of violence and murder, Honduras is emblematic in this regard. But for many surgical volunteers, including those traveling to Honduras, missions were indeed a vacation. This was evidenced first and foremost by the direct references to missions as vacations. A volunteer anesthesiologist, for example, explained that, even though her hospital in the U.S. led humanitarian surgical trips abroad, she preferred to travel with GHF so as not to spend "vacation time" with her regular colleagues. An ICU nurse admitted that while there was an undeniable "service component" to missions given that

they were "all volunteer," he viewed his involvement as not service but vacation. In a single year, he participated in two surgical missions to Peru, two to Croatia, and one to Serbia. "I wouldn't have taken those five vacations," he said, if not with GHF. He went on to explain that missions were a kind of "contract," a way to exchange clinical labor for "good-vacation-type time" and an opportunity "to see places... [he] would otherwise not see." The majority of volunteers used paid vacation time in order to participate in surgical missions, further linking these phenomena. The fact that surgical volunteers would go on a mission "as vacation," was, according to one volunteer, the common denominator among them; that is, it signaled that they were a particular type of person who wanted something other than a mainstream travel experience.

Surgical missions also functioned as tourism in various ways. While some surgical volunteers never ventured beyond their hotel or the hospital during a mission, either because they were tired or they assumed it was too dangerous, others combined missions with brief holidays. These included excursions to Amapala, a beach area to the south, or the Bay Islands, the country's main tourist attraction in the north, known for beautiful reefs and affordable diving schools. In addition, while surgical volunteers worked tireless hours during missions, they also took full advantage of their time off to frequent bars, clubs, restaurants, and other tourist attractions in and around Tegucigalpa. GHF missions were usually two weeks in duration, arriving in Honduras on a Sunday and departing two weekends later. On the Sunday that fell in between the two weeks, it was tradition that the entire team, or as many as could reasonably leave the ICU, visit Valle de Angeles, a small colonial town less than an hour away from Tegucigalpa. It is a known tourist town whose streets are lined with artisanal souvenirs shops and food vendors. Travelers and city dwellers

alike flock there on weekends to eat, relax, listen to music, shop, and escape the congestion of the capital. For surgical volunteers, the visit to Valle de Angeles was similarly an opportunity to unwind, indulge, and escape from the stresses of the hospital. Such gatherings were lively and they often lasted late into the night with drinking and dancing.

Weeknights during missions were equally social. In the evenings, surgical volunteers would meet for dinner at one of Tegucigalpa's finer restaurants or for drinks by the poolside bar at their hotel. Such outings were prohibitively expensive for Honduran nurses and most Honduran doctors. For volunteers, however, they were an almost mandatory part of the experience, and anyone who did not particulate at first was eventually coaxed out of their hotel room. The gatherings, in turn, became important catalysts for social bonding, new friendships, and the occasional romance. It was in reference to this aspect of missions that one surgical volunteer described them as "summer camp for adults." The camaraderie generated during missions both in and outside the clinic is not unlike the development of communitas for pilgrims and even secular tourists (Turner 1964). This refers to the sense of unity that emerges, despite social differences, among pilgrims or other travelers when they are in "liminal" spaces far from home. This is not to suggest that the gatherings were always about diversion—sometimes they were a place of mourning and reflection—nor that their activities as conventional tourists defined them. Interestingly, it was not uncommon for one of the more veteran volunteers to ask me if I planned to write about their partying. Portraying them as such would not only undermine their humanitarian intentions but also gloss over the other motivations for participating in missions, about which they were quite explicit. Generally, in addition to helping others, these other motivations fell into one of

three categories: a change in routine, a test of knowledge and skill, and a means for selftransformation—motivations that are common to contemporary alternative travelers.

Inverting the Everyday

Tourism scholars have been largely interested in why tourists travel and how their motivations vary across time and by country (Stronza 2001). One of the main arguments is that tourists in a modern era are on a quest for authentic experiences to combat the alienation and fragmentation associated with consumer culture (MacCannell 1976). Anthropologists have made similar arguments. Wendland, for example, argues that medical volunteers seek "global health experiences" to reconnect with "the roots of the profession," that is, before doctors were "well-paid technocrats" (2012:116). They choose poor countries like Malawi because they understand them to be "undeveloped," that is, stuck in the past. Similarly, Redfield (2013) finds that medical volunteers seek in missions opportunities to be "real doctors" who practice "authentic medicine" (30-31). Surgical volunteers also felt that there was something "authentic" about missions. They talked about coming on missions because they could "actually make a difference" or because they could treat patients who had real as opposed innocent heart murmurs. Because the need was so great, it was also an easy place, according to one volunteer, "to see improvement." This makes sense given that the majority of them come from the U.S. where the role of doctors has shifted to addressing not "illness" but "health" (Dumit 2012).

Urry (1990) has a different reading on modern tourism. He argues that it is overly simplistic to assume that a search for authenticity defines all touristic experiences. Rather, he claims that tourists may embark on travel merely because they seek a contrast, an inversion of everyday experience, which means they may even seek inauthenticity. He

develops this point in his seminal work on "the tourist gaze," which is characterized by two keys conditions: first, objects selected to be gazed upon must be "in some sense out of the ordinary," and second, they must hold promise of "intense pleasures, either on a different scale or involving different sense from those normally encountered" (1990:3). Although not the only gaze embodied by surgical volunteers,²² the tourist gaze entered into the mission experience in various ways. Dr. Keenan, for example, had a regular appointment in the U.S. but traveled with missions twice a year. In fact, she negotiated this as part of her job contract. When I asked what initially drew her to missions, her immediate response was: "I love travel. I love *seeing* new places." To help me understand what she liked to look at, she said, "I like to see how everyone in the world has similarities, things in common. Also I like to see how they are different, the subtle differences. Someone comes on a nightshift here [in Honduras] and gives everyone kisses all around. That would never happen—oh my god no—we barely even hug in the U.S.... It's just a subtle variation in the way people interact, and I find it thoroughly enjoyable [and]... exciting, too."

For Dr. Keenan, missions were therefore meaningful experiences precisely because they brought her into contact with "subtle differences," in this case cultural differences in greeting formalities, which she found "enjoyable" and even "exciting." This is not to say that the service component was not important, too. But as Dr. Keenan explained, where she lived in the U.S., she could do charity work in "neighboring communities," but coming to Honduras was "much more fun" because it lent itself to these cross-cultural encounters. Other volunteers also described being interested in participating in a mission given what they might see. A volunteer nurse named Stephanie, for example, was interested in both

²² Other ways of seeing would include the medical gaze (Foucault 1975) and the act of witnessing (Redfield 2005; 2013).

seeing Central America and "how the work was done," that is, how a surgery that costs tens if not thousands of dollars in her home country would be done for less than US\$2,000. She wanted to help, but admitted that her intentions were "equally selfish" as it allowed her this opportunity to seek new experiences.

The tourist gaze is all about "seeing and in turn being seen," a practice that relies heavily on the use of photography (Urry 1990:124). Indeed, nearly every surgical volunteer had a camera on missions, usually kept close at hand. They photographed scenes that, to them, were "out of the ordinary," in some cases printing images on the spot to share with pediatric patients and their parents, but usually keeping them for themselves or posting them to social networking sites. Photography can be violating, and this was especially true in the case of missions when it gave the volunteers, and by extension their social networks, knowledge of their subjects that they—the subjects—could never have, since they did not have cameras or regular access to the Internet. Such practices are illegal in most hospitals and clinics, including in Honduras. Honduran national news teams, for example, were also not authorized to take photographs of patients inside hospitals (although they, too, frequently violated protocol, especially when missions were in residence).

Pediatric patients, shortly after their surgeries, were a particularly extraordinary site to see for surgical volunteers, who, as mentioned, are accustomed to seeing patients asleep and intubated so early in their recovery—not awake and breathing on their own. As such, they were the main subjects of photography. In a typical framing, the patient was alone, lying in his or her hospital bed with the surgical bandage exposed, and coloring or playing. Patients were also often recorded when taking their first few steps following surgery, a key marker of the recovery process. Such images are positive in that, when circulated, they help

raise awareness. Yet they are also predatory as appropriations of an "alien reality" (Sontag 1977:63). Other scenes of interest included Honduran or volunteer clinicians "at work," yet another touristic curiosity (Urry 1990), and patients whose illnesses were more advanced than the volunteers were used to seeing. One especially memorable example, perhaps the most predatory of all, was when a patient, who was reeling from the nauseating effects of anesthesia, regurgitated a long tapeworm that had taken up residence in his intestines. Rather than discard the worm, the volunteers put it on display in a glass jar. It was a photo-op that few volunteers passed up. It was during such moments, when patients or other biological matter were put on display that the "surgical safari" metaphor rang true. After all, safaris and cameras are historically intertwined. Moreover, in the same way that safaris are meant to expose travelers to the wonders of an unfamiliar landscape, it was as if missions, too, served as windows onto strange but intriguing bodies and pathologies. As such photographs circulated more widely, they also inspired other clinicians to sign on as new volunteers. An OR nurse, for example, told me that she decided to go on a mission because she had heard others talking about the work at the hospital and seen their photographs. This had piqued her curiosity. It was not enough, however, to learn more; she had to have the experience firsthand, which reconnects with Urry's point that the senses here are key.

Not all surgical volunteers sought new scenery, however, whether scenes of different cultures, clinical practices, or pathologies. Rather, for them, missions were a different kind of escape from routine. Two volunteers, both nurses, told me that they enjoyed missions because they did not have to interact as much with families, whom they felt interfered with their ability to do their job. A nurse named Karen, for example, told me that she became "hooked" on missions after her first trip, "but for selfish reasons." She explained that at her

home institution she follows pediatric heart patients from the moment they are admitted to the hospital until long after they are discharged. Her main complaint was that "parents question and distrust everything" she does, which the media perpetuates. "I'm tired of this," she said. "I'm like, okay, I got it. Let me do my job." Working in Honduras, thus, allows her to do her job without the same interruptions. On the flip side of this, some nurses preferred missions because they *could* interact with more with patients and families. One nurse for example, said it was hard because where she works in the U.S. there are restrictions on how much she can get to know parents. Nurses are not allowed to share personal information about themselves, and they are not allowed to connect with their patients' parents on social network sites.

Others described feeling bored at home. Sophie, for example, told me that to work in the ICU you have to undergo very specific training, but as "you develop your career, you get to a point where you are no longer challenged." She needed "something different." For others, it was not being bored but underutilized or under-appreciated. A doctor, for example, said he was a "cog in the wheel," explaining that if he did not show up to work, it did not matter; someone else could always replace him. Similarly a nurse said that she was treated like a "pen and pulse," as if all she was good at was filling out paperwork. Missions, in turn, were a way to feel useful. As mentioned, a number of volunteers participated in missions because they could use their highly specialized skill set.

A Test of Knowledge and Skill

Surgical volunteers considered GHF an ideal organization to work for given its educational focus. Stephanie, for example, had heard of other groups that "go in, perform surgery, and leave." The fact that GHF "goes in and teaches" sounded "ethically a bit better." Others

made clear that they, too, did not want "just to help" but rather to "actually teach" and create a "local program that would be sustainable" and able to serve patients after their departure. GHF, in turn, instructed new surgical volunteers at the start of each mission to use every clinical encounter with patients as an opportunity to teach Honduran doctors and nurses. Once a mission was underway, however, the volunteers encountered not teaching opportunities but clinical conundrums, where it was impossible to follow "best practices" and standardized protocols in the absence of basic equipment, such as working ventilators, imaging technologies, sterile gloves, and running water. It was not uncommon, for example, for the surgeon to open a patient's chest and find that the heart lesion was not properly diagnosed given a less-than-exact echocardiogram produced by an outdated machine. Such moments stood in marked contrast to the U.S. where, prior to surgery, patients are, to quote an ICU doctor, "heavily investigated" prior to going into surgery. The lack of reliable, working machinery was compounded by the fact that many patients had advanced illnesses, which meant that, by U.S. standards, they would have been considered inoperable and placed on a waiting list for a heart transplant. In Honduras, however, there was no transplant option. Such were opportunities for not teaching but putting their own knowledge and skills to a test.

This sent some volunteers into crisis. It made them feel incredibly uncertain and frustrated. They wondered if they should be there at all. Others enjoyed the challenge. In part, it was the excitement. A volunteer perfusionist, for example, a self-identified "adrenaline junkie," told me that he liked the high-pressure moments, such as when the electricity went out during an operation and he had to hand crank the lung-bypass machine. Or when the wall oxygen ran out and they had to attach the anesthesiology machine to the

emergency oxygen cylinder, which they then realized was nearly empty. An ICU nurse expressed greater enthusiasm. It was her first mission and I asked her thoughts on the selection of cases and if they were they what she had expected in terms of complexity. She told me that she expected "easy breezy, down and dirty, get them out, get them fixed," in other words, simple cases. She was surprised by the level of acuity but she was not dissuaded. "I love it," she said, explaining that she, too, loved the adrenaline.

In addition to the excitement of missions, volunteers were grateful for the new insights they gained by being tested. This came to my attention several times during fieldwork when medical volunteers described their surprise when they first saw fast-tracking in action. A volunteer nurse, for example, was "completely blown away" the first time she saw how well a patient recovered after being extubated upon arrival at the ICU following a relatively complex surgery. Other clinicians were equally impressed by the fast-tracking model, which promoted them to rethink practices at their home institutions. On his first surgical mission, for example, an ICU doctor was initially taken aback when he learned that they would be using not narcotics but ibuprofen and acetaphetamine for pain control. He called the team "off-the-rocker crazy" for taking such an approach. As he watched the patients recover, however, he changed his mind. He has come to see pain control in the U.S. as "excessive," driven more by "fear of litigation than the needs of patients." As he said, "We are so much more intolerant of *any* pain in the states that we over-utilize mediations, flat out over-utilize them." Several volunteers that I interviewed reported modifying their practices at home after such revelations. One surgeon, for example, said that he started to use less suture when closing a patient's chest, while another ICU doctor started ordering fewer lab tests, instead relying on his clinical skills. By taking these actions, they believed

that they were saving their hospitals money, thereby allowing them to accept more uninsured patients.

As I demonstrate in Chapter Three, it was not the excitement of surgical missions per se, or the learning opportunities they afforded, that attracted some of the most committed volunteers. It was the chance to problem-solve under pressure. In the next chapter, I describe some of the strategies volunteers employed to address the challenges of working in this context. I call this "MacGyvering," a term they themselves used. The point, for now, is that improvising was not exclusively a "clinical imperative" (Livingston 2012), an unfortunate but necessary part of the work, or bitter reminder of the gap between "clinical reality" and the "medical imaginary" (Wendland 2012:133), as elsewhere in the world. Rather, it was viewed as an exciting activity to engage in and an important part of the appeal of working internationally. The clinical terrain in Honduras—given its unpredictability and resource limitations—defined an ideal site for testing one's limits as a volunteer, surgical specialist, and medical humanitarian.

CHAPTER THREE MacGyvering Humanitarian Medicine

Kelsey, an ICU nurse in her late twenties, had taken a six-month leave from her regular job in the U.S. to travel from country to country with different Global Heart Foundation (GHF) missions. We met in Honduras in 2011 on her last mission of the year before she was scheduled to return home. In the ICU early one morning, I found her crouching on the ground with a patient, a little girl aged six or seven, on her lap. The patient had received an open-heart surgery the previous afternoon. The patient was awake. Her breathing tube and chest tube had been removed. She was wearing only a diaper. A long piece of gauze covered the surgical wound on her chest. "Put some shoes on her!" another medical volunteer yelled from across the room. "Don't worry," said Kelsey. "We're just chilling." Kelsey then decided that they would walk. The patient's mother, who was standing nearby, did not understand English but could intuit Kelsey's intentions. She put on her daughter's shoes and Kelsey persuaded the patient to walk to the other side of the unit. She complied, but reluctantly. When others in the room cheered her on, she started to cry but kept on walking. After she had completed a lap around the unit, she was returned to her bed. Being that it was my first surgical mission with GHF, I was surprised to see a patient walk so soon after surgery. I knew that postsurgical care would be expedited during missions, and that patients typically did not stay longer than 24 hours in the ICU. But I did not expect to see a patient on foot after 15 hours. I started to ask Kelsey about it and she interrupted me mid-sentence. "Yep, you'd never see this in the States," she said. "It's a luxury to stay in the ICU. But we don't have that [luxury] here." The patient was transferred to the pediatric floor within the hour. She returned home the following morning.

"You'd never see this in the States" was a common observation made during pediatric heart surgery missions. Its meaning was context and speaker dependent. There were times, for example, when practicing medicine differently than one would in the U.S. was a refreshing change. It was considered smarter, less wasteful, and less taxing on the patient's body. At other times, however, it raised deep-seated anxieties. Surgical volunteers feared that modifying surgical and critical care was unethical and potentially harmful to patients. Whether a source of pride or disillusionment, modified techniques were a defining feature of humanitarian work.

In this chapter, I analyze these unorthodox practices from two angles. First, I situate them in the context of space, time, and resources, three variables which make these practices seem logical, if not inevitable. Second, I associate these unorthodox practices with a distinctive ethos or temperament embodied by volunteers who, like Kelsey, had devoted a considerable amount of time to missions. These volunteers claimed to be "hooked" on missions, either traveling with surgical teams several times a year or having turned humanitarianism into a professional career where they earned a modest salary for a full or part-time commitment. To introduce this ethos, I describe its archetypical figure, the medical MacGyver, who is a variation on the medical cowboy or maverick but set apart by his or her humanitarian spirit. Borrowed from the 1980s North American TV series, MacGyver is a fitting analytical tool. Not only did I observe surgical volunteers doing a lot of "MacGyvering" during missions, defined as innovative and spontaneous tinkering with machines and routine protocols; they also described their experiences using a MacGyver idiom. Ranging in age from 25 to 55 years old, these volunteers likely grew up watching the

show. MacGyver metaphors helped them communicate what they did during missions, how they felt, and what they most valued.

My main argument is that accounts of MacGyvered healing suggest the enactment of a new "healing genre" (Mattingly 2010) suited to humanitarian work. By new, I mean that it remains undertheorized. Here I draw inspiration from Mattingly, who calls upon social scientists to analyze clinical encounters in "dramaturgical" terms by measuring them up against dominant, prefigured, culturally-specific "genres of healing" (2010:43). Her basic premise is as follows: "As everyday actors, we locate ourselves in unfolding stories that inform our commitments about what is possible and desirable, our narrative anticipations and judgments about how things will and should unfold, and an understanding of the motives and actions of our interlocutors" (2010:43). Based on fieldwork carried out among chronically ill children, parents, and clinicians in the U.S., she identifies four healing genres that have wide currency in many U.S. clinical settings: "healing as sleuthing," "healing as battling disease," "healing as repairing broken-machine bodies," and "healing as transformative journey" (Mattingly 2010:54). I contend that MacGyvered healing constitutes yet another genre whose storyline emerges under strikingly different circumstances.

Healing genres are highly idealized: they have a powerful utopian quality and are grounded in the assumption that medical knowledge and technology will assure healing and an improved quality of life (Mattingly 2010:55). As such, they are akin to Delvecchio Good's concept of the "biotechnical embrace," where, once again, biomedicine gives patients and providers unbridled faith in the healing powers of "new biotechnologies, hightechnology experimental treatments, and even salvage therapies," the latter being the most "dramatic" of all (2001:399). At the same time, healing genres do stand up to "life on the

ground" because actual healing processes are inherently messier and unpredictable (Mattingly 2010:56). MacGyvered healing is no exception. While it provides a framework for hope, imagination, and action, it, too, has a shadow side, where its highly unorthodox practices have unanticipated effects. An analysis of the ethos and associated practices that comprise MacGyvered healing is important for two reasons.

First, our understanding of the ethos of medical humanitarianism is incomplete. Most anthropological studies on the subject, where the NGO Médecins Sans Frontières (MSF) tends to dominate attention, characterize this ethos by emergency or crisis, moral sentiment, the imperative to act, and political neutrality or defiance (Wilson & Brown 2008; Fassin 2010; Ticktin 2011; Redfield and Bornstein 2011; Redfield 2013). The ethos embodied by the surgical volunteers I met was slightly different. They, too, acted from a place of urgency and moral obligation. They also felt obliged to take action in response to children's suffering. They did not, however, have the same "political desire running through MSF" (Redfield 2013:237). In its place was a strong innovative spirit and a daring streak, that is, they dared to rethink long held assumptions about what was and was not clinically possible and found novel ways to handle clinical dilemmas. They were more aligned in this way with their national counterparts, who, as I show in Chapter Four, also improvised and adapted in the face of profound resource shortages—a phenomenon known to occur in poor countries worldwide (Ortiz 1997; Livingston; Street 2014; Sullivan 2012; Zaman 2004; Wendland 2010). What set the surgical volunteers apart, however, was the extreme nature of their improvised practices and the meanings they ascribed to them. For example, the volunteers often went farther than most Honduran medical personnel in pushing the limits of biomedicine for reasons specific to their role as short-term volunteers. Further, whereas the
need to improvise was for most Hondurans an everyday practice, often carried out reluctantly, for most surgical volunteers it was exceptional, exhilarating, and heroic. This is not to be mistaken for recklessness. I should stress that GHF volunteers are highly skilled and accomplished. Many of them have years of mission experience and collectively have saved thousands of children's lives. My point, rather, is that they displayed a distinctive ethos that supported a more improvised approach.

Second, how humanitarian actors practice biomedicine has been almost entirely overlooked in the social sciences. Most scholars analyze humanitarianism as a sentiment (Wilson & Brown 2008), ideology (Fassin 2007; Fox 2014; Redfield 2013), mode of governing (Fassin 2007; Ticktin 2011), or human rights issue (Farmer 2005). Even when anthropologists discuss what medical humanitarian actors do, they usually focus largely on their non-medical roles. For example, when Wendland (2010) refers to medical student volunteers in Malawi as "clinical tourists," her point is to highlight their role not as doers but as curious observers of unfamiliar clinical practices. Similarly, when Redfield employs the term "moral witness" (2013:98), he wishes to emphasize that medical humanitarian actors often reach the limits of their clinical capacity, at which point their function is not healing but advocacy. In the case of surgical missions, however, while medical volunteers are undeniably "clinical tourists" and "moral witnesses" during their in-country visits, they never stop being hands-on practitioners. A typical surgical mission, for example, will perform 20-40 surgeries in two to three weeks. This is twice as many surgeries performed at some of the world's highest-volume pediatric cardiac centers in the same timeframe. In Honduras, this number also exceeds the number of pediatric heart surgeries resident

surgeons are able to perform in a year. What medical volunteers do when they are in country on surgical missions thus warrants careful attention.

There are notable exceptions. Halvorson (2012), for example, studies bandage making by U.S.-based volunteers, mostly women, for a faith-based aid agency that packages and sends them to medical personnel in Madagascar. By observing what happens to the bandages as they pass through the agency's warehouse, she finds an important disconnect. While the bandage makers personalize bandages with "notes and other personal 'touches'" to emphasize the "relational context of caregiving," NGO workers depersonalize them before sending them overseas for the purposes of standardization and professionalization (Halvorson 2012:133). This tension, however, is not to be read as a "clash of... competing ideologies" but rather an indication that multiple ideologies are at work within a single humanitarian gesture (Halvorson 2012:133). Medical materiality, in other words, helps us better understand how multifaceted humanitarianism can be.

Whereas Redfield's earlier work focuses on medical humanitarians as "empathic witnesses," he later interrogates the logistics of mission trips, calling attention to their material dimensions. His analysis of MSF's signature "humanitarian kit" (Redfield 2008; 2013), or the metal cargo boxes that MSF ships to sites where crises occur, is a case in point. Each kit includes pre-assembled medicines, materials for taking samples and performing basic procedures, support items, and instructional manuals, all of which are tailored to a particular disease. Much like hand-made bandages once they have been depersonalized, the kit epitomizes standardization, as it dramatically reduces "the time and expertise required to reproduce a generic response" (2013:72). Redfield's study of the kit is useful because it reminds us that, while standardization is considered ideal for humanitarian interventions, it

quickly falls apart in practice. Given the unpredictable nature of events in the field, kits must be pulled apart, reordered, and reassembled locally, which requires that one "tinker and improvise" with what one has at hand (Redfield 2013:83). Similar to Halvorson and Redfield, I will examine the clinical practices that define humanitarianism. But whereas they are interested in how medical humanitarian technologies are personalized or standardized, I focus on their ordering or reordering at destination sites, where the need to tinker and improvise is thrown into sharp relief and a distinctive ethos is put on display. With these differences in mind, I have organized the chapter as follows. I will briefly discuss the spatial, temporal, and logistical backdrop of missions. I will then discuss the relevance of a MacGyver healing narrative and how four of its main components—expediency, resourcefulness, innovation, and medical heroics—manifest as unique clinical practices. I then conclude with a discussion of the unanticipated effects of this humanitarian ethos.

Space, Time, and Resources

GHF prefers to send its missions to public hospitals because they provide access to the sickest, most disenfranchised patients. Yet public hospitals are also exceptionally challenging contexts in which to practice high-tech medicine. Honduras is a poor country, the third poorest in the Americas. As discussed in Chapter One, the last two decades have been devastating for the public health sector. State-run hospitals have been left without the tools to heal as a result of rapid privatization under neoliberalism, escalating rates of state and everyday violence, and pervasive government corruption. Surgical missions donate a considerable amount of hardware to the hospitals where they work in preparation for heart surgeries. They also send large shipments of surgical technologies and coordinate with hospitals and NGOs to ensure that all material needs will be covered. Despite these

preparations, missions inevitably encounter resource shortages, such as when wall oxygen unexpectedly goes out, when the blood bank runs low on blood products, or when the workers go on strike after months of no pay. Such dynamics lend themselves to MacGyvered healing.

In addition to the challenges posed by hospital infrastructure, missions face additional barriers relating to time and money. For example, all GHF missions are two weeks in duration, presumably the maximum amount of time that volunteers can leave their regular jobs at home. Further, missions have an operating budget of US\$40,000 to US\$80,000 per mission, which means that they try to treat each patient for under US\$2,000 so as to maximize their humanitarian reach. In effect, they must move patients as quickly as possible through surgery and post-surgical recovery. They also try to contain costs as much as possible. I call attention to these variables because they, too, demand a highly improvised clinical approach. Such variables are also taken for granted: assumed to be an inevitable part of humanitarian work. As Dr. Cooper, for example, exclaimed in an interview, "You can't just live there," referring to the countries he visits with missions. "You have to come home. Our team eventually *has* to leave and turn over care." What escapes notice, in other words, is that short-term visits every three months is not the only form humanitarian engagement.

Healing as MacGyvering

Joseph, an ICU nurse in his early forties, has been participating in pediatric heart surgery missions for over a decade. He began working with GHF as a volunteer, taking three to five trips a year. He later accepted a position as a full-time employee. As he told me in an interview, he would not work anywhere but the "developing world" because he does not have to "dot the i's and cross the t's" as he would in most resource-rich countries. It is not

that he is being careless or irresponsible. Rather, along with a number of other volunteers I met, he is a strong advocate of a "less is more approach" to recovering patients following surgery, meaning, to quote him directly, "the less things you do, the less time you have them spend in the ICU, the more likely they are to have a good outcome." He insists that "evidence clearly supports this view" but many hospitals, for liability reasons, prefer to treat all patients as if they are a worst case scenario, keeping them in the ICU for much longer than is medically necessarily. In poor countries, not all hospitals have this luxury, however, echoing Kelsey's point from above. They are more receptive to a less is more approach, if they do not practice it already. Even Jack's appearance suggests that he is not wedded to convention. In the ICU, for example, he is usually found in flip-flops with a coffee cup in hand. When he enters the OR he wears not the customary, hospital-issued cap but a black bandana he has brought with him in his luggage. Once again, it is not that he is being negligent. Regarding his appearance, he believes that infection control has more to do with proper hand-washing and safe injection techniques than appropriate hospital attire.

As is true for any clinician accustomed to working in resource-limited settings, Joseph has learned to improvise solutions to difficult clinical situations. During a heart mission for which I was present in 2011, the team was caring for a several-month-old infant named Sofia who had been born with hypoplastic left heart syndrome. This is one of the most complex heart defects where the left side of the heart cannot pump oxygen-rich blood to the body properly owing to a number of abnormalities: the aorta or the mitral and aortic valves may not have formed properly or the left ventricle may be underdeveloped. Some surgeons recommend an emergency heart transplant. They may also perform a series of three surgeries designed to bypass the left side of the heart entirely and increase blood flow

to the rest of the body; even then, a heart transplant may still be needed in adulthood. In either case, the repairs are considered palliative. The three surgeries always begin with a Norwood procedure, where the surgeon builds a new aorta and creates a passageway for blood to pump from the right ventricle to the lungs. Performing a Norwood, as the procedure is named for short, in Honduras would have been a first. On the eve of her surgery, Sofia started a fever, which would have made the surgery impossible. Then, the catheter taped to her ankle was dislodged, leaving the nurses without an access point to administer medication to bring her fever under control. As the nurses struggled to locate a new vein, Sofia started to cry, which caused her breathing to become labored. In a better-equipped hospital, she would have been put on a machine called a CPAP, which stands for "continuous positive airway pressure." This device delivers pressurized, humidified gas through the nose and mouth to prevent the airway from closing. It is an ideal alternative to mechanical ventilation, especially when ventilators are in short supply. On this occasion, there was no available mechanical ventilator for Sofia to use, and the hospital did not own a CPAP machine. Joseph made a homemade CPAP device using oxygen and other supplies commonly found in an ICU. For Sofia, he secured an oxygen mask over her nose and mouth using sponge tape; with a hose, he connected the mask to an air outlet on the wall. Sofia fought the mask at first, and then relaxed, which allowed them to place a new catheter near her collar bone. To the Honduran doctors and nurses, and even more so veteran medical volunteers, such makeshift contraptions are familiar, unremarkable objects. To newer volunteers, however, they can be awe-inspiring. Jill was an ICU nurse from the U.S. on her first mission with GHF. When she spotted the contraption, she stood back and crossed her arms. "Looks like MacGyver," she said in admiration.

MacGyver is a popular North American TV series from the 1980s that chronicles the adventures of secret agent Angus MacGyver, who can manage a crisis with little more than a pocketknife, paperclip, and duct tape. As a cultural icon, MacGyver epitomizes heroism and humanitarianism. He works as a troubleshooter for a non-profit think-tank. The tasks he is assigned are inherently noble, such as disarming a bomb threatening innocent victims, rescuing Nobel Peace Prize nominees trapped in a collapsed underground laboratory, or freeing Thai farmers forced into illegal poppy production. His means of intervention are also humane. He rarely carries a gun and instead relies on his knowledge of science and the outdoors, which he draws upon to make clever use of ordinary items that he collects over the course of an episode, suspecting that they might be of use later, or that he discovers on the scene. Some of his inventions or interventions include stopping a sulfuric acid leak with chocolate bars, making tear gas from alcohol and fire ash, patching a hot air balloon with a map and duct tape, and fashioning an ant-repellent suit out of a melted garden hose, among countless others. MacGyver is famed for his ingenuity, ability to avert disaster, and flawless track record. His low-key approach, humor, and optimism add to his like-ability and charm. When the TV series ended in 1992, MacGyver's legacy carried on in the American English lexicon. According to the Merriam-Webster 2014 New Words and Slag dictionary, to MacGyver is "to improvise an ingenious solution to seemingly insurmountable problems by using ordinary items, faith and luck." Entire websites are devoted to the documentation and dissemination of various "MacGyverisms." Another popular TV series, MythBusters, regularly produces episodes about whether a selection of MacGyverisms are, in fact, scientifically grounded, thus underscoring the degree to which MacGyver, as a TV character, cultural icon, and everyday action, has public appeal.

During surgical missions, unsolicited references to MacGyver usually arose when I asked surgical volunteers to describe what was different about missions or how it felt to work in the capacity of a humanitarian volunteer. As one ICU nurse from the U.S. commented, "MacGyver is our hero down here. He helps us get the job done with what we have on hand." To an ICU doctor, also from the U.S., working in an unfamiliar context was "MacGyvery-fun," since it called on her to "work and play" with "outdated equipment." Yet another ICU doctor named certain makeshift solutions after MacGyver, such as the "MacGyver patch," which I return to below. MacGyver also served as a point of reference for visitors when they were no longer having fun and had grown tired or hopeless. When she could not make two incomplete dialysis kits into one for a patient who was so sick she was expected to die that day, an ICU nurse—the same one who had called MacGyver her hero—turned to me, exasperated, and said, "The MacGyver in me is gone."

Medical volunteers who did not speak of MacGyver directly used words or expressions that reflected themes emblematic of a MacGyver storyline. As I discuss in the previous chapter, they said that repairing pediatric hearts in Honduras required "improvising," "innovating," "jerry-rigging," "making do in a more clever way," "thinking outside the box," "improvising outside the box," or "throwing the whole box out the window," all things for which MacGyver is known. Some found mission work to be mix of terror and excitement, similar to "skydiving," "jumping off a cliff," "navigating the waters of Niagara Falls," or "dodging bullets," all of which are stunts not unlike what MacGyver can do. One volunteer surgeon, also a recreational mountaineer, called heart surgery missions the "Mount Everest of pediatric cardiology," stressing the extreme challenge they posed and the technical expertise they required. When I asked Sophie, an ICU nurse who

had been on 10 out of 11 GHF missions to visit Honduras by then, what she liked most about this work, she replied, "Bringing a pocket full of my favorite stuff and making it work." Her remark was quintessentially MacGyver given all that he is known to achieve with a pocketknife and duct tape, usually found in his pocket.

Apart from these direct and indirect references to MacGyver, other aspects of surgical missions lined up with a MacGyver storyline. First, MacGyver episodes are invariably structured around a high-stress emergency and the need to save innocent or vulnerable victims. As argued in Chapter Two, surgical volunteers conceptualized the plight of children with heart defects as being both urgent and blameless. In other words, the stress of the situation and the stakes of succeeding or failing were equally high. Second, for MacGyver, an urgent situation and worthy cast of victims demands a response. Inaction on his part is not an option. It would defy his character. In a similar vein, surgical volunteers were reluctant to suspend or slow the pace of surgeries, as is captured by the following two exchanges. When an ICU nurse expressed concern that patients were not receiving enough pain medication, I suggested operating on fewer patients, which would free up resources and time for better pain management. She was not convinced, however, rationalizing her position as follows: "If you can get the people [i.e., the volunteers] here, help as many [children] as you can." Similarly, when a perfusionist lamented the fact that he only had ten minutes between surgeries to re-sterilize the "connectors" he was forced to reuse, I asked if ten minutes was enough time to kill any bacteria. He answered with a rhetorical question: "You have to do the next case, don't you?" In other words, suspending surgery was almost unthinkable even if it meant putting a patient at risk. This is not to suggest that surgeries were never suspended for safety or logistical reasons, but that it was rare.

Third, for MacGyver, no challenge is too great to overcome. Surgical volunteers showed the same determination. They found it difficult to deny patients the opportunity to receive care, regardless of how complex their condition. My observations at a case conference demonstrate the point. Elmer needed a surgery to close the hole in his heart, also known as a ventricle septal defect (VSD). But because the defect had caused him to develop pulmonary hypertension, he would need be given nitric oxide immediately following the repair in order for it to be successful. Nitric oxide is a pharmacological agent common in most rich countries but unavailable in Honduras. The surgical team had tried to find a surgeon in the U.S. who would operate on Elmer, but no one would. They had also made arrangements for someone to donate nitric oxide so they could operate in Honduras, but the donation never came through. Rather than cancel his surgery, they revisited the results of his echo and decided to operate. Elmer responded well to the surgery. Many patients, in fact, were in Elmer's situation. Their condition had grown complex with the passage of time, and either they required special technologies not available in Honduras or they were inoperable by biomedical standards. These were not patients to turn away automatically, however. As one surgical volunteer explained, "You can't pack it in and go home because a large percentage of kids fall on the inoperative side of all things." Instead, "you see if there is a way to fix to them." Other volunteers were self-proclaimed "pushers," meaning they were already inclined to explore other options. As one such cardiologist put it: "Just to hit singles and doubles is not good enough. This doesn't mean that I always needs to hit home runs, but I can't be afraid to try."

MacGyver was also a socially acceptable idiom to use because it distanced them from a less celebrated figure in biomedicine: the cowboy. Medical MacGyvers and medical

cowboys have a lot in common, as illustrated by the following description of "real cowboys" by a North American physician who seeks to "defend the American cowboy in medicine" (Fisher 2012):

Cowboys are free to roam, to place themselves wherever they are needed, even if it's in the most remote region of the land. They are not bound to a single track or the big city. They certainly don't need a multi-billion dollar roof over their head when a tent will do. They prefer the stars rather than a big screen TV. In this respect, they are highly cost-efficient. They don't need bureaucrats to tell them how to ride, how to rope, or how to bring the cattle home. They are free to lead their herd from harm's way, even if it means crossing a fenceline or two. They are the also the ones who slow their herd's migration to deliver a calf because it's the right thing to do, not because it's efficient. They are the innovators and skilled improvisers who may not have every expensive widget at their disposal, but have learned the skills to do things far safer, cheaper, and faster nonetheless.

The parallels to MacGyver are therefore multiple. Both medical MacGyvers and medical cowboys are highly independent and skilled at devising low-tech solutions. Both set out to save others from harm. Cowboys, however, are generally frowned upon. With the exception of the above excerpt, few doctors would describe themselves as cowboys given the derogatory nature of the term. By their definition, cowboys are daring and defiant. They also lead relatively isolated, simple lives. Further, they are not known to have sought high-levels of education or specialized training; nor are they especially technologically savvy. Such attributes, in and of themselves, may be less than flattering. They also do not lend themselves to best practices in biomedicine. A daring and defiant doctor, for example, can easily do more harm than good when caring for a patient. Indeed, some surgical volunteers told me that the cowboy was a label they actively avoided so as not to damage their reputations. MacGyver thus emerges as a fitting alternative. MacGyver shares may of the cowboy's attributes but he is better trained, more intelligent, and more technologically

sophisticated. Most importantly, his reputation as a model humanitarian keeps him, and those who embody his disposition, safer from scrutiny.

In what follows, I take four themes embedded in a MacGyvered healing narrative and show how they translate into practices.

Improvised Techniques

Biomedicine is not typically understood to be an improvised activity. In most resource-rich countries, at least, it is difficult to imagine clinicians going to work unprepared or not having an adequate supply of medications and medical technologies to follow through with all levels of patient care. For the most part, this is true. Many clinicians I met during fieldwork describe biomedicine in rich countries as being "pattern-oriented." Much of their work follows flow sheets, charts, and schedules. Even when situations arise for which there is no obvious solution, they have at their disposal medical journals, medical textbooks, and other sources of clinical evidence that typically address the problem at hand. Further, as far as equipment and supplies go, clinicians almost always have what they need. In the words of one physician, if a ventilator malfunctions, "no problem, call the company and get a replacement." While there are exceptions, such as during national emergencies and in underfunded, public hospitals that lack the capacity to attend to uninsured patients, most hospitals in rich countries are best characterized in terms of excess as opposed to resource scarcity.

Pediatric cardiology is somewhat different in this regard. Even in most resource-rich countries, some level of improvisation is inevitable. In part, this is because every pediatric heart is different, which makes relying on standardized techniques largely impossible. Moreover, the scientific literature on pediatric health is thin. As I learned from a volunteer

cardiologist, parents are often unwilling to enroll children in clinical trials. Also, there are few incentives for pharmaceutical and biotechnology industries to design trials with pediatric patients in mind. In the case of adults, there is only a small window of time within which a research subject is legally protected in the event of an adverse reaction to an experimental drug or procedure. For children, this window is much larger: parents have until their children are 18 years old to sue companies following participation in a medical research study regardless of how old their children were at the time of the intervention. This serves as a disincentive for testing and approving biomedical products for children.

Dr. Nichols is a pediatric cardiologist from Minneapolis who visited Honduras twice during my stay. We spoke at length about what pediatricians do in the absence of scientific evidence tailored to pediatrics. He explained that they must "tinker," "extract from adults studies," and rely on off-label prescription drugs. As if to stress the normality of the approach, he said, "There is no right way to do medicine, just like there is no right way to interpret a work of art." Dr. Gerard, a pediatric cardiologist from Canada who specializes in catheterization procedures, reinforced this point in an interview. "The vast majority of equipment we use," he said, referring to his lab in Canada, "is not designed for 'peds,"" shorthand for pediatrics. As such, he typically uses what he calls "orphaned equipment from the adult world." Oftentimes this means that he has to "put things together and hope that they match," which can be a source of frustration or fun depending on how well they fit. If pediatric cardiology is already an improvised field, it is further improvised in places with resource shortages, echoing what Livingston finds to be true in Africa. "In hospitals and clinics across Africa," she writes, "clinical improvisation is accentuated" (Livingston

2010:6; see also Wendland 2010). In the context of missions, however, improvisations tend to be even more extreme.

When surgical volunteers first arrived in Honduras, the clinical terrain could be intimidating. Medications had different names and different levels of concentration. Machines and even more simple equipment were decades old, which some visiting clinicians recognized from work in animal labs or from their days as medical residents, but did not necessarily know how to use. Monitors and ventilators posed additional challenges, since they were sometimes programmed in a language they did not understand or were missing many of the safety features found in newer models. To some medical volunteers, this made them nervous. They had to be more alert, since, to quote one volunteer, *they* were "the safety check." Medical volunteers were also struck by the absence of basic amenities, like running water, paper towels and hand soap. Further, as a new volunteer nurse said to me during one mission, it was unnerving to watch "fresh hearts two days out" (heart patients two days after surgery) with "only a couple of lines and no drips" (with minimal monitoring and medications) running down the hospital corridor. These were not scenes she was used to seeing. She referred to the patients as "new strange kids" who challenged her ideas of what was clinically or biologically "okay."

I do not mean to suggest that medical volunteers were ready-made MacGyvers. They may have come with the desire to help, an ability to "think outside the box," and a tolerance for risk. But for those who were new to the work, they first had to cultivate a new mindset, referred to as an "okay-ness." This process of becoming "okay" with the situation was not unlike the educational process familiar to medical students, where they learn over time and through hands-on practice (Prentice 2013). Joseph, the nurse from above who cobbled

together the CPAP machine, described the cultivation of this mindset as a process of "unlearning" because it required medical volunteers to suspend much of what they had been taught in medical or nursing school. GHF, in fact, fostered unlearning by creating mixed surgical teams; that is, they avoided teams comprised of clinicians who were all from the same institution because they found them to be less amenable to change. As part of the unlearning process, medical volunteers were instructed in an orientation manual not to expect to replicate in Honduras pediatric cardiology as they practiced it in their home countries but rather to "think differently" and adapt. At the start of every mission, Jack delivered a short lecture and slide presentation to reinforce this idea. One of his slides had the words "THINK DIFFERENTLY" written in all caps to emphasize their importance. As part of the lecture, Jack also showed a video of a young patient from Ukraine, whom he described as "a failure to thrive VSD" (a patient with a ventricular septal defect who was severely underweight). The video began with the patient in the ICU following surgery. Jack explained that the team had been planning to delay extubation (removal of the breathing tube) given the patient's small size, but, when he self-extubated, they decided to forgo reintubation altogether. In the video, the patient was awake and eating. He was then shown playing with a different patient who had approached his hospital bed. Jack spoke over the video: "Normally you'd stop this from happening." He was referring to the fact that the patient was awake, eating, and playing. He knew what the other volunteers were thinking: under different circumstances, the patient would be asleep and still attached to a mechanical ventilator, and so he would not eat on his own or play with other children for another few days, if not weeks. Jack then projected onto the screen another slide, a photograph of the same patient three months later. Seated on his mother's lap, he was remarkably chubby and

rosy-cheeked. Jack's point was to assure new volunteers that by "thinking differently," they could still return the patient to what he should be: a healthy looking child.

Expediency

The central tenet of GHF's approach was called *fast-tracking*, which referred to accelerating the pace of postsurgical care. Whereas fast-tracking has been instituted in hospitals worldwide as a way to manage health-care costs, GHF described its fast-tracking model as "ultra fast." The approach, in fact, is so fast that it has attracted widespread criticism from some Honduran medical personnel and other traveling surgical teams in Honduras, both of whom are also known to fast-track recovery procedures but to a lesser degree. At the same time, fast-tracking was awe-inspiring for some GHF volunteers who saw it in action for the first time. Fast-tracking was also fiercely defended by its creators and strongest proponents, namely, Dr. Bure, GHF's medical director. He felt the approach was superior to all others. "It saves money and is the most efficient way. Efficiency is *the* model," he explained.

In the U.S., for example, pediatric heart surgery patients typically stay in the ICU for several days to several weeks. With expedited fast-tracking during GHF missions, they stayed for less than 24 hours. This meant less time on mechanical ventilation and fewer restrictions regarding mobility and feeding. With expedited fast-tracking, patients were also administered far fewer medications. Rather than being heavily medicated on opioids, which would require a slow, medically monitored weaning process, they were given fast-acting reversal agents upon leaving the OR. Pain, then, was primarily managed with ibuprofen and acetaphetamine. Fentanyl, a synthetic opioid analgesic, was used in cases of extreme pain, but Fentanyl is expensive. It was not always available during missions. As substitutions, the volunteers recommended that mothers nurse their children or crawl into their hospital beds

to soothe them. On one occasion, a saline injection was given to a child as a placebo. The underlying logic, emblematic of the less is more philosophy, was that a patient's natural defenses would be more effective if fewer medications were administered.

Resourcefulness

To be resourceful is to handle cleverly a situation. In the strict sense of the word, it is to handle a situation using whatever resources are within reach, oftentimes looking to the Hondurans who work in this context daily for guidance and inspiration. Surgical volunteers made clever use of the available resources in two main ways: they took a low-tech approach to care and they re-used or repurposed medical supplies. A low-tech approach meant relying on fewer medical technologies, including machines, medications, or material objects. Surgeons, for example, learned to use less suture when closing a child's chest during an operation, whereas perfusionists used less IV solution when operating the heart-lung bypass machine, substituting with blood products instead. As one perfusionist explained, the standard technique is to use eight ccs of solution and two parts blood. During missions, however, he learned, in this case from a Honduran nurse, to use the inverse: two ccs of solution and eight parts blood. He named it "poor man's cardioplegia."

To go low-tech also meant relying less on machines and more on clinical skills. On the patient floor, for example, in the absence of monitors to check a patient's lung function, volunteer nurses watched the chest for movement or checked the temperature of the patient's finger or toes. In addition, volunteer doctors relied less on i-stat machines, which are handheld devices that allow blood gases to be measured at the bedside. They had access to an i-stat machine but they had limited i-stat cartridges, only about two per patient. One cartridge was allocated for use in the OR, the other for use in the ICU. I-stat machines are

especially useful for gauging when a patient to ready to be removed from the ventilator. Without cartridges, volunteers instead used what they called the "Jack test," named after the ICU nurse responsible for the makeshift CPAP machine mentioned earlier. If a child could hold up her head and open her eyes, then it was believed that her breathing tube could be safely removed.

As an extreme example of low-tech care, volunteer surgeons learned to do surgical repairs without consulting ultrasound images. At Regional Hospital, the 25-year-old echocardiology machine could project images but was unable to save them on a hard drive or disc. They adapted by sketching the heart defect using a blank template of a hand-drawn heart (Figure 5), which was kept in the patient's medical chart. Unless the surgeon was present at time of the echocardiology exam, he only had the drawing to consult when opening a child's chest. It was usually taped to the wall in the OR at the time of the child's surgery. Sometimes he would open the chest to find an anatomy that was totally unlike what he had anticipated, at which point he had to identify the structural abnormality by sight alone.

To be resourceful in this context was variously described by surgical volunteers as "wilderness medicine," "traditional medicine," "getting back to the basics," working "Honduran style," or "hitting the reset button." These phrases should not be taken for granted. Equating low-tech care and Honduran biomedicine, for example, is highly problematic in that it suggests that Honduras is at odds with technology or has been delayed in the so-called march toward modernization. I mention these phrases, however, because they support what Wendland finds in the case of Malawi. The "clinical tourists" in her study conceptualized their journeys as being "across both place and time—not just to far away but



Figure 5. Illustration of template for diagramming heart defects

to long ago" (Wendland 2012:116). She makes this observation to argue that returning to some unmarked time in the past was also to romanticize the past. For clinical tourists, to practice biomedicine in Malawi was to practice a better form of medicine rooted in the past. Similarly, to be resourceful was romanticized by surgical volunteers, since it reflected back to them how unnecessary and wasteful a "technology mindset," as one nurse called it, could be.

In addition to detechnologizing care, surgical volunteers reused and repurposed supplies. The first day of every mission involved sorting through boxes of supplies left behind by earlier missions or sent as donations. As a general policy, the medical volunteers followed the "decade rule": anything from over a decade ago was tossed; everything else was placed on the supply shelf for future use. Then, during the mission, they recycled or repurposed objects, devices, and other materials whenever possible. Instead of throwing away half-used packages of suture, for example, they resterilized them for use on another patient. According to Dana, another veteran volunteer turned part-time GHF employee, "We try to reuse everything." One day in the OR, she showed me the kinds of items that had already undergone resterilization-connectors, plugs, sutures, hand towels, dressing gowns—anything manufacturers designated as single-use. The larger items were wrapped in green cloth and labeled with masking tape. Smaller items were individually sealed in small plastic envelopes whose color turned from clear to blue as a result of the resterilization process. At her home institution in the U.S., Dana set aside reusable items, anything whose sterility had been compromised. When she was out of the country, she asked her colleagues to do the same. She stored the items in her apartment. She even had an extra bedroom designated for this purpose. In a single month, her institution alone saved enough supplies to

do 13 surgeries. In two months she could gather materials for an entire heart surgery mission. She also kept a closet full of supplies in each country that she visited, where she saved and resterilized materials from each surgery. On this specific mission, the team was using all resterilized materials, an achievement that gave her much pride.

As for repurposing materials, when a pediatric patient went into kidney failure, for instance, a volunteer ICU nurse fashioned a catheter for peritoneal dialysis out of what she called a "mix-matched bag of expired IV lines." In another instance, a different ICU nurse engineered a contraption where two patients could receive intravenous medications from the same syringe pump, since syringe pumps were in short supply. Other less sophisticated techniques included tucking hot water balloons made from latex gloves under a patient's blanket to stave off the onset of a chill, or placing a diaper soaked in cold water on a patient's head to lower a fever. When there was no available mechanical ventilator, surgical volunteers manually squeezed air into a patient's lungs using an Ambu-bag, which is standard for emergency medicine but not ICU care. As a final illustration, when one of the volunteer surgeons required a sonogram of a patient's heart during surgery, not an uncommon request, the pediatric cardiologist rolled the giant echocardiology machine into the operating room. He "sterilized" the probe by wrapping it in a sterile glove and threading it through the sleeve of a sterile gown. He passed his own hand through the sleeve, and with the gown serving as a protective barrier, he entered the surgical field and placed the probe directly on the patient's heart to capture an image. In many countries, a specialized probe that enters the body through a patient's esophagus would have been used instead.

Innovation

Many techniques described above were innovative in that they involved the creative use of available resources. Innovation also extended to the realm of surgery. As mentioned, one of the major challenges of working overseas was the complexity of cases. Cases were more complex because the patients were typically older. These were patients whose bodies had learned to tolerate their heart defects in ways that supported survival. But tolerating the defect caused secondary problems, which made surgery difficult, if not impossible. Recall the case of Elmer, the patient who needed nitric oxide. He was born with a VSD. In most rich countries, he would have received surgery at birth. But because he had gone eight years without surgery, this body had developed pulmonary hypertension, which, in the absence of nitric oxide or access to a machine called ECMO,²³ meant that doing the standard repair was too risky. It would have been too hard on the lungs. In the eyes of most U.S. surgeons, Elmer was inoperable. For GHF surgeons, however, inoperability was a relative term. They were not convinced that hearts like Elmer's could not be repaired with the available technology. They were not convinced that U.S. standards should determine universal protocols.

A volunteer cardiologist named Dr. Xu expressed this point best. "Convention," he said, "is based on flawed data in our eyes." He explained that it is outdated by several decades, in addition to being based on a very narrow definition of normal. Rather than turn their backs on these patients, the volunteers see if they can help them. From experience, Dr. Xu has found that if they understand the physiology, have experience and skill, think outside the box, improvise, and are critical of data, then they can devise an alternative solution. As if

²³ ECHMO stands for extracorporeal membrane oxygenation. It is a device that mimics a child's normal heart and lung function. When a child is supported it, it allows him or her to rest while these organs are healing.

to reassure me, he added, "We are not right all the time, but we are right a lot more often than we are wrong." An especially illustrative example of innovation was a special patch that the volunteer surgeons designed for patients in Elmer's predicament (Figure 7). It is an innovative surgical modification, but by their standards not an invention. It works as follows. The patch, which they construct using the patient's own pericardium, includes a built-in self-locking mechanism. Initially, the patch stays open, which allows blood to move from right to left and maintain systemic circulation. Once the ventricular pressures become normal, the patch closes itself and locks. One volunteer cardiologist I interviewed called it "a MacGyver patch," which he defined as a "makeshift, do-it-yourself, build-it-in-a-garagetype of patch."



Figure 6. Images of the patch while it is open and closed. Courtesy of GHF.

Medical Heroics

Honduran surgeons and cardiologists were also keen to innovate. They were accustomed to patients who were deemed inoperable by U.S. standards and they, too, sought ways to adapt surgical treatments to their needs. Their threshold for risk, however, was lower. In other words, they considered a greater number of patients to be inoperable. Dr. Cardona, a Honduran pediatric cardiologist, for example, generally opted to operate on the sickest patients, since they were known to have miraculous recoveries. But even she had limits: some patients were simply too sick to risk operating. To quote a different Honduran doctor, such patients were "*ya pasados* (already passed)," meaning their conditions had become too advanced for effective treatment. Dr. Cardona was clear that operating on such patients was to "cut their lives short." GHF surgeons, however, disagreed. They went to great lengths to operate on such patients, even against the wishes of their Honduran collaborators. Their efforts, I argue, exemplify a fourth aspect of MacGyvered healing: medical heroics, which I define as "last-ditch" efforts to save a child from dying. As mentioned in Chapter Three, Dr. Cooper likes to be a child's "last hope," which admittedly result "salvage-type" repairs.

Ayida would be a case in point. She was a 16-year-old patient who had been flown to Honduras from Haiti for surgery, since there were no pediatric heart centers in Haiti equipped to operate on her, and since her case had been already been rejected by centers in both the Dominican Republic and the U.S. Ayida's condition was similar to Elmer's. She, too, had a VSD and had developed pulmonary hypertension. She was much weaker, however. By the time she traveled to Honduras—a trip that involved a 12-hour bus ride from Haiti to the Dominican Republic followed by a flight with layovers in Panama and Costa Rica—she required breathing support. Her heart was so enlarged that it nearly took up her entire chest cavity. Several Hondurans, including some surgical volunteers, felt that Ayida was beyond saving and had been brought to Honduras to die. Dr. Cooper, however, felt she could be saved. Ayida was one of several exceptionally high-risk patients he agreed to treat, some of whom survived, some of whom died during the operation or shortly thereafter. Ayida was among the patients who died. According to a volunteer nurse, Dr. Cooper was an excellent surgeon but he "pushed the limits"; from her experience working with him on

missions, it was not always clear that he knew "when to stop," that is, refrain from operating on a patient who was unlikely to survive the procedure.

Medical heroics took other forms, too. Nataly, for example, had also been brought to Honduras from another country—this time El Salvador—when no other cardiac center, including in the U.S., would accept her case on account of its complexity. She suffered from a "bad case" of tetralogy of Fallot—the surgical volunteers referred to her as a "bad tet." Similar to Ayida's case, several Hondurans were not in favor of operating for fear that she would die during the procedure or require long-term critical care following it, a service they could not easily provide. Dr. Bure was not present during the mission but, as founder and clinical director of GHF, insisted that Nataly receive surgical treatment nonetheless. His reasons for ignoring the Hondurans' wishes not to operate were complex; in part, he accused the Hondurans of not wanting to operate on any patient from another country, which, in his mind, undermined the "global" nature of his NGO. He also believed that the Hondurans knew less than he about cases like Nataly's given their supposed inexperience with pediatric heart surgery.

What was striking about the case was not simply that Dr. Cooper agreed to operate at Dr. Bure's insistance, but that Dr. Cooper continued trying to fix Nataly heart even when, partway through the operation, it become clear that she was unlikely to survive. As one volunteer nurse said to me when I entered the OR to check on her, "She's trying to die." Nataly was ultimately in the OR for 15 hours for a surgery that should have taken less than five. Dr. Cooper never stopped once to take a break. When her condition started to deteriorate, rather than end the surgery and bring her into the ICU for palliative care, he kept putting her back on the lung-bypass machine to see if he could "optimize her numbers,"

which he believed turn the situation around and save her life. Nataly left the OR at midnight with "good cardiac output," meaning her heart was working. Her lungs, however, had been severally damaged. They were not "cleaning" her blood like they were supposed to. As the volunteer perfusionist put it, "her body was like a car that wasn't getting an oil change." By 1:00AM, Nataly went into cardiac arrest. The ICU doctor caring for her at the time, a volunteer on her first mission, trembled as she recounted the events to me the following morning at breakfast. She recognized that Nataly was likely to die, but she had wanted to her at least make it through the night, which would have improved her chances of recovering, and moreover, would have put her death on someone else's watch. She wanted to resuscitate Nataly, but Dr. Velasquez, the Honduran ICU doctor also on call, refused.

As a third example of such heroic displays, I share an example as described in my field notes.

We are hanging in the ICU, when Carmen [a volunteer nurse] comes running in from the OR calling out for anyone with type O-positive blood. I later learned, although never confirmed, that Dr. Cooper had nicked the aorta valve, causing the patient's chest cavity to fill with blood. Stefany, the patient, was losing blood faster than they could replace it; then there was no more blood available for transfusion. At the beginning of surgery, Stefany had four pints to her name. The team had transfused those four pints, as well as four more pints belonging to the patient scheduled for later that day, who fortunately had the same blood type. But Stefany needed more. Not only was she still bleeding; she was an older patient, age 15, and tall and robust for her age. Three volunteers gave blood of their own, totaling one liter, all of which was transfused directly to the patient. The volunteers were given IVs, blood bags were filled, and then blood was transfused through the by-pass machine.

Unlike the other two scenarios, this case resulted in the patient's survival.

My point thus far is that medical volunteers are in part obliged, in part inspired, to carry out a style of patient care that is expedited, resourceful, innovative, and heroic, thus enacting a healing as MacGyvering storyline. This shows that different meanings get attached to the clinical imperative or choice to improvise. On the one hand, the volunteer doctors and nurses I met had tremendous confidence in the transformative powers of MacGyvering. They believed that bringing pediatric heart surgery to Honduras would not only save lives but also have wide-reaching effects, such as strengthening health systems, empowering in-country professionals to address other, simpler health challenges, and inspiring other acts of goodwill. They also believed that high-tech technology was transportable. Unlike some of their colleagues, who questioned the safety of operating in contexts of extreme scarcity, they were confident that heart surgery could be done anywhere with the right preparation, expertise, and adaptations. MacGyvered healing, therefore, serve as an "authorized action framework," defined as the "narrative—or normative—expectations for how things *should* unfold" (Mattingly 2010:54; emphasis in original). Yet there were innumerable moments when a MacGyvered healing narrative broke down in practice, when heroics and ingenuity did not produce the desired outcome, or when persistent tinkering led to further complications. I will describe four such moments below.

MacGyver's Shadow

Even though heroic measures were undeniably well-intentioned, they were an incredible drain on resources. The reason Dr. Velasquez, from above, opted not resuscitate to Nataly was because he believed that Dr. Cooper had already gone too far by prolonging the operation. In so doing, he had used up a crucial medications and supplies that were needed for patients who were scheduled for surgery the following week.

Moreover, some of the seemingly most heroic, ingenious acts, such as Stefany's impromptu blood transfusion, were in response to emergencies that the volunteers had themselves created. To illustrate this point, I reference a conversation I had with a Honduran doctor named Dr. Mendoza, who was present at the time of the incident. Several weeks later, she invited me to her office. After a brief hello, she started to talk: "Now you've had a chance to learn our philosophy and to see how the hospital works. In some ways, we're very limited. This is our struggle (nuestra luncha) and we still manage to move forward (seguir adelante)." After a short pause, she continued, "One of the difficulties at the hospital is that we can't always rely on the necessary support services, for example, a blood bank." Indeed, the blood bank at Regional was often low on supplies and patients needing transfusions typically rely on friends and relatives to donate on their behalf. It was a one-for-one exchange. If a friend donated a pint, then a patient could be given a pint of his or her corresponding blood type. In the eyes of Dr. Mendoza, the emergency transfusion to save Stefany's life was undeniably a "heroic measure." "If they hadn't done it," she said, "Stefany would have died." "If this were war, fine (muy bien)," she said. "But never should this be necessary for a planned surgery." Her point was to state the obvious: the transfusion could have been avoided if the volunteers had ordered enough blood in advance. "Why not plan for a worst case scenario? Why order four units when you might need ten?" Dr. Mendoza asked me. To be clear, the volunteers were not authorized to place orders for blood products. Nonetheless, the need for the emergency blood transfusion made clear that they should have given clearer instructions to Honduran personnel, who were not accustomed to ordering blood for heart surgeries and thus unfamiliar with how much blood would be sufficient. As further indication that this was a constructed act, the surgical volunteers, in fact, sometimes prefer to use blood from a volunteer as opposed to a blood bank in cases where a patient is bleeding uncontrollably. This is because blood taken directly from a donor is whole blood, which is better for clotting. Blood banks do not store whole blood. Further, it is new blood, whereas blood from the blood banks is often darker than usual and nearing

expiration and thus more likely to cause adverse reactions in patients. Even though Stefany would have likely died without the generosity of the three volunteers who donated blood, the event nonetheless caused her and her family stress as they anxiously waited for the window period to pass to ensure that Stefany had not been inadvertently exposed to a blood borne infection.

Finally, the push to treat as many patients as possible, as expeditiously as possible, inevitably led to mistakes. As in any hospital setting, errors were made because volunteers were rushed or overtired. Patients, in turn, did not always bounce back, leaving the volunteers to wonder if by coming to Honduras they had made more of a mess. They often expressed to me their frustrations with having to leave the country before being able to "clean up their mess." Daisy, for example, was a patient who had withstood a serious burn from a heat lamp that had been placed too close to her skin after her surgery. This slowed the healing process. On the last day of the mission, she had excess fluid in her lungs, which caused one lung to nearly collapse. Dr. Cooper had to reinsert a chest tube to drain the fluid. As he was placing the tube, he decided to clean the wound, and as he was cleaning the wound, he realized that he had reached a point where he had no choice but to remove all the damaged skin and cover it with a patch. This caused a massive bleed. One of the volunteer doctors privately expressed her concern "with how things turned out." She felt badly leaving Daisy sicker than when they arrived. "It's hard to end on this note," she told me. In some cases, having left behind a mess was precisely what inspired volunteers to return on another mission. They returned so that they could "finish what they started." It was a cyclical process, however. Missions nearly always ended on an ambiguous note, with the majority of

patients having returned home but at least one or two having died or still undergoing intensive care and unlikely to recover.

Surgical volunteers also questioned certain practices. Here I share three quotes to illustrate their anxieties. As a pediatric cardiologist told me after his second mission, "Let's look at what we are dealing with: out-of-date or re-sterilized equipment... So you adopt a 'make do' mentality. It takes a while to get used to, and I'm not used to it yet. It makes me feel uncomfortable, like I'm working in war situation or a M.A.S.H. unit."

According to a nurse after her first mission, "Patients everywhere deserve the same standard of care, but the circumstances [during missions] are so different that we have to compromise. Rules of sterility don't apply. You use expired things, which is not as safe. It's not fair to the patient." To quote a different nurse who had done three missions: "[I have to be] okay with not having equipment,... with not having the resources that I'm used to,... with my patient not having the greatest post-op course,... with lowering my standards. Those are the things that I've learned to be okay with... But I don't always agree."

Other volunteers used more extreme language. The anesthesiologist quoted above found some practices to be "barbaric." One volunteer pediatric cardiologist worried that they were "hurting patients" by "cutting corners." Honduran personnel also felt that some improvised techniques had gone too far. The CPAP machine, for example, while impressive, seemed unnecessary in their eyes. Other public hospitals in Honduras had CPAP, and so it seemed strange that it would be that difficult to borrow a machine from another institution for use during missions. Surgical volunteers tried to rationalize unorthodox practices in various ways. When they started to have doubts, they reassured themselves that "doing something was better than doing nothing at all" or that regardless of the means "the end

result was the same." Even these statements did not stand up to reality, however. As evidenced by deaths of Ayida, Nataly, and Daisy, not all patients had a positive result. This kept some volunteers from returning on missions. Many others, however, returned in hopes that by bringing in more and better supplies, they may be able to do the work better.

Improvising medicine was not unique to the surgical volunteers. Honduran doctors and nurses also improvised, although it was not always as extreme and, moreover, it carried a different meaning. It was not exceptional but mundane: part of their everyday routine. It was also not recognized as heroic: instead, it usually went unnoticed. Further, it was not exhilarating or alluring—a reason to work overseas—but rather a source of frustration and disillusionment. In the next chapter, I describe the quotidian practices of Honduran medical personnel who managed patients for longer periods of time, and oftentimes had even fewer resources than the surgical volunteers to work with. The point is show how different forms of biomedicine, which stand in contrast to one another, are practiced side by side.

CHAPTER FOUR Hospital Life off the Humanitarian Grid

When pediatric heart surgery missions are in Honduras they are hard to miss. They draw a crowd of parents seeking a surgical solution to their children's condition. They occupy a considerable amount of physical space, sometimes taking over a hospital's entire surgical complex. They attract national media attention, and visits from the Health Minister, members of National Congress, and other high-profile individuals. After several weeks of operating on two or three patients a day, they leave as abruptly as they had arrived. According to Dr. Solana, a Honduran pediatric ICU doctor who has been working with volunteer surgical teams throughout her career, when they leave, they "*really* leave." By really leaving, she means that they pack up the medical and surgical supplies they brought with them, vacate the hospital premises, and delegate full responsibility for the care of surgical patients to Honduran medical personnel, who provide follow-up examinations and surgeries as necessary and attend to any patients still undergoing care in the ICU. Some of the visitors will never be seen or heard from again in Honduras; others will return to the country in three months or a year, and may or may not maintain communication in the interim. Such a radical departure is largely deliberate on the part of surgical teams. To quote one surgical volunteer, a leader in the field, it calls on Honduran medical personnel to "step up to the plate," by which he means increase the volume of surgeries performed in the mission's absence. In fact, GHF measures the success of its missions by the number of surgeries performed not during but *in between* in-country visits.

Each time that surgical volunteers really left Honduras, I stayed behind. I continued observations and interviews at Regional Hospital, where GHF surgical missions take place,

and Central Hospital, where most pediatric cardiac patients are seen in the absence of missions. This involved meeting with Honduran clinicians before or after their shifts, shadowing them at work, and accompanying parents and children during medical appointments and stays in the ICU. By staying behind, I gained three insights that frame this chapter. First, in contrast to the perception that Hondurans need to "step up to the plate," local systems of care have long been in place in Honduras for the diagnosis and treatment of congenital heart defects. The first formally-trained pediatric cardiologist in the country is now retired. He has diagnosed hundreds if not thousands of patients, often with nothing more than a stethoscope, and used international charity networks to connect many of these patients with surgical opportunities overseas. He has also mentored a younger generation of pediatric cardiologists, six of whom are currently practicing in Honduras in the public and private sectors.

Second, as part of this system of care, Honduran surgeons have intermittently operated on pediatric hearts independent of heart surgery missions, who did not have a major presence in the country until 2006. According to personnel at Regional Hospital, the first closed-heart procedure dates back to 1971, at a time when the hospital had an adult cardiac program, a working catheterization lab, and a blood bank. In the 1980s, when Central Hospital opened its doors as the country's most state-of-the-art institution, all cardiac specialists were transferred there, along with their machinery. Closed-heart and open-heart operations to treat less complex conditions, such patent ductus arteriosus, ventricular septal defects, atrial septal defects, and tetrology of Fallot, have been ongoing at Central ever since—supplies and an available operating room permitting. To facilitate surgery, nearly a decade ago, pediatric ICU doctors expanded the unit from five to six beds,

with the sixth bed authorized for use by heart patients only. This was to ensure that bed space would never be an obstacle to receiving heart surgery. The bed stood as testament to not only their support for heart patients but also the nurses' support, since they agreed to staff a sixth bed without extra pay or the help of additional personnel.

Third, staying behind in Honduras alerted me to the innumerable obstacles and resource challenges that keep Honduran doctors and nurses from operating on a routine basis. For example, it is difficult to operate on pediatric hearts when, as one Honduran doctor said to me, "many more children are dying of pneumonia." Moreover, surgeons have difficulty scheduling time in the OR because the space is often inundated with emergency cases, usually patients suffering from gunshot wounds. Further, surgeons receive little support from the government for pediatric cardiology, which means performing any surgery requires that they must first gather their own materials, oftentimes using quasi-legal means that subject them to accusations of stealing. Surgeons must also balance their time between multiple jobs across different specialties, since there is no demand for pediatric heart surgery in the private sector and government salaries alone are not enough to live on. Finally, doctors and nurses may find it challenging to work at all when the state fails to pay them on time and their only recourse is to take to the streets in protest.

Doing an ethnography *of* as opposed to *in* global health means that "one pays attention to what falls out of view or falls between the cracks" (Pigg 2013:132). It means that the ethnographer "listens in the spaces that are rendered invisible (or at least off to the side) by the very practices most valued as 'getting things done'" within global health agendas (Pigg 2013:133). The insights I gained by staying behind in Honduras are precisely what inhabits these "invisible," "off-to-the-side" spaces that exist alongside the "most

valued" efforts to "get things done." The aim in this chapter is to render these spaces visible. More specifically, given that pediatric heart surgery missions are in Honduras for 11 weeks each year, I paint a picture of state-sponsored care during the remaining 41 weeks. I then describe how Honduran medical personnel respond to the challenges of having to work within an economy of scarcity. Much like their international counterparts, the surgical volunteers, they "make do" in myriad ways, although, as I will show, their actions extend beyond "MacGyvering" as described in Chapter Three. That is, "making do" on the part of Honduran medical personnel involves far more than creatively cobbling together devices using whatever materials are on hand. It requires that they first gain access to materials and resources though wider personal and professional networks. It is also far more emotionally taxing than exhilarating.

These objectives warrant attention for three reasons. First, invisible, off-to-the-side spaces are important simply because they exist and, moreover, because they "can take up a lot of space for those who sit in them" (Pigg 2013:133). In other words, they are very much part of the "empirical realities" being built by or around global health activities (Pigg 2013:133). Second, within these spaces, we can expect to find an altogether different iteration of "global health" than when missions are in residence. This is because missions are shorter-term, higher-profile, and typically better supported both financially and administratively than the Honduran personnel who work day and night in the trenches of government hospitals. Thus, it is in the shadows of high-profile interventions, such as pediatric heart surgery missions, that the more mundane and persistent challenges of "doing global health" come into focus (Prince 2013).

Third, there are gaps in the literature on hospital ethnography that this chapter is positioned to address. This literature asks how biomedicine "stay[s] the same or become[s] reinterpreted and restructured by the receiving society as its institutions diffuse from industrialized to developing nations" (van der Geest & Finkler 2004:1997). Within this literature, Zaman (2004), for example, tracks how the hierarchical social relationships within Bangladeshi "culture" are contested and reinforced within a single hospital setting. Sullivan (2011) is also interested in how the outside world shapes hospital life, although she is not interested in culture per se, but rather the role of the state and global health governance in shaping biomedical encounters. Wendland (2010) and Livingston (2012) lend further strength to the idea that biomedicine is anything but variable and locally contingent. Wendland in particular aims to understand how the moral order of biomedicine is remade under different conditions, which shapes professional identities and expands notions of biomedical responsibility. Livingston is interested in clinical improvisation in hospitals and the social relationships that emerge through care practices. No full-length hospital ethnographies, however, consider Latin American settings, which is important for thinking about how global this phenomenon may be.

In recognizing that hospitals are not "islands" (van der Geest & Finkler 2004:1998) or "isolated subcultures," but rather can be read as microcosms of the social and cultural worlds in which they are embedded (Zaman 2004:2026), this chapter begins in a nonhospital setting, the home of a 22-year-old auxiliary nurse, whom I call Inez. I then describe hospital life in two Honduran public hospitals, where the pairing of suffering and inventiveness that surfaced in Inez's home resurfaced in other forms.
Where the Pavement Ends

Most of the nurses I interviewed for this study preferred to be interviewed in a café or restaurant or at the hospital. For some, this was a matter of convenience. For others, it was one of pride. They would rather I not see the conditions in which they lived—at least this was the explanation that one nurse gave when I suggested that we meet in her home. Inez was an exception. She and I had arranged to meet in a café for the interview, but as soon as I arrived, she grabbed my arm and led us onto the street, walking faster than I. Before I knew it, we were in a minibus, the two of us sandwiched into a passenger seat, headed to her house. Inez told me that I would have to spend the night because we were getting a late start and it would be impossible to arrange for a taxi after dark. Taxi drivers, she explained, were reluctant to travel there at night due to safety concerns.

Inez lives in Cerro Grande, a residential area in Tegucigalpa's less developed sister city, Comayagüela. The road to Cerro Grande snakes up the side of a mountain at the city's edge. As we gained altitude, passengers got off at various stopping points until we were the only ones left in the minivan. The driver stopped where the pavement ended and a dirt road began. He had reached the end of his route. The view of Tegucigalpa from that vantage point was stunning. The air was remarkably colder. While downtown Tegucigalpa, where we had started our journey, was thickly populated and bustling with activity, Cerro Grande was notably quiet. Homes were spaced farther apart. Empty mountains lay beyond them. Inez led the way up a flight of steps, through a narrow walkway, up a dirt hill, up more steps, and through another narrow walkway. Finally, she said, "Welcome to our *casa*. It's *humilde* (humble) but it's home." As she gave me a tour of the house, she pointed out a fake Christmas tree with broken lights and "last's years decorations," a broken TV and stereo, the bedroom where she and her three siblings shared two double beds, and her parents' room

next door. She also showed me the washing machine, which was broken, the bathroom and shower, which had no running water, and the kitchen, where she and her sisters liked to cook. Pointing to the laundry piled up next to the *pila* (outdoor water basin), Inez explained that the washing machine was supposed to be fixed over the weekend, but the *muchacho* (repairman) never came. This meant that they had to wash by hand, but no one wanted to because the weather was too cold. The cold also made it difficult to shower. Inez said that I could take a bucket shower if I wanted, but not to douse my entire body or else I would get a chill.

Inez connected the speakers of the broken stereo to a desktop computer to play what she called "soft tunes." The sound of Miles Davis filled the air. We settled onto the couch for the interview. Inez's sister served us hot chocolate and *fritas*, a fried corn patty. Like many nurses, Inez had wanted to be a doctor but was unable to afford medical school. "Here," she said, "one needs to study what *le da* (pays) not what *le quiere* (one wants)." Nursing is ideal in this regard because one can study to become an auxiliary nurse in two years, and it is assumed that "there will always be work" because "there will always be a need." Inez studied with the support of a government scholarship. She does not consider nursing to be her calling per se, but she likes her work. She likes the "social" aspect, and the fact that she can "serve others," which makes her feel "complete." The assumption that there is always work, however, is not exactly accurate, as Inez's own story suggests. Inez is one of few nurses at Regional Hospital who has a *plaza*, meaning she is a permanent employee of the hospital that affords her medical insurance, an annual wage increase, and the option to unionize. Inez was hired into the position in early 2011, the same time that I began fieldwork. It was not an easy position to get, since the state has increasingly reduced the

number of *plazas* available, making the hiring process more competitive. Moreover, the hire was not without sacrifice on her part.

When I asked Inez about the hiring process, her immediate response was: "It was difficult. The hospital me extorsionó (extorted me)." She explained that she had started working at the hospital "without papers," meaning without a plaza or contracto (short-term work contract). She worked two seven-hour shifts a day, six days a week, for which she was paid one minimum wage salary (5,800L/US\$280 per month); by working a double shift, she was legally entitled to earn double that amount. She worked that way for four months. As if to justify her willingness to do so, she said, "You need the work, so you accept." Four months later, there was a dengue outbreak, and she was hired to assist in the dengue wardthis time under an official *contracto*. The contract ended, however, when the outbreak ended. After several months of being unemployed, she received a call from the hospital offering her another "work opportunity," as they phrased it, helping with the pediatric heart surgery mission that was scheduled to visit. She accepted, expecting to be paid. She never was, however. For reasons that she never explained, she was the only nurse not to be paid for her participation. Shortly thereafter, she was offered the *plaza*. The hire was puzzling to the other nurses at Regional given Inez's young age and relative inexperience. They reasoned that she must have negotiated with the hospital administrators, perhaps trading in her two weeks of unpaid work with the mission in exchange for the position. Inez did not admit to this, nor did she provide any other explanation; instead, she told me that the hire was merely "God's will."

Inez's story is emblematic of how, in resource-strapped Honduran hospitals, it is not only the patients who suffer. Nurses, and in some cases doctors, are hard pressed to find

stable employment and, for those who do, it can feel like nothing short of a miracle. Moreover, the story illustrates how "making do" is a normal part of life for many Hondurans. In this case, Inez studied not for the career she wanted but the one that paid, at least in theory. She also tolerated "extortion," or unpaid work, because, at the time, she saw no alternative. Her family also "made do" by taking modified bucket showers in winter, rigging together a sound system despite a nonworking stereo, salvaging broken Christmas tree lights, and not traveling after dark to avoid the possibility of assault. In what follows, I show how resourcefulness was not merely a household survival strategy. It was also normalized as a clinical practice within Honduras' public health sector. Once again, this sets them apart from their international counterparts, the surgical volunteers, in that it makes little sense to call their actions "MacGyvering," since it was a normal, not exceptional, part of life.

The Other 41 Weeks

In January 2012, several weeks before my departure from Honduras, I attended a meeting with administrators and clinicians at Regional Hospital. It was the final planning session before the arrival of the next pediatric heart surgery mission. I was among the first to arrive. There I met Lesli, who oversees medical supply orders and incoming donations. When I asked if she thought the hospital was prepared for the mission, she said, "We don't have disposable gloves in stock right now, and probably won't receive a new shipment until April." I later learned that gloves were scarce throughout the city. The Ministry of Health had been buying gloves on credit and no company would agree to fill new orders until the balance had been paid. I asked how they had been managing. "There are a few pairs left," she explained. "People have had to conserve and share," which seemed to defeat the purpose

of wearing gloves at all. I asked what else was out of stock at the hospital. "Alcohol, bleach, and electrodes," she said. A woman, an administrator, interrupted to announce that the hospital president was running late; he was tied up in another meeting. Apologetically, she said, "I'd offer you coffee or soda while you wait, but we don't have anything. I can't even offer you water." One of the hospital cooks, who had also arrived for the meeting, added: "I'd bring snacks [to the last meeting she brought *yuca con chicharrón*] but we barely have enough to feed patients." To my left was a nurse I knew from one of the wards. I asked how she had been managing without gloves. She shrugged. She had three pairs left to get her through the weekend. By then, other attendees had arrived. We took our seats in the conference room. Supplies were the first order of business. We learned that the hospital's only autoclave, the machine that resterilizes surgical equipment, was broken, as was the cooler used to store blood from the blood bank. The x-ray machine, which broke three months ago, had yet to be repaired. The head OR nurse said that she had been working with Lesli to place advance orders on supplies in anticipation of the mission's arrival. But she was still not sure whether they would have enough supplies. "Look," she said, "I've been getting requests from all over the hospital." Apparently news had spread that she was stockpiling materials. A few people laughed when she said this, perhaps recognizing the absurdity of the situation: a public hospital that was about to host a high-tech surgical mission did not have basic amenities: food, water, bleach, and gloves.

January is a difficult month financially for any government institution in Honduras because it marks the end of the fiscal year when budgets are already stretched thin. Nonetheless, such resource-shortages were felt year-round; in fact, they were more pronounced in the absence of missions, since administrators were typically more receptive to

requests made by the visitors to repair machinery and restock medications. During my visits to Regional Hospital, for example, it was not uncommon to hear reports that the kitchen was washing dishes without soap, or to listen to the head ICU nurse request paper towels only to be told that they are a "luxury item" the hospital cannot afford. In the ICU and OR, doctors and nurses worked without saline solution, gauze, and sterilized water. I do not mean to suggest that the hospital was entirely stripped bare, however. At one point during my time in the field, the Ministry of Health purchased three new mechanical ventilators for the ICU at Regional, items that are highly coveted because there are few in the country and those that do exist tend to be cheap and of poor quality. Despite being physically onsite at the hospital, the new ventilators could not be unwrapped, let alone utilized, for several weeks because the Health Minister had yet to inaugurate them, that is, he had yet to visit the hospital to publically announce their arrival in a televised event.

At Central Hospital, resource shortages were worse than at Regional. As one nurse said, Central is "the kind of place where you die for lack of a syringe." This happens because the hospital is nearly always out of catheters, syringes, medications, and even purified water to prepare medications. Family members must purchase these materials at nearby pharmacies, but they cannot always afford them. Moreover, in the OR, surgeries are suspended for weeks at a time when there are no sterile gloves or gowns. When operating on pediatric hearts, clinicians work without crucial machinery, such as pediatric ventilators, portable infusion pumps, and working monitors. For ICU doctors, the lack of available mechanical ventilators is the greatest challenge. Central Hospital has 16 pediatric ventilators divided between the ER and two ICUs, one pediatric and one neonatal. According Dr. Solana, introduced earlier, "We would need double that to meet the need." That week alone,

she had lost three patients because there was no available ventilator. The medications and supplies that are in stock are often of poor quality. The hospital purchases second and third line drugs, which have slower activation times and more side-effects. It also purchases the cheapest materials, devices found to be broken even before they have been put to use.

The problem of supply shortages and nonworking equipment is exacerbated by Central's poor infrastructure and design. For example, pediatric heart patients are operated on in the adult wing of the hospital yet they recover in the pediatric ICU, located in an adjacent building. The travel between the two units is long and treacherous. It involves an elevator ride, followed by travel through an invariably crowded ER, and up a narrow incline, all of which takes several minutes. In the absence of proper equipment, such as portable infusion pumps to provide a continuous flow of medication and fluid to the patient during transport, not all patients can withstand the trip. Further complicating patient care, there is no intermediate care or "step-down" unit, where patients can go if they are not sick enough to stay in the ICU but not well enough to be transferred to the patient floor. Given the high demand for beds in the ICU, this means that patients must be transferred to the floor prematurely, which can easily comprise care.

Personnel shortages are another challenge. At night on the floor, one resident, one professional nurse, and two auxiliary nurses are responsible for 40 beds. During the day in the pediatric ER, one doctor, one professional nurse, and two auxiliary nurses are responsible for 16 beds, eight of which are designated for patients who are in critical condition. They also attend to any patient in *la salita* or mini-ward, which is essentially a corridor adjacent to the ER. On crowded days, there may be 50 patients in *la salita* who either share beds that have been scavenged from other areas of the hospital or rest on

cardboard boxes laid out on the floor. A nurse named Carolina, who works in the ER and adjacent *salita*, described the area as a "barbaric chaos," since multiple patients in critical condition arrive at once yet few staff are available to attend to them. Another nurse named Maritza, who also works there, said that the demand is so great, and the patients so sick, that in a single shift there are 25 patients she cannot look in the eye because her attention is focused on the sickest three.

Adding yet another layer of stress is the Ministry's delay in issuing paychecks. Shortly before leaving the field, I visited the pediatric floor nurses at Regional. I found them in their break room, which doubles as their workspace for preparing medications and washing used medical equipment. On the table, there was not the typical hospital-issued lunch but torrejas, a favorite Christmas-time dessert, and fried chicken from Pollo Campero, a popular fast-food restaurant. The special occasion was not a birthday or salary increase; it was simply that they had been paid, illustrating that paid work in the public health sector is the exception not the norm. As mentioned, there are two types of positions: *plazas*, or permanent positions that include benefits and paid vacation days, and contractos, or temporary work contracts, which do not. Also as mentioned, as government spending on health has receded, the number of *contractos* has increased while the number of *plazas* had decreased. Now the majority of hospital workers are *contractados* (contract workers). Neither position is paid on time, although *plazas* are usually paid several days to a week late while contractos are paid a month late. Clinicians have come to expect this. Leticia has been on contract at Regional Hospital for two years. "For two years," she said, "we've had problems with pay." She estimated that workers go on strike about four times a year. As one doctor explained, "It's as if the state waits for a strike before paying its workers."

The nurses celebrating with *torrejas* and fried chicken on the pediatric floor were all *contractados*. While accustomed to late pay, this last paycheck was six months late. And getting paid was not without effort on their part; they had been on strike for over a month. This stretch without pay was especially difficult, since it fell over the Christmas holiday and the start of the new school year in January, when nurses, the majority of whom are single mothers, purchase new clothes and school supplies for their children. Even the annual hospital holiday party was scaled back. Unable to afford a night out at the disco, which was tradition, nurses organized a potluck at one of their homes, where many of them spent the night to avoid having to spend money on a taxi late at night. It is important to note that while some *contractos* are not paid on time, others are terminated without warning as happened in early 2012 when all contract workers were immediately laid off owing to funding constraints. Those with clinical functions were re-hired in the days and weeks to follow, although this required returning to work everyday acting as if they still had a job.

As was illustrated in the case of Inez, nursing is generally considered to be a career that "*le da* (pays)." This is not to suggest that it an especially lucrative career, however. Auxiliary nurses earn as their base salary legal minimum wage in Honduras, which, as mentioned, is US\$280 (5,800L) per month for 20 seven-hour shifts. Some auxiliary nurses with *plazas* earn as much as US\$590 per month because they are eligible for yearly wage increases. But, as one nurse made clear in an interview, their salaries do not lend themselves to a life of "*lujo* (luxury)." Professional nurses, who are different than auxiliary nurses in that they have university degrees and more clinical responsibility, can earn up to US\$1,035 per month. But they, too, struggle to cover household expenses, such as food, housing, private education for their children, and transportation. In the words of one professional

nurse, "It's not enough to cover our basic needs, let alone luxury items." The majority of nurses—as nurses were always quick to remind me—are also single mothers and those who are married have husbands with low-paying jobs.

In contrast, doctors are some of the highest paid professionals in Honduras, and as such, an incredibly privileged class. "Doctors are status" was how one nurse phrased it, meaning that they exemplify the upper class. In the words of another nurse, "Medicine is a career of the rich," referring to the fact that doctors not only generate considerable wealth but also must come from wealthy families in order to afford eight years of medical school. Medical students start earning a modest salary in their fifth year, but all the while they must cover the cost of matriculation, books, and living expenses in either Tegucigalpa or San Pedro Sula, where the country's three medical schools can be found, and where the cost of living is much higher than elsewhere in Honduras. One friend insisted that doctors comprise a class of their own, that is, in a three-class system, doctors would be in a fourth class, an upper-upper class. Dr. Cardona, the pediatric cardiologist with whom I spent most of my time, was an exception. Raised by teachers in an agricultural town, she studied pediatric cardiology on scholarship. When I met her in January 2011, she had already been denied six months of wages during her previous year as an employee of Central Hospital. They were not wages she expected to recover. In 2011, she accepted a second position at Regional Hospital, although she did not receive her first paycheck until mid-year. When I asked how she managed, she told me that she ate very little. What she meant was that she rarely bought groceries and instead visited her parents every other weekend. They would send her home with enough food to sustain her until her next visit. Dr. Cardona was not married and did not

have children. Her only family in Tegucigalpa was a cousin, who moved there in mid-2011, also to attend medical school. They shared an apartment.

Unpaid or unfairly paid wages place considerable strain on doctors and nurses trying to provide for their children and cover household expenses. Further, labor issues adversely affect quality of care at state-sponsored hospitals. As mentioned, doctors and nurses are assigned to more beds than they can reasonably manage. Because they are not adequately paid, most clinicians must work multiple jobs that span the public and private sectors; the pay in both sectors is comparable but the private sector pays on time. However, working multiple jobs is exhausting, which jeopardizes their ability to do any of the jobs well. When I asked Carolina about working two jobs, she replied, "I'll tell you something. The majority of nurses, auxiliary and professional nurses, work in two places and the attention worsens, the quality of the attention worsens. It would be a lie to say that it doesn't worsen when you show up to work already tired from working elsewhere. But it's the need [to make a living] that drives us."

Moreover, ongoing labor strikes inevitably disrupt day-to-day operations and hamper patient care. During strikes, clinicians rarely vacate hospitals entirely so as not to harm patients, but those who stay behind have fewer resources to work with. In the below excerpt from my field notes, I describe an experience shadowing Dr. Osorio on a strike day at Regional Hospital:

When I arrive at hospital, personnel are gathered at the entrance. Another strike. Dr. Osorio has told her patients to find her in the ER, since *consulta externa* has been closed. Only eight patients show. She normally sees 20; she thinks that the others had heard news of the strike and decided to forgo their appointments altogether. Dr. Osorio says, "Watch. In a couple of days, they'll be back and they'll be sicker than ever because they didn't get their medications." In the ER, Dr. Osorio writes out prescriptions but due to the strike she cannot access medical charts. Without charts, she can't document the visit or schedule follow-up appointments. I ask what she

thinks about the strike. She says, "I feel for the patients, but then again there are workers who haven't been paid in months. If we don't put pressure on the state, they won't respond." Then the electricity goes out. Because maintenance personnel are also on strike, the hospital has to call an outside electrician and the outage lasts longer than usual. Now, in addition to being without medical charts, labs, and nursing support, there are no x-rays. Dr. Osorio throws up her hands. "What can we do? This is a hospital and all we have are sick patients."

Dr. Osorio's words highlight the implications of the state's failure to pay its employees. This failure results in two forms of neglect: the neglect of hospital workers, who are denied the means to a livelihood, and of patients, who are denied proper care. Not only does state neglect leave clinicians feeling helpless ("What can we do?" was a common refrain), it also raises questions about whether hospitals that are so severely lacking in infrastructure and supplies still qualify as hospitals at all (Wendland 2012:759).

Without Tools of the Trade

Given the resource challenges endemic to public hospitals, hospital workers are unable to practice biomedicine as taught in school or featured in mainstream academic journals. As Livingston finds in the case of Botswana, practicing "evidence-based medicine" in such settings can feel impossible, like "trying to fit a square peg in a round hole" (2012:25). Initially, this can propel clinicians into what Wendland calls a "clinical crisis" (2010; 2012). By this, she means that the initial exuberance that medical students experience in the classroom is quickly replaced by negative feelings, such as pain, anger, and betrayal, when they begin their clinical years and realize that hospitals do "not much resemble the idealized ones in their textbooks" (Wendland 2010:763). For the Honduran clinicians I interviewed, there were hints of "clinical crisis" in their narrations of hospital life. Dr. Navarro, for example, was in the final year of a pediatric intensive care residency when I interviewed her at the hospital snack bar, a wooden shack with picnic benches out front, before an overnight

shift. As she explained, "The patient is in front of you. The textbooks are there. The disposition is there. According to the textbook, to manage this patient I need A, B, and C. But maybe my hospital only has A and B. I don't have C. It's frustrating in that sense." Dr. Baca, another young clinician, was the only academically-trained pediatric cardiac surgeon in Honduras at the time of my research. Returning to Honduras to work after residency was not what he imagined: "It's a lot of responsibility, with a lot working against me. It's like trying to plant—or better yet, to scream—in a desert. There is so much lacking in terms of materials and personnel." After practicing in Honduras for a year, Dr. Baca is unlikely to stay. He believes that too many children die unnecessarily owing to the limitations.

Nurses voiced the same frustrations. When describing her experience, Karla, a professional nurse, said, "It's very difficult. For example, it's an emergency but you don't have time to find a solution, to run out and buy whatever medication you're missing. You want to work like you were taught in school, doing everything correctly, but the space, the environment, doesn't allow for that. You do what you can, with what you have, to give the patient the best attention, but it's difficult.

Cristina, also a professional nurse, reiterated this point:

Cristina: It's frustrating when a patient who is sick comes to the hospital and we know how to resolve their problem... We can fix them, but we don't have *con que* (literally "with what," meaning the actual materials or means). *Nancy*: Can you give me an example? *Cristina*: In Honduras, among those with cardiac problems, there are "valve patients." They are young children. They get diagnosed when they are very young. But we can't operate on them because the hospital can't purchase the valves. Mechanical valves cost 35,000L [US\$1,700]. Biological valves cost 55,000L [US\$2,600]. This is frustrating. It's like having one part but you can't offer everything... You can't do anything because you only have some pieces. You have the surgeon, you have the anesthesiologist, you have the perfusionist, but you don't have *con que* (the means, e.g., the valves).

I must emphasize that the frustration voiced by these personnel was not that they lacked the training or skill to manage patients or handle clinical crises. Rather, they lacked the materials: the actual tools of their trade. As I discuss in Chapter Five, this illustrates a major disconnect. Surgical volunteers assume that the greatest need in Honduras is education. What these doctors and nurses make clear, however, is that they already possess the necessary knowledge to address the patients before them. What they do not possess are the resources. For some clinicians, to work in this environment was not only frustrating but also distressing. Dr. Velasquez, another pediatric ICU resident, described the challenge as "*muy feo* (unpleasant or horrible)." As he told me over dinner, "I spend all night at the hospital and I'd like to save a life, but I can't, I can't, I can't, because I don't have the resources. I don't have a ventilator. I don't have a bed. There isn't another nurse available to attend to a child... It's *feo* knowing I could save a life if I had this, that, and the other. It's *feo* to think, *pucha* (darn), I have to remove this child's breathing tube even though I know she'll struggle to breathe on her own. But I need the ventilator to save another life.

When "drowning in work, with so much to do and nothing to do it with," Sandra, a professional nurse, reported feeling "depressed and angry." She recalled a recent shift where she lost three patients, two of whom could have been saved with adequate machinery. "Days like these," she said, "make me want to flee." The fact that many clinicians do flee is captured in the phrase "brain drain," or the emigration of highly educated or professional people from a particular place. It is often assumed that these professionals leave for financial reasons. As Sandra's words suggest, however, there may also be an affective dimension. Others began to question why they studied medicine or nursing in the first place. As

this work daily, we think we can help. So when we don't have things to work with, we can't help. We can't resolve a patient's problem. So we think, why did I even bother studying? Why did I work so hard? Why did I come this far if, at the end of the day, I can't do more because I don't have the means?" Some nurses found the high-stress wards, namely the ER at Central Hospital, to be so unmanageable that they turned down job opportunities in these settings, which is telling in a tight labor market.

Maneuvering within an Economy of Scarcity

Wendland finds that medical students in Malawi cope with the resource limitations they encounter in government hospitals by developing "heart," which she defines as "responsible empathy, or empathetic responsibility" (2010:177). The equivalent in Honduras would be "*entrega* (selfless dedication)." In the words of Dr. Navarro, "You can study in the best medical school in the world but if you don't show compromise and *entrega* [when working in Honduras] *no sirve* (you're 'no good' or useless)." Use of the verb "*servir* (to serve)" is telling because it is often used in reference to broken machinery or equipment; for example, a car that breaks down is a car that *no sirve*. Extending this mechanical metaphor, what makes doctors "work" or "run like a well-oiled machine," therefore, is not merely knowledge and expertise; it is their willingness to apply themselves and literally "serve" others.

Entrega, even if not referenced directly, was the idiom through which many clinicians defined their role. When I asked them to describe the qualities of good doctors and nurses, many listed characteristics such as "solidarity," "conscientiousness," "empathy," "humanism," "sacrifice," and "the disposition to help." Only two interviewees, one doctor and one nurse, mentioned "knowledge" as being important. Moreover, when I asked

clinicians how they managed in the face of logistical and resource challenges, they articulated their commitment to patient care, even if they could not always provide the highest level of care. They explained: "We always find a way"; "*Se gesta, se logra* (If you put your mind to it, you succeed)"; "You can't just complain about what's lacking. You have to think *hay salida* (there is a way out)"; "With the little we have, Nancy, we find a solution, we *find* a solution." When solutions were not possible—either the crisis could not be averted or the patient did not survive—they still showed perseverance. This was reflected in the words of one ICU doctor, whom I had watched give chest compressions to a patient who could not be revived. Later, when I asked her about losing the patient, she said, "It makes me sad, but we have to keep going." Another nurse, who was also in the unit at the time of the patient's death, responded similarly: "We can't just sit there and cry. We have to get used to it." Many clinicians, doctors and nurses alike, reported turning to religion for the strength to carry on. The need to keep going cannot be overstressed, since other patients were always in need of attention, and further, beds never stayed empty for long.

For some clinicians, *entrega* meant serving not merely patients but also the nation. Dr. Velasquez, for example, often daydreams of working abroad. "It would be beautiful to work with everything," he said. He has even had some offers to work in other countries through his connections with surgical missions. He has turned them down, however, explaining, "I know there is a lot I can do for my country. I may only be one person but little by little we can make a difference." When I asked Dr. Osorio what sustains her on a daily basis, she said, "The patients. I could spend all day in my private clinic—maybe I'd be better off and less tired—but being in the public hospital makes me think I am helping in some way, doing something to change things, trying to make things better." For chief of the

neonatal ICU at Central Hospital, he views medicine as not a career but a "national project," where healing children means hope for a better future. While Wendland finds that "heart" distinguishes young Malawian doctors from their counterparts in rich countries, who are taught to be detached and emotionally neutral, *entrega*, by contrast, aligns Hondurans with the surgical volunteers with whom they work on missions; both are driven by a desire to serve. For Hondurans, however, *entrega* takes a different form. It is far more enduring than targeted. It is a lifelong career as opposed to a short-term intervention. This is not to devalue the role of surgical missions but rather to emphasize that "selfless dedication" on the part of both parties is being enacted within different temporal frames.

I should be clear that *entrega* in this context is not dedication to a single medical specialty or patient population. Instead, hospitals workers attend to a range of populations and afflictions. For example, one Honduran surgeon who works with heart surgery missions also operates on adults who suffer from either coronary heart disease or trauma-related injuries. Another Honduran surgeon performs kidney transplants, also at National Hospital, when not operating on pediatric hearts. A pediatric ICU doctor balances her time between an out-patient lung clinic and an emergency room. Other ICU doctors treat not only pediatric heart patients but also children with malnutrition, respiratory or gastrointestinal infections, burns, cancers, and other congenital defects. Honduran nurses, in turn, care for patients of all ages suffering from any number of illnesses: tuberculosis, pneumonia, HIV and AIDS, cancer, and trauma, among others.

For clinicians who embodied *entrega* as an ethos or guiding principle, "making do" became an everyday clinical practice. This involved some degree of personal sacrifice. When medications were out of stock and patients could not afford to purchase them

elsewhere, for example, clinicians sometimes pooled their resources to help cover the cost. They also, on occasion, passed a few small bills to a patient who was hungry or lent their cellphone to someone wishing to make contact with relatives. As mentioned, legally specialists are only allowed to see four patients an hour, but they often see as many as seven or eight, since they know patients have traveled from far away and may be too sick to seek care at a later date. These acts of generosity were reciprocated by patients, who came to their appointments bearing gifts such as honey, *roskias* (cookies), shrimp, a live chicken, or, in one case, a canoe.

Making do also involved strategic maneuvering on the part of hospital workers. Below, I describe three examples of such maneuverings, or "*maniobras*" as they were called. Some *maniobras* were more mundane; others, however, were more devious. Maneuverings that fell into the latter camp would be best described as *trucos*, meaning tricks, or *tranzas*, tricks that involve an element of fraudulence. While the word *tranzas* can refer to malicious acts, in this case I use it to refer to moral action by way of an immoral economy. My point is that an immoral economy is, at times, the only economy available to hospital workers trying to meet the needs of patients.

The first type of *maniobra* was to endlessly substitute one medication or device for another. Inez articulated this point best in an interview. When I asked how she managed when machines were broken or medications unavailable, she said, "If we are out of one medication, we use another. If we are out of that one, too, we use yet another. You always make substitutions... When we don't have sterile water, we use tap. If there are no catheters, we use butterfly needles, or whatever is around. If there is no doctor available and the patient is having a heart attack, the nurses step in."

To emphasize the point, Inez paused for a moment, and then added, "Like if your taperecorder stopped working [during the interview], you'd start writing. And if your pen ran out of ink, you'd cut your finger and use your blood." Her point, in other words, was that the possibilities were limitless. These types of substitutions were so routine that they did not usually elicit reactions from hospital personnel. They sometimes caught me by surprise, however, such as the day I entered the OR and was handed three paper surgical hats and a face mask as opposed to the usual hat, face mask, and pair of booties. When I gave the woman who had issued the items a curious look, wondering if perhaps she had made a mistake (the hats and booties did look alike), she explain that there were no more booties in stock. Paper hats were the substitute.

As further illustration of this type of maneuvering, I describe a scene from the day I shadowed Dr. Silva as he conducted rounds with residents on the pediatric floor at Central Hospital. The room housed approximately a dozen beds, all cribs, some with a chair to one side for a parent to sit, and some without. Dr. Silva began with a patient who had an underlying heart condition, caused by a defect known as a ventricular septal defect, in addition to pneumonia. As he spoke to the medical residents about the child's condition at a pace I could hardly follow, he scribbled on his prescription pad. He then gave orders to discharge the patient. "I'll discharge 4-10 patients today because it's Friday," he said, turning to me. "Come Monday the floor will be full again." Dr. Silva anticipating the weekend rush, when there is inevitably a high volume of patients who seek emergency care. The next patient in the unit had been admitted for a burn. Dr. Silva advised us to keep our distance, since she also had scabies. She was standing in her crib, wearing a cloth diaper. An ace bandage covered the burn on her torso. Dr. Silva told the residents to contact the plastic

surgeon, and in the meantime to treat the burn with aloe vera. Once again, directed toward me, he said, "This is medicine in a poor country. We use natural therapies whenever possible."

The next patient had diarrhea. Dr. Silva knew that the child's white blood cell count was well above normal, which signaled that he might have sepsis. He had also ordered additional lab tests, but these would not come back for another week, at best. Nonetheless, the patient had to be discharged to make room for another patient. "Three for three," Dr. Silva announced as he moved to another patient, another case of diarrhea. This time the child had rotavirus as well. The child's white blood cell count was higher that the previous patient's. This patient would stay. The following patient had intestinal bleeding due to a milk allergy. She, too, was staying. Next we encountered a patient with pneumonia. Dr. Silva wrote out several prescriptions. He asked a resident to check the availability of a medication in the hospital pharmacy, which would make it free for the patient. The resident returned explaining that it was, but only for admitted patients, not for anyone who had been discharged. This patient would stay as well.

The last patient we visited had contracted a severe Cytomegalovirus infection. "This one was a field goal from 70 yards," Dr. Silva said, referring to his ability to achieve the seemingly impossible: diagnosis this patient with little diagnostic information. As a point of reference, in the American National Football League, the longest recorded field goal is 64 yards (Wesseling 2013). "We do this a lot," he went on, explaining that he had received the patient from neurology, where they could not make sense of the patient's brain hemorrhage. Even before the lab results were in, Dr. Silva said that he could "smell" the diagnosis; he had sensed it as soon as he had learned that the patient also had liver dysfunction. Talking to

me, he said, "Here, in Honduras, we see things in action that you [referring to U.S. doctors] only learn about in theory. The problem, of course, is that there is no treatment, unless you want to take him [the patient] home for a liver transplant." The substitutions, thus, are multiple: natural treatments replace pharmaceuticals, clinical skills replace diagnostic technologies, and rapid discharge rates replace longer hospital stays, except when a longer stay means access to free medication. Such substitutions are part of every child's care plan.

As a second type of *maniobra*, Honduran hospital workers cobbled together equipment and supplies. For example, they rigged broken equipment with duct tape; manually ventilated patients when mechanical ventilators were unavailable; and repurposed "waste," such as making pediatric-sized splints out of empty glove boxes and tape. These activities were akin to "MacGyvering" described in Chapter Three, but they were never referred to in Spanish with such playful language. To call such improvisations "MacGyvering" is a luxury afforded to those who do not have to rely on it daily. Beyond these technical quick-fixes, however, Honduran hospitals workers also spent a considerable amount of time creatively "resourcing" (Wendland 2010) funding, machinery, and supplies, at times using quasi-legal means. Wendland defines creative resourcing as the "[cobbling] together [of] social networks, material goods, short-term opportunities, and ideas to craft ad hoc solutions to the problems" doctors working in resource-limited settings face (2010:154). Such efforts define the third instance of maneuvering I encountered. They illustrate that the problem, and the solution, is understood to be more complex. The work of Honduran medical personnel on a routine basis was not about quick-fixes but maneuvering with a broader field of structural inequality.

May, 2011 was a memorable month at Central Hospital: Honduran clinicians performed 29 surgeries on adults and children, a record high. They were so busy operating, in fact, that one of the residents mistook them for being "en brigada," that is, hosting an international medical mission at the time. It was even rumored that Dr. Cooper, the heart surgeon who travels with GHF, had made a surprise visit. No one had actually seen him, and I can attest to the fact that he was not actually there. Thirty surgeries in a month was impressive given that the Ministry of Health typically only provided materials for 29 surgeries per year—10 for pediatrics, 15 for adults, and 4 for infants. Cristina, one of the nurses I quote above, helped gather the materials required for each surgery. This was a difficult task, she explained, because orders were typically filled two to four months after they were placed. "And that is if you are insistent," she clarified, "asking administration every day how the order is moving along. If you leave it up to them, you don't get anything at all." She ordered many materials through official channels, despite the delay, and despite knowing that they were being funneled through a "corrupt system." By corrupt, she meant that prices were inflated by as much as 50 percent so that the sellers (company workers) and the buyers (hospital administrators) could split the difference as an illegal profit.

She also went outside official channels in ways that even Dr. Avila, the Honduran heart surgeon with whom she typically worked, was not privy to. This came to my attention when I accompanied her to the OR to deliver two pediatric catheters, which were needed for surgery the following morning. We encountered Dr. Avila along the way, who was impressed that she had the catheters in hand. He said, jokingly, "You'll need to tell me your sources for when you're on vacation." She was scheduled for vacation in several weeks. She smiled, and we kept walking. She did tell me her sources eventually but asked that I not

report them. What she authorized me to report, however, was that she did not exactly steal the materials. Someone else "unlocked the door." On other occasions, days that I observed surgery at Central, supplies were known to show up on the day of surgery, no questions asked.

Other clinicians were upfront about stealing. Dr. Osorio openly admitted to stealing items if she knew they would help a patient. As she told me in an interview, "I have no problem stealing when a child is dying. It's not like I am stealing for myself, or for use in my private clinic. We do it all the time." At Central Hospital, even a casual glance around suggested that supplies were not only limited but also known to "disappear," evidenced by the many signs affixed to equipment that read "*NO PRESTAR* (DO NOT LOAN)" or "*NO ROBAR* (DO NOT TAKE)." Other signs reminded clinicians not to use more than they needed or steal for personal gain. A sign on a medicine cabinet in the pediatric emergency room, for example, read: "Have a conscience. Don't touch these medications. They are for patients with limited resources." The cabinet nonetheless was empty. Other clinicians resourced materials through professional networks. When Dr. Navarro, for example, did not have the medication she needed, she called every one of her contacts at other hospitals across the country in an effort to locate it. A colleague will often give her the medication, even if it is a coveted resource, in anticipation that the favor will be returned.²⁴

As yet another example of resourcing, doctors in the neonatal ICU at Central had a running joke that they "prostituted" themselves for the ward, meaning that they would do whatever it took to gain access to resources. The unit was by far the nicest looking in the hospital. I visited several times during fieldwork and was always struck by the white tile and

²⁴ This sort of clandestine trade exists in the U.S., too, among transplant patients and even professionals (Sharp 2002)

sophisticated machinery; the unit was an anomaly in an otherwise dimly lit and minimallyequipped institution. During one of my first visits, Dr. Reves showed me around. I had not been there five minutes before the chief of the department, Dr. Hernandez, approached to ask if Dr. Reyes had told me about General Electric (GE). "I was about to," Dr. Reyes interjected. He went on to explain that the company had donated 1.2 million dollars in 2008 to renovate the unit, which revolutionized their practice. Before 2008, the neonatal morality rate was over 50 percent. By the time of my visit, it was less than 30 percent. The goal was to reach 15 percent. "You would have cried if you had seen how things were," Dr. Hernandez said. But accessing funds to renovate took "ten years of fighting," where they "went to administration, knocked on doors, called pharmaceutical companies to help, and solicited outside donations." They had success when they invited a representative from the U.S. State Department to take a tour of the unit, the "tour of terror" as Dr. Hernandez called it, since, at the time, there were few beds, no incubators, and no ventilators. The representative was so moved, or horrified, by the experience that she agreed to promote their project and serve as a link to GE.

By exploring spaces "off to the side" of official global heath agendas, I wish to draw two conclusions. Hospital ethnographies have already shown that the "frustration" that comes with working in contexts of scarcity is often paired with a spirit of "inventiveness" (Zaman 2004). They have also shown that, while clinical "inventiveness," or "improvisation," is everywhere, in certain parts of the world, namely Africa, it is "accentuated" (Livingston 2012:6; see also Wendland 2010). A look at hospital life in Honduras, however, reveals that improvisation is not at all specific to Bangladesh (Zaman 2004) or a distinctive feature of "African biomedicine" (Livingston 2012). Instead, it is a

global phenomenon encompassing resource-limited settings worldwide. Moreover, while the surgical volunteers who travel to Honduras on humanitarian missions also improvise, the improvised techniques of Honduran hospital workers differ in three ways. They are not specific to high-stress emergencies but rather deeply embedded within everyday care plans. They are also not exclusive to clinical fixes, such as heart repair, but rather broader in scope, involving patient advocacy and the strategic "resourcing" (Wendland 2010) of materials. Finally, to improvise was not necessarily an exciting, appealing part of clinical work but rather deeply frustrating and at times demoralizing as it served as a daily reminder of poverty and lack. Resourcing in the case of Honduras is not to be romanticized, however. The fact that Honduran doctors and nurses must rely on quasi-legal and quasi-moral channels to access medical resources means that they have to be complicit in the very structures that deny them resources in the first place.

These observations are important. While the logic of medical humanitarianism rests on assumptions about the deficits of in-country personnel or systems to care for individuals in distress, this discussion demonstrates that Honduran clinicians are far from inept or disengaged in their role as practitioners. Instead, they demonstrate remarkable devotion, competence, and ingenuity, all of which are so routine that they become seemingly *un*remarkable. That is, they almost go unnoticed in the shadows of other, externally-planned "global health" efforts where it is the outsiders who are widely recognized as so-called inventors and model humanitarians.

CHAPTER FIVE

Uneven Landscapes: The Honduran Side of Medical Humanitarian Encounters

This chapter seeks to address three common problems in academic, media, and popular representations of short-term medical missions. The first is the tendency to conceptualize them as uniform endeavors. As anthropologist Brian Howell (2009) observes, the very "language of short-term mission... easily becomes an all-engulfing category, subsuming a wide variety of trips by creating a discursive commonality between disparate places and experiences" (206). He finds, for example, that volunteers and organizers talk about and visually represent missions in ways that "de-emphasize the particularities of the location and context" and blend all travel into a "generic 'short-term' mission experience" (206, 207).

But short-term medical missions are hardly all the same. A recent review of medical missions publications (Martiniuk et al. 2012), the only review to date, finds that variations on the term *medical mission*, such as "medical brigade," "volunteer trip," and "humanitarian assistance," refer to a wide range of activities, from "informal one-time trips conducted by a single nurse or doctor, to highly organized repeat missions consisting of a variety of health-care personnel, logisticians, medical equipment, and medications travelling to a region where research and evidence demonstrated a distinct need for outside medical intervention" (2). The designation, "short-term," is also variously defined, referring to trips that last anywhere from one day to one or two years. Further, there are considerable differences in terms of specialization and technological sophistication. Some missions deliver primarily medical care, such as vaccines, anti-parasitic medications, cough syrups, skin creams, vitamins, and shampoo (all of which are reclassified as "medical treatments" in this context), usually dispensed from a makeshift pharmacy set up in a local school house. Yet others

carry out highly specialized surgical procedures, such as heart surgeries or cleft lip and palate repair, which require far more infrastructure and involvement with "local" hospitals and medical professionals, at the very least for follow-up purposes.

Even among surgical missions, there are further differentiations. While some operate, in both senses of the word, parallel to the state, meaning that they utilize surgical facilities at private hospitals or on ships or aircraft carriers that move from country to country, others work from within the state, occupying surgical units found within the public health sector. Moreover, while some volunteer surgical teams prefer to work independently, carrying out all clinical functions themselves, others work closely with in-country medical personnel in the name of sustainability. That is, they offer hands-on training and education with the intention of eventually "graduating" a program and handing it over to the trainees. Finally, while some volunteer medical teams do their own fundraising or pay out of pocket for their travels and in-country expenses, others request financial support from in-country sponsors, whether NGOs, philanthropists, politicians, or the government. This is also carried out with an eye toward sustainability, the idea being that medical missions should help foster a local culture of giving and state support for otherwise neglected populations or medical conditions. Such differences in project duration, design, and goals, not to mention the choice of destination, will undeniably lead to different kinds of effects. As Moodie (2013) reminds us, as a "late capitalist process," the effects of missions are "uneven and particular; they are not, as we know, just flowing and global" (Moodie 2013:152). Yet the different forms of missions and the local specificity of their effects are poorly understood.

As a second problem, if the effects of short-term missions are discussed at all, they are usually presented in binary terms. Much of this literature, which is published in

biomedical journals and authored by individuals with firsthand mission experiences, reflects on whether missions actually "do good." For example, authors ask questions such as, are short-term medical missions "risk or harm?" (DeCamp 2007), "humanitarian ventures or 'fistula tourism?"" (Wall 2006), "luxury or necessity?" (Wright et al. 2007), "enhancing or eroding health?" (Montgomery 1993), "worth the cost?" (van Engen 2000), "overrated or undervalued?" (Smith et al. 2014). Alternatively, they may take a firm position one way or the other as illustrated in published titles such as, "Humanitarian Missions in the Third World: A Polite Dissent" (Dupuis 2004) or "Surgical Mission (Not) Impossible—Now What?" (Hollier et al. 2010). In each case, the analysis reflects an either-or pattern of thinking that only further obscures the diversity of this field and its nuanced effects.

Third, the literature largely overlooks the implications of short-term medical missions for in-country collaborators, despite the fact that they play an increasingly important role logistically and programmatically. In response to the charge that medical missions may be harmful, many NGOs, GHF included, have shifted their emphasis from direct medical and surgical care to the transfer of knowledge, equipment, and skills. As mentioned, this is carried out in name of building independent or sustainable pediatric cardiac programs, or as one surgical volunteer I met described the process: "systems strengthening." Many volunteers, in fact, find this shift in focus to be the most ethical approach to humanitarian work and actively seek out NGOs that provide direct patient care alongside training for local medical personnel. Many volunteers chose to work for GHF specifically precisely this reason. At the same time, however, while in-country personnel are increasingly involved in missions as partners, collaborators, hosts, or trainees, and carry out much of the clinical work, not to mention follow up after the surgical volunteers depart the

country, they are largely invisible in the national and international media. They also receive minimal attention in the academic literature. As Berry notes, publications about short-term medical missions are largely "silent" when it comes to the "diverse perspectives" of their local NGO hosts (2014:7). In effect, she argues, we know little about how the interactions between these groups intersect with and potentially exacerbate existing inequalities between their respective countries of origin.

In this chapter, I aim to fill in these gaps and silences by offering a more fine-grained analysis of the particular, uneven effects of one variation on short-term missions in one locale from the perspective of the Honduran doctors, nurses, and hospitals administrators who worked with them. My analysis draws inspiration from anthropologists who have been tracking the on-the-ground effects of "current efforts to address something called health in a way that is represented as global" (Pigg 2013). Such efforts include humanitarian biomedicine, global health research studies and training opportunities, and the implementation of global health programs. Their perspectives are helpful, first, because they alert us to the unintended consequences of these interventions and, second, because they go beyond theorizing about them in polarized terms, that is, as either good or bad, help or harm. Within this literature, some anthropologists attend specifically to the uneven effects of medical aid, including how it produces "enclaves of abundance" next to relative "scarcity" (Sullivan 2011) or strengthens the NGO sector while at the same time undermining the effectiveness of the national health system (Pfeiffer 2003). Others address power dynamics, such as the "conflicts of interest" that arise between medical missions and local NGOs (Berry 2014), or the "hierarchies of humanity" that set humanitarian "expatriate" workers above their "national" counterparts (Fassin 2007). Redfield (2012) and Shevchenko and Fox

(2008) explore these dynamics further, speculating on whether or not they open up old colonial wounds. Most importantly for my purposes, Crane calls our attention to how "doing global health" is met with ambivalence by Ugandan scientists, who both "embrace and chafe against the foreign programs and institutions that simultaneously enable and constrain their work" (2013:11). I, too, will illuminate such ambiguous processes.

The chapter will be organized as follows. I will first describe GHF's model of intervention. I will then discuss what happens when missions fly in and out to do surgeries. Finally, I will explore the ambiguous effects that follow in the wake of efforts that intend to be transient yet far-reaching. By attending to the perspectives of those who worked most directly with surgical volunteers as collaborators or apprentices (the difference was not always clear), I argue that, while missions hold promise for "systems strengthening," and indeed bring about improvements in hospital infrastructure, resources are neither reliable nor evenly shared. Further, while missions offer new knowledge, they give rise to other tensions. And lastly, while missions give a humanistic face to government hospitals believed to have lost compassion for the poor, they also fuel public distrust of hospital workers. In the case of GHF-led missions in Honduras, it is critical to understand what it is like to be on the other side of these activities, since lasting local-global partnerships in the country, as I quickly learned, have been hard to come by. Regional Hospital, GHF's host during the time of my fieldwork, was not its first attempt at collaboration. Prior to Regional, the organization worked with a semi-private hospital, but the relationship splintered when both sides grew suspicious that the other was profiting from the arrangement. GHF accused the hospital of accepting payments from parents to jump the surgical queue, while the hospital accused GHF of accepting payments from outside philanthropists to operate on the patients believed

to be the most sick, and thus most worthy of care. More likely, this was a matter of conflicting priorities. GHF generally wanted to operate on the sickest patients first, regardless of mortality risk, while Hondurans preferred to operate on those who were less urgent but whose mortality risk was low. Then, when GHF moved to Regional, along with hundreds of thousands of dollars in medical equipment, tensions surfaced almost immediately. By the second mission, Honduran personnel were already refusing to participate presumably because of a scheduling conflict with their normal shifts at another hospital (many of them were contracted to work with the mission). I later learned that their reasons for going on strike, as these refusals were often described, were far more complex, a point I will return to below. This pattern, however, played out repeatedly over the course of my fieldwork. In other words, efforts to be ethical and have a more lasting impact were often rather short-lived. Such tensions are a far cry from the more successful collaborations, described by Robins (2009) for instance, that developed between international NGOs and local AIDS activists in South Africa.

Multiple Mandates

Short-term medical missions, and surgical missions in particular, have come under harsh scrutiny for several reasons. Critics argue that they fail to follow hospital protocols, to respect local priorities, and to ensure that patients receive proper follow-up care in the event of complications. It is also known that volunteers assume roles for which they are not formally trained, take liberties they would never take in their home country, leave behind "medical waste," and undermine existing services by diverting otherwise paying patients (DeCamp 2007; Montgomery 1993; Roberts 2006; Wall 2006; Welling 2010; Wolfberg 2006). Perhaps most problematic in the eyes of many is the limited reach of these activities.

Terms such as "fly-by medical care" (Snyder 2011), "duffle bag medicine" (Roberts 2006), "blitz surgeries" (Nthumba 2010), and "Band-Aid missions" (a term I often encountered in the field) reflect these concerns, particularly the belief that missions are nothing more than fleeting, superficial responses to otherwise enduring, deeply-entrenched social, political, and economic problems.

Such critiques placed new emphasis on the importance of sustainability and augmenting local surgical capacity. Medical volunteers, in turn, are encouraged to do less clinical work and more training and education. Calls to "[join] hands with local providers" (Mitchell 2012:2), "work with the community" (Suchdev et al. 2007:319), and "teach a man to fish" (rather than "feed him for a day") (Isaacson et al. 2010:478) characterize this approach. In fact, reference to the "teach a man to fish" metaphor came up repeatedly in my interviews with surgical volunteers as a primarily motivation for choosing GHF as a place to work, thus reflecting larger trends in health and development work, which, for decades, have been mobilized by a "global ideology of sustainability" (Swindler & Watkins 2010:2). While nearly every NGO that coordinates short-term medical missions now endorses this dual focus on both patient care and the transfer of knowledge and skills, or at least gives lip service to it, GHF placed an especially strong emphasis on the latter. According to Jack, a nurse and longtime GHF employee, whom I introduced in Chapter Three, the organization does not send missions to work in "a cordoned off space in the ICU," or to "isolate themselves in the operating room," as many other missions are known to do. Instead, as he stressed to me, they work alongside "local" doctors and nurses in "a collaborative and supportive way." This point was reinforced in an information guide issued to new surgical volunteers at the start of each mission. It read, "We do not just fly in and out and do

surgeries. We fly in and out and build teams" (emphasis in original). By "teams," the guide was referring to a locally-based team, who would carry out surgeries in the absence of surgical volunteers. Thus, the "fly in/fly out" model of short-term medical missions was not being abandoned, despite its known limitations, but rather reworked so that it would be commensurable with a long-term vision.

GHF's model for team-building had three main components. First, rather than make one-time visits to different hospitals, surgical missions would visit the same hospital every three months for three to six years. The ultimate goal was to make the need for its services obsolete. If this goal had not been met after six years, the organization moved on. Jack considered this to be a defining feature of the organization. As he said to me in an interview, "The mission statement talks about access and personal potential," which posits that every child deserves the chance to receive an open-heart surgery because any child could, as he put it, "grow up to be a Gandhi, or someone like that." Access and personal potential, however, were not his "first billing" of the organization. The more important project was for missions to be rendered unnecessary. "If we are still going to a center seven years later," he said, "doing the same level of intervention [with] the same size [visiting] team, then we failed in what we are doing." He added, "I believe in that process passionately."

The second component involved hardware. Upon early visits to a new site, GHF donated a considerable amount of medical equipment and disposables, in order to make the space suitable for high-tech surgeries. Equipment and supply donations were then reduced over time to shift financial responsibility for the program to the hospital. As part of this approach, GHF would also send biomedical technicians, who call themselves

"bioengineers,"²⁵ to the sites to ensure that donations were in working order. The bioengineers usually arrived before the mission to fix any nonworking machinery, order necessary parts, and, if possible, train the host institution's own bioengineer to maintain and repair the machinery independently.

Third, surgical volunteers were instructed to place as much emphasis on teaching hospital workers as treating patients. The same information guide referenced above encouraged them not to work independently but rather to "cooperate," "collaborate," and use "everything about the patient as an educational opportunity for the local teams." While this quote makes to reference a locally-based team as if it were wholly separate from the visiting volunteer team, locals and volunteers were sometimes referred to as a single team: the Honduras-GHF team. This notion of a single cross-national team is reminiscent of the crossnational "partnerships" that are now emblematic of global health education and research projects (Crane 2013). It also squares nicely with the broader principles known to underpin humanitarianism, such as social equality and working without "without borders" (Fassin 2007; Redfield 2013). This did not mean that tasks were evenly shared, however.

As an actual practice, teaching took various forms. Nearly all of it was hands-on, meaning that it took place at the bedside in the ICU or at the surgical table in the OR. It was also usually spontaneous and loosely organized. For example, in the ICU, a central focus was how to receive a patient coming directly from surgery. Early on during a mission, volunteer nurses would receive surgical patients, while the Honduran nurses stood by and observed. The volunteers would then delegate these tasks to the Hondurans, coaching them

²⁵ This is an unusual use of the term bioengineer in the field of medicine, which more commonly refers to someone who applies engineering principles to clinical problems, such as the need for new replacements for damaged or missing body parts.

as they went until eventually they took an almost exclusively supervisory role. Some volunteers took it upon themselves to give impromptu lectures about specific heart defects that were being operated on that day. They might also bring a laptop computer with slides or else use a textbook or other visual materials to show the nurses what different pathologies looked like and what considerations had to be taken into account with each. Other teaching moments among ICU nurses included how to measure medications specifically for pediatrics, use pediatric settings on the perfusion pumps, and how to remove chest tubes and urine catheters. The volunteers usually gave a demonstration, while the Hondurans listened, observed, and asked questions. Nearly all of the Honduran doctors in the ICU had previous experience with pediatrics, and therefore required less direct coaching. Volunteer doctors would interject, however, if they had a different opinion about a patient's care plan.

In the OR, Dr. Cooper, the GHF surgeon, worked more collaboratively with Drs. Avila and Baca, the two Honduran surgeons, both of whom were already familiar with most if not all of the procedures performed. Dr. Cooper kept his verbal instruction to a minimum and instead taught primarily by example. When he did provide instruction, it was always in English, since he spoke very little Spanish. Drs. Avila and Baca both spoke English fluently. They would translate for others in the OR as needed. Dr. Cooper did only instruct, however. He also often consulted the Honduran doctors on how best to proceed with a particular case. Among the nurses, there was usually only one volunteer scrub nurse who, once again, taught by example and then by coaching Hondurans scrub nurses as they took on tasks themselves. The scrub nurse's instruction was carried out in broken Spanish, punctuated by some English, because neither she nor the Honduran nurses were bilingual.

On one occasion, GHF set aside an entire day for lectures, where Honduran nurses were introduced to various pathologies and courses of treatment. As Honduran doctors and nurses gained experience with these pediatric heart patients, GHF would send even fewer volunteers on each mission until no teams were needed at all.

Aid Drop

When GHF first started working at Regional Hospital, the hospital was not at all equipped for pediatric heart surgery, even though it once had been. Regional was built in 1948 as a private tuberculosis hospital. Its low-rise buildings and open-air design reflected this history. Over time, the hospital expanded, developing programs in cardiology, lung disease, and infectious disease. In the 1990s, its surgical unit was renovated, making it one of the most state-of-the-art in the country. The unit was dedicated exclusively to adult lung surgery and general surgery, however; heart surgeries were not routinely performed. Cardiac patients were seen at the hospital, but only adults were offered in-patient care. Pediatric cardiac patients were only seen as out-patients. The hospital also had a relatively new catheterization lab, but the hospital's failure to keep up with regular maintenance fees had kept it out of service for nearly a decade. While cardiology services were relatively limited at Regional, pediatric cardiology was even more so. Dr. Cardona, the hospital's sole pediatric cardiologist at the time, saw patients in the afternoons, between a morning shift at Central Hospital and evening shift at her private clinic. Any patients in need of heart surgery either were referred to Central Hospital, where services were much more established, or to an upcoming mission. Regional had once offered heart surgery, including closed-heart procedures for children, but services ended with the opening of Central Hospital in the 1980s, when all cardiac specialists and their equipment were transferred there.
This meant that a considerable amount of equipment had to be imported in order to host a mission, including pediatric anesthesia machines, a lung bypass machine, an electrosurgical unit, monitors, pediatric mechanical ventilators, among other items. Much of this equipment came from GHF's previous site; it was recovered and transferred over when the partnership ended. Machines were also shipped from charities in the U.S. The initial shipment, which arrived in 2010 during my first visit to the hospital, was so large that it cracked the tile as it was wheeled down the outdoor corridor and into the surgical unit. Shipments of varying sizes have been ongoing ever since, as have been visits by the bioengineer. In addition to hardware, GHF donated a considerable amount of "disposables" and other devices not readily available at the hospital, such as gloves, catheters, cardiac medications, central lines, chest drainage systems, sutures, cardiac patches, valves, and shunts. These items were kept locked in the hospital's *bodega* (storage room), which was essentially a large basement lined with metal shelves. I spent a day there trying to help organize the materials. There must have been dozens of cardboard boxes filled with supplies, much of which Dana, a nurse and part-time GHF employee, was worried would never get used before it was ruined by the humidity or had passed expiration. She admitted that she did not have the best inventorying system and so would often bring in new donations without knowing what was already there. In preparation for each mission, Regional Hospital, in turn, did its part by hiring extra support staff to help with coverge in the OR and ICU and repairing or temporarily replacing equipment beyond what GHF provided. For example, when the hospital's only x-ray machine had been broken for several months on end, the hospital administration agreed to rent a replacement for the duration of the mission. Further, at the request of GHF and in anticipation of a well-known cardiologist

from the U.S., who was scheduled to come on a mission, the hospital finally paid off overdue maintenance fees so that the catheterization lab could, once again, be usable.

I have already mentioned how, when brigades were not in residence, the ICU at Regional was usually quiet, dimly lit, and nearly empty. There was room for six patients in the main area and a seventh in the isolation room, but owing to staffing shortages the unit could only accommodate three patients at a time. It was rarely at capacity, however. Sometimes I would visit on regular weeks to find only one or two patients or none at all. The surgical unit was equally quiet. Surgeries took place three times a week, always early in the morning. The unit was padlocked shut by 2pm when OR staff went home for the day. GHF missions, by contrast, were a flurry of activity. Teams typically arrived in Tegucigalpa on Sunday by noon. After checking in to their hotel and convening briefly by the hotel pool for a drink or snack, they headed to the hospital to set up for surgery, which began the following morning. This involved opening boxes, inventorying materials, and arranging items on makeshift shelves. It also involved converting a small room adjacent to the ICU, which was normally used as a storage room, into a NICU or neonatal intensive care unit. A handwritten sign was pasted above the door to mark its new designation. In the hallway, outside the unit, another banner was hung featuring a heart-shaped collage of smiling children, patients treated during previous brigades. It signaled to others at Regional that a mission was underway. As yet another marker of how missions occupied space, the nurses' station, a large U-shaped counter that was usually carefully organized and clutter-free, became a landing pad for high-tech equipment-digital phones, cameras, and laptop computers-as well as coffee cups and water bottles. GHF, on principle, does not travel to places were it

must construct an ICU out of nothing. And yet GHF missions nonetheless reconstruct space wherever they go.

Surgeries, then, began early on Monday morning. The first day of the mission always attracted a crowd. Apart from the GHF-Honduran team, which was large to begin with, various interested parties stopped by to visit, including the Minister of Health, Regional's director and co-director, news and TV reporters, politicians, Peace Corps volunteers, and Honduran medical students. GHF also partnered with a small NGO run by a Honduran-North American couple, whom I call Ed and Anie. Ed was the NGO's director, Anie, the president; their daughters were administrators. The ICU was the center of attention, where everyone congregated to observe patients recovering from surgery. The OR was another spectacle area. On the first day of the first mission at Regional in 2010, I counted 27 "spectators," as one of the visiting nurses called them, in the OR, that is, people, such as myself, who were not actually involved in the surgery.

Typically the GHF-Honduran team would operate on two to four patients a day from 7AM until past midnight. This meant that each day three new patients were admitted to the ICU for recovery. Given the mission's fast-tracking model, which was actually faster than the approach Hondurans usually took, all patients were expected to leave the ICU within 24 hours to make room for in-coming patients. This was not always possible, however, as complications or delays in the recovery process were inevitable. At any given time, an ICU that was accustomed to having no more than three patients would therefore have four or five. One day I counted eight. Because the mission made full use of the hospital's only two functional ORs, all regularly scheduled surgeries also had to be suspended. Here arises one of the unintended effects missions. Regional prided itself on having the shortest waiting list

in Tegucigalpa for surgery. Patients at Regional typically waited six weeks for surgery, whereas at other public hospitals in Tegucigalpa they had to wait eight to 18 months. Further, because the mission dominated bed space in the ICU, any in-patients at the time of its arrival were usually discharged or literally pushed to the side. No new patients were allowed in until the mission ended. The point, in short, was that missions jeopardized the lives of some, namely adult lung patients, to save the lives of others, namely pediatric heart patients. Clearly at work here is what Fassin (2007) calls the "humanitarian politics of life," where humanitarian groups do not value all lives equally despite their stated commitment to human equality.

Elena was a professional nurse and administrator at Regional Hospital. In an interview, I asked her why Regional had asked GHF to send a surgical team. During a previous visit to GHF's headquarters in the U.S., I had learned that hospitals from all over the world would contact the organization to ask for help. I assumed that Regional had done the same. Elena let out of laugh. "It wasn't our decision," she said. "Not in the strict sense of the word." She explained that the hospital, at the time, had no plans to develop a pediatric cardiac program. Instead, a Honduran doctor, who had worked with GHF in the past, approached them, explaining that they needed a new site. From GHF's perspective, Regional was an ideal candidate. It was public hospital, which would ensure that surgery would be made available to the poorest sectors of the population. Moreover, Regional was relatively nicer, quieter, and better-equipped than some of Tegucigalpa's other public hospitals, namely Central, which was simply too busy to accommodate a mission of this size. Although Regional was unlikely to have launched a pediatric heart surgery program on its own accord, it was easy to see why it agreed. In return, GHF had promised them enough

equipment to furnish two of its new, but empty operating rooms. This would allow the hospital, on normal weeks, to perform 40 percent more surgeries.

Momentary Reprieve

When clinicians from rich countries described missions, they emphasized the lack of materials, equipment, and supplies. By contrast, for Honduran medical personnel, missions epitomized luxury. As mentioned, they were rare moments when machinery was repaired or temporarily replaced, new medications were purchased, supplies were in stock, and the patient-to-provider ratio improved. As such, they resembled the "enclaves of abundance" (Sullivan 2011) known to surface in other poor countries around priority global health concerns, namely malaria, HIV/AIDS, and reproductive and child health. In a government hospital in Tanzania, for example, Sullivan finds that the HIV clinic appeared particularly "abundant" after aid dollars were earmarked precisely for this purpose. As she recalls, "The foyer housed a beautiful, hand-carved wooden bench with a padded seat and back, and a matching coffee table. The laboratory was filled with sophisticated technology, carefully labeled with the name of the donor(s) that paid for them" (2011:209).

A Honduran nurse named Sandra described the difference having a surgical team in residence. Missions "come with *everything*," she said. Even more remarkable to her was the fact that the hospital administration would agree to purchase whatever the volunteers needed, despite the fact that similar requests made by Hondurans during normal weeks were hardly ever honored. Others agreed. With missions in residence, they had "their bases covered" in terms of medications and supplies. They also had more support staff and fewer patients to tend to, which allowed them to provide more individualized attention to each patient. On a practical level, working with missions expanded clinical possibilities. As one

pediatric ICU resident said, operating on hearts was "not an easy thing to do," but access to patches, devices, and a catheterization lab made it a lot easier. On an emotional level, the experience was cathartic in that it bolstered confidence and a sense of competance. Nurses felt good that they could "complete the doctor's orders" as prescribed, rather than having to look for an alternative. They also described the "peace and security" that came with knowing that they did not have to merely "put things in God's hand" and hope that a patient recovered; instead, they actually had the tools to help them recover. Further, it was rewarding to send a child home knowing that they had been able to give that child "the best care possible" as opposed to the only care possible or no care at all. Much like the surgical volunteers, nurses, in other words, felt that they could finally practice "real biomedicine," although of a different sort. Real, in this case, referred to the type of biomedicine they studied in school but could not always carry out given the material limitations (Wendland 2010; 2102).

The ability to treat children with heart defects had particular significance for pediatric cardiologists, who had spent years, if not decades, diagnosing patients with a condition they could not treat. It was difficult always being the bearer of bad news, especially because they had completed residencies in other countries where surgery was more accessible; in other words, they knew what was possible in the world "out there." One pediatric cardiologist I interviewed began practicing several years before the first pediatric heart surgery team visited Honduras. She had grown tired of not being able to offer parents "real hope." "Now," she said, "it's a different world." With the arrival of missions, she could arrange for patients to be treated within months of their diagnosis. She was also treating patients she never imagined could be treated under these conditions. She gave the

example of patients born with a heart condition called transposition of the great veins. They need a procedure called the arterial switch within several months of birth in order to survive. "We've done seven or eight [arterial switch operations] by now. This is a 'first-world' surgery. So things have really changed. They've changed 180 degrees." The emotional rewards went further for these specialists, many of whom could remember, as medical residents, having to deny children with congenital heart defects access to mechanical ventilators when the machines were in short supply. These children were not priorities in the public health system because it was known that they would most likely not reach adulthood. According to another pediatric cardiologist, missions served as a "wake up call" for hospitals, a reminder that these children's lives were not disposable.

The Hidden Costs of Material Aid

As I was leaving the pediatric ward at Regional one afternoon I found a crowd of news reporters surrounding Ed and Anie, who were dressed in matching T-shirts featuring their NGO's name and logo. Ed was being interviewed by a female news reporter. "Today we have good news coming from a public hospital," the reporter said into the camera, acknowledging that indeed it was unusual to hear anything good about government hospitals. With Ed to her right, and Regional's medical director to her left, she told viewers that a pediatric heart surgery mission had operated on 25 patients at the hospital a few weeks ago, and that Ed's NGO was continuing to show support by bringing in donated supplies from the U.S. The supplies were visible behind her, still boxed up and wrapped in plastic. As soon as Anie saw me, she rushed over and with much enthusiasm announced that the total value of the shipment was US\$75,000. It included an echocardiology machine, 38

monitors, two surgical beds, and two anesthesiology machines—she could not remember the rest, but offered to email me the complete list.

The next morning, I returned to Regional to learn more about the donation. I first visited a nurse named Candela in the ICU. I asked about the 38 monitors. She said that they would be a welcome addition to the unit, except that they were not usable yet. They were missing cables and terminals, she explained, which were key components of the machines that must have been left behind in the U.S. The cables and terminals are what allow clinicians to measure a patient's blood pressure internally. Candela had already called various supply companies to see about purchasing them only to learn that the pieces were not sold anywhere in the country, and the hospital was not authorized to purchase from medical supply companies outside the country. She also showed me one of the new ventilators, pointing out where it had been damaged while being unloaded from the aircraft carrier. "Ni modo (It doesn't matter)," she said. "It still works. Hopefully, it will teach us something new." Some of the nurses were less hopeful, however. They explained that there were no instruction manuals, and that they could not understand how to interpret the parameters. The machines were also programmed in English, a setting they could not determine how to change.

Continuing my rounds, I visited Dr. Cardona, a pediatric cardiologist, in her office. The new echocardiology machine was there but pushed to the side. She was using the old machine instead to screen patients. I asked her about the new machine. "It's okay," she said, and was quick to correct me that the machine was not exactly "new," nor was it any nicer than the one she was using already. She was not sure that she would use the new donation at all. She did not know how to use it. Plus, it was not possible to record results on a CD or

VHS tape, which she needed to do for any patients she thought would be candidates for surgery in the U.S. as a charity case. The machine had an outlet to download results to the Internet, but Regional did not have an Internet connection. It did not even have a computer system; all charting was done by hand. Finally, the probe was for adults, not pediatrics. She said it was too large for her purposes.

Science studies scholars have written about why some technologies travel well (de Laet & Mol 2000) while others do not (Akrich 1992). de Laet and Mol (2000) suggest that, for technologies to be adaptable, they must be fluid, and they must be received by a community. What this discussion overlooks, however, is what happens to objects that are found to be unusable. I learned that they cannot simply be returned. According to the administrator at Regional who coordinated all incoming donations, once the hospital accepted an item, which it usually did, it become property of the state. As property of the state, it then could not be disposed without approved; otherwise the hospital would be accused of theft. That approval process, however, was long, arduous, and costly. Regional had an entire warehouse full of machines and supplies that were not usable but could not be discarded. Some of them were even new, items that would be coveted anywhere else but simply did not work in this situation since they lacked the right nozzle or cable to fit in with the existing system. For example, a hundred brand new oxygen canisters could not be used because they were unable to be filled. While I was in the field, I spent a good amount of time with GHF's bioengineer, oftentimes as his translator. He was not surprised to see so many donations turned to waste. "No one stops to ask whether the stuff works before shipping it off," he said. This was actually his motivation for taking a position with GHF. It is easy to wonder, then, if donations were indeed "simply for show," as suggested by one

Honduran nurse I interviewed. Their visual significance is twofold: both the global institutions that send donations, and the Honduran hospitals that accept them, wish to display publically their commitment to the poor. When the equipment is broken or shoddy, however, this sends yet a different message about the social value of patients who rely on health services in the public sector—the message being that substandard machinery is as good as they can expect as patients who have no choice but to rely on government or humanitarian medicine.

Moreover, GHF's approach to team-building, where the organization reduced the amount of medical supplies and number of personnel with each visit so as to foster independence, could be costly. Toward the end of my time in the field, Regional was spending a considerable amount of money for missions: 200,000L (US\$9,500) in medications and 350,000L (US\$16,500) in temporary work contracts for additional support staff. This was in addition to money spent on fixing broken equipment in preparation for a mission's arrival. For a hospital that was already hard-pressed to pay its employees, who sometimes went months if not years without pay, to keep equipment in working order, and to purchase supplies, this extra expense was a strain on other sectors. When I met with Marisol, a Honduran professional nurse, for an interview, before I could even start the tape recorder, she was already listing various items that the volunteers used to bring with them but now relied on the hospital to provide. This made it difficult to have the necessary resources to resume surgeries once the mission ended. On a different day, as I was arriving to the Regional, I passed Marisol in the hallway. "Venga (Come)," she said, waving me over to her. "Put this in your notebook. On March 20th the brigade borrowed our *camilla* (gurney) to move around supplies. Yesterday we found the camilla outside, tossed to one side, and

broken. This has been our *camilla* for 30 years!" I share this anecdote not because I think that the volunteers actually broke the hospital bed, although they could have, but rather because it illustrates the degree to which missions disrupted both time, space, and local order. Further, it suggests that, while missions upgraded some of the infrastructure, they damaged, or were perceived to damage, others. A Regional Hospital administrator was upfront with me about this problem. He was in support of hosting missions as a way to access new machinery; at the same time, however, missions could be "*onerosos* (burdensome)" owing to the hospital's "underlying economic incapacity." "Annual visits would be more manageable," he said, "but four times a year is too much. It depletes us financially." Indeed, he had heard that medications were especially scarce in wards throughout the hospital immediately following a mission.

Sullivan argues that "enclaves of abundance" are "a very distinctive kind of place" given the scarcity that surrounds them (2011:209). The same unevenness played out at Regional. For example, while the hospital kitchen served GHF volunteers two generous snacks a day during their stay (which often went untouched because they were also served a hearty lunch by outside sponsors), it struggled to feed patients in the rest of the hospital. Further, while each pediatric patient treated during the mission received a fleece blanket and pillow, a toy, and a new set of clothes to put on when leaving the hospital, patients in other wards slept with the customary threadbare sheets. Even toilet paper was a luxury afforded by the mission's in-country presence. It was only available in the bathroom used by the volunteers. Honduran doctors and nurses, who had their own changing rooms, had to supply their own.

Such unevenness was visible across space and time. That is, the two weeks of the mission were marked by abundances while the 12 weeks before the next visit resembled scarcity. For example, an ICU that could accommodate as many as eight patients during missions reverted to one that could only care for two or three at a time. Moreover, the disposables that the volunteers brought with them at each visit were locked up in between visits, so they were unavailable to local personnel. Finally, machinery acquired at the mission's request—such as the x-ray machine that was rented when the hospital's own x-ray machine broke—was returned after the mission ended. An especially marked example of this contrast involved the oxygenators, the most expensive disposable item needed for openheart surgery. For each mission, Ed and Anie raised funds to purchase at least 20 new oxygenators. The oxygenators were meant for use by surgical missions only, however, despite the fact that Hondurans hoped to operate in the absence of missions; in fact, they were expected to operate on their absence. I asked Ed why he could not buy oxygenators for the Hondurans to use. He said, "This is a gray area we haven't figured out yet." I suspected that he did not consider the supply oxygenators for a government hospital to be his responsibility; that is, the state should be providing these materials, not an NGO.

In addition, missions threw into sharp relief the disparities between Honduras and other rich countries imagined to exist "out there." As anthropologists have found (e.g., Wendland 2010), encounters with clinicians visiting from rich countries—with all their bells and whistles—can serve as bitter reminders of the kind of biomedicine that is possible somewhere else just beyond reach. For Cristina, working with "outsiders" made her wonder what it would be like to operate "like they do," with everything they need at her disposal. Maritza, another nurse, wondered the same. As we stood at the nurses' station in the ICU

one afternoon watching the Honduran-GHF team receive a patient being admitted to the ICU after surgery, she said to me, "If we had that many people, we'd save a lot of lives, too."

When Physicians Clash

The intention to train Honduran personnel in surgical and critical care techniques is wellintentioned. But it is premised on two conditions: first, that Honduran personnel do not already have sufficient training; and second, that Honduran personnel would agree with the treatment plan. These conditions were not always met, however. Many of the Honduran nurses and medical residents stressed the educational value of missions. They appreciated being exposed to new procedures and pathologies, or being able to learn practices outside their normal routines. More experienced Honduran doctors, however, found missions helpful not because they learned new techniques but because they were able to practice skills that they had already acquired during their residency training abroad but had little use for in Honduras, where patients with heart defects did not usually pass through their ICUs as surgical patients. As Dr. Solana said in an interview, "I work with missions... for the exposure to patients I don't see everyday. This helps me keep up my skills." As another ICU doctor said, working with missions "exposes me yet again to the pathologies I learned about during my training in Spain." A Honduran surgeon affirmed that he had already studied and could perform every one of the surgeries performed during missions. This highlights one of the underlying paradoxes of surgical missions. During missions, I would ask the surgical volunteers and Honduran clinicians, respectively, what they believed was needed most to launch a pediatric heart surgery program. Invariably the volunteers told me that it was "training," while the Hondurans told me that it was "resources." This paradox is important because it shows the different stakes in missions. Moreover, it illustrates that while

volunteers had a fundamentally apolitical view of the problem they sought to address through humanitarian work, Hondurans had a highly politicized one. The volunteers viewed the problem as one of personal lack or deficiency while the Hondurans viewed it as the government's refusal to provide them with material support.

As for the second condition, Honduran personnel were often not in agreement with many of the volunteers' clinical decisions-the very ones they were expected to learn and emulate. There were two major areas of contention during missions. One was the selection criteria for surgery, whereas the other was the timing of extubation or removal of the child's breathing tube. As mentioned, by and large, the surgical volunteers opted to operate on the sickest patients, some of whom had only slim chances of survival. They were also more aggressive in how fast they moved patients through postsurgical recovery. In the event of a patient's death or near-death following surgery, Honduran doctors and nurses would voice their reservations about the surgical volunteers' expertise vis-à-vis what they believed to be a very different patient population found in Honduras. As the Honduran ICU doctor, Dr. Solana, said, "You have to remember, in the U.S., centers specialize in certain pathologies, whereas, here, the team [of volunteers] confronts everything." Her point was that the volunteers had a highly specialized, and by default overly narrow, understanding of congenital heart defects. She did not mean this as a "put down," she clarified. Instead, in her eyes, the volunteers were simply less versatile as clinicians and hence less skilled at treating the range of pathologies they encountered overseas. In particular, they did not always select the best candidates for surgery and they did not always appropriately manage post-operative care.

Other Hondurans expressed similar reservations. Many were under the impression that the volunteers did not fully understand how delicate Honduran pediatric patients could be. A Honduran nurse named Carolina explained this best: "It's just different... You [speaking to me] have a different culture than we do. Here, in our country, one has to recognize that it's a poor country, an undeveloped country. There is a high prevalence of illiteracy, [and] malnutrition in children. All of these factors affect a child's recovery, and even more so a cardiac patient's [recovery]. What do they [missions] do when they're here? They come wanting to treat patients as if they were operating *allá* (in their country). Extubating patients that prematurely is a risk." Ultimately, Honduran doctors and nurses found many aspects of the training they received during missions to be highly relevant, but when it came to specific care practices, such as the timing of extubation, they had some doubts. In response, they were highly selective about which care practices they would incorporate into their own practice. As one nurse put it, "We pick and choose what will serve us."

For Honduran doctors and nurses, missions were also a measure against which to evaluate their own knowledge and skills. While missions epitomized clinical expertise, by working alongside the volunteers, Hondurans realized that there were many clinical functions they could perform as well or even better than the volunteers. In an interview with Dr. Velasquez, for example, he was listing for me various advantages of missions—the skills they teach, the machinery and other supplies they donate. He then paused to reflect on these words. Shifting his tone, he said, "But, you know, I don't need a machine to know what [diagnosis] a child has. The other day, for example, a child came through the emergency room. He had a heart murmur. I listened to the heart with my stethoscope. I

listened to his pulse. I said, 'He has X pathology.' Total anomalous pulmonary venous connection. The next day we did the echo, and I was right. Many clinicians can only hear that there is a murmur; they can't detect what's causing it. I thought, *Pucha* (Darn), something in all this has served me."

By "many clinicians," Dr. Velasquez was referring to the volunteer cardiologists who came to Honduras and could only diagnose patients using echocardiology. By "all this," he meant having trained in a resource-strapped hospital. Dr. Velasquez was not even a pediatric cardiology resident but a pediatric ICU resident, which made his ability to detect a heart murmur with a stethoscope alone even more impressive; in other words, pediatric hearts were not even his area of specialization and yet he developed such an acute understanding of their clinical presentation. Similar to what Wendland finds when medical residents encounter international doctors in Malawi, Dr. Velasquez's encounter with surgical volunteers gave him the opportunity to see his "own life through strange eyes" (2012:113). It was through their "tourist gaze" that he saw himself as a "practitioner of a better medicine," where his skills compared "favorably with those of volunteers from 'out there" (Wendland 2012:114-113). This same phenomenon has been reported by Ortiz (1997) in her study of the self-proclaimed "bare-handed" doctors in a Dominican public hospital who "saw themselves as engaging in a species of nationalistic, 'frontier' medicine and as upholders of values of self-sufficiency and creativity which they believe to be bled out of medicine in more economically and technologically privileged settings (Ortiz 1997:269). In all three cases, Wendland's study, Ortiz's study, and my own, assumptions about the origins of biomedical expertise are turned on their head.

(Un)equal Partners

Although GHF places a strong emphasis on collaboration, encouraging surgical volunteers to work side-by-side with in-country personnel in all aspects of patient care, members of the GHF-Honduran team were by no means on equal footing. Instead, existing social and economic divisions were not only rendered visible during missions, they were also actively reinforced, the most pronounced being divisions between the visiting personnel (including both doctors and nurses) and the Honduran nurses. While the volunteers stayed in a highly-secure, five-star hotel, had access to a private chauffeur, and enjoyed special lunches delivered to them at the hospital by outside sponsors, Honduran nurses lived in poor, unsafe neighborhoods, transported themselves to and from the hospital by crowded bus, and ate the standard hospital-issued lunch. Honduran doctors fell somewhere in between these two extremes; they lived in middle-class and upper-class neighborhoods, drove their own cars, and only in some cases were invited to eat lunch with the volunteers.

These divisions were reinforced in several ways. First, both inside and outside the hospital, the Honduran nurses and surgical volunteers did not mingle. In part, this had to do with language; few volunteers and nurses were bilingual. This also had to do with resources. The volunteers ate out every night at high-end restaurants, venues the Honduran nurses could not afford. Beyond that, however, it did not appear that the volunteers had any interest in getting to know the Honduran nurses. As Carla, a Honduran nurse, described in an interview, "At the beginning of missions, they never do introductions. The volunteers arrive. Maybe you recognize some of their faces, but not others. On the first day, they organize the space, set up their machines... We learn some of their names eventually because we hear them being called by name, but we never learn them all... We don't know the surgeon, or

who specializes in what. It's like we are each in different bubbles. Each group sticking together."

When patients needed attention, there was more interaction, but then it would return to "them talking amongst each other, and use talking amongst ourselves." In Carla's mind, this separation was a clear demarcation of class. "It's as if social classes can't mix," she said, "as if rich people can't get involved with the poor." Another nurse echoed this point when she described the volunteers as "stuck-up," acting as if they were better than the Hondurans. And even when there was more interaction in moments of patient care, Honduran nurses easily felt lost, since much of the conversation was in English between the volunteers and the Hondurans doctors, nearly all of whom were bilingual. Once again, to quote Carla, "We [the nurses] don't know what plan will be followed, only what medications to give. God only knows if this child will get better or worse. We have no idea." This made them feel undervalued, as if their only contribution to the mission was to follow orders. For another nurse, this made her feel used, as if her only value was to help them do their job. This stands in contrast to the experiences of many surgical volunteers who chose to participate in missions precisely because they allow them to feel more useful. As a second example of how social and economic divisions were reinforced, several Honduran nurses had stories of being scolded for having reached for a soda or plate of food not realizing that these items were meant for the volunteers. It was usually those who had paid for the sodas and lunches who did the scolding. In one instance, the nurses were called "starving Indians" by members of Ed and Anie's NGO for accidently taking lunches intended for the volunteers. In this instance, missions are not only reinscribing the lines of social difference

between surgical volunteers and local personnel; they were also exacerbating existing local hierarchies that placed Honduran NGO staff above the Honduran nurses.

The fact that the volunteers had access to private transportation was also not inconsequential. As mentioned, surgical teams typically worked late into the night, sometimes operating until past midnight. For all clinicians, Hondurans and volunteers alike, this meant compromising on sleep. For the Hondurans, working late meant not only compromising on sleep but also compromising on personal safety. Few nurses owned cars, and many lived in neighborhoods where it was impossible to take public transportation late at night. They started a petition to demand that surgery start earlier in the morning and end at a more reasonable hour. All involved parties agreed to their request, but it was never put into effect. The hospital's response, then, was to dispatch an ambulance to serve as a shuttle service. On nights when I stayed in the same hotel as the volunteers, I rode back to the hotel in their private van; it was a 15-minute trip. On nights when I stayed in my apartment, I took the ambulance. Six or seven of us crowded in the back and sat on the floor of the van. I was often one of the first to be dropped off because I did not live as far away as they did. For them, the trip took hours. Even though it took them longer to get home, they were still required to be at the hospital early the next morning.

Moreover, collaboration did not mean public recognition. Honduran doctors and nurses, for example, were not usually included in the photographs taken by surgical volunteers and posted on websites and blogs. This was not unusual. Most humanitarian NGOs construct the appearance of an "indigenous absence, an erasure of local voices and acts" in order to justify their own presence (Kleinman & Kleinman 1997:7). For Kathia, a Honduran nurse, this erasure was one of her major complaints of missions. "We were not

included in any of their pictures," she said to me. "When they go home, it will look like they did all the work, even though it was a collaborative effort." Not only were Honduran medical personnel not included in photographs, they were also not publically thanked for their contributions to missions. During my time in the field, there were several events designed to show appreciation for the efforts of the volunteers, including a private party at the U.S. ambassador's house, several televised interviews, and, at the end of each mission, a catered lunch at the hospital with live music and food. Hondurans, nurses in particular, were not included in these activities, which made them feel discriminated against. Such exclusionary practices were especially hurtful and humiliating because the Hondurans, like the volunteers, made sacrifices during missions, such as working longer hours than usual for no additional pay. For non-Regional doctors and nurses who were hired to help with missions on a short-term basis, they were sometimes not paid for months following the mission or they were not paid the full amount that they had been promised in the work contract.

Finally, collaboration did not mean an equal exchange of ideas. Returning to the strikes, Honduran ICU doctors were sometimes reluctant to work with missions because their expertise was not valued. For example, if they were working alone at night, they would make a clinical decision only to have it reversed the next morning by one of the surgical volunteers. On other occasions, their recommendations regarding a patient's care plan would be ignored. In fact, when there were clinical disagreements, the social and economic divisions between the Honduran and volunteer clinicians became especially obvious. Here I share an ethnographic example to illustrate my point.

The last surgical mission I attended in January 2012 was the most contentious because several Honduran clinicians with whom GHF had been collaborating for years refused to particulate. This particular strike resulted from a disagreement about three pediatric patients who would be coming from El Salvador for treatment. As discussed in Chapter Three, patients often came from other countries for treatment during missions. This was for two reasons. First, their surgeries were typically sponsored by a different NGO (hence the belief that GHF was profiting), which helped offset the cost of the overall mission. Second, they were patients who had been refused treatment by other hospitals, including in the U.S., on account of the complexities of their condition. In this case, the three Salvadoran patients were being sponsored for US\$1,000 each. This money would go to Ed and Anie's NGO as reimbursement for having financed the repair of the catheterization lab that had been out of service for ten years. Honduran clinicians refused to operate on these patients not because they were Salvadoran—as the volunteers presumed—but because they questioned their suitability as surgical candidates. The fear was that the patients might not survive surgery or they might not recover by the time the surgical team was scheduled to leave the country. Without the assistance of a mission, it was difficult for Honduran clinicians to manage the recovery process of a post-surgical patient because they no longer had the same bed space or financial and institutional support. The confrontation culminated in an exchange of angry emails between GHF and their Honduran collaborators and the resignation (or dismissal-the distinction was not clear) of Dr. Cardona. Dr. Cardona refused to participate in the mission if the three patients would undergo surgery. Regional, in turn, threatened to terminate her work contract because she was obliged to support the mission as a state employee.

The surgical volunteers went ahead with the three operations, which illustrates their authority. The story is also important because, as it was unfolding, it drew on a familiar lexicon rooted in a colonial past and neocolonial present. This is not to suggest that missions necessarily reopened old colonial wounds (Redfield 2012); nonetheless, the dynamics bore a striking resemblance. For example, as one of the Honduran nurses said to me, the hospital administrators were acting as if they were *vasallos* (subordinates): they were acquiescing to the wishes of the surgical volunteers, who in this context were the embodiment of a Spanish king or feudal lord. Similarly, the various Honduran clinicians who confronted the volunteers by refusing to operate on the three patients were called Francisco Morazán or Lempira, two national heroes of Honduras. Dr. Cardona told me that she was not going to "surrender," since she had "the blood of Lempira running through her veins." The Hondurans, in other words, were transformed into champions of anti-colonial activism.

There were still other moments when the actions of surgical volunteers signaled to the Hondurans that they viewed their country as undeveloped, uncivilized, or lawless. The volunteers would often break protocol. For example, on one occasion a North American college student assumed the role of "first assist" during a surgery, a role normally held by a trained surgeon. On another, as described in Chapter Three, the volunteers did an emergency direct blood transfusion against hospital protocol. The patient, whom I call Stefany, had started bleeding uncontrollably in the middle of heart surgery and blood from the blood bank would not have arrived in time. Three volunteers, who were present at the time and of a matching blood type, gave blood, which was then directly transfused to the patient—that is, without testing for infectious diseases or verifying the blood type. In a third instance, it was rumored that a volunteer, a photographer working with the mission, was smoking in the OR.

Each time, the Honduran doctors, Dr. Melendez, would say to me, in different variations: "Who do they think we are? Indians in the jungle?" Her point was that, only among the "uncivilized," would such behaviors be sanctioned. The surgical volunteers, indeed, did not see themselves as having acted out of line.

Humanizing Care

Hosting a surgical mission had symbolic value. Pediatric heart surgery missions epitomized two things in the public imaginary in Honduras: compassion and expertise. When missions were in Honduras, these attributes were believed to reflect back on their hosts. This carried special meaning for public hospitals in Honduras precisely because they were accused of being deficient in both respects. As discussed in Chapter One, a widely circulating discourse in Honduras was that doctors and nurses had undergone a fundamental shift in character. What was once a career based on principles of love, vocation, and goodwill has been transformed into a business, where medical personnel were said to use health care as either a means to enhance social status or survive in an economy that had few reliable careers. The discourse had a nostalgic ring, a longing for a time past when doctors and nurses actually cared. Recalling Chapter One, these assumptions are not to be taken at face value. As health care has become increasingly privatized, hospital visits are increasingly experienced as callous and predatory-like encounters. Hospitals employees are an easy scapegoat: rather than blame the government, the public—influenced largely by the media—blame doctors and nurses for having veered from the humanitarian roots of their profession. What was once a "calling" has become a "business," a mechanism for those with "las ganas de tener (the desire to make money)." Doctors, nurses, and patients all rehearsed this narrative in one form or another. As one nurse said to me, speaking specifically about doctors, "Before they

were humanistic. They studied medicine to help people. Now their motivation is only "to have, to have, to have." What drives this? The same ambition "*de tener* (to have)." It doesn't matter to them if they cure you. They don't have love for their own people."

For hospital administrators concerned about reputation, hosting a humanistic or humanitarian mission—a pediatric heart surgery mission no less—was an easy way to show "heart," so to speak. Yet another narrative was the Honduras is behind the rest of the world in terms of science. As one Honduran mother said to me, capturing this sentiment exactly, "In matters of science, we are still in diapers." Or, as another woman I met one afternoon at the hospital said when I told her that I was studying surgical missions, "*Alli* (In the U.S.), that's where the science is." Once again, missions were the perfect antidote.

It was clear that missions were symbolically important for Regional Hospital, first and foremost, by the media attention they received. As mentioned, every time a mission was in country, high-profile individuals, such as the Health Minister and Regional's Medical Director, paraded through the ICU or OR, with TV and news reporters in tow. This was often to the dismay of the clinical personnel because it violated both privacy and safety within the hospital. Despite their efforts to keep such visits to a minimum, they always occurred and were highly televised events. Several of the hospital administrators I interviewed confirmed that surgical missions helped improve the reputation of their institution. One administrator, for example, whose hospital had received pediatric heart surgery missions in the past, reported that the missions gave his hospital a more "humane face" and communicated to the public that they were committed to "helping the poor." Apart from "humanizing" hospitals, missions, as an emblem of international expertise, were also said to carry hospitals "to the next level" or "into the twenty-first century."

Losing Face

Given the symbolic and material value of missions, not hosting one almost became a nonoption, even when the hospital was not clear it could afford to host one. In Chapter Four, I describe a pre-mission meeting at Regional, when a group of administrators, doctors, and head nurses convened to discuss whether or not to cancel the mission. The mission was scheduled to begin in two days and they still had few of the necessary medications or machines to move forward with it. Most of the participants in that meeting were opposed to cancelling the mission, however. One of the strongest voices in favor of hosting the mission was a high-level administrator, who argued: "What will the parents [of heart patients] say?[What will they think when] the brigade is here, and we don't want to help? What does that say about us?" In other words, by not going forward with the mission as planned, the hospital would merely affirm its already shaky reputation.

At the same meeting, Dr. Osorio also made a case for why the mission should happen. She said, "The brigade raises the profile of the institution. People tip their hat when they hear that we're doing heart surgery." She then asked, "If we lose this opportunity, what will become of us? *Vamos para atrás como el cangrejo* (We'll be going backwards like a crab)." Reference to *el cangrejo* is telling because it is suggestive of nature, the wild, and the *un*developed—what is to be avoided at all cost. There is also further meaning embedded in the word, since it is used in one of the most common parables that Hondurans tell about themselves, a story reminiscent of "crab antics" (Wilson 1973), which goes as follows. There are two buckets, both filled with crabs. One bucket needs a lid to keep the crabs from escaping, while the other does not. Why? In one bucket, the crabs are Honduran, while in the other they from some unmarked "developed" country, usually the U.S. Only the North

American crabs need a lid to keep them from escaping. Honduran crabs, on the other hand, police themselves; any time one crab tries to escape, the others pull it down.

Missions could also discredit clinicians as quickly as they rehumanized the public health sector. Whereas many of the luxuries associated with missions disappeared as teams boxed up supplies and returned home, pediatric heart patients in need of ongoing care did not. Whether or not surgical volunteers should operate on the last day of a mission was a contested issue. Dr. Bure, GHF's founder and medical director, had taken a firm position in this debate. Arguing that there were too many children in need of treatment to forgo operating on the last day, he was adamant that surgeries take place. By operating so close to the mission's departure, however, the mission invariably left patients behind in the ICU. Moreover, there were always one or two surgical patients treated earlier in the mission who were still in need of critical care. As mentioned, GHF did not shy away from complex cases, but doing these complex cases meant more surgical complications and, by default, longer ICU stays. These patients could not stay at Regional because it did not normally accommodate pediatric patients in its ICU. The patients were therefore transferred to other hospitals in Tegucigalpa: IHSS if they had government insurance, Central Hospital if they did not. The consequences could be devastating, and few patients left behind by missions survived. This was not the fault of Honduran personnel. As I argue above, they were at a disadvantage in the absence of missions because they received less administrative and financial support. Moreover, the patients still in the ICU at the time of a mission's departure were usually the most severely ill. They were the patients who had not recovered in the expected 24-hour window. Hospitals deaths were difficult for clinicians who often felt that

they had personally failed the patient. The deaths that occurred in the aftermath of missions were also usually slow deaths, which made them all the more painful to witness.

The deaths of heart patients were even more difficult when parents were quick to assign blame not to the volunteers, who were beyond criticism owing to their status as foreign volunteers, but the Hondurans, who, as mentioned earlier in the chapter, were thought to have lost their humanism as state-sponsored medicine was being converted into a business. Marciela's death was extreme in this regard. She suffered from tetraology of Fallot ("tet" for short), which, as mentioned, involves four different heart defects. According to both the Hondurans and the volunteers, Marciela was supposed to be a "straightforward tet," that is, no one anticipated complications. At some point during surgery, however, her arterial line was dislodged. An arterial line is needed to monitor a patient's blood pressure, and, in turn, monitor medication levels. Regaining access to the artery was a challenge, and Dr. Cooper had to perform what is a called an emergency cutdown procedure in order to replace the catheter several hours after the surgery had ended. He performed it in the ICU. A cutdown procedure involves exposing a patient's artery surgically and then inserting the catheter under direct vision. This is not an unusual procedure, although it is only done in cases of emergency. In this case it had unfortunate implications. Maricela suffered a major bleed as a result, which sent her body into multiple organ failure over the course of several days.

It was already clear during the mission that Maricela was unlikely to survive. Her right hand, below the incision, had turned black and the skin was starting to slough off. It would need to be amputated if she recovered. Plus, following the bleed, Maricela's kidneys had stopped working and she remained unconscious. She actually had two surgeries: one to

do the repair, and another to see if they could stop what they suspected was an internal bleed somewhere in her chest cavity (not uncommon in the absence of imaging technologies). The volunteers, saddened and distressed by her condition, began to speak about Maricela as if she were already dead. When her skin began to look puffy and blotchy, one of the volunteer nurses said to me, "That's what kids look like when they die." Another nurse referred to her directly as a "mortality," and then corrected herself by saying "almost mortality." Even the surgeon, Dr. Cooper, admitted, upon leaving, that Maricela would "go to Central Hospital and die." That had become her "fate." This is not to suggest that he was indifferent, but rather that he felt helpless given the circumstances. As a surgeon, his skills lie in the operating room, but Maricela would not benefit from another surgery. In fact, further intervention would likely kill her immediately. The volunteers tried to prepare Maricela's parents for her death. I translated for a pediatric ICU doctor while she explained that Maricela was very sick and unlikely to recover. She suggested that they invite a pastor to the hospital to help them seek closure, which they did, although, when Maricela woke up for a brief moment, their hopes were restored.

At the end of the mission, Maricela, as expected, was transferred to Central for care. Finding space for her in the ICU was a challenge. There are five beds in the ICU with a sixth bed available for use by heart surgery patients only. Maricela was a candidate for the sixth bed, but so was another patient named Ivan, who was also treated during the mission but had acquired pneumonia and would need more time to recover in the ICU. Both patients were *"sumamente grave* (gravely ill)," to quote Carolina, the Honduran nurse who accompanied them during the transfer from Regional to Central. In the case of Maricela, she was at the point where, according to Carolina, "only God could save her." The only way that Central

could accommodate both patients was to borrow two mechanical ventilators from Regional, which it did. While this gave Maricela and Ivan access to the ICU, it also meant that other patients had to be turned away from the ICU entirely. On the day of the transfer, already one patient had been turned away. Once again, as in the case where adult lung patients vacated the ICU at Regional to make from pediatric heart patients, other patients were also being sacrificed.

The mission ended on a Friday. I visited Maricela on Sunday, and then again on Monday. During that time, there were moments when she seemed better, and others when she seemed worse. Dr. Solana, who had cared for Maricela during the mission and was now caring for her at Central, assured me that it would be a "long road to recovery." Instead, however, it was a short road to death. Marciela died that night at 9PM. When I returned to the hospital on Tuesday morning, not knowing what had happened, my heart sank when I entered the ICU to find Maricela's bed empty. The tubes that had kept her alive until that point, and, as I later learned, may have caused a more immediate death, were still splayed out on the mattress outlining where her body had once been. Both Dr. Solana and Carolina were present when she died. Later, Carolina told me what happened. Marciela needed platelets over the weekend, but, as is common, they were in short supply at the hospital. When this is the case, the blood bank only releases blood products for a patient when a new donor donates blood on the patient's behalf. Maricela's father had donated blood on Sunday, but since it was also a holiday, it took the blood bank longer than usual to prepare platelets for Maricela. Maricela eventually received the platelets, but, then, there were problems with the ventilator on loan from Regional. As Carolina explained, it was "alarming" and water was collecting in the tubes. They decided to change the tubes, but they continued to collect

water. They suspected that the ventilator was failing, so they borrowed a new ventilator from the emergency room. As they were setting up the new ventilator, Maricela went into cardiac arrest. They did chest compressions for 20 minutes but her body was cold and unresponsive. "You have to remember," said Carolina, "she already had multiple organ failure. Any little thing could have pushed her over the edge."

Maricela's parents were not at the hospital when she died. According to Carolina, when they returned an hour later, Maricela's mother "went crazy." She stormed into the ICU, pushed Dr. Solana, and threatened to hit the resident. She threw a trashcan into the middle of the room and called everyone "bad names." She said that her daughter would still be alive if the "*gringos* had been there." She assumed that Maricela had never received the platelets that were ordered, which she kept referring to as "*la medicina* (the medicine)." When she did not calm down, the clinicians had to call security.

I met with Maricela's mother a month later. I went to her house to pay my respects, since I had not seen her since her daughter's death. It was a difficult visit. Marciela's mother met my research assistant, Darwin, and me on the road. As we walked across a hillside to her sister's house, where she had been staying, she explained that she had been too depressed to return to work after her daughter's death. She attributed Maricela's death to "*un descuido* (carelessness)," and, as the Honduran clinicians had suspected, assumed that platelets had never been given. She felt that this was typical of doctors and nurses in Honduras, who, she said, were not interested in "helping people" but "doing their job." If they had cared, they would have given the platelets. She also felt that the Hondurans were not as "attentive" as the volunteers were during missions. Although she was only allowed to see Maricela at Central during visiting hours, as opposed to day and night as during the

mission, she could tell that the Hondurans were not "*encima de ella* (attentive or literally hovering over her)." Ironically, when Carolina retold the events leading up to Maricela's death, she described Dr. Solana as having been "*encima de ella* (attentive)."

The confrontation with Maricela's mother was difficult for both Carolina and Dr. Solana. They each had a different interpretation of why it had occurred. It was not unusual for parents to become upset at the hospital, but this case was extreme. Carolina suspected that no one had explained to Maricela's parents that the mortality risk associated with her surgery was significant, and so, when Marciela did die, her parents chose to fault not the surgeon but whomever happened to be present at the time of her death. Carolina also questioned how straightforward the surgery actually was. Because tetralogy of Fallot involves four lesions, it is sometimes treated in stages as opposed to all at once. Carolina wondered if perhaps Maricela would have been a better candidate for a staged repair. Given the design of missions, however, where it was sometimes difficult to maintain contact with patients, staged repairs were not commonly done. From Dr. Solana's perspective, the conflict arose because missions were presented to the public as exclusively foreign interventions: as if the volunteers had, to quote her directly, "made it all happen." Hondurans, in turn, only came into view after the missions had left. By this time, however, they were managing the most delicate patients with even fewer resources. In other words, Honduran personnel are set up to fail.

This complex dynamic highlights an underlying injustice associated with missions, one that is directly related to their "uneven states of motion" (Redfield 2012:360). Redfield argues that "expatriates" are "materially heavy and socially light," which allows for unencumbered global travel, while "nationals" are "materially light and socially heavy" and

thus less mobile (2012:360). Such "unequal states of motion," however, have unequal effects. In his analysis, this dynamic sets those who are "truly humanitarian" apart from those who are not (Redfield 2012:360). To illustrate this point, Redfield recalls an incident in Uganda when 15 national staff members were fired for going on strike in protest of unfair wages and allegedly endangering the lives of the malnourished children their project was intended to serve. From MSF's perspective, the staff should have placed the needs of the children before their own and that of their kin. Their failure, or rather their inability, to do so undermined their status as "real MSF" (Redfield 2012:367).

Redfield's insights are relevant in this context. Similar to how resources were unevenly distributed across time and space, blame and responsibility were unfairly assigned to medical personnel based on their relative degrees of mobility. Because Honduran clinicians were permanent fixtures in the Honduran health-care system, they inherited patients left behind by missions, whose volunteers either returned home to resume work or moved on to care for new patients in another country. The problem, as described in the case of Maricela, was that in-country personnel were then blamed when patients died, which, as mentioned, was not infrequent—in other words, they were blamed for situations that were not of their own making. This is a familiar scenario in many ways. ICU doctors and nurses often bear responsibility for surgical deaths when the death occurs not in the OR but the ICU. The assumption is that, as long as the patient leaves the OR in a stable condition, the surgery is a success. In the context of surgical humanitarianism, however, this tension is exacerbated because the ICU doctors and nurses, being Honduran, are doubly disadvantaged. Not only do they bear the sole responsibility for patient deaths, they are also

viewed by the public as inherently less compassionate and capable, which makes the charges brought against them all the more pronounced.

Coda on Witnessing

To conclude this chapter, I return to my visit to Inez's house described in Chapter Four. After dinner, Inez, her mother and I talked more about missions. I asked Inez, if she had a child with a heart defect, would she agree to surgery by a visiting team? She thought for a moment, and remembering the patient named Maricela, decided no. She explained that she would rather have her child die at home than risk dying in the hospital. She had watched Dr. Cooper perform the cutdown procedure. It was too much for her witness. Inez's mom interjected, saying that even if the mission loses some lives, it saves many more. Inez quickly become frustrated. "Mom," she said. "I saw the cruelty with my own eyes. It was like a butcher's shop. He cut her open alive!" By alive, I assume, she meant that Maricela had been awake during the procedure, which may or may not have been the case.

My take on Inez's response was that she was being inflammatory on purpose. She wanted to stress the point that missions were not all that they promised to be. When Inez's mother saw that I was taking notes on our conversation, she panicked and grabbed my notebook. "You can't write that! It could get us into trouble. This country needs the help." She sent Inez out of the room to get correction fluid and "white out" my writing, which she did. She then returned the book to me and told me to write the following, verbatim: "They [missions] come to help poor people with few resources from remote areas. They come to help, to better the lives of others." As she spoke, she looked over my shoulder to ensure that I had not missed a single word. She repeated: "They come to help." Inez's mother left the room, only to return moments later and again instruct me to write. "Put this in your book, too," she said. "You can't expose evil because *caen los pequenos, no los grandes* (the

powerless will fall, not those in power). You can't publish that." She told me she had seen many "evil acts" at the hospital and shared some examples of doctors who had performed gruesome, experimental procedures in her presence resulting in a patient's death. "You see. You can't criticize *gringos*. You can't fault them if everywhere is the same." Her point, in other words, was that it made little sense to fault the surgical volunteers for potentially harming patients if doctors everywhere in the world were capable of doing the same. Further, by faulting *gringos* I could potentially do more harm than good by closing doors for future humanitarian work.

I conclude with this vignette because it illustrates that doctors and nurses who were not in agreement with the clinical decisions made during missions did not always have the liberty to voice their concerns, or, as was true for Inez, their anger. My presence, then, was both an asset and a threat. For Inez, I was a sounding board and possible means through which her voice would reach a larger audience. Inez's mother, however, was compelled to police what Inez, and by default I, would say, since, in her mind, the value of missions outweighed any adverse consequences they may have for patients, hospitals, or local personnel. In the next chapter, I turn the attention to the parents of heart patients, in order to understand their experiences on the receiving end of services that held tremendous promise and yet carried considerable risks.

CHAPTER SIX Quests for Biological and Spiritual Repair

There is a third major stakeholder of medical missions—pediatric heart patients and their families—whose stories, perspectives, and experiences have been largely ignored by public health and social science researchers. In surveying 20 years of studies published about medical missions, for example, ver Beek (2006) found that only one study included interviews with community members where missions had visited, while nearly all studies involved interviews with North American volunteers shortly after returning from a mission trip. The same holds true for literature on the delivery of humanitarian aid more broadly: most studies focus on the views of internationals who provide aid as opposed to nationals who are most affected by it, such as NGO personnel and other intermediaries who work with charity missions while in country and the direct recipients of care.

In recent years, notable exceptions have elicited the perspectives of those living and working in host countries (Lee 2008; Green 2009; Abu-Sada 2012; DeCamp 2014; Berry, 2014). The general trend, however, has been to document their viewpoints in order to evaluate aid delivery and improve the effectiveness and quality of care. Moreover, only one study (DeCamp 2014) focuses exclusively on the viewpoints of aid recipients. As I quickly learned during fieldwork, however, the parents of pediatric heart patients offer much more than a window onto the successes and limitations of medical missions. Their stories define the "peopled accounts" that Biehl and Petryna argue "are so often hidden from view [in global health studies], obscured by more abstract and bureaucratic considerations of public policy" (2013:3-4). These stories matter because they help us "apprehend larger systems," that is, they help us see those systems "in the making or in the process of dissolution, and...

the local realities, so often unspoken, that result when people are seen or governed in a particular way, or not at all" (Biehl & Petryna 2013:4). Apart from "systems" and "local realities," peopled accounts also help us understand the meaning of illness experiences. As noted by Mattingly and Garro, "narrative is a fundamental human way of giving meaning to experience" (2001:1).

As such, while I, too, aim to contribute to discussions about how to improve medical missions, my focus is broader in scope. I analyze the stories that parents tell about their children's illnesses to further knowledge not only about the efficacy of medical missions but also about government and humanitarian medicine, the day-to-day realities of managing illness in conditions of scarcity, and the meanings they ascribe to those experiences. Anthropologists have long been interested in illness narratives, and while a complete taxonomy of analytical approaches would be beyond the scope of this chapter, I will briefly mentioned the two that have inspired me the most. The first understands storytelling a way to affirm, preserve, or revise a social identity (Gammeltoft 2006). The second analyzes stories for insights into the political and economic factors that influence illness experiences, decision-making, and treatment seeking, also referred to as "ecologies of care" (Das & Das 2007).

By analyzing parents' stories, I seek to make two contributions to public health and anthropology, respectively. First, I aim to contribute to the public health literature on diagnosis and treatment delays for surgical care in poor countries. This literature, while not exclusive to pediatrics, assumes that health-care-seeking delays are attributable to geographical inaccessibility of surgical centers, excessive wait times, lack of resources, fear of bad adverse consequences, fatalistic thinking, lack of understanding, cultural beliefs, and
mistrust of biomedical institutions (Grimes et al. 2011; Nguyen et al. 2013).²⁶ In Honduras, while most parents of children with heart defects make references to these variables when describing their experiences, they are by no means reluctant to seek biomedical attention for their children's condition. In fact, with few exceptions, they were quick to respond to signs of their children's distress and persistent in finding answers and accessing surgical treatments. Their stories, therefore, contest "any generic notions of 'the poor'" (Das & Das 2007:67), who are often cast in a more passive, helpless light.

In carrying out this objective it is not my intention to give a romanticized account of heroic parents and patients who access care against all odds. Not all parents seek biomedical care for their children, many of whom I never met given the nature of the sampling in my study. Moreover, seeking care does not always lead to an ideal outcome as surgery can cut some lives short. In some cases, surgical deaths are "good deaths" in the sense that parents are assured that they did everything possible for their children. In others, however, they are the worst deaths imaginable because they are usually more sudden than deaths that occur in someone's home, if not more chaotic and gruesome as clinicians make final attempts at resuscitation and intervention. Finally, parents often fluctuate between hope and despair, which in turn translates into periods of action and inaction. In addition to not romanticizing parents, I also do not wish to criminalize Honduran doctors and nurses, that is, to suggest that diagnosis and treatment delays are the fault of their lack of knowledge or compassion. They, too, go to incredible lengths to care for patients and families, as discussed in Chapter Four. Instead, I wish to emphasize the role of structural factors—such as overburdened hospitals and the limited availability of imaging technologies and specialized training

²⁶ These same factors are found elsewhere, too, such as in the transplant literature.

opportunities—that make timely diagnosis and treatment of congenital heart defects nearly impossible.

As my second contribution, related to the first, I build on the work of other anthropologists in questioning the usefulness of three theoretical concepts: social suffering, bare life, and fatalism, all of which continue to have wide currency despite their limitations. These concepts have distinct meanings and genealogies yet they have share a common problem: they portray patients, sufferers, and humanitarian beneficiaries in ways that underscore their victimhood and vulnerability as opposed to their capacity for hope, desire, and agency. In reference to social suffering, for example, Gammeltoft (2006) argues that anthropological studies of suffering, her own work included, have overemphasized the role of structural forces in producing suffering and inhibiting agency. A more nuanced perspective would be to acknowledge that "suffering implies agency just as agency implies suffering" (Gammeltoft 2006:600).

Bare life, a concept introduced by Italian philosopher Giorgio Agamben (1998), refers to zones of exclusion where citizens are stripped of their rights, and life is reduced to its naked and bare form. For Agamben, the quintessential space of bare life is the Nazi concentration camp. A number of anthropologists draw on this concept to show how wellintentioned government, charitable, or humanitarian interventions can have minimalistic, even violent effects (Redfield 2005, Fassin 2007, Gupta 2012). Feldman, who critiques this notion of bare life, uses a logic similar to Gammeltoft's as discussed above in connection to social suffering. As Feldman explains, "This research [on bare life] has explored the ways humanitarianism can reduce the people it seeks to help to 'mere' victims—objects of compassion, but restricted in their capacity to act as full subjects in their own right"

(2008:155). While such an orientation has been crucial for understanding some of the uncomfortable dynamics hidden within efforts to "do good," it is "not all that needs to be understood about humanitarian effects" (Feldman 2008:156). Feldman contends that a more fruitful avenue of research would be to ask how those "living in humanitarianism act within—and in response to—this biopolitical field" (Feldman 2008:156). In other words, rather than the politics of life, we should turn the attention to the politics of *living*, that is, "to the dynamics of being (surviving, claiming, acting) within" humanitarian spaces (Feldman 2008:157).

Fatalism is a construct that appears most commonly in the public health literature. It refers to the belief that "life circumstances are in the hands of a higher power (e.g., meant to be, due to fate, God-given), with poor health behaviors" (Bell & Hetterly 2014:66). It has generally be associated with poor health outcomes, and public health programs make efforts to discourage fatalistic thinking. As a conceptual tool, its weaknesses are twofold. As Drew and Schoenberg (2011) note, research that explores the relationship between fatalism and health behaviors tends to psychologize adverse health outcomes or the reluctance to seek care. In other words, "other explanations, like tangible barriers and substandard medical care, are seldom" explored (Drew & Schoenberg 2011:165). The effect can be stigmatizing. Fatalism is also thought to be fixed, as if it were a cultural or personality trait, and incommensurable with agency (Bell & Hetterly 2014).

Inspired by these critiques, I show how the parents of pediatric heart patients are anything but mere victims rendered powerless in their everyday lives or within the more confined space of humanitarianism, such as during surgical missions. What interests me, in other words, is how patients and their parents *live in* the spaces constructed within and

around structural inequalities as well as humanitarian responses to those inequalities. In particular, rather than becoming passive objects of care, they become agents of it. They take care into their own hands as they navigate government and humanitarian sectors of health care in pursuit of surgical treatments. This is not to say, however, that they do not face limitations in what kind of care they can access, and further, that desired outcomes are assured. As I will show, accessing surgical treatment for their children can give rise to new unexpected challenges.

The chapter will be organized as follows. I begin with background information that will be useful for contextualizing parents' stories. I then describe the themes that emerged during interviews and casual conversations with parents. When I asked parents to tell me about their experiences, their stories often began with the birth of their children and ended with the gratitude that they felt toward the visitors who provided surgical treatment. My analysis, therefore, will begin with birthing stories and the ensuing "detective work" carried out by parents to understand their children's illnesses. I then describe their journeys down a "therapeutic pipeline" (Livingston 2012), which is often a race against time to access treatment, yet is punctuated by recurrent infections, long hospital stays, financial hardship, and emotional suffering. This is followed by a discussion of the intersections of religion and biomedicine.

Old and New Trends in Parenting

As background to the stories included in this chapter, it is helpful to keep in mind three points. First, children are highly valued in Honduras as they almost anywhere in the world. They are believed to formalize a relationship, unite a couple, and define a family. One mother I interviewed said that children complemented her as a woman and were central to

establishing a home. Other parents described a house without children as "strange," "boring," or not a home at all. Although many young parents I interviewed came from large families, they did not desire the same for themselves. Rather, in their eyes, an ideal family included two or three children at most. The desire for smaller families, whether or not an actual practice, must be understood in light of the recent turn toward neoliberalism, in which food prices are on the rise and public institutions, such as hospitals and schools, are increasingly pared down-and, more recently, in light of the 2009 coup, which has accelerated these processes. When I asked parents to explain their desire for fewer children, their responses were nearly the same; to quote one mother: "The situation isn't conducive to having a lot children. If you think rationally about how to give them a good life, with two or three, it's enough." By good life, she means having enough food, stable housing, and an education, the latter being necessary for a career beyond the fields or factories. By situation, she means a neoliberal economy in which the rich grow richer and the poor grow poorer. As my host mother, Doña Belinda, often said to me, "There is no middle class anymore. The middle class," to which she used to belong, "has become the new lower class," while the poor occupy an even lower rung.

Second, the effects of *la situación* (the situation), as it is often called, are nowhere more pronounced than at the household level, which became clear to me from my vantage point as someone who lived in two relatively prestigious neighborhoods and visited families in some of the poorest, most dangerous sectors of the country. Many of the parents I met worked informally and intermittently as field hands, construction workers, tortilla vendors, and housecleaners, earning less than the legal minimum wage of US\$280 (5,800L) per month. At the same time, the cost of food and other essentials continued to rise, while few if

any opportunities to receive social welfare assistance were made available. For example, the price of beans, a household staple, rose exorbitantly during my time in the field, tripling in 2010 and, once again, doubling in 2011. Even in Doña Belinda's comfortable home, where I always ate my meals, beans were doled out in small portions. In poorer households, beans were largely nonexistent.

This is not to suggest that all families were utterly destitute. Many lived on farms where they grew corn and raised chickens and cows or, in the absence of land, had other means of subsistence, such as turning part for their home into a *pulpería* (small store) so that food would always be on hand, including in times of unemployment. When we visited these families for interviews, my research assistant and I were offered generous servings of food, including specialty items such as *sopa de gallina*, a soup made from chicken killed that day for our arrival. Other families, however, had little to eat. On one occasion, a father told me that he, his wife, and his four children had not eaten anything that week but mangoes from a nearby tree. On another occasion, a mother tried to cancel my visit at the last minute. Only when my research assistant spoke to the teenage daughter directly on the phone did we learn that she was ashamed for having nothing to offer us. During other visits, I could only assume that food was scarce when no one cooked or ate during my stay, which often lasted for hours. When resources are already stretched thin, parents, therefore, must make difficult decisions about how to allocate resources.

The parents I interviewed, however, reported never failing to purchase a prescribed medication or pay for a clinical exam, even if it meant that they could only buy only a few pills at a time. In some cases, in order to cover these costs, families had sell personal property, skip meals or buy food on credit from a local *pulpería*, go into debt with friends

and neighbors, or neglect other household needs, such as a sibling's new school uniform or backpack. Several parents told me that they worked *only* for their children who were sick, suggesting that nearly all of their resources went toward that children's care. This shows how indispensible children are in Honduras, even for families in extreme poverty, contrary to what Scheper-Hughes (1992) observed more than decades ago in her study of child death in Brazil. I often wondered if Honduran parents consented to what were sometimes high-risk heart surgeries because the cost of raising a child who was perpetually sick was far more than they could bear. My research assistant, Nelson, who had two children of his own, was always quick to correct me. "Nancy," he would say, "kids are *never* a burden, no matter how poor you are."

Third, mothers are invariably blamed for their children's misfortune, a tendency that is not at all unique to Honduras; they do not necessarily internalize this blame, however, but push back against it. For example, during my fieldwork, there were several news stories about child deaths where mothers were held fully responsible even though there were broader forces at work. In the first instance, a young girl died when her shoelace was caught in an escalator at the mall. Her mother was widely criticized for her presumed "negligence," a word that was commonly ascribed to any parent who did not care for her child in socially acceptable ways. In another example, a husband shot and killed his wife along with his five children upon learning that she had been with another man. Once again, the wife was blamed—this time for having provoked her husband, while her husband was hardly rebuked at all. Moreover, on two occasions, when a pediatric patient died during or shortly after a heart surgery mission, it was the parents—not the surgical volunteers—who bore the brunt of responsibility. They were accused, usually by other parents, of either not withholding

food and drink prior to surgery, which can lead to asphyxiation during surgery, not properly caring for the surgical wound, thus exposing their children to infection, or not returning quickly enough to the hospital at the first sign of surgical complications. A more recent expression of parental blame has emerged around the recent increase in child migration to the U.S., where an unprecedented number of Honduran children and young adults are crossing the U.S.-Mexico border in hopes of receiving amnesty under what are perceived to be less punitive immigration laws. While this is undeniably a structural issue stemming for the violence and poverty that children contend with in Honduras, in the national and international media, Honduran parents have been accused of being irresponsible, disgraceful, and even abusive for having sent their children, unaccompanied, on such a journey. Not only does this framing deny children of any agency, it rests on a very narrow definition of good parenting, which, upon closer examination, is nearly impossible to enact in contexts of extreme violence and scarcity.

Following this logic, mothers were often blamed for their children's congenital heart defect, even within professional circles, despite the fact many Hondurans, parents and practitioners alike, were aware that the condition usually occurs randomly. A medical student, for example, speculated that mothers who were uneducated and who failed to take proper care of themselves during pregnancy were more likely to have a child with a sick heart. By failing to take proper care, she meant that women would suffer, cry, lift heavy things, work in the fields, eat poorly, or take harmful medications. Mothers, however, did not internalize blame for their children's sickness. Rather than locate its origins in their own actions, or failure to act, they traced its etiology back to events that happened to them when they were pregnant, what Hunt (2000) has called "strategic suffering." This called attention

to the injustices that they had endured in their homes and places of work. One mother, for example, whom I call Deysi, attributed her son's defect to domestic abuse. Her husband, an alcoholic, hit her and chased her from their home. Other mothers referenced not physical but emotional distress, such as that brought on when their husband had left them and started another family. Other mothers blamed *susto* (fright) (Rubel 1964). Marina, for example, thought that two specific incidents during her pregnancy had interrupted the development of her child's heart. The first was an extortion threat, a phone call she received threatening to kill everyone at her place of business, a carwash, if she did not pay 50,000 Lempiras (US\$2,400) within 24 hours. The second was the 2009 earthquake, measuring 7.3 on the Richter Scale, which woke her up in the middle of the night.

I call attention to this context, where families are small in size, resources are limited, and sickness is used a tool of blame or social critique because it shapes how the men and women, who appear in the stories that follow, describe their role as parents, navigate healthcare systems, and make decisions about their children's medical care.

Medical Mysteries

As mentioned, there are many types of congenital heart defects, all of which have infinite variations. Some cause mild symptoms, if any at all. Others cause cyanosis, "clubbing" (swelling) of the fingertips, and a darkening of the lips and mouth. Breathing becomes labored. The child becomes susceptible to arrhythmias, pulmonary hypertension, malnutrition, and developmental delays. Even when a child is not experiencing symptoms, underlying biological changes are still underway. The heart swells, threatening to overtake the chest cavity. New veins and arteries may grow around the heart, which temporarily compensate for problems with blood flow, but ultimately are not conducive to long-term

survival. We may conceptualize these adaptations as "local biologies" (Lock & Kaufert 2001), that is, as products of an ongoing interplay between social forces that prohibit the timely detection and treatment of heart defects and biological processes caused by an abnormal heart. In Honduras, congenital heart disease becomes known as an entity through bodily processes such as these, as well as technological means, including clinical examinations and echocardiograms. When I asked parents how they first learned of their children's conditions, they stressed the fact they were often the first to notice a problem. Their stories mirrored what Mattingly calls the "Healing as a Science Detective Story," a narrative genre of healing she identifies in the U.S. where the doctor "as sleuth has the task of investigating medical mysteries, identifying the (hidden) criminal who perpetuates crimes inside a patient's body, leaving traces in the form of symptoms and signs that present puzzles to be deciphered" (2010:57). In this case, however, it is not the lone doctor but first the parent, and then the parent and doctor, who take center stage.

As a point of reference, in the U.S., many heart defects can be detected prenatally at 20 weeks. Others are detectable later in pregnancy or at birth. Less often, although still possible, defects will go unnoticed for several months or years until the first signs of illness begin to show or until a clinician detects an abnormal heartbeat. While the experience is no less terrifying or stressful for parents, therapeutic journeys begin early. Even while news of a pregnancy is still fresh, parents must adjust expectations and begin to make difficult decisions, such as whether to carry a pregnancy to term or how to approach treatment. Medical management starts immediately. At birth, a child may be taken directly from the delivery room to the operating table or be airlifted to a specialized hospital. Or the child may be kept in intensive care for months until he or she is strong enough for surgery. This is

difficult for parents who feel robbed of the opportunity to bond with their children in the early weeks and months of life. Some children undergo multiple surgeries in a span of several years, followed by heart transplantation in childhood or adolescence.

In Honduras, therapeutic journeys also begin early, but they never begin with a definitive diagnosis during pregnancy or even at birth. Here I find Livingston's (2012) work on cancer care in Botswana to be helpful. She finds that, in comparison to the U.S., cancer becomes known in Botswana as not a microscopic and asymptomatic mass detectable by way of routine screening but a visible, painful bodily growth that propels patients to seek emergency medical care. Similarly, in Honduras, since early detection of heart defects is practically nonexistent, congenital heart disease emerges only after the disease has reached an advanced stage or become an urgent medical concern. As much as disease is "created" in this way, it is also "refused" (Livingston 2012:57). In Botswana, for example, patients refuse cancer when they are delayed in seeking out clinical diagnosis and treatment, while clinicians refuse cancer when they mistake it for a different condition. The same holds true in Honduras, although, in this case, most parents refused not the disease but its erasure within government hospitals and clinics. I argue that this constitute a "double-refusal," that is, while the public health sector refuses congenital heart defects for reasons elaborated on below, parents, in turn, refuse this defective system by continually returning to hospitals and clinics until a diagnosis has been confirmed.

By arguing that disease is structurally refused by the government-sponsored healthcare system, I do not mean to suggest that clinicians are negligent or inept, but rather to highlight that few are trained in pediatric cardiology. At the time of my fieldwork, there were six practicing pediatric cardiologists, five of whom had finished their training and

begun working within the past ten years. They worked tireless hours in both the public and private sectors but only so many children could funnel through their offices each day. An estimated 2,400 out of 206,900 children are born with congenital heart disease in Honduras each year. It is not surprising, then, a child with a suspected heart defect would often have to wait months to be seen. Congenital heart problems are also structurally refused in that labor and delivery wards do not lend themselves to screening. The country's two major teaching hospitals serve as a safety net for the poor and uninsured. According to chief of the neonatal unit at Central Hospital in Tegucigalpa, the hospital was built in the 1980s to accommodate 5,000-7,000 births per year. Currently, however, without having undergone major renovations, it accommodates nearly 20,000 per year. As a result, to quote a neonatal ICU doctor, "We move more quickly than we should. But this is the only way we can do it." According to one mother, it is not uncommon for women to labor two to a bed, head to toe, or to have their children handed to them in brown paper because linens are unavailable. Carin, whose story I return to below, remembers coming home from the hospital and realizing that her son had not been properly bathed; he still had placenta on his head. It is also rumored that mix-ups, where a mother is sent home with another woman's child, are frequent. Apparently, there are so many simultaneous births that nurses are challenged to correctly identify them all. Whether this is true or merely a rumor, the story suggests that the labor ward is overcrowded and chaotic, an environment not conducive to a thorough examination of each newborn.

To illustrate the "creation" of congenital heart disease alongside its "refusal," I briefly recount four detective stories where mothers, not clinicians, are the central protagonist. When Carin, for example, gave birth to her first child José at Central Hospital,

she does not remember him undergoing any kind of clinical examination. As mentioned, she doubted whether he had even been bathed before they were discharged from the hospital. She knew within weeks, however, that he was not well. He was not as active as other newborns. He would gag when taking a bottle, which would force milk through his nose. She described him as *moradito*, an endearing way to say that his skin was really "blue," the clinical term for which is cyanosis. Carin was aware that heart defects can cause these symptoms in children, since her nephew had also died of a *soplo* (heart murmur) years ago. This prompted her to see a pediatric cardiologist who confirmed that her suspicions were correct. Mery had a similar story, although her son, Demian, was examined at the time of his birth. She remembers him being passed around among a group of doctors and medical students who all complemented her on how bonito (beautiful or healthy) he was. Within days of leaving the hospital, however, she knew that something was wrong. He was always tired. He never cried or smiled. His skin was more blue than pink. Thinking he was cold, she would wrap him in as many blankets as she could but to no avail. Mery took him, first, to a health clinic, but was told that he was fine. She still had her doubts so she returned to Central Hospital, where she was referred to the pediatric cardiologist. Demian was diagnosed with transposition of the great arteries.

Even infants whose skin was noticeably blue at the time of birth escaped notice in public hospitals. Hector was born with the same defect as José, tetrology of Fallot, in a different hospital in another part of the country. Alejandra, his mother, recalls, "When I gave birth to him, he was really cold. I thought it was because he was overdue... Of all my pregnancies [three in total], he was different. He was born extremely blue. *Blue, blue, blue*.

Do you remember the way he used to get in this lips and fingernails? That was his entire body. His face was *blue, blue, blue*. Only his little eyes were *brilloso* (animated)."

The doctor who had delivered Hector told Alejandra not to worry, that his symptoms would go away on their own. Indeed, they subsided, but never completely. His lips were still "blue and swollen." She never suspected a heart problem, however, because in the years that followed she would take him to private clinics to be treated for what were recurrent pneumonia and bronchitis infections, which are common in children with heart defects. Doctors always listened to his heart but never noted any irregularities, or if they did they never mentioned them. It was not until Alejandra's cousin came to visit that she became alarmed. Her cousin felt strongly that Hector's condition was not normal. "A child's breathing should not be so belabored," she told her. She even suspected that his heart may be the cause of the problem. After some convincing, Alejandra agreed to seek out a pediatric cardiologist at a one of Honduras' semi-private hospitals. There she was told that, "Yes, it's the heart."

Some mothers intuited their children's heart problem even when the symptoms did not include cyanosis. Lucinde, for example, knew by listening to her son's, Eduardo's, chest, while they lay in bed at night. She knew the sound of his heart was not right. She described it as being *feo* (ugly or unhealthy). Concerned, she took him across the border to a private clinic in Nicaragua. The doctor found nothing wrong with Eduardo. When Lucinde expressed doubt, he insisted that the problem was a figment of her imagination. She left the clinic but did not give up. She, too, knew of a child who had died of a heart murmur. She feared the same for her son. By this time, Eduardo had also developed a persistent cough, which caused further concern. She followed up with a doctor near her home, someone she

had seen many times before; this time, perhaps because of the cough, she thought, the doctor noticed the murmur and referred them to a pediatric cardiologist in Tegucigalpa. Lucinde earns less than US\$5 per day cleaning houses and washing clothes, but always goes to private clinics. Public hospitals are a "waste of time," she said. "You wait all day to be seen and there are no medications anyway." To see the pediatric cardiologist in his private clinic, Lucinde paid over US\$600 a visit. Eduardo was diagnosed with tetrology of Fallot. How Luncinde could afford to seek care in the private sector was a mystery to me. When I asked her about it, she said only that Eduardo's father had given her the money but she did not know how he earned it. Given what I knew other parents did to cover the cost of medical visits, I imagine that he had borrowed money from friends or neighbors or sold personal property.

Thus, parents, especially mothers, are at the forefront of disease detection. Rather than hear the news from a doctor or nurse at the time of birth or in the first few hours or days of their children's lives, they watch congenital heart disease emerge as a set of signs and symptoms: blue lips, "clubbed" (swollen) fingers, belabored breathing, an "ugly" heartbeat, lethargy, and failure to gain weight. When doctors fail to provide definitive or satisfactory answers, they persist until they find someone who can. Clinical symptoms, not test results, are the markers of disease, the signs that must decoded. A diagnosis brings some relief in that a parent is no longer left guessing about the root of the problem; however, it raises new anxieties given the propensity for death, the inaccessibility of surgical treatments, and the risks of surgery itself.

Diagnosis as Death Sentence

As mentioned, of the 203,400 children born in Honduras each year (CIA 2014), roughly 2,034 will be born with heart defects. Approximately 1,017 of them will need surgery at some time in their lives, while 420 will need surgery in their first year of life or they will die. Pediatric heart surgery missions, which started to visit Honduras on a regular basis in 2008, offer new hope for parents whose children need surgery, since they can operate on anywhere from 100 to 200 patients annually. By and large, however, mortality is still an imminent concern. For example, when I met one father for an interview, his first words to me as I climbed into the passenger seat of his pick-up truck were: "These kids are born to die." His daughter had been born with tetrology of Fallot in 2009. Her condition was so severe that her fingers were already "clubbed," or swollen at the tips due to poor circulation, which was unusual for a two-year-old. On a different occasion, his wife told me that she treated every day as if it were her daughter's last by making sure that they laughed and played. A nurse who cares for pediatric heart patients echoed this sentiment when she said, "*La muerte anda encima de ellos* (Death hovers over them)."

Some parents talked openly about death in front of children, and some children seemed to be acutely aware of their own mortality. Eduardo, Lucinde's son, was four years old when he received surgery by a visiting heart team. In the years leading up to surgery, he was careful not to touch other children for fear that he would transmit his "disease." When they were in the hospital preparing for surgery, he then asked his mother if they were there because he was dying. When I said goodbye to an older patient, a young adult, outside the echocardiology lab, telling him I would see him again when he returned for his follow-up appointment, his reply caught me off-guard. "If I am still alive by then," he said. His

gravity of his condition. During my time in the field a number of children died unexpectedly, sometimes only a few days or weeks before their scheduled surgeries. In one case, during a brigade, a child died at dawn on the day that his surgery was supposed to take place.

Projected survival times, however, were not always accurate; in some cases, they were grossly underestimated. A ten-year-old girl I met, for example, was not expected to live past the age of five. At the age of ten, she was going to school and leading a relatively normal life despite having an oxygen level of 70 percent (normal would be 90). Cases such as these were considered miracles, as were the children who were able to access surgical treatments at a young age either in Honduras or abroad. In one instance, parents I met wanted to rename their daughter Milagros (Spanish for "miracles") after she had been flown to the U.S. for surgery and survived. News about a child's heart defect was never easy, since the only hope appeared to be nothing short of a miracle. Cristal learned of her son's condition when he was three months old, which was sooner than most parents. Her son was found to have Down's syndrome at birth, which had alerted the doctor to the possibility of a heart defect, since the two are often concurrent in children. In a seemingly detached tone, he said, "Your child needs an operation that is expensive and unavailable in Honduras. But you need to fix his problem as soon as possible because he won't live more than nine months without surgery." For Cristel, his words were an "emotional blow."

A child's diagnosis was also difficult because it shattered their expectations as new parents. Honduran parents wanted their children to grow up to be independent and productive members of society. They also wanted them to have better lives than their own, which had involved gangs, hunger, and violence. Other parents wondered why this had

happened to them. Were they being punished? Had they not cared for themselves during pregnancy? Was this a test of faith? For Lucinde, the fact that it was her son's heart, which she described as "the motor of everything," caused panic. Not only is the heart "the motor," it is also the most delicate organ, the most difficult to operate on. A child's heart is deemed even more delicate given its small size. Damage to *this* organ added weight to the already devastating news that a child was terminally ill. These parents knew that their children were terminally ill, and oftentimes they postponed plans, such as their children's schooling or baptism, given the uncertainty of the future. If offered an opportunity for surgery, however, they would then baptize their children prior to the procedure.

Refusing Futility, Resisting Authority

When diseases are synonymous with death, some researchers find that patients and families primarily from marginalized groups will relinquish control and avoid treatments altogether. As mentioned, they refer to this phenomenon as fatalism, understood to be cultural trait characteristic of Latinos and African-Americans in the U.S. Perhaps the best example is the saying "*si dios quiere* (God willing)." In Honduras, parents would tell me that life and death are always in the hands of God. To quote one father: "*Él nos da la vida y nos llama* (God gives us life and takes it away)." Children are said to be "on loan" to parents by God; as such, they are to be loved and cherished "*hasta que dios diga* (until God says so)" or "*hasta que los quiera* (until God wants them back)." Phrases like these suggest an element of fatalistic thinking. This did not mean inaction on their part, however. To illustrate this point, I return to Mattingly's (2010) study of parents whose children have chronically disabling conditions in the U.S. She finds that a definitive diagnosis "is not merely clinical matter," since what follows is not merely hope for biological repair. Instead, she finds that one

mother, in particular, "tells her story as part of a narrative of how she had to transform herself to become a good mother to her severely disabled child. She had to learn to fight to become... a 'Rambo mom.' She had to 'find strength,' not just to bear the difficulties of raising a medically fragile child, but also to learn how to battle physicians when necessary" (2010:74). Mattingly calls this narrative "Healing as Transformative Journey," in which a family's entire social world is remade. Rapp (1999), who also writes about North American women who receive destabilizing news, in this case about the health of their fetus, describes a similar phenomenon.

For Honduran parents, receiving a congenital heart disease diagnosis was also personally transformative, inspiring them to find strength to cope and battle doctors and nurses when necessary. As argued above, this was not denial about the severity of their children's condition. This fact was not lost on anyone. Rather, it was a refusal to accept their children's diagnosis as a death sentence and surrender even when doctors lost all hope. In short, it was a refusal of fatalism.

Jesica, for example, was diagnosed with tetrology of Fallot when she was two months old. This was almost a decade before surgical missions started to visit Honduras regularly. Without surgical treatment, Jesica was given only seven months to live. Jesica was Nora's first child. Nora, of course, was devastated. She cried. She refused to go to work. She hardly left the house. The situation became even more horrific when her husband migrated to the U.S. and fell out of contact. As she remembers, "I lost all *amino* (energy)." But she was not paralyzed. She contacted the only charity group at the time to pay for children to receive surgery in other countries. Jesica was accepted for treatment in Mexico, but Nora had doubts, since Jesica would have had to go alone. She then wrote a letter to the

First Lady, a U.S.-native known to be emphatic to children's needs. When she never heard back, she took Jesica to a medical mission she knew was visiting a neighboring town. She handed her child to them and said: "She needs surgery in your country. Please help." One of the doctors contacted a surgeon in Memphis by way of a short-wave radio who agreed to consider Jesica's case if they could fly her to the U.S. as soon as possible. Two days later they were on a plane, all travel expenses paid by the mission and the surgery itself covered by the hospital in Memphis.

By age 11, the year I met Jesica, she had already undergone three open-heart surgeries in the U.S. and was scheduled to undergo a fourth in Honduras. Her second surgery was nearly fatal. During the operation, she had a heart attack. The surgeon—in fact, it was Dr. Cooper, who later started working with GHF—told Nora that there was "no hope"; she would never fully recover. Jesica spent the following two days in a coma; she was not urinating, an indication that her kidneys had started to fail. "Her body was so swollen," Nora remembers, "I couldn't recognize her." Even upon hearing the words "no hope," Nora was "*esperando, pues* (hoping or waiting)." She felt that if Jesica had made it this far, she was supposed to survive. When I asked Nora how she had had the strength to move forward with Jesica's third and fourth surgeries after nearly losing her during the second, she replied: "You have to do it for the child's well-being. You have to be positive. You can't think that things will go poorly. If they say she needs surgery then she *really* needs it, so you do it."

Araceli, another mother, also refused to accept her son's prognosis. She is a pediatric ICU nurse; her son, Vittorio, was born with hypoplastic right heart syndrome and pulmonary atresia, a rare, complex condition, in which the valve that normally opens and closes to

allow blood to flow to the pulmonary artery is missing. As a result, the right atrium and right ventricle do not fully develop. In the U.S., this condition is typically treated with a series of three operations in the first few years of life, followed by a heart transplant 15-30 years later. Some parents, however, opt immediately for transplantation at birth given the high risks associated with the three reparative surgeries. When I interviewed Araceli in her home, Vittorio, four years old at the time, ran around us in circles. He insisted on showing me every one of his toy trucks, none of which were fully intact. As we drank lemonade on her couch, Araceli remembers the day she learned of the diagnosis. The pediatric cardiologist had said: "Enjoy him while you can. He won't live more than five months." These words "killed... [her] inside." She thanked him and decided, "He's not God. I'll keep fighting." She pooled funds, most of which came from the hospital director where she worked, and traveled to a specialized pediatric cardiac center in Guatemala. Araceli was told that there was only a ten percent chance that Vittorio would survive surgery; the only reason the surgeon agreed to operate was because Araceli was willing to pay. When the nurse took him from her arms that day, she said, "Kiss him goodbye. Only God knows if you'll see him again." Sharing this story, Araceli said, used to bring tears to her eyes. "But one assimilates. One accepts," she told me. As for Vittorio's next surgery, she might return to Guatemala, if she can save enough money. She assured me that she had "always fought for him," and would continue to do so. She would beg for money in the streets if she had to.

Sandra's grandparents told me a similar story where they, too, continued to fight for her even when doctors had lost hope. As we sat in plastic furniture on their veranda, her grandmother spoke first: "When Sandra was two months old, *me le pegó un gripe bien*

fuerte (she came down with a terrible cold). We brought her to the health center. They said she had pneumonia and sent us to the hospital in town." Her grandfather continued:

From the moment we arrived, Sandra was *muy delicada* (critical)—[she was] only with oxygen. The doctors told us that she wouldn't be alive if not for the oxygen. We wanted to be transferred to Central Hospital, where the climate is better and there are better machines, but they said she was too sick to be moved. We insisted. The nurse said, "It's your choice. If we turn off the oxygen, she'll die." We refused, thinking to ourselves, "You're not God." We waited a few days and again asked to be transferred. The doctor said, "Look, I know all children are beloved, and I can see that you are attentive grandparents, but Sandra's in a critical state. You should let her die." We said, "There is a greater doctor [pointing to the sky]." That is not say that there are no good doctors—there are, and they do a lot—but that there are things they can't do. At 8PM, they turned off the oxygen, and the child didn't die.

While parents and other close relatives portray themselves as fighters in a battle against both disease and biomedical authority, I wish to stress that they are not part of the same "political economy of hope" (Novas 2006) found in more resource-rich contexts.

Moreover, not all parents pursued a biomedical path in caring for their children who presented signs of illness. This was the case with one of the poorest families I interviewed. They lived on the side of the road in a one-room shack made of plastic and aluminum. As I sat with Patricia, the mother, in her outdoor kitchen, she told me about her experience with Jimena, her eldest daughter. She gave birth to Jimena when she was only 14 years old. She labored alone. Jimena seemed healthy, at first. She let out a strong first cry. Patricia washed her and cut the umbilical cord. But her health quickly deteriorated. She did not have a good appetite. By the time she was six months old, she had grown malnourished. Patricia left her first husband, Jimena's father, because he never accepted Jimena. When she met her current husband, they took Jimena to the hospital. She was 18 months by then. She was admitted for two weeks but her heart defect was not detected. Patricia started to grow suspicious when a doctor asked to adopt Jimena and then her birth certificate "went missing." Fearing her daughter would be "stolen," Patricia left the hospital never to return. She started to treat Jimena at home with electrolytes. "This was her medicine," Patricia said to me, twice, during the interview, as if to assure me that not going to hospital did not mean negligence on her part. But Isabel did not develop normally. She did not start talking until she was eight years old, walking until she was ten. Her skin was consistently blue and her fingers became "clubbed." But because Jimena never felt sick or in pain, Patricia continued to care for her at home. They only reconnected with the heath-care system when an international medical mission, a religious group focused on primary care, came to their house one day. The volunteers saw Jimena and suspected a heart problem. They suggested taking her to Tegucigalpa for an exam. Jimena was found to have Ebstein's anomaly, a condition known to have a high early mortality rate. Jimena was scheduled for surgery during an upcoming mission, although she died shortly after surgery owing to surgical complications. Jimena's mother, thus, was quite unlike Jesica's and Vittorio's mothers, and Sandra's grandparents, in that she was highly skeptical of biomedical institutions. But to say that she was negligent would also be inaccurate. In an ironic and very sad twist of fate, it may have actually been surgery that had expedited Jimena's death.

Lay Experts

As caretakers who cycle in and out of clinical settings in pursuit of a diagnosis and treatment for sick children, many parents became lay experts in biomedicine. They gained a high level of literacy in biomedical categories and medications. In telling me about her son, Kevin, Amanda said that she left her job to care for him full-time. She had been earning a fairly decent wage working at a cell phone company in San Pedro Sula. Because Kevin had chronic respiratory infections, she and her husband decided to move west into the mountains where the climate was cooler. Her husband and children moved first. Amanda stayed behind to continue working, but was always called away to be with Kevin at the hospital. Typically, she said, he would be hospitalized three weeks of every month. She had to end her work contract early to join her husband and children and dedicate herself completely to her son's care. As she recalls,

I fed him, slept with him. My husband slept in a different room. I was usually too scared to sleep because, out of the blue, he would spike a fever. The doctors couldn't explain it.... It was *bastante duro* (very difficult). *Duro, duro, pues*. I'd administer medications at home. I'd call the pediatric cardiologist for instructions. With these children, you can't give them just anything... I would try to reduce the fever with cold towels. If that did not help, within an hour I would be at the hospital. It would be pneumonia, and if not that, bronchitis. He would even get urinary infections even though he bathed everyday. And if you gave him antibiotics he would get sick to the stomach. If it wasn't one thing, it was another.

In other words, Amanda became attuned to the patterns of illness. She usually tried to tend to Kevin first at home, with cold towels and whatever medications the pediatric cardiologist prescribed. When all else failed, she traveled to the hospital. Another mother, Mery, agreed that you cannot give children with heart defects "just anything," since it may be harmful to them. As a result, she has become *bien preguntona*, meaning that she asks a lot of questions. "I need to know what's going on," she explained, "in order to tell the pediatrician. Because you can't give a medication that shouldn't be taken with the others. You can go to the doctor but you have to be educated. You have to explain what your child has." Parents not only ask a lot of questions, they also keep a watchful eye during stays at the hospital. Saul's mother, for example, is highly alert whenever her son is admitted. She does not leave the bedside so that she is able to "supervise." Indeed, while her son was recovering from surgery during the mission, one of the nurses was about to administer four medications to her child, even though he had only been prescribed two.

When I asked parents to describe their children's conditions, some parents answered, "tiene un soplo (he has a heart murmur)," without identifying the type. Other parents had a high degree of knowledge, which they had gleaned from clinicians, others parents, and in some cases the Internet. This was true especially for younger parents, even if they did not have a computer in their homes. As in much of the world, Internet cafes are ubiquitous in Tegucigalpa. These parents could tell me the name of the defect and how many holes were associated with it. Some parents could tell me the size of each hole. Moreover, nearly all parents had a high level of knowledge about surgical risks. This was despite the fact that informed consent procedures were relatively informal during surgical missions, as in Honduras more broadly, and that it was generally assumed that parents did not understand the risks. Parents knew that any surgical procedure, even the least complex, carried the risk of death. They arrived to the hospital with this idea firmly established. To borrow their phrasing, "not all bodies *resistir* (resist)" the procedure. They also knew that heart surgery was one of the most complex procedures, and that surgical risks were exacerbated in a context where hospital-born infection rates are high, where blood products are unreliable, and where machines, such as ventilators and x-ray machines, are not always in working order.

Also, stories of botched surgeries and surgical deaths owing to hospital contamination or medical negligence circulated widely in Honduras as both daily news and urban legend. Further, parents knew that surgeries in the context of missions carried added risks. Even though surgical teams brought supplies and better equipment, the short duration of their stay meant that some patients would require ongoing intensive care after the team had left the country. Honduran clinicians assumed responsibility for the care of these

patients, but the cost of care fell on families who were often unable afford it, or the state, which refused to pay for it. All of this counters the idea that these parents are uneducated or uninformed.

Illness Trajectories in an Unforgiving Ecology of Care

For many parents, their worst fear was that their children would suffer. This is perhaps best reflected in the following adage: "Para que este sufriendo! Mejor que dios se lo lleve (Why let him suffer! Better that God take him)." This suggests that parents would rather their children die than have them endure pain and suffering. To quote Carin's dad, for example, he said. "Children should not suffer. And it doesn't make sense to have a child and to have him come to suffer in this world, to walk around barefoot, to not have food to eat, to be naked. This doesn't make sense... If you don't have means to send them to school, to give them *sombra* (shelter), to give them a comfortable bed to sleep, no, this doesn't make sense. Better, no, no, no. Don't bring children into this world to suffer." Efforts to minimize children's suffering, however, were not without sacrifice and suffering on their part. As soon as I turned on the tape recorder for our interview, for example, Ana started talking: "Before the operation we had difficult times. We lived in fear because he [my son] was often in crisis." She was worried that, at any moment, he would collapse in her arms and start convulsing, as he had done once already. Parents also suffered emotionally and somatically. Every time that Jesica had another surgery, of which there were four in total, Nora said that she would fall into a depression. "Jesica would be fine," she said, "but I'd feel a sadness. I cried. I didn't want to be at home. I couldn't work. I didn't have energy for anything. I'd be like that for one or two months and I always have relapses." After Jesica's third surgery,

Nora lost feeling in one side of her face, which took months to recuperate. She attributes these symptoms to the shock or disbelief that her daughter had endured so much.

Suffering also had a strong material connection. Raising a child with a chronic, debilitating illness in a country with minimal social support systems, was all the more difficult given the costs involved. Returning to Ana's story, when I first met her, which was the day after her son's operation, her first words were "I've suffered with him." Ana went on to tell me that in first 21 months following David's diagnosis, he had been hospitalized nine times. Regardless of the time of day, Ana and her husband would race to the hospital. "It was always an emergency," she said. But racing to the hospital was not easy. They live in the foothills surrounding the medium-size city of Siguatepeque, two hours from Tegucigalpa by bus. Taxis will not travel to their home, since the trip involves a 15-minute ride on a rocky dirt road. During one of David's emergencies, they would have to borrow a car or carry David down the rocky dirt path to where they could call a taxi to take them to the bus station for Tegucigalpa. There is a hospitals in the neighboring city Comayagua, an hour away, but it does not have a pediatric ICU. David was hospitalized anywhere from several days to several weeks at a time. His longest stay was 38 days. "That time was the hardest," Ana said.

Ana is a homemaker, her husband a carpenter. Their combined monthly income is US\$185, which was far below minimum wage for one person at the time (5,800L/US\$280). They managed with help from friends and relatives:

We'd purchase all the medications the doctor prescribed because they were rarely available at the [state-sponsored] pharmacy. When his pneumonia was advanced, and we were sent to the hospital, there were other costs, not medications but personal costs, during the time we were there: food, clothes, diapers, and other things. We paid for medications there, too. When we didn't have money—*su sueldo es bien poco* (my husband's salary is minimal)—so we'd look for loans. But we never

neglected our son's needs. We were always on-time. We bought medications on time. Thank God there were always people to loan us money in an emergency.

They also made do without help at times. Once Hector was admitted to the hospital when Ana had only US\$5 in her pocket and they had to stay several weeks. "We suffered," Ana said again, referring to that stretch of time in the hospital. The hospital serves food only to patients, even though a parent is required to be with her child on the floor at all times. And the portions are "child-size." Ana said that she, her son, and her husband, all shared from one plate. When Hector was hospitalized and they did not have money to buy disposable diapers, her husband would travel to the hospital everyday after work to bring freshly laundered cloth ones, which has been washed by a relative who lived nearby.

Deysi's son Julio would fall ill as frequently as David. Deysi was a single mother who earned less than Julio's parents. She lived with three of her five children in a two-room house that stood alone on a hillside. She worked nearby as a vender in one of the many *eloteras*, or stands that sell *elotes* (corn on the cob), *atole* (a maize drink), and other corn pastries on the side of the road connecting Tegucigalpa and the tourist town of Valle de Angeles. She estimates her monthly income to be US\$144. Deysi owns her home—it was built as part of a housing program—but between groceries, medications, and school fees, she struggles to make ends meet. Her husband moved to the U.S. after Julio was born and fell out of touch. "He chose to forget about us" was how Deysi put it. Any time Julio would come down with a fever, cough, or a swollen *lengüita* (tongue), Deysi would rapidly seek urgent care. She pays for a private clinic when she can, but in an emergency she goes directly to Central Hospital. She described one of experiences there:

One time I took the child to see the pediatric cardiologist in the morning at 7AM. I hadn't had any food or water. I didn't see the doctor until 2PM. He admitted us because Julio had pneumonia. On the ward I fainted from hunger. I didn't have any

money with me. I suffered more thinking about my other children, my two little girls, whom I'd left at home with no food. I asked another mother [at the hospital] for some water, but she refused. I saw drops of water coming from the ceiling, and I thought to myself: "I might have to drink that." Finally the doctor came—doctors always offer a little help—and he gave me some water. But I still didn't have food. *Entonces ahí sufrí muchas hambres yo* (So, yes, I suffered a lot from hunger while I was there).

Even during pediatric heart surgery missions, at the site of humanitarian care, families suffered. Parents, even if they were single, rarely came alone. Usually the mothers would sleep in the ICU or pediatric ward with their children; they slept on bedding on the floor. Fathers, then, stayed on the hospital grounds but out of sight from security guards. They had no place to shower and they were not offered food. This was after having made a tremendous effort to arrive at the brigade in the first place. Travel to the hospital often meant that families had to walk several hours to the nearest highway, or hitch a ride with a passing car or truck, then board a bus headed to one of the major cities where the missions visit. This required leaving home at dawn or, in some cases, several days in advance in the event that their children were too weak to tolerate more than a few hours at a time on a crowded bus or on poorly paved roads. The cost of travel alone was expensive, and this left many parents without money for food while at the hospital or for a hotel room where they could sleep and wash up.

Divine Intervention

As reflected in many of the above narratives, parents readily invoked religious themes when talking about their experiences caring for sick children. In fact, God talk was nearly ubiquitous in my conversations with parents, especially when parents spoke directly about open-heart surgery with a surgical brigade. In large part, this is to be expected. Honduras is a religious country. It is historically Catholic, although, anecdotally, Evangelical Christians

may outnumber the Catholics. Evangelical Christianity is especially attractive to youth in Honduras as one of the few escape routes from a life of gangs and drugs (Wolseth 2011).

For the parents of pediatric heart patients, religious faith surfaced in several obvious ways. First, religion is already a known resource to make sense of diseases that have no clear etiology. As such, while some mothers scrutinized their pregnancies for cues to the origins of their children's defect, others turned to God for an explanation. Mery, for example, is an Evangelical Christian. She goes to Church three or four times a week. She thinks that her son's defect was a test of faith. She explained that these children are "special" children, and "God sends special children to special mothers." By special, she meant that she and other parents have been chosen to go down this path so that they will become closer to God. Here we see how the quest for biological repair becomes even more than a "transformative journey" (Mattingly 2010). It is also about a spiritual one, not unlike what Adams (2013) finds in the context of Hurricane Katrina, where those affected by the storm sought to restore both their homes and their faith simultaneously. Nora believes that Jesica also "has a purpose," although of a different kind. Jesica, as mentioned, was the first Honduran patient Dr. Cooper operated on in the U.S. before he left his position there to travel with surgical missions full-time. Nora says that Jesica, therefore, was meant to inspire him to take his skills abroad and save not only Jesica's life (he operated on her twice more in Honduras) but also the lives of hundreds of children who could not access surgery abroad. This was not the only example of this kind. In effect, Dr. Cooper was also saved by Jesica.

Second, it is already well known that religiously-motivated medical missions have a longstanding history throughout the world. The same holds true in Honduras. Moreover, acts of charity are also often thought of as acts carried out in the name of love, compassion,

brotherhood, or God. Not surprising, parents and patients saw surgical missions as gifts from God, and surgical volunteers as God-like. An older patient named Suyapa, who was also studying medicine at the time of her surgery, believed that God had given the visiting clinicians the desire to help. "He made it all happen," she said. A mother echoed this point when she said that God had sent to Honduras people with "big hearts." Oftentimes, Dr. Cooper, in particular, was believed to be sent by God. Mery said, "I had a lot of trust in the doctor, not sure why. It is something inexplicable, but every time he approaches I feel something *bien raro*. As if he was sent by God. That's how I feel." Nora also thought of Dr. Cooper as an angel sent by God.

Third, religion is a known resource for dealing with uncertainty. As such, faith was an important resource for parents when they were deciding whether or not to operate. While nearly all parents had yearned for a chance for their children to receive surgery, once the opportunity presented itself, not all parents were immediately convinced that surgery was the right decision. As one mother said, "I didn't want to bring my child home in *una caja* (a coffin)." Another father described feeling like he was "*entre la espada y la pared* (between a rock and a hard place) with nowhere to run." He knew his daughter, who was suffering from the after effects of rheumatic fever, might not survive surgery. He also knew that, at the age of 17, she was unlikely to live much longer without a new heart valve. Yet another parent framed the dilemma in terms of an "emotional crossroads." Her son been denied by 12 heart surgery brigades by the time he was finally accepted. She suspects he was only selected because she personally traveled eight hours to the home of Ed and Annie, GHF's local liaisons in Honduras, to request that her son's case be more carefully reviewed. When she received news that his case was accepted, however, she was torn: "I wanted them to operate

because I knew that he needed it, but at the same time I didn't want it because all operations are risky—we are only human," in other words, anyone can make a mistake. For a mother named Silvia, the fear was not only that her son might die with or without surgery, but that without surgery, his death would be slow and painful. Having done Internet research, she knew the possible surgical complications: her son might not wake up from anesthesia; he might sustain brain damage following a surgery of this magnitude; or his heart might not work again after cardiopulmonary bypass. At the same time, she worried that her son's damaged heart would soon cause his body to deteriorate, in which case he would need breathing support and special care. These concerns caused her daily anxiety. When I asked parents how they dealt with these anxieties, their answer was invariably the same: "We put our trust in God."

Despite these more obvious associations, religious faith overlapped with surgical missions in other, unexpected ways. First, prayer stood in for inadequate pain control in some cases. As mentioned in earlier chapters, pain medication is used sparingly during missions and Honduras more broadly, and ICU care is expedited by removing breathing and chest tubes soon after the surgery has ended. Typically in the U.S., patients would be sedated and on pain medications when the tubes are pulled. During missions, they are awake. Suyapa, the medical student from above, was one of few patients who was old enough to offer a firsthand account of surgery. "I remember waking up [in the ICU] and seeing my mom and dad," she said. "All night I couldn't sleep. I was throwing up, a reaction to the anesthesia. I woke up really thirsty, but the nurse would only give me a few drops of water. Then I'd start throwing up again, which hurt my chest. The next morning they took out all the tubes."

I asked Suyapa if that was painful. "No," she replied and went on to explain: "As I said, I'm a strong believer. The doctor said it would hurt, but that it would be fast. I started to pray, *Señor* (Lord), please don't let it hurt, *ya no*. He pulled out the tubes, and I didn't feel a thing. Nothing." My point is that while in one context removing tubes is accompanied by sedation and pain medication, in this context, it is not, at which point prayer stands in as the antidote. Parents, too, would encourage younger patients to use prayer to manage their pain. I recall sitting with Sandra the day following her surgery. We were in the pediatric unit, since had already had "the tubes" removed and been discharged from the ICU. I asked how she was feeling. "I hurt a lot," she said. Apparently she was overdue for her next dose of ibuprofen. While Sandra's grandmother left to inform one of the nurses, her grandfather turned to her and said, "Pray to your *diosito* (a term of endearment for God) to give you strength to get through this. All is in his hands." Once again, Sandra's grandfather was literally substituting prayer for pain medication, when the latter was in limited supply.

Second, while parents put their trust in God, or put fate in His hands, this did not mean that they passively stood by as the literature on fatalism would suggest. Orlando, the father of a brigade patient, was a pastor. When talking to him about faith, he defined it as follows: "faith is when you trust something will happen but you don't have all the tools. But you don't just cross your arms and stand there. You make small movements." He offered two examples. The first was when he wanted a church but did not have the means to build one. His "small movements" involved holding services under a tree. In time, a group of foreigners came to visit, took note of his efforts, and built the temple. His second example was how his daughter ultimately received surgery. They learned about the heart brigade on TV. He did not have the money to travel, but rather than not travel at all and wait for a

mission to come to a closer hospital, he gathered the money to make the trip for his daughter to be screened. When I asked what compelled him to make the trip, he was "moved by faith." His use of the word "moved" is deliberate in that it shows that he literally had "to move" in order for surgery to even be a possibility. They made the trip without assurance that she was to be selected or even screened.

Parents made "small movements" in other ways, too, which showed that despite having faith in God they were not relinquishing all control. They did not perceive events as wholly predetermined. Rather, they enlisted God's help in various ways. For many years, Javier was too scared for his son, Benito, to undergo surgery. When his son was a year old, Javier was working for a landscaping company. Javier had already been diagnosed. Javier's boss offered to pay for his son Benito to be operated on in Cuba. On the day of their flight, however, Javier panicked and canceled the trip. He was scared his son would not return from Cuba alive. Benito was only expected to live a year, but he survived his first year, then his second, and so on, Javier thought he might not need surgery after all. But over the course of ten years, Benito's condition grew severe. Javier would have to carry him on his back when they went to the market or church. Javier reached a breaking point. He said to God, "Ya no aguanto (I can't take it anymore). Open a door. Give me an opportunity. I can't carry my child any longer." When Benito collapsed, sending them to the hospital, their stay coincided with a mission that happened to be in country at the time. Benito received an emergency operation. In the eyes of Javier, God had answered his request: "God opened a door so wide, wider than anyone can imagine."

Others called on God not to open a door or to create an opportunity for surgery but to ensure their desired outcome, namely, a successful surgery. In Mery's case, this meant

asking God to do the operation. This goes beyond merely leaving their children in God's hands. Instead, it is leaving their children in God's hands while at the same time demanding a desired outcome. When they first learned about their son's diagnosis, for example, Mery and her husband insisted that the pediatric cardiologist help them explore treatment options. The cardiologist said she could present his case to hospitals in the U.S. Mery recalled thinking: "If that's what it takes, we'll do the impossible. We are not people with money, but for my child I'd even beg. We will look for help. We'll look everywhere." His case was not accepted, however. Demian was thought to be too weak to survive long-distance travel. The surgical brigade agreed to perform a palliative surgery, which would allow Demian's vessels to grow big enough so that a full repair would be possible. When Mery learned that surgery carried a 50 percent mortality risk, Mery became afraid, so afraid that she could not eat. She spoke to God. There was not a day, she said, when she did not make state her case: "God, you know what my heart feels. Loan me my son, but I don't want you to give him to me sick. Give him to me healthy. Give him to me for 60 years. I want to enjoy my child." While she trusted the visiting clinicians, her deeper trust was in God: "I put my son in your hands. You will do the operation." When she then dreamt about her son as an adolescent, she knew she had been heard.

These direct pleas to God must be understood in the context of Evangelical Protestantism, which is based on direct lines of communication between God and constituents. But Catholic parents also enlisted God to help ensure a successful surgery. This usually involved making promises to saints, fasting, and involving large religious networks in prayer. Cesar's mom, for example, told me that she did not doubt for a second that Cesar

would recover from surgery. This was because so many churches were praying for him on that day.

As a fourth and final example of how religious faith and missions overlapped in less than obvious ways, I found that parents nearly always attributed the success of their children's surgeries to God as opposed to the volunteer surgeons. What made this surprising was that they also readily acknowledged foreigners as "experts." Parents viewed the U.S. as home to the most expert, technologically-sophisticated version of biomedicine, which, in their minds, stood in marked contrast to their own country. As noted earlier, as one mother said, "In matters of science, we are still in diapers." In the words of another mother: "We have to be realistic. The science is just more advanced allá (in the U.S.)." Parents did not believe U.S. clinicians were inherently smarter or better than Honduran clinicians, but they did trust them more and they recognized that in the U.S. there are more sub-specialties, resources, and opportunities to practice high-tech medicine. As Amanda said, "For U.S. clinicians, fixing hearts is as routine as removing appendix." Given a highly romanticized view of biomedicine "allá (abroad)," I expected parents to argue that it was foreign biomedicine that cured their children. More often than not, however, they talked about not the expertise of the visiting surgeons but rather the power of God to create and guide all surgeons. I offer the following examples:

God gave science to the doctor. Among the disciples there was a doctor, Lucas. Today they are doing heart surgeries because God gave this knowledge to people. (Mother of brigade patient)

God cured my daughter with his power... God is always giving his intelligence to others so they can heal. In this case, God gave intelligence to the surgeons so he would save all these children. (Mother of brigade patient)

When you're in surgery, being in the hands of Dr. Cooper is like being in the hands of God. (Mother of brigade patient)
The surgeons do good work *para que* (without question), but the one who has do better work is God... God's hands are what guide these operations. (Father of brigade patient)

God... [must] have been there with the doctors during the surgical process for everything to turn out okay. (Mother of brigade patient)

Even younger patients expressed this idea. When I asked Eduardo, who was four, who had cured him, he answered, "God." This is telling because Lucinde, his mother, was not particularly religious nor does she regularly go to church. God, in other words, was widely viewed as the doctor of all doctors.²⁷

In looking at how religious faith surfaced during missions, two things become clear. First, to expand an earlier point, fatalism is indeed far more nuanced than the literature suggests. Turning to God can be agentive. Second, hope is an unstable concept. This is because what is being hoped for in the operating room is not necessarily the same across all parties. When visitors come to Honduras to operate on hearts, they bring hope. This was evidenced by the names of their organizations: Surgeons of Hope, Chain of Hope, and Project Hope. It was also reflected in their slogans: "[we] bring hope to children that have only known despair" and "where hope comes to life." The type of hope they bring is what Mattingly calls "clinical," "biomedical," or "utopian" hope: "hope based on scientific knowledge and technologies and the individual expertise of the clinician to deploy them" (55). For parents, surgical missions also embodied hope. "It's not like when Jesica was born," said Nora. "Mothers today don't have to face what I faced knowing Jescia would die within a year unless I could get to the U.S.—something I never thought I'd be able to do." Amanda shared Nora's sentiments. Her son's surgery was deferred for many years because

²⁷ This phenomenon has been found elsewhere (Crowley-Matoka 2001; Roberts 2012).

he was too sick for surgery in the U.S. and not sick enough to be prioritized as by one of the early brigades. "These days," she said, referring to the days of surgical missions, "kids can be evaluated and treated in three months time without having to leave the country. One feels the hope." But by looking at how religion surfaces in the context of brigades, parents' hope rests not on biotechnologies but God's presence and willingness to listen to their prayers. While missions may promise "clinical" hope for surgical volunteers and mission coordinators, one the ground they promise a different kind of hope for parents. Specifically, they offer what might be called "divine" hope, that is, hope based on not the perceived power of science but the perceived power of God to be present while surgeries are underway. This illustrates that hope is an unstable concept and that the meanings attached to surgical humanitarianism vary.

Moreover, in questioning the secular logic of biomedicine, parents are questioning the aura of Western biomedical authority: the belief in the power of new biotechnologies to ameliorate suffering. Thus, while calling on God to perform surgery might be construed as irrational thinking, it has a clear underlying logic. It recognizes that, no matter how "expert" the clinician, biomedicine in any context, and especially in this one, is not infallible. Biomedical expertise, alone, is not enough to save lives. Curiously, even though GHF is non-denominational, surgical teams frequently prayed prior to surgery; they, too, felt the need to summon God to the operating room under these conditions.

EPILOGUE

Promises, Paradoxes, and Ways Forward

As much as pediatric heart surgery missions are synonymous with God, they are also synonymous with rebirth. Unlike other humanitarian gestures, such as offering refugees "a bed for the night" (Rieff 2002) or monitoring a child's food intake with a "bracelet of life" (Redfield 2005; 2013), heart surgeries are highly invasive with the power to be lifechanging. Whereas they can end a life early or make life more difficult, they can also save a life from the grips of death. They may be a child's only hope for survival. The physical effects of surgery are dramatic and quite visible. Within seconds of repair, a child's skin can change from blue to pink. Within hours of surgery, the child is likely to be awake and breathing easier than before. Within months of leaving the hospital, he or she may gain a healthy amount of weight. A child's whose legs had atrophied can quickly rebuild enough strength to run and play.

Such remarkable physical transformations give many parents new hope for their children's futures. During interviews, parents expressed hope that their children would now grow up to be doctors, lawyers, or professional soccer players; that they would attend university even if they had not yet learned to read; that their hearts would return to normal; that surgeries and cardiac medications would no longer be necessary. One couple migrated to the U.S. after their son's surgery (leaving their son behind with his grandparents) in pursuit of better jobs. Now that their son *could* have a future, they wanted him to have the best possible future they could provide. As this last example suggests, humanitarian heart surgeries did not only make possible a future that had previously been foreclosed, they also inflated hopes about what that future could entail. As discussed in Chapter Two, parents

were not the only ones to have such high hopes; surgical volunteers, too, had visions of surgical patients growing up to become the next President or Minister of Health. Their hope was that by fixing pediatric hearts they could ultimately help fix a nation in crisis.

The life-saving potential of pediatric heart surgery missions must never be forgotten. At the same time, imagined futures readily sparred with biological and social realities. Children who suffered from simpler defects, such as atrial septal defects, ventricular septal defects, and patent ductus arteriosus, had good prognoses. According to Dr. Osorio, a Honduran ICU doctor, they could go on to live "a normal life." For children treated for more complex heart conditions, however, that life would be better qualified as "acceptable." "They can go to school," Dr. Osorio said, "but they will get tired. They won't be able to tolerate activity. They will always have to take medications. They will always have to come to *consultas* (medical appointments). They might get recurring infections." In other words, it would be a decent life, but one of restrictions and consistent monitoring.

Life in Honduras for any child or young adult is already constrained. Given the current social and political reality, it is questionable whether children treated by surgical missions would attend school even if they were physically able. In the general population, school enrollment is limited. Recent data show that 49.2 percent of boys and 58.6 percent of girls are enrolled in secondary school (Bintrim et al. 2014). Even for healthy children already enrolled in school, classes are often not in session because teachers must frequently take to the streets in protest of unpaid wages. Right-wing attempts to privatize the public education system have led to month-long teacher and student strikes. Even when classes are in session, students find it increasingly difficult to gain access to the classes required to graduate. It is not uncommon for a four-year course of study toward a university degree to

take eight years, for example. Further, there are additional costs, such as transportation, school fees, books, pens, paper, and uniforms, which many families are unable to afford. Children with heart defects are further disadvantaged because many of them have been kept out of school owing to their heart defect. In some cases, they were too weak to attend. In others, schools refused enrollment because they did not have the resources to admit a child they deemed to need special attention. Lack of an education, in turn, makes it more difficult to find work in the formal labor market, and those who do find employment often face brutal working conditions, such as in Inez's case, which I discussed in Chapter Four, where she worked two shifts at Regional Hospital but was only paid one minimum wage salary. In the absence of alternatives, many younth are summoned into gangs.

It is not merely schooling and employment that pose challenges. For many Honduran youth, their very survival is at stake on account of the pervasive gang and state violence. As mentioned, Honduras is among the most violent countries in the world, and children are likely targets. According to the Violence Observatory at the National Autonomous University of Honduras (cited in Robles 2014), a total of 1,013 people under the age of 23 were murdered in 2013. This is an almost thirteen-fold increase since 2012, when the number of deaths totaled 81. Young women and girls are especially vulnerable, with the number of femicides increasing by 263.4 percent between 2005 and 2013 (UNHR 2014). Violence is usually chalked up to gang rivalry and drug trafficking, but this perspective overlooks the role of the state as yet another perpetrator, as discussed in Chapter Two. Perhaps the clearest testament to the difficulties of growing up in Honduras is the recent surge in unaccompanied youth migrating to the U.S. As Terrio notes, Honduran children

migrate because they are well aware that, by staying behind, they would face "the certainty of a social or physical death" (2015:16).

Complicating this picture, it is questionable whether heart patients will be able to receive the appropriate follow-up care in the event that they needed it. As demonstrated throughout this dissertation, Honduran government hospitals are extremely hard-pressed to find the material and human resources required to operate on pediatric hearts on a routine basis, let alone cover basic health-care needs. From a recent conversation with Dr. Osorio, I learned that Regional now has an established team of Honduran doctors and nurses who are fully trained and able to operate on pediatric hearts. They are still hindered, however, by a lack of material resources and support staff in the ICU. Further, as mentioned, the public health sector is increasingly being privatized, with the most recent set of structural reforms being launched with a new, three-year IMF loan of US\$188.6 million loan to help the government reduce the country's public deficit, currently the largest in Central America (IMF 2014). The reforms will primarily reduce subsidies in the energy and transportation sectors, but budgets for government schools and hospitals, specifically the country's IHSS hospitals, will also be affected. In a context where many Hondurans are without jobs yet are forced to pay out of pocket for health and education, it is difficult to imagine how heart patients will fare.

Writing a decade ago, Redfield made an important observation about the paradoxical nature of humanitarian interventions. At best, he argued, they foster "survival within wider circumstances that do not favor it" (Redfield 2005:344). This insight could not be more relevant for thinking about pediatric heart surgery missions. While missions undeniably save lives, they nonetheless protect a highly circumscribed category of humanity (Redfield 2005;

Ticktin 2006; 2014). Inflated hopes about what kind of life could be possible following surgery may make everyday realities all the more difficult to bear.

As an example, I return to Jesica's story, which I began in Chapter Six. Jesica was a poster child for GHF missions. As mentioned, at the age of eight months, she was the first international heart patient Dr. Cooper operated on in the U.S. as a charity case. The encounter opened his eyes to the health needs of children in Honduras and later inspired him to travel there with GHF surgical missions. Dr. Cooper operated on Jesica twice more in the U.S. when she was two, and then again in Honduras when she was 11. His fondness for her was clear to anyone who saw them interact. Jesica and her mother would visit Dr. Cooper each time he was in Honduras on a mission. His face would light up when they arrived. They would pose for photographs together. The Honduran nurses at the hospital referred to Jesica as Dr. Cooper's *hija* (daughter). As mentioned, Jesica and Nora, in turn, called Dr. Cooper an angel who had been sent from God to save Jesica's life.

Jesica's fourth surgery involved a heart valve repair. Dr. Cooper made a prosthetic heart value for Jesica by hand using a new, state-of-the-art material that he had received as a donation from a medical device company. In 2011, Jesica and Nora were invited as honorary guests to attend the company's annual shareholder meeting in Atlanta, GA. It was an opportunity of a lifetime. Although Jesica had traveled to the U.S. twice already for surgery, at the time she was too young to remember. Now, at age 11, a visit to the U.S. would have new meaning. Like many young people in Honduras, she had grown up celebrating birthdays at North American fast-food restaurants, watching movies filmed in Hollywood and New York City, and desiring clothes made by Adidas and Nike. A chance to experience the U.S. firsthand was a dream come true.

During the visit, Jesica and Nora were treated like celebrities. They entered the convention hall to a room of applause and Jesica was invited to give a speech. They were also provided with a personal translator and chauffeur for the duration of the visit, along with a US\$600 gift card, which was double Nora's monthly salary as a primary school teacher. In addition to having all expenses paid in Atlanta, Jesica and Nora were sent on a short vacation to Disneyworld in Florida.

When they had returned to Honduras, I asked Nora about the visit. She told me that she found it difficult to escape her problems at home. She was mourning the loss of her nephew who recently had been shot and killed outside her parents' house. She was also under considerable financial stress. The new school year was only weeks away and she wondered how she would pay for Jesica to attend private school, which cost US\$42 a month, an amount that would have easily been covered by the US\$600 gift card had the funds been transferable. Public school would have been less expensive but it was too dangerous for Jesica to travel to alone by bus. Nora considered asking Dr. Cooper if he or the medical device company would help sponsor Jesica's education, but she did not want to appear too needy or ungrateful for the gifts they had already received.

The trip was hard on Jesica, too. At the airport on their way back to Honduras, Nora told me that Jesica "*se pusó mal* (fell ill)." The paramedics arrived. Jesica's vital signs were found to be normal. Nora wondered if perhaps the sharp contrast between the two worlds, Honduras and the U.S., had been too much to reconcile. Or perhaps she fell ill in protest of having to re-acclimate to life in Honduras, where there was no Disneyworld or \$600 credit card, and where, come December, she and her cousins would wrap up their own toys to put

under the Christmas tree (which Nora would make out of paper) because there was no money to buy new ones.

Jesica is an exceptional case in that she has received not one but four humanitarian heart surgeries, not to mention a state-of-the-art heart valve. Yet she still has minimal prospects for a better future. Where will she attend school? Will she become the victim of assault or murder, or will she risk her life to migrate to the U.S. illegally? What if she were kidnapped by and married into a gang against her will (not an uncommon practice)? To my knowledge, neither the surgical team who treated Jesica, nor the funders who paid for her surgery, are asking such questions. Even more disheartening, in my view, is that Jesica will forever be, by their calculation, a surgical success; this would be true even if Jesica had passed away or experienced surgical complications. As a general rule, as long as surgical patients are well enough to be discharged from the hospital in a timely manner, and as long as they do not die within one month of their surgeries, GHF records their surgeries as a success. A child's recovery from open-heart surgery is not to be discredited. The danger, however, is when this obscures how that child may go on to endure a life of hardship or else an early death.

* * *

The purpose of this study is not to criticize surgical missions for being overly concerned with "body counts," that is, the number of patients treated "successfully" as defined above. The body-count mentality, known to characterize many international medical missions, has already come under scrutiny (Dupuis 2004:422; see also Wall 2012). Rather, I have sought to understand how and why such a mentality is sustained, and what effects it has. Toward that end, I have investigated the emotions, imaginations, and agendas that inspire medical

personnel to assume a humanitarian role abroad. I have also examined how a distinctive humanitarian ethos, which I call "MacGyvered healing," is concretized as biomedical practice. Finally, I have tracked the far-reaching social effects of humanitarian medicine for patients, in-country providers, and health-care systems.

As mentioned, my analysis is most directly in conversation with the anthropology of humanitarianism, yet I depart from this literature in several ways. Rather than conceptualize humanitarianism as a set of emotions or ethics (Wilson & Brown 2008), ideology (Fassin 2007; Fox 2014; Redfield 2013), biopolitics (Fassin 2007; Ticktin 2011), or human rights issue (Farmer 2005), I view it as a field of practice and attend specifically its clinical dimensions. In particular, I have highlighted the highly flexible and adaptable nature of biomedicine during humanitarian missions, compared humanitarian biomedicine with biomedicine as practiced in everyday contexts, and analyzed volunteers' own narrations of healing. Second, in contrast to studies that focus on high-profile humanitarian groups, such as Médecins Sans Frontières (Fassin 2007; Redfield 2013; Ticktin 2011), I have considered a smaller NGO, which is less well-known but nonetheless exemplary of the recent "growth in... 'mom and pop' fundraising entities who deliver care and services to target populations" (Adams et al. 2008:318). Finally, rather than follow an NGO to its many destination sites, I have focused on a single site: Regional Hospital in Honduras. My objective was to examine hospital life before and after visits by missions, more specifically, to document the mundane and persistent challenges that face in-country medical personnel who navigate landscapes of scarcity as not a two-week adventure or humanitarian service but rather a lifelong career. By investigating humanitarian practices as well as a mission's aftermath, this dissertation lends key insights.

Humanitarian motivations are not self-evident. In the case of veteran surgical volunteers who had become hooked on missions, I found that their desires to "do good" dovetailed with desires to become self-proclaimed "medical MacGyverers," or innovators for a social cause. This observation is important because it demonstrates that the rewards of missions are far more complex than typically assumed. The surgical volunteers I met were not merely interested in improving their resumes or observing exotic biomedical cultures. Nor were they strictly seeking religious or spiritual salvation. Rather, they felt intellectually stifled and underappreciated in their professions in their home countries and, as such, found pleasure and satisfaction in having to work in a high-pressure, resource-strapped setting. As one ICU doctor reported, one of the draws of surgical missions was the opportunity to have "MacGyvery-fun." This mindset has a shadow side, however. As suggested in the case of Jesica, the allure of adrenaline and fun may render invisible the difficulties of growing up in Honduras even after a child's heart has been healed. Further, it may blind the volunteers to the cruel realities of working in this setting daily, which, in turn, may account for why some of their objectives are out of sync with local perspectives and priorities.

As mentioned, on principle, surgical volunteers shy away from donating large amounts of material aid to Honduras, first, because they believe that the greater need is surgical training, and second, because they do not want to foster a relationship of dependency and ultimately undercut local autonomy. Yet Honduran doctors and nurses have a different reading of the situation. In their eyes, the primary need is material and logistical: its resolution requires not training but time, space, resources, and institutional support. Further, from their point of view, to request and receive aid is not necessarily a sign of weakness, inferiority, or dependency but rather part and parcel of their own "ethicomoral

assemblage," that is, the specific ways that they "orient themselves toward something we might imperfectly call 'the good' or 'the right'" (Scherz 2014:7). For example, as discussed in Chapter Four, in the absence of missions, Honduran doctors and nurses consistently "resourced" medical supplies from a range of sources precisely to "do right" by their patients. Here we see a fundamental clash in priorities between surgical volunteers and Honduran doctors and nurses, which may undermine their shared goal of collaboration. My point is that this mismatch is only reinforced when surgical volunteers are so enthralled by the heroism and thrill of MacGyvered healing that they forget, or overlook, just how challenging it is to always have to confront scarcity when trying to save a life.

The fact that surgical volunteers seek to innovate during missions is relevant for other reasons, too. Medical mission volunteers claim to be conduits of knowledge and skill from rich to poor countries; that is, they are deeply committed to "technology transfer." However, the degree to which volunteers adapt and make do during missions suggests that they are not simply importing these technologies from their home countries but rather *re*inventing them at destination sites, oftentimes looking to in-country personnel for guidance and inspiration. Surgical volunteers, in turn, are known to bring their newly acquired expertise back home and apply it to their everyday practice, thus attesting to the value of what they have learned. I underscore this point because it demonstrates how labels, such as "expert/novice," or "teacher/trainee," are by no means fixed. Surgical volunteers are generally seen as experts or teachers during missions yet they occupy these categories only on occasion; at other times, especially when they must "unlearn" what they already know in order to carry out clinical tasks "Honduran-style," they assume the role of novice or trainee.

challenge this label, too, in that their clinical abilities are far more versatile and fine-tuned than those of their foreign counterparts. Further, my analysis showed how Honduran personnel were not only highly competent but also humanitarian in their own right—yet another designation usually reserved for surgical volunteers. This was evidenced by the days and months they worked without pay, the heavy case loads they assumed at will, and the lengths they went to access medical supplies for their patients.

My analysis also challenged general assumptions about the recipients of humanitarian aid, namely the parents of heart patients, who are often portrayed as having irrational fears of biomedicine or else blind faith in foreign biomedical expertise. The parents I encountered in Honduras defied both characterizations. If they feared heart surgery, it was with good reason. They knew full well that any surgical procedure could result in death and that the design of missions was not always conducive to patient safety. Further, if they showed trust, it was not trust in biomedicine's power to cure but in their own ability to will God to the operating room and guide surgeons in a successful operation. By listening to their stories, we also learned what it was like to seek care in a health system that was increasingly being privatized. Parents, especially mothers, were not rendered helpless or powerless but transformed into active agents who fought for the survival of their children against considerable odds.

As a final point to emphasize, surgical missions are highly ambiguous in terms of their effects. I have already discussed how fixing hearts in a social and political context that undermines everyday survival is paradoxical. As I discussed in Chapter Five, it is also paradoxical that the regular surgical schedule at Regional Hospital must be temporarily suspended, and the ICU cleared out, while surgical missions are in residence, a clear

example of the "humanitarian politics of life" known to characterize other humanitarian groups, wherein only some lives can be saved and others must be sacrificed (Fassin 2007). In addition, I found that efforts to empower in-country personnel could, in fact, discredit them in the eyes of the public in cases where surgical missions left behind critically ill patients. It was not that Honduran medical personnel were incapable of caring for them, but rather that they did not have sufficient access to resources or bed space, or that the child's condition was already too advanced to be healed.

I must stress that an ethnography *of* medical missions is not meant to critique or call an end to this work but rather invite reflection on how missions can be improved. With that in mind, I wish to conclude with an observation of more practical relevance. One of the challenges of surgical missions is the ethical imperative to treat as many patients as possible in an attenuated timeframe. Such an imperative, however, is based on the false assumption that missions are a child's only chance for survival. This imperative also takes a physical toll on patients, who, in effect, have to leave the ICU in less than 24 hours, leave the hospital in less than three days, and recover from surgery without opioid-based pain medications (which would slow the recovery process). Further, the drive to maximize patient volume results in long working days for clinicians, which increases their fatigue and propensity to make medical errors. In short, what appears as an ethical response may in fact have less than ethical implications: it can significantly compromise safety and even survival.

It should come as no surprise that surgical missions are conducted at this speed, as it is indicative of global health more generally. As Adams and colleagues note, "In academic and activist fields of global health today, we are all being asked to be productive in ways that create a sense of having to do more and do it faster... Our perception of normalcy in

relation to the pace and vigor of our work seems governed by entanglements of anticipation, innovation, and speed" (2014:180). But faster is not always better. In developing this point, these same authors advocate a move toward what they have termed "slow research," which borrows from the experience of "slow food": a way of producing and consuming food that is "potentially both salutatory and productive" (2014:180). They go on to propose principles of slow research, such as prioritizing new conceptions of the "local" and taking a moment to pause and reflect before launching new global health activities or interventions. It is worth noting that pediatric heart defects are especially suited to a slower-paced approach in that they are predictable medical conditions that uniformly affect patient populations. In other words, they should not require the kind of mission-style interventions designed for sudden emergencies.

Most relevant for my argument is the principle of slow research that calls for "valorizing what already works, even if it means rejecting the prestige and fiscal opportunities of the new" (Adams et al. 2014:185). In the case of Honduras, while the public sector may not at all work, Honduran doctors and nurses have learned to make the system *work* for them. Yet their insights and abilities are often invisible to outsiders who visit only intermittently. I therefore urge surgical volunteers to more directly valorize the efforts of incountry personnel: to treat them as equals, publically recognize their achievements, adhere to their requests and recommendations, and value their clinical expertise. It is in this way that they can more effectively build capacity, as they will be capitalizing on the work that is already underway.

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