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Healthcare Issues in the United States and Beyond with Existentialist Philosophy

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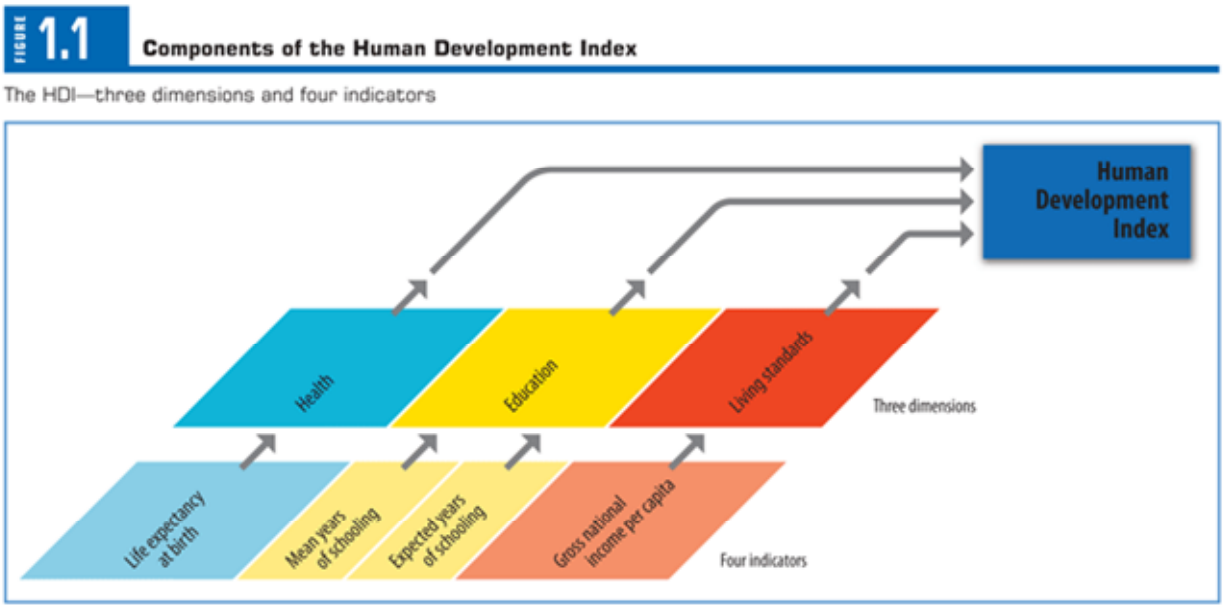
Introduction/Overview

Healthcare is one of the most fundamentally important rights of humans all across the world. Although many people are aware that different healthcare systems exist, not many realize the extent to which access to care differs around the globe. The research done for this report reflects upon the need for change in certain countries, as well as a look at the importance of some of the most central areas of health. These areas include nutrition, immunizations and access to care from both a physical and monetary point of view. The countries that have been examined are all at different levels of development in each of these three areas of focus. The five countries include: Haiti, Ghana, Ecuador, Nicaragua and the United States.

Often when the phrase “developing countries” is used, the main aspects of criticism are mortality and income. Countries are ranked by their income per capita or by their infant and adult mortality rates. Mortality and income, however, are only small measurements of people’s well being. The Human Development Report (HDR) has ventured away from these historically focused upon aspects. Living a certain amount of years is only one part of leading a long and healthy life. The HDR takes into consideration many things other than just mortality rates. Some of these aspects included in the HDR or are: nutrition and malnourishment, literacy rates, educational opportunities and enrollment rates, and other standards of living. The Human Development Index was a measurement of all of these characteristics in order focus on the quality of life in each country. According to this index, out of 169 countries; Haiti ranked number 145, Ghana was at 130, Nicaragua at 115, Ecuador at 77 and the United States at number 4 (where the lower numbers represent the more developed countries).[1] The three countries that rank higher than the US are Australia, New Zealand and Norway (number one). The last country ranked for this index is Zimbabwe at 169. The measurements taken into consideration

for the Human Development Index are shown in the flowchart below.



Note: The indicators presented in this figure follow the new methodology, as defined in box 1.2.

Source: HDRO.

Nutrition

The importance of quality nutrition is one of the areas often overlooked by society at large. In the first few years of life, good nutrition from a variety of sources is essential for growth and development of children. Malnutrition is a very easily preventable disease that affects 195 million children worldwide.[2] This does not necessarily mean that there is not a sufficient amount of food for these children. Often malnutrition occurs from the lack of the variety of critical foods such as high quality animal protein, essential fats, vitamins and minerals (i.s. Calcium and Iron), and carbohydrates. By supplying these critical ingredients for healthy development, communities can decrease the risk of chronic illness or even developmental impairment. [2,3] The medical relief organization Medicins Sans Frontieres (MSF- Doctors without borders), has developed a campaign regarding the quality of food being sent as aid for developing countries. Their campaign, “Starved for Attention”, addresses the need for quality food sources in many

countries and calls to attention the US “double standard” of food products. It seems as if food supplements being sent through USAID are not quite up to par with the good, quality food which we know is necessary for proper health and development. They are sending millions of pounds of cornmeal overseas which would not be served to the citizens of the US, even those who are in need of nutritional assistance.[4] Other than MSF, the United Nations and UNICEF (UN Children’s Fund) has created many programs to aid in world hunger and malnutrition. In the year 2000 world leaders joined together to develop the Millennium Development Goals to enhance human development, which will ultimately lead to an increase of peace, security and poverty reduction. The first goal of eight for the Millennium Development project is to “Eradicate extreme poverty and hunger”. The goal of this is to reduce the half of the world’s population who suffer from hunger by the year 2015.[5] The problem of malnutrition does not solely lie upon the shoulders of international help. In Nicaragua the staple food for every meal consists of rice and beans, although this food does provide protein and other nutrients in high quantities; the way in which the food is prepared causes health issues to arise. In Nicaragua, as well as many other countries in South America, nearly all of their food is cooked in high levels of oil. This constant ingestion of highly oily foods causes high cholesterol and even diabetes in much of the population.[6] On the same lines of food preparation, another harmful example is cooking with open fire indoors. It is not uncommon for Nicaraguan families to have an open fire in the middle of their homes. Meals are often cooked indoors on these fire stoves; inhalation of the smoke causes chronic lung issues, especially if the families are constantly using the fire pits.[6]

From a governmental standpoint it is understood that malnutrition is a serious issue for every citizen, and importantly those in the early stages of life. Food and nutrition programs are most commonly offered for mothers- to-be and newly born infants. The United States, for instance, has a supplemental feeding program for Women Infants and Children (WIC). This program is referred to as WIC and functions based on certain requirements which must be met

by mothers and children in need. The program covers food costs for women who are low-income pregnant, breastfeeding, non breastfeeding post-partum and infant and children up to five years old. [7] Each month, these women get a certain stipend based on their needs. The money is used solely for food of high nutritious value like milk, eggs, vegetables and fruit.[4] This again raises the question of a possible double standard of help for the United States' own citizens, and the help which they offer to the rest of the developing world.

Along with the United States, Ecuador has also developed governmental feeding programs for its citizens. The Ministry of Education and the Ministry of Social Welfare have both created for young children, many of whom are school-aged. The Ministry of Education has developed a school feeding program for children age five and up. [3] According to the Human Development Report (HDR) of 2010, the percentage of primary enrollment in Ecuador is 96.9 percent. [1] This is a great percentage of the young population, however when we also take into consideration that the average number of years of schooling is only seven years, we realize that the school feeding program cannot help forever. Another shocking addition to this program is the fact that of the 160 school days (per year), food is generally only provided for the students one-fourth of the time. [3] That means that on average a student who enters school at age five, and stays in school until he is thirteen will be provided with food only 320 days, in eight years. So at first glance this program seems extremely beneficial; but when we look further into it there seems to be some issues with its regulation and disbursement of food. This, however, is not the only program that is established in Ecuador. The Ministry of Social Welfare has also created a couple of programs for children (from age four to five), as well as the elderly and disabled. [8] Although there are many food/ nutrition programs offered in Ecuador, it has been discovered that most households still do not benefit from any. There seems to be a significant minority that receives support from multiple programs but 67 percent of households still do not receive assistance from any. [8] Not all of the food assistance programs are failing in Ecuador though.

Since 2005 the Ministry of Social Welfare's National Nutrition Program and the integrated program of Micronutrient deficiencies has developed a national program call "Mi papilla" or "My porridge". This program was aimed at children from six to twenty-four months of age. According to the latest evaluation, this program has showed profits of nutritional status, particularly in weight improvement. [8] "Mi papilla" was successful due to the strategies in delivery of food supplements to these young children. The nutritional and micronutrient benefits from "my porridge" were especially present in levels of Iron, folic acid and zinc where 100% of the daily requirements were provided. Other benefits from this food product are Vitamin C, Vitamin B complex, magnesium, Vitamin A, Calcium and phosphorous. One of the most significant developments of this product is the fact that it just requires a clean source of drinking water for its preparation. [8]

Malnutrition not only causes hunger but also much more serious side effects as blindness from a vitamin A deficiency or stunting from a lack of sufficient protein. [1] In areas where access to quality food sources is not easily available, chronic malnutrition or 'stunting' often occurs. 'Stunting' is especially common in children who are undernourished and are five years old or younger. [3] Other than developing supplemental food programs, many countries such as Nicaragua and Ecuador are trying to focus on promoting the importance of maternal breastfeeding. [6,8,9] Mothers and families can decrease their food expenses each month by switching from processed infant formulas to solely breastfeeding their infants. Not only does this decrease the cost of food for families, but there are many benefits for the infants as well. One of these benefits is an increased function of the infant's immune system from passive immunity transferred from the mother.

There has been a focus, thus far, on chronic malnutrition in children and the programs associated with school-aged children and younger. It is important to realize that while good

nutrition is foundationally important in the early stages, it is also essential throughout the rest of a person's life. Malnutrition at any age, leads to a decrease in cognitive ability as well as a decrease in physical strength. With a decrease in physical strength also comes a decrease in function in the body's immune system. This is a detrimental effect of malnutrition, as the body's immune system decreases in function, its ability to fight off common everyday illnesses often decreases as well. In Haiti (as of 2006) 58% of the population was undernourished and 23% were food deprived (fell under the minimum requirement necessary food quantity). [1] Since these statistics have been reported much has changed in Haiti.

The earthquake of 2010 had catastrophic effects on Haiti's economy as well as its infrastructure. There is no question that the numbers of undernourished people has increased, in some areas worse than others. In the province of Grand Anse, malnutrition has recently linked with the bacterial disease Cholera to create a devastating epidemic. [10] The number of cases fluctuates due to difficulties in reporting between the numerous medical organizations present in the country. One volunteer organization, Medecins Sans Frontieres (MSF-Doctors without Borders) has treated over 110,000 people between October, 2010 (when the epidemic began) and February 2011. [11] Cholera is a bacterial, intestinal disease which causes severe diarrhea and vomiting. This rapid decrease of bodily fluids leaves patients weak as they suffer from severe dehydration and electrolyte imbalance. Cholera is difficult to recover from for patients who are in a prime physical state. In such an undernourished country as Haiti, the toll that it takes on the population is disastrous. Kerri Watkins is a field epidemiologist who was assigned by PAHO/ WHO (Pan American Health Organization/ World Health Organization) to work in Haiti in January 2011. Watkins reported that, "A lot of patients [she] saw had other underlying health conditions. They were not only dehydrated from cholera, but they were not in optimal health to begin with. Malnutrition was common. This makes cholera very hard to treat". [10] The first steps of treatment are generally rehydration salts, antibiotics and intravenous fluids.

Outside providers like Watkins and other relief organizations such as MSF are commonly relied upon to provide these resources as they are not available otherwise. [10] Cholera was a disease that has not been seen by the medical staff in Haiti and so treatments were not readily prepared. [12] Prevention and treatments for other diseases such as diphtheria, the measles, pertussis, rubella and polio are more readily prepared for around the world with vaccinations.

Vaccinations

Since the late 16th century vaccinations have been used around the world to cure illnesses and provide immunization for patients. The first few years of life are of dire importance for immune system development. It is in these years that many vaccines are given to children to prevent life-threatening diseases such as: the measles, diphtheria, tetanus, pertussis (whooping cough), the mumps, hepatitis B, poliomyelitis and meningitis. [13] Every country has different guidelines and schedules for immunization and much of the time this is dependent on the prevalence of diseases and potential of disease transmission in certain areas of the world. For instance, Ghana, Haiti, Nicaragua and Ecuador all require the BCG vaccine to be delivered at birth. [13] This vaccine works against tuberculosis and is especially important in countries with high prevalence of TB. In 2009 there were 112 cases (per 100,000 people) in Ecuador, 329 in Ghana, 312 in Haiti, 53 in Nicaragua and 4.5 in the US. [14] It is clear that these four countries are in need of the vaccination BCG. Of the five countries researched, Haiti's immunization schedule is most lacking. It calls for only six vaccinations for children until they are five years old. Comparing the other countries: Nicaragua calls for twelve, the United States calls for fourteen, Ecuador calls for sixteen and Ghana calls for thirteen immunizations. [13] Delving further into the immunization problems in these countries we can look at the data for the percentage of a target population who have been vaccinated according to the immunization schedule's recommendations. The country that seems to have been most successful in providing

immunizations is Ecuador; followed by the US, Ghana, Nicaragua and then Haiti. [13] It is vital that these immunization schedules be followed in order to have a healthy, thriving population.

Immunization guidelines and schedules not only provide many benefits to the patient receiving the vaccination; but to the rest of the community as well. When speaking of community immunization advantages a topic that is often discussed is that of *herd immunity*. Herd immunity is the result of the majority of a population being vaccinated against a certain disease. By increasing the number of people vaccinated, the number of transmissible cases is decreased dramatically. [15] This is especially important for those patients who are immune-compromised and may not be able to receive a vaccine without severely affecting their health. These immune-compromised patients often have to rely on the others in their community to take the correct precautions to avoid contracting and transmitting diseases. As previously mentioned, it is known that malnutrition and undernourishment cause a decrease in the function of the immune system. [3] When discussing immune-compromised patients it is important to consider the fact that "immune-compromised" patients constitute a broad variety of people ranging from the disease-inflicted immune- compromised to the malnourished- immune compromised. If patients turn down the opportunity to get vaccinated, this opens the door for diseases to be reintroduced into the community and possibly spread rampant throughout the undernourished and immune-compromised community.

Organizations like the UN Expanded Programme on Immunization and the Pan American Health Organization's Revolving Fund for Vaccine Procurement provide large-scale immunization programs for many developing countries. [1] "A package of six vaccines assembled by the World Health Organization costs less than $1, and de-worming (which can increase school attendance) costs just 50 cents a year." [1] These six target vaccines are for tuberculosis, diphtheria, neonatal tetanus, whooping cough, poliomyelitis and measles. Along with help from

outside sources, many developing countries are trying to provide large-scale immunization programs for their own citizens. As recently as March 28 to April 3, 2011, Nicaragua's Ministry of Health launched "The Great day of Vaccination". This program ran nationwide with a goal of vaccinating over a million people. It especially focused on children who had not completed certain vaccine series as well as the most vulnerable citizens of remote communities who have difficulty with access to immunizations. The seven day program provided vaccinations against Polio, tetanus, pentavalent rotavirus, pneumococcal infections and pandemic influenza. [16] Another very recent program for Immunizations occurred in the last week of April (23-30) 2011. The Vaccination Week In the Americas was run by the Pan American Health Organization (PAHO), the regional office for the World Health Organization. This year marked the ninth annual vaccination week with the campaign, "Vaccinate your family, protect your community". [17] This slogan is an excellent representation of the importance of herd immunity across the world. The target population of this immunization week was: children under five years old, pregnant women, elderly populations, and indigenous populations. Most of the PAHO member states were involved in this campaign including Haiti, Nicaragua, Ecuador and the US. Along with the PAHO region of the WHO, the AFRO region (African Regional office of the World Health Organization) held their first annual African Vaccination Week with the slogan "Put Mothers and Children first, Vaccinate and Stop Polio Now". [18] This slogan demonstrates the dire need for the eradication of polio which has not occurred naturally in the US since 1999. [19]

Not quite under the same category as immunizations are easily preventable diseases, or easily treatable diseases. Diarrhea, for instance, is a deadly condition when the proper treatment is not available. Simple knowledge of this condition and provision of rehydration salts or IV fluids are all that is generally needed to prevent death. As of 2008, diarrhea caused an astonishing 20.3 percent of childhood deaths in Haiti, 9.5 percent in Ghana, 8.9 percent in Nicaragua, 5.5 percent in Ecuador and less than 0.1 percent in the USA. [14] Another easily

treatable disease is Malaria, many travelers take anti-malarial drugs approximately one month before they travel to countries with high malarial prevalence rates. Of the five countries researched, Malaria is common in all except the U.S. In 2008 there were 3,200,147 reported cases in Ghana, 36,774 cases in Haiti, 4,891 in Ecuador and 764 cases in Nicaragua. Due to the high prevalence in Ghana, 26.3 percent of child deaths (under the age of five) were caused by Malaria. [14] These statistics are astonishing since nearly every person who travels to Ghana is given a simple dosage of treatment. The same dosage of malaria treatment (costing $4 U.S.) would cost the lowest paid Ghanaian government worker three to four days wages. [20] Malaria is a vector-borne illness which is carried in large part my mosquitoes. Once the mosquito becomes a carrier of malaria they can easily spread the parasite among the population. [21] Since mosquitoes are the most common source of transmission of malaria, it is important to realize that simple measures such as mosquito nets and bug sprays could help prevent the disease. Acknowledging these simple measures that could be taken to prevent such fatal diseases brings to life the seriousness of the statistics and just how preventable the 26.3percent of child deaths can be.

Many diseases, however, are not so easily treated or prevented and need a more intense sort of prevention. Some prevalent vaccine preventable diseases are common among the five countries that have been researched. In the United States, in 2008, there were 13213 cases of pertussis (also known as whooping cough). The vaccination for this disease is given in a combination vaccine with Diphtheria and Tetanus (DTP) and is administered in a series of vaccinations beginning at two months old and ending around four to six years of age. In Ghana, in 2008, cases of Rubella reached over 460. In the United States, the vaccine for Rubella is also administered in a combination vaccine with the measles and mumps vaccine (MMR). In Ghana the vaccine for Rubella is not present in the immunization schedule. [13]

Access to Care

The quality of nutrition and immunization systems is very important to maintain a healthy population; but without access to these resources there is no way that their benefits will be obtained. When quality care and resources are not easily accessible patients often put off getting the help they need, and their conditions worsen and become more serious issues. [6,22] There are two ways in which access to healthcare can be granted or denied. First there is a physical access to healthcare and second, the monetary or financial standpoint, is the cost of healthcare.

Physical access to health care varies greatly among different countries as well as within the same country. In rural areas where there are fewer numbers of people, there are also fewer places to receive medical treatments. In Ecuador, 39 percent of the total population lives in rural areas. When ill, injured, malnourished, or concerned of health these patients have to travel large distances in order to receive treatment. Living in Ecuador, the Andes Mountains as well as many active volcanoes put even more strain on the situation of traveling far distances. [8]

In Ghana, the rural areas not only lack medical treatment facilities but nurses and doctors as well. [20] Most of the community health clinics are run by nurses and health workers and are used for preventative care, primary health services and first aid. These nurses have to refer more difficult cases to the district hospitals, tertiary and regional hospitals or polyclinics. [20] In Ghana, the ratio of patients to physicians is 1000:1. [1] On average, a Ghanaian patient must travel sixteen kilometers in order to get to a treatment facility. When ill, injured or elderly this distance is extreme, especially when many patients cannot afford the transportation to get there. [20] Without affordable transportation many patients have no choice but to walk the sixteen kilometers. Consider the fact that an average amount of time for a five kilometer walk is about an hour, that means that just to go see a doctor, these patients must walk for three hours! When

getting medical treatment takes an entire day out of someone's life it is no wonder that many people wait and hope that their illnesses will get better on their own. In order to travel distances with sick patients, there is a toll placed on parents and other family members as well. To take a full day off of work to go to a medical facility, means losing an entire days pay. Often times this pay is very necessary in order to get proper treatment as seen above with the case of malaria medications. This toll on the family's income from traveling to medical facilities leads to the issue of the monetary cost of healthcare.

In Haiti, even before the earthquake of 2010, there was an almost non-existent healthcare system, in both rural and urban areas including Port-au-Prince. This caused many people to rely on free clinics provided by volunteer organizations. [23] When healthcare was available to the public, the services provided were inadequate and often did not even provide the basic necessary services. MSF- France (Doctors Without Borders) runs many free clinics in Port-au-Prince and according to Brian Phillip Moller (head of a 60- bed trauma center), "some [patients] arrive in police ambulance or via the Haitian Red Cross; others are dropped off in wheelbarrows." When the article was published in 2009, Moller also had stated that, "Access to adequate health care is a basic human right and it is definitely not being met here in Haiti. The issue needs to be addressed very quickly. People are dying needlessly and will continue to unless this issue is addressed". [23] As of 2008, before the earthquake, 83 percent of the population did not have access to good sanitation and 37 percent of people did not have access to clean drinking water. [1] Since the earthquake hit in 2010 there is no doubt that things when from bad to worse with the availability of access to healthcare. On top of the regular amount of ill or injured people in Haiti, there were hundreds of thousands more people injured from the disaster. The aftermath of the quake lead to an increase of disease transmission in areas with poor sanitation, and lack of clean drinking water. [10] With an increase in numbers of malnourished people as well as poor sanitation, the transmission of diseases has run rampant

and led to the outbreak of cholera in the majority of the country. [10] All of these people need to receive treatment and when it is not available nearby they have to travel far distances to clinics on very poor roads. In addition, many areas of Haiti are affected by high quantities of rain which lead to devastating landslides. [10]

In Nicaragua, physical access to healthcare is dependent upon where the patients live geographically. As with the other countries, people living in rural areas have a more difficult time getting to clinics and hospitals than those who live in urban areas. In the rural setting clinics are set up similar to the Level I clinics of Ecuador, they provide basic treatment and first aid as well as a birthing center for mothers and infants. These clinics offer information on preventative care and disease awareness as well. In January 2011, Shawnna Prendergast- a nursing student at Simmons College, traveled to Nicaragua to the town of San Juan del Sur for a two week volunteer project. Shawnna worked at one of these community clinics and shared many of her experiences with me. Shawnna's host family lived in a small house with a fire pit in the middle of the kitchen floor and open thatches in the roof. They were very thankful for the supplies that Shawnna's team (of nursing students, a nurse practitioner and doctor) brought with them. After two weeks in Nicaragua it was clear to Shawnna that although many of the people in the community did not have access to quality health care, they really appreciated every little bit that they had and especially the volunteers that came and offered their help. [6]

In the clinic setting in Nicaragua, Shawnna helped with physical assessments such as blood pressures, health promotion, hand-washing skills and personal care. Most of the patients that came to the clinics would travel by foot or possibly by bus if they could afford it. "The most shocking part of the trip was seeing the diversity among the community," says Shawnna. " It seemed to be a going theme having really rich next to really poor." San Juan del Sur is a tourist town in Nicaragua, but beyond the tourist hotels and beaches there is much need for

development and care. In the more rural areas of Nicaragua, where there are no medical facilities nearby, volunteer organizations will often set up a day clinic in a home or barn in the community. While Shawnna was in Nicaragua they traveled further into the countryside and set up clinic in a available barn (the space was donated by the owner for the day). On their way they had to drive on a dried up riverbed since it was in better shape than the actual road. Shawnna's team brought a duffle bag of common drugs and antibiotics as their pharmacy. They had a great turnout of patients and were saddened at the end of the day when their supplies ran out and they had to leave. The patients came from all around and most heard of the clinic by word of mouth. Many of the children that came to the clinic had bad cases of diarrhea and were treated for parasites. Another patient to the clinic came in with a very large ulcer on his foot. "The man had a horse step on his foot three months before he came to the clinic. It would have been much easier to treat if he had come right away, but he did not have access to the facility or antibiotics." [6] A lot of the people in these communities believe that it is not paramount to receive care, but when it is nearby (as when Shawnna's team brought it to them) they would go. In more serious cases, the local health center will refer patients to the larger hospitals and facilities in Tortuga or Rivas. If the patients need to use the ambulance, they must pay for the fuel in order get there.[6]

In the United States physical access to care is still an issue in many areas. Again, more rural areas are affected to a greater extent than urban communities are when it comes to facilities and medical staff. In recent years, the government has established loan forgiveness programs to doctors and registered nurses who are willing to commit a certain number of years in underserved areas. Through the National Health Service Corps, these loan forgiveness programs pay for part or all of medical/ nursing school loans. With six or more years of service the total debt of loans can be paid off. This is an excellent way to attract medical professionals to the areas that are underserved and in need of medical services especially primary care. [24]

One of the main reasons for a lack of availability of medical treatment in rural areas is the lack of medical personnel present. When physicians, nurses, medical assistants and pharmacists receive better payments from private clinics or offices in the more urban areas, they are much more likely to relocate to those positions than they are to stay in the rural areas which are generally public health facilities. [25] In order to alleviate some of the problems which stem from a lack of medical workers, many countries are trying to move towards *community based medicine* and community decision making processes. [8, 20, 26] Community based systems focus on educating members of the community in simple, preventative areas of medicine. By educating and training members of the community, volunteer organizations, non-government organizations, as well as government organizations see improvements in care. These improvements come from the ability to maintain an efficient system of treating, educating, monitoring and evaluating the healthcare system from within, rather than from an outsider's viewpoint. [26] In addition to improving efficiency within the healthcare system, there are benefits for the patients which go beyond the physical care. Many patients appreciate and trust members of their own community more than foreign staff. This trust allows for increased benefits for both the patients and the system. [3]

Although community based medicine is a great way to improve the quality of preventative care and basic medical issues, there is still a great need for intensive facilities in rural areas. Most of the time basic clinics (Level I) are accessible for rural areas in order to provide birthing facilities, primary care, and advocacy for health promotion or disease prevention. Beyond these simple aspects of health care patients have to travel further distances to reach Level II or III facilities which can provide hospital care, pediatric care, surgery, and specialized medical care. [8] These higher level clinics are most always located in urban areas and major cities within a country; where there are more patients, doctors, and resources.

While researching for this project I began to look into the accessibility of healthcare in Rhode Island; where I have been living and going to college for the past four years. I discovered the Rhode Island Free Clinic, in Providence, RI and had the opportunity to volunteer there and get some insider knowledge on the way that the facility runs. The Rhode Island Free Clinic (RIFC) is open every day of the week (Monday- Friday). There are only a few people are actually paid to be there. They offer many different types of medicine but only on certain days of the month (depending on availability of providers). One provider (nurse practitioner) is paid and is a full time employee. There are also two medical assistants and a registered nurse, wellness advisor.

Some of the services that they offer are counseling, coaching, primary care, pre-employment physicals, podiatry, ophthalmology, women's care, mental health, diabetes management, gynecology, and more. The counseling and coaching programs are offered for nutrition and weight management, as well as exercise, healthy cooking and smoking cessation. If the clinic cannot provide sufficient care for one of its patients, the providers have the ability to refer the patient to other facilities. These referrals are often used if the patient requires more extensive care such as a mammogram, colonoscopy, or other type of surgery. An important, and relatively new, aspect of this clinic is the nutrition/ exercise programs offered. The community that the clinic is run in is not the safest or best equipped area for exercising outdoors. Many women look forward to coming to the RIFC for exercise classes since they do not have access to parks or exercise facilities in any other manner. [27] As a certified exercise instructor, I have been fortunate enough to meet and teach some of these women who are dedicated to a healthier life through exercise.

Outside of the clinic in Providence, a network has been established with other providers around Rhode Island. Some primary care providers have been seeing patients for a fair amount

of time. If this patient all of a sudden loses their job or insurance they may become eligible for being a part of the RIFC network. This network allows the primary care physician to still practice medicine on the patient without reimbursement. Along with the primary care benefits (which are in the private office or in the actual doctor's office rather than the free clinic) the patient will receive the benefits of the Rhode Island Free Clinic. Some of these benefits that patients often take advantage of are the laboratory resources, the pharmacy and the Patient Assistance Program. The RIFC has a partnership with Rhode Island Hospital which allows free lab work (blood work for CBC, cholesterol, diabetes, vitamin and mineral deficiencies) for the patients of RIFC. One downside to this could be that if a patient in Narragansett becomes a network patient of the RIFC, they may have to travel to Providence in order to get lab work done. Another benefit of the RIFC network for patients is the availability of many generic drugs from the pharmacy at the RIFC. This pharmacy is open the majority of business days during the week, but hours fluctuate based on the availability of volunteer pharmacists to deliver the drugs at the clinic. As a patient in the RIFC network, these drugs are offered at no cost with the prescription from a network provider. Another very important and useful part of the RIFC is the Patient Assistance Program (PAP). This program allows patients to fill out paperwork in order to receive other prescription drugs at no-cost, which may not be held in stock at the clinic pharmacy. The drugs will be ordered by the pharmacist and delivered to the clinic where patients are notified and allowed to come in and pick them up. [27]

In order to become a patient of the Rhode Island Free Clinic there are several steps that must be taken. First and foremost eligibility requirements must be met. One of these requirements is being at or under 150 percent of the Federal Poverty Line. Allowed income for patients is established in the table below. [28]

Maximum Income Allowed per:			

Family Size	Week	Month	Year
1	$338.44	$1,353.75	$16,245.00
2	$455.31	$1821.25	$21,855.00
3	$572.19	$2288.75	$27,465.00
4	$689.06	$2756.25	$33,075.00
5	$805.94	$3223.75	$38,685.00

Other requirements are that the patient must not have any health insurance, and they must have proof of identification. They must also be able to provide proof of Rhode Island residency and proof of their income. Once all of these requirements are met, the prospective patient must fill out an application which will be entered into a lottery. A new lottery is drawn on the first Thursday of each month. The number of new patients that are chosen depends on the availability of openings every month. These openings are determined by the availability of providers (primary care physicians, specialists and nurse practitioners) at the clinic.

Patients will no longer be seen at the RIFC for a couple of different reasons. One of these reasons may be that the patient has significantly increased their income or has gained health insurance from an outside source. Another reason to stop the care of patient at RIFC is if they continuously miss their appointments. “it’s almost like a three strikes and you’re out kind of deal”, said Kristie Bronson, the volunteer coordinator at the RIFC, “we try our best to be lenient about the appointment and understand people’s schedules; but they must also realize that those three appointments that they missed are three appointments that could have been given to other people who are in greater need of medical care”. [27] Many patients walk to the clinic or drive their cars. Another option is the public transportation bus RIPTA which has a stop right near the clinic.

Through the RI free clinic we see our first demonstration of how income and cost affects the healthcare that is provided to patients. At the free clinic there are many services that are offered but all are dependent on the outside support of physicians and other medical staff who volunteer their services for free. In many other countries, including the ones researched (Ghana, Haiti, Nicaragua, Ecuador, and the rest of the United States) there are large majorities of the population who rely on free healthcare or other forms of public/government sponsored healthcare. Each country has a different system for providing coverage and many are in the process of reform.

In Nicaragua, 45.8 percent of the total population are under the national poverty line and 232 (PPP $) are spent per capita on healthcare. [1] Poor and vulnerable residents of Nicaragua are forced to either seek informal care or not seek treatment at all. [29] In 2004, the Ministry of Health developed a ten year national health plan. The goal of this plan was to decentralize health service delivery by empowering local providers in decision-making abilities. The ultimate aim is to improve the access of health care services to the poor citizens of rural areas as well as the more vulnerable sectors of patients (i.e. indigenous populations). [29]

In Ghana, there is a National Health Insurance Scheme (NHIS) in place for every citizen who is not in the armed forces. [30] There are three different types of insurance through this system; two of which are privately offered and one which is public. These private insurance plans cost more to the patients (as they are not government funded), but often have better health services than the public insurance would cover. The NHIS coverage includes most all primary care services, however many specialist visits are rejected. Some of these specialist visits include: cancers (except colon and cervical), dialysis for kidney failure, and HIV/AIDS treatments. These additional costs result in approximately 50 percent of the combined public and private expenditures on health to be out of pocket for the patients.[20] NHIS members must

use NHIS accredited providers and often must pay the premium for service (unless exempt). Residents who are over the age of 70, under the age of 18, or indigent are exempt from paying the premium in order to benefit from the NHIS. Some of the many services covered by the NHIS include general consultations, laboratory diagnosis, physiotherapy, accommodation in general ward, feeding (where available), maternity care, and medical emergency care, as well as oral health and pain relief. Prescriptions that are included in the NHIS coverage are on a list of approved drugs and even over-the-counter drugs must be filled/ supplied from an NHIS approved chemist store or pharmacist. [30] In Ghana, there is a National Health Insurance Council (NHIC) which oversees the NHIS. The NHIC ensures that all residents of Ghana have access to basic health services. One step that the NHIC has taken to promote the use of the NHIS was to hold special registrations in rural areas during different times of the day and week. By holding these special registrations, the NHIS allowed for working Ghanaian residents to become covered by the NHIS; when previously they could not sign up because it would mean missing a full day of work. [30] 'In 2010, Ghana's Social Health Insurance Model was recognized by the United Nations Development Programme and the World Health Organization for the South-South Cooperation Excellence Award'. [31] This award was given for the progress that the NHIS has made in improving the financial access to healthcare for Ghana's residents, especially those who are 'poor and marginalized'. [31] Although this scheme covers nearly 75 percent of Ghana's 24.8 million residents, 18 percent of the population still has at least one severe deficit in healthcare and only 44 percent are actually satisfied with the quality of their healthcare. [1, 30] Many of these people must rely on outside sources for donations of medical resources. Some of the major sources donating supplies to Ghana are USAID, World Bank, WHO, UNICEF and DFID (the UK Department for International Development). [32]

In Ecuador, where 38.3 percent of people are under the national poverty line, there are many revisions happening to the current healthcare system. [33] In 2006, a 90 million dollar loan

was approved by the World Bank in order to support the implementation of a Universal Health Insurance System. [34] As of 2006, nearly 70 percent of the Ecuadorian population did not have health insurance. This Universal Health Insurance would help many of the poorest members of the population gain access to healthcare.[34] In 2007 and 2008 a transition was made and in 2008 a new Constitution adopted the principles of universality, equity and free services with the "National Development Plan, called the National Plan for the Good Life 2009-2013)". [35] Some of the objectives of this plan are to improve the quality of life and guarantee the rights of nature while promoting a healthy and sustainable environment. In September 2010, Dr. Chiriboga Allnutt- the Minister of Health of Ecuador, acknowledged that in the last ten years there has been a significant decrease in maternal and infant mortality rates as well as in the incidence of several diseases including malaria and dengue. [35] Although these achievements have been made there is still much room for improvement and the Ministry of Health believes that the "Plan for the Good Life" will help to reach new goals.

According to the Human Development Report, the country that is worst-off, out of all five researched, is Haiti. The ranking is 145 out of the 169 countries in the entire world. The latest statistic for the percentage of the population under the national poverty line is at 65 percent. [33] Of the entire population, 37 percent have at least one severe deficit in healthcare and only 22 percent are actually satisfied with the quality of the healthcare provided. [1] Due to this lack of access to quality healthcare, much of Haiti's population must still rely on international volunteer organizations such as Medicines Sans Frontieres and UNICEF to provide them with free, quality care.

The United States is often considered to have the best healthcare in the world. In some ways this is true; there are many medical developments such as drugs, procedures and equipment that are available in the United States that may not be in other countries. However,

the US Health system spends a higher portion of Gross Domestic Product on healthcare than any other country. It ranks 37 out of 191 countries according to its performance in healthcare. [36] The United States certainly has its issues when it comes to the dispersal of affordable healthcare opportunities among its residents. Increasing costs of medical technology, prescription drugs and high administrative costs have increased the cost of healthcare in the US by astronomical proportions. [36] Each year, nearly 700,000 Americans go bankrupt due in large part to healthcare expenses. [37] Because of this many people seek jobs that include the benefits of health insurance; even if they are more qualified for other jobs or careers in which health coverage is not provided. [37] Even when insured there was no guaranteeing that the insurance company would cover the costs of necessary procedures. As of 2009, it was a common practice of many large insurance companies to rescind the policies of patients due to undisclosed evidence. This meant that if a patient had an underlying condition that they did not disclose to their provider; the provider would be able to stop coverage at any time. [37] Since September 23, 2010 the healthcare reform of the US government has made it illegal for insurance companies to rescind coverage for patients based on a technical mistake made in the customer's application. [38]

Two of the largest medical aid programs in the US are Medicaid and Medicare. Medicaid is offered to certain low-income families and individuals who meet the necessary income and eligibility requirements. It is administered by each state, where different guidelines may established for eligibility. Other than income, some of the eligibility requirements are age, whether or not you are pregnant, disabled, or blind, your income and resources (property or investments) and whether or not you are a U.S. citizen. It is important to realize that, "Medicaid does not provide medical assistance for all poor persons. Even under the broadest provisions of the Federal statute (except for emergency services for certain persons), the Medicaid program does not provide health care services, even for very poor persons, unless they are in one of the

designated eligibility groups. Low income is only one test for Medicaid eligibility; assets and resources are also tested against established thresholds". [39] There is also a sort of Medicaid for children. This child Medicaid is referred to as CHIP or the Child Health Insurance Program. Qualifications for this program include being under the age of 18 and a U.S. citizen or legal permanent resident. As with Medicaid the CHIP program may differ its eligibility requirements from state to state. [40] Enrollment fees for these programs are based on a family's income. 11-million children in the U.S. are covered under CHIP. This program also helps children who have no insurance or whose family income may be too high for Medicaid. [40] Medicare is the second type of medical aid that is most common in the U.S. Medicare is designed for patients who are 65 years of age or older; or for patients who are under 65 with certain disabilities. People of all ages with permanent kidney-failure are also covered under Medicare. There are three types of services provided through Medicare: Hospital insurance, Medical insurance and Prescription drug coverage. For both medical insurance and prescription drug coverage, patients must pay a monthly premium. [41] Both of these programs are great for the people that they serve; however there are still hundreds of thousands of people in the U.S. that have too high of an income, or are not old enough or sick enough to receive either Medicaid or Medicare.

On March, 23 2010, President Obama signed the "Affordable Care Act" as a law to improve health insurance in the United States. This law places into effect many different aspects of health insurance improvements over a period of four years, from 2010 until 2014. Some of the many changes that have/will take place in the United States by 2014 are: extension of coverage to the poor, stricter laws for insurance fraud, a focus on preventative care, disease prevention and public health programs, reducing the cost of healthcare premium, increase in payment to rural healthcare workers (to promote them to stay in rural areas), and easy access to information on the internet. [38]

It is clear that each country has work to do in improving its healthcare system. There seems to be no perfect system in place. Through trial and error many countries are slowly making positive progress. The lesser developed countries have larger deficits then more developed nations, but there are still improvements that can always be made. Help from outside sources was a common theme throughout this research and mentioned throughout this report are many different international aid programs; UNICEF, MSF, USAID, PAHO and WHO to name a few. When beginning this research I had in mind a longer project of volunteering internationally in developing countries. By studying the infrastructure of five countries healthcare systems, I have discovered reoccurring topics that must be addressed for a good quality of health. I was hoping that my research would help me decide which country I would like to travel to; which country would need the most help. I have discovered that each country needs tremendous help in a variety of ways. Through education and community based models of improvement it seems as if the most progress will be made. A greater dispersal of physicians and medical providers is necessary in each country. With quality nutrition and successful immunization programs as preventative care, populations will be able to prosper. This project has not only opened my eyes to the enormous need for improvement in other countries, but also to the need for help in my own. As an aspiring physician, I have often considered the impact that I can have on my community. This project has allowed me to realize the effect that I may be able to have on people. I have discovered the areas of need which are greatest in the delivery of medical care and hope to be able to fill in the gaps when I complete medical school. This project was all encompassing to what I enjoy learning about and has kept me interested in current research and publications regarding international healthcare.

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