

A COMPREHENSIVE CRITIQUE OF INTERNATIONAL HEALTH, MEDICAL  
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TB: A CASE STUDY

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## **Abstract**

Medical anthropology has undergone many changes in the last two hundred years that are reflected in the history of tuberculosis. This paper examines the development of modern medical anthropology and the role it plays in international health in relation to the colonial and post colonial eras. A history of Tuberculosis is presented in order to orient the reader to the changing social construction of the disease from a high society norm to a heavy burden on the world's poor, and the role of medical anthropologists during these changing dynamics is discussed. Additionally, it is important to understand the history of anthropology and medical anthropology in order to recognize its present contributions and responsibilities regarding international health. The rise and fall of imperialism, the end of World War II and the consequent trend of decolonization, the rise of the third world, and Cold War conflicts all altered the role of anthropology, and eventually medical anthropology, in the United States. Contemporary medical anthropology is the result of each of the above historical periods; although the field has greatly changed since the year 1800. The role of medical anthropologists today in the international health arena is not black and white. However, it is clear that in the modern capitalist world that is characterized by bureaucracies, power relations between nations and, growing health inequities; a central mission of medical anthropologists has become providing healthcare services, and a voice, to the poor.

## **Introduction**

Tuberculosis is an infectious disease, a social disease, a global disease; a disease of the poor. While tuberculosis set the standard for beauty in the 1890's for high society European women, its contemporary sufferers of developing nations face alienation from their families, jobs, and communities. The disease has become a global problem as it ignores international borders and leaves its sufferers facing life altering social stigmas.

Tuberculosis disproportionately affects the poor, presenting several problems that must be addressed on the international level which include the lasting effects of colonialism, bureaucratic aspects of international health programs, and the internationalization of disease as the world grows smaller. The underdeveloped countries in Asia, Africa, and Latin America fell victim to the European colonizers of the 17<sup>th</sup> and 18<sup>th</sup> centuries, and it is no coincidence that these three regions combined account for 80% of current TB cases in the world (StopTB 1). Industrialized countries continue to exploit their resources and control their economies in a post World War II trend called neo-colonialism. As developed countries abuse the cheap labor of the former colonies, the developing nations have become dependent on the former imperial powers. This

results in unsustainable development as their access to advanced production techniques is restricted and the ability to develop their own economy is prevented.

International health programs entered the picture in the late twentieth century, providing aid to developing nations. New dependencies were created as unsustainable public health programs were implemented. Aid organizations were quickly transformed into bureaucracies with initiatives that were inconsistent with those that the receiving countries would most benefit from. Programs were driven by money and competition, and the mission of humanitarian support was lost. The mission of humanitarian aid which remains to save lives, to alleviate human suffering, and to maintain human dignity has been accomplished in the past. It has been demonstrated through the complete eradication of one major epidemic disease, smallpox, as biomedicine was introduced into Third World countries (Joralemon 82).

The ease of 21<sup>st</sup> century travel combined with the global economy has made the world a smaller place, and prompted the internationalization of disease. International borders are crossed by millions on a daily basis, and the problem of disease is no longer a comfortable distance away from the richer nations of the world. In this smaller world the diseases of the poor are no longer invisible, and they can no longer be ignored by the rich nations.

The industrialized countries no longer see colonialism as a legitimate strategy for economic growth and social progress. In the eighteenth and nineteenth centuries it was the norm for countries across the globe to expand their territory in the name of profit, power, and religious conversion.

Colonialism involved two things primarily: the first was the use of military arms to seize the lands and valuable natural resources of foreign lands and the coercion of the people living on those lands to labor on their former lands for the profit of the colonists; and the second was the

use of ideology- primarily Christianity, democracy and material progress through science and technology as justification for the seizing of native lands and labor. In other words the unequal exchange between the metropole and the colony was justified by the colonizing country by arguing that it was bringing “civilization” to the natives and thereby liberating them from ignorance, superstition, disease, and godlessness. Eventually, these same colonial powers were no longer for various reasons able to maintain this system of power. A new one arose in its place, but this new system of power cannot be described simply as the world getting smaller. The world was already smaller under colonialism compared to the 19<sup>th</sup> century with the British in India and Africa, the Dutch in Indonesia, the French in Southeast Asia and Africa. In 1960 the United Nations General Assembly voted the Declaration on the Granting of Independence to Colonial Countries and Peoples. One by one the former colonies were granted sovereignty, but the independence of the former colonies remained a gray area as they were still caught in relations of unequal exchange with their former colonial powers.

Colonial health programs had begun in the former colonies first in an effort to allow for European settlement. The Europeans lacked the natural susceptibility to the “tropical diseases” they encountered, and large numbers died upon arrival. It was not until later that health initiatives included the natives, when the well-being of the native peoples affected the economic interests of the former metropolises. The metropolises began taking advantage of the cheap labor of the native populations and it was concluded that the absence of disease would increase production.

Modern bureaucratic health agencies are wasting money and failing to make lasting changes in the health systems of receiving countries. The internal problems of international health programs are related to politics and commitment, planning, and the administration of programs

and projects. These issues are magnified as they increasingly become apparent on a global scale, and those responsible must be recognized and held accountable for their actions.

Anthropologists play an important role in criticizing, assessing, and even directing current international health initiatives. Tuberculosis was not popular for study by anthropologists until the late 1980's when the prevalence of HIV/AIDS led to an increase of infection and awareness. While anthropologists are very much a part of the international health and humanitarian establishment, their contemporary research regarding this particular establishment provides a relevant and necessary contribution to improving international efforts for TB control.

### ***The White Plague: A History of Tuberculosis***

Contrary to popular belief, tuberculosis is not a new disease nor has it reemerged. René and Jean Dubos published *The White Plague* in 1952, in which they outlined the early changing social and moral constructions of the disease and follow 20<sup>th</sup> century scientific advances regarding its epidemiology, transmission, and distribution. Although a few presented concepts are currently outdated, such as that of *racial susceptibility* which has been replaced with *genetic predisposition*, much of the content of this book remains relevant and pertinent to the current problem of tuberculosis. It is important to note that as the times changed, so did interpretations of tuberculosis. It was not the physical manifestation of the disease itself that has so drastically transformed over recent centuries, but rather the way in which it, and its sufferers, have been socially constructed.

The way in which society responds to diseases reflects its basic cultural, social, and political values. Knowledge and awareness is constructed regarding different diseases, resulting in differentiation in treatment availability, varied levels of blame, and inconsistent funding. For example, sexually transmitted diseases such as HIV/AIDS face stigmas related to sexual

deviance and for this are often deemed individually responsible. Addictive diseases such as alcoholism or drug addictions are also stigmatized and their sufferers face stereotypes as reckless individuals who have strayed from societal norms.

Tuberculosis has also been socially constructed in different ways as time has progressed. In the 18<sup>th</sup> century no one was safe from the wrath of Tuberculosis. The rich and the poor alike suffered from the dreaded cough that prematurely claimed so many young lives. Stylish women embraced their pale skin and frail bodies, and it became a symbol of high fashion. During the Industrial Revolution the disease was not beautiful or dainty, but rather a symbol of the people's exhaustion and overall ill-health. Factory conditions were crowded and unsanitary and the workers got little sleep and suffered from poor diets. Measures were taken to improve the sanitation and working conditions of emerging cities, and slowly the disease seemed to disappear!

But not all nations were industrializing at this time. Populations in nations that had been previous colonial possessions continued to struggle with poor health. In their continued domination by former imperial powers living conditions remained unsanitary, diets remained poor, and wages remained low. Tuberculosis became a tropical disease, meaning it could be detected in tropical regions. This was not because it was natural to these areas, but rather because of the level poverty that remained in the local populations. This poverty was largely the result of the unequal relations of exchange that had been established between European societies and these countries. "Tropical medicine" is a term that was created by Europeans in the context of colonialism which was a very specific political and economic system that was predicated on social, economic, and symbolic domination. Although the disease seemed to disappear from the industrialized nations, it continued to disproportionately affect the poor across the globe. This

was no accident as the rich continued to exploit the resources and the labor of these regions, creating a state of dependency in the developing nations. Development programs implemented by the rich nations were unsustainable and access to advanced production techniques was restricted, resulting in the inability to develop their own economy. The disparity between the rich nations and the poor grew larger and disease thrived in developing nations. Poor populations were living in unsanitary environments, working in unsafe conditions, and lacking adequate public health programs. In addition, European explorers introduced local epidemics into other parts of the world including smallpox, the measles, cholera, whooping cough, and influenza.

In *The White Plague*, Jean and René Dubos present a history of Tuberculosis beginning in the nineteenth century. Although this reference is now more than fifty years old, many of the concepts presented are still relevant in the 21<sup>st</sup> century. Dubos and Dubos present tuberculosis from a social construction perspective. They note the changes undergone by the disease as a result of industrialized society and scientific discovery, and the consequential changes in society's internalization of tuberculosis. Society's changing cultural, social, and political values are reflected in this history, many of which are still visible in contemporary society. Dubos and Dubos present a global perspective that follows the various ways in which tuberculosis has been socially constructed that reaches up until the early Cold War years. Present day society continues to socially construct the disease, a topic which will be discussed in the second half of this paper.

It is important to understand the physical manifestations of tuberculosis as these are often important mechanisms in the social construction of disease. The way that physical signs and symptoms are made meaningful, such as the way they are symbolized, metaphorized, and

politicized, affect the way in which people understand and attach meaning to the disease. The skeletal and pale frames of tuberculous individuals shifted from a symbol of nineteenth century beauty to one of sickness, exhaustion, and unhappiness during the industrial revolution. Now it is a symbol of the poor of underdeveloped nations, and most industrialized nations prefer to look the other way.

The scientific discoveries related to tuberculosis are equally important as they reflect the motivation, beliefs, and values, of scholars, physicians, and society as a whole to rid the population of tuberculosis. Dubos and Dubos demonstrate these efforts as they occurred on a global scale throughout the nineteenth and early twentieth centuries. The world moved forward enthusiastically as the microscopic structure of disease was explored, early detection was realized with the invention of auscultation and the x ray, and finally, talk of a cure was sparked with the discovery of the tubercle bacilli. At a time when all classes of society were effectively in danger from this disease, scientific breakthroughs and health initiatives were a priority, and they were a success! A cure was announced and tuberculosis virtually disappeared from the industrialized nations of the world. As TB disappeared from the richer nations of the world, it was no longer warranted a public health priority. Today it remains the number one killer among infectious diseases (Farmer 185).

### **The Pathology of Tuberculosis**

Skeletal and artistic evidence affirm that the disease affected humans as early as six thousand years ago (Dubos 4). It remains the leading infectious cause of preventable deaths, although it is impossible to obtain accurate data pertaining to the prevalence of TB even today due to fear of stigmas upon diagnoses, incorrect diagnoses, and failure to recognize the disease (Dubos 4). Nevertheless, general trends may be identified as a result of the distinct symptoms of

tuberculosis which include wasting fever, night sweats, breathlessness, pain in the spine or shoulder, cough, abundance of sputum, and blood spitting, as well as tubercles, cavities, and other typical lesions present in the autopsies of victims (Dubos 6). In recent centuries mankind's understanding of tuberculosis has changed, but the disease itself has remained consistent in its highly contagious and destructive nature.

Medical knowledge of the disease was limited until 1882 when Robert Koch discovered the tubercle bacilli, and had been derived almost exclusively from the observation of physical symptoms. It was for this reason that its victims often did not receive any medical attention until they had reached the final stages of the disease. During the renaissance physicians began dissecting the bodies of dead patients in which they found cavities, lesions, and nodules (tubercles) on the patients' organs that occurred in all sizes and exhibited varied characteristics. This led many physicians to regard the diverse pathological manifestations of the tubercles, ulcers, and cavities as signs of unrelated diseases and they classified the conditions accordingly. Despite the confused arguments, physicians gained a large amount of precise and detailed anatomical knowledge throughout the Renaissance. Examination of the chest became possible with the discovery of percussion in 1761 and of immediate auscultation with the stethoscope in 1816 (Dubos 76).

### **The Scientific Discovery of TB**

Around the year 1850 science shifted focus to the microscopic structure of the disease, and it was recognized that the cells were different from those in normal tissues as well as those of other diseases. Jean-Antoine Villemin noticed that men were more likely to be infected if they were in prisons, army barracks, or religious cloistered orders. Soldiers in barracks were more likely to become sick than those in the field, and he related this to the horses in the country that became

sick upon living in concentrated horse depots. Villeman showed that the material from scrofulous glands in humans could infect animals with tuberculosis, finally giving Laennec's theory of unity of phthisis the necessary experimental evidence. He recognized that its cause was a germ that lived and multiplied in the body of the patient and was transmissible to a healthy individual by direct contact or through the air (Dubos 99). These concepts were not widely recognized as the causation of disease by microorganisms had not yet been demonstrated.

In 1882 German scientist Robert Koch published his findings that revealed the infectious cause of tuberculosis as the tubercle bacilli. After centuries of controversy the contagion debate was finally over. His discovery of the causative agent of TB has been named the greatest single feat of bacterial science, one of the most important in the whole history of medicine (Dubos 102). Koch was called the Pope of Medical Science; a demi-god by the Japanese. He quickly announced that he had created an agent that would protect against and cure TB, and the headlines went crazy. A rush of consumptives stampeded to Berlin in search of the announced cure. But Conan Doyle soon pointed out that Koch's cure did not kill the tubercle bacilli, only the low form of tissue in the meshes of which the bacilli lie (Dubos 106). It removed the traces of the disease but often revived dormant tubercular centers of the body. By 1884 the hero was renounced by the British Medical Journal for his lack of scientific judgment as his cure had killed more people than it had saved. But as only the tubercle responded to its introduction to the body, it later proved useful in diagnoses through allergy testing.

### **Infection and Disease**

An individual first becomes infected when the bacilli reach the air sacs of the lungs after being inhaled in droplets of sputum or dust particles (Dubos 115). The intestines may also serve as the first point of infection in consequence of the ingestion of contaminated food (Dubos 115).

The bacilli are transported through the bloodstream, transporting it to different parts of the body. The bacilli then multiply within the white blood cells causing little damage to the body and often no visible reaction is apparent. The bacilli are transported to the nearest lymph node where they may continue to multiply for several more weeks. Many tissue cells become hypersensitive to the bacilli and mere contact with them results in their destruction (Dubos 116). Finally dramatic changes within the body begin to take place. Areas invaded by the bacilli experience intense inflammation and a new tissue organizes itself around the bacilli in a last ditch effort to protect the body. This cluster becomes the tubercle which continues to expand and pushes aside the normal tissue (Dubos 16). Allergic cells are killed by the bacilli or their products break up into a mass of cheese-like debris, hard nodules, or pus (Dubos 116). All three processes may occur in a single individual in different parts of the body, thus giving rise to past centuries of confusion regarding the nature of the disease. The distinctive lesion, consisting of the patch of lung tissue first affected and of the infected caseous lymph node, is typically identified as the primary complex (Dubos 118). At this point in the disease there is much tissue damage but still few exterior symptoms and it is often dismissed as the common cold.

The succeeding development of the disease is complicated and unpredictable. The lesion may not spread further and thus become encapsulated and then calcified, but with continued potential for reactivation (Dubos 117). If the lesion remains active it will eventually be softened and penetrated by the blood in which case the lesion will eventually break open into a bronchus. A cavity is left in the lung tissue and the living bacilli and toxic materials of the lesion are dispersed throughout the body, starting new foci of the disease (Dubos 117). Infection may spread to the kidneys, bones, larynx, and intestines; an often rapidly fatal course. But the new foci may also become encapsulated, halting the spread of the disease. As normal individuals

possess more lung tissue than necessary for ordinary physical activities, it is not uncommon for a tuberculous person with infection localized in the lung to lead a normal span of life (Dubos 118). Symptoms experienced in the advanced stages of tuberculosis include coughing, spitting of blood, hectic fever, night sweats, emaciation, and pallor (Dubos 118). In the seventeenth and eighteenth centuries it was these symptoms that indicated a tuberculous individual; a recognized sentence of death.

The accidental invention of the x ray in 1895 permitted the early detection of tuberculous lesions before the experience of exterior symptoms. But it did not detect lesions at the earliest stage and often misidentified active lesions as healed. Surveys at the beginning of the twentieth century revealed that almost all members of the adult population in European and American cities were tuberculin positive, and x rays provided evidence of active TB lesions in many individuals who thought themselves normal and healthy (Dubos 122).

### **Differential Susceptibility**

The context of the time that Dubos and Dubos wrote about differential susceptibility as discussed in this section, which was the 1950's, should be considered before reading. This was a time when hospitals and clinics were segregated by race. One factor in differential susceptibility across different ethnic groups is the amount of exposure in the social history of a population, as is presented by Dubos. While this may have been a primary distinguisher in the nineteenth century, with the onset of the twentieth century it has become increasingly clear as the gap between the rich and the poor increases that new social factors include the inadequate conditions experienced by the world's poor such as inadequate nutrition and sanitation, lack of public healthcare, wars and poverty; a change that is also later discussed by Dubos.

Dubos claims that differences in susceptibility among different ethnic groups do exist but they depend on the social history of the population, meaning the extent of which the group has lived in contact with the tubercle bacilli. The tragedy experienced by Native Americans reveals the variation in susceptibility as experienced by entire populations. In 1913 their level of infection was almost times higher than that observed in Europe during the worst of the nineteenth century epidemics (Dubos 190). Also, European people of the Celtic origin appear to be particularly susceptible, also providing an example of an ethnic group newly exposed to it. On the contrary, populations which have been in contact with the disease for many generations in congested cities are more resistant than those emerging from farming or nomadic life (Dubos 192).

Additionally, Dubos makes the case that genetic factors do affect the natural susceptibility and resistance to the disease, although it is difficult to prove (Dubos 188). It has been demonstrated by members of the same family who contract the disease, specifically in the case of identical twins, as they often follow the same course of infection (Dubos 189). Even after many years of separation and spending time in very different environments, humans with identical genetic make-up results in a remarkable similarity of signs and symptoms (Dubos 189).

The argument of familial susceptibility as presented by Dubos asserts that it will express itself in a smaller number of descendants across generations (Dubos 189). This may result in the complete extinction of certain families, therefore increasing the resistance of the population. It must also be considered, however, that “tuberculous families” of the 19<sup>th</sup> century were living in close quarters, and it is natural that such a highly infectious disease would often lead to infection of all of the family members.

### **Prevention and Treatment**

The germ theory stimulated research for antimicrobial drugs useful in treatment and vaccines, which in turn led to the development of techniques for the detection of infected individuals (Dubos 154). There are many substances capable of inhibiting the growth of the tubercle bacilli, but many are not effective in the body. Streptomycin and para-amino-salicylic acid appear to be the most useful to date, but they rarely result in a complete cure and it is common for the bacilli to develop a resistance to the drugs. The discovery of the tubercle bacilli led to various methods of vaccination, each with a low but significant level of antituberculous immunity. Bacillus Calmette Guérin, or BCG, was utilized in a large vaccination program aimed at the protection of children. It was injected beneath the skin but draining abscesses developed so frequently at the site of infection that this was abandoned (Dubos 161). Instead physicians began injecting it into or dropping it on top of the superficial layers of the skin. BCG causes a mild infection in humans that may induce a relative level of immunity, but its place in antituberculosis control remains controversial. It has not been proven to play any significant role in the control of the disease. Its injection produces an allergy to tuberculin in man which can hardly be differentiated from that caused by real TB. Therefore, vaccination using this method deprives physicians and public health officers of one of the most effective means of diagnosis (Dubos 163).

Dubos and Dubos assert that the countries in which tuberculosis infection is most prominent are those where the practice of vaccination will be the most difficult. They propose that children should be removed from the tuberculous environment and should be vaccinated before infection with virulent bacilli has taken place (Dubos 164). Furthermore, the less fortunate the economic situation of the family, the more social problems are involved in this process, and it is these low income groups that are most effected by the disease. The process of vaccination requires great

technical and administrative skill, and the most heavily burdened countries often lack the funds and staff for the necessary medical and public health services (Dubos 164).

The goal of vaccination made both a public health and a medical issue out of the social and economic conditions as well as the politics in government and populations suffering from and/or at risk of TB infection. In 1948 the United Nations International Children's Emergency Fund made an agreement with the Swedish and Danish Red Cross and the Norwegian Help for Europe to extend their antituberculosis campaign to the rest of the world. Entire populations were being skin tested and vaccines were distributed accordingly, but these measures alone would not eradicate the disease.

### **Dubos' Construction of TB as a Social Problem**

Dubos and Dubos assert that vaccination alone is not a viable solution to the problem of tuberculosis. They include control by sanitation and other public health measures as well as the social and economic status of the community as important factors in the eradication of the disease. They reference history as it has repeatedly shown that TB increases in times of war and revolution and recedes equally when social conditions return to normal (Dubos 165). They argue that the role of vaccination has yet to be proven responsible for the control of tuberculosis and assert that, "better food, brighter lodgings, cleaner environment, and gladness of heart (Dubos 167)," are much more influential. Dubos and Dubos boldly state,

"It is certain that the disease will not be eradicated by vaccination and it is likely that tuberculosis will remain a grave problem even in vaccinated populations if economic difficulties and social disturbances continue to interfere with general well-being. But if peace returns and hope flourishes again in the hearts of men, tuberculosis will recede as it has always done, spontaneously, when life has become easier and happier (Dubos 167)."

The writers call for education to be provided for infected and non-infected individuals and a sense of social responsibility to be impressed upon those who are tuberculous; a costly and difficult process.

This post World War II attitude expressed by Dubos and Dubos presents tuberculosis as a social problem having to do with the politics, conflicts, and inequalities resulting from centuries of global power relations. The developing countries and/or former colonies battled the disease as the lives of the populations had not yet been made easier. Regions where conflict and wars remained, or the devastation from World Wars I and II had not been relieved, experienced tuberculosis at much higher levels than the victorious allied powers. The poor countries of the world experienced tuberculosis at the highest rate, and those countries consisted of former colonies and defeated powers.

Only in the past fifty years have the richest, most powerful nations of the world enjoyed the virtual disappearance of tuberculosis. This disappearance may be attributed to the booming markets with the onset of the industrial revolution, the improvement in sanitation systems, and the implementation of public health programs (Dubos 169).

### **The Industrial Revolution and the Consequential Sanitary Awakening**

Only recently (with respect to the 1950's) has it become apparent that the spread of TB during the nineteenth century was a result of the social tragedies that followed the industrial revolution, rather than as a consequence of city life (Dubos 199). Poverty was not a new phenomenon, but poverty combined with great stress and physiological hardships, overcrowding and unsanitary living quarters, facilitated the spread of infection and created the great epidemic of tuberculosis in the nineteenth century.

Throughout history tuberculosis has been blamed on several vices including dancing, drinking, and the use of tobacco. It had been almost exclusively an urban disease and it was consequently believed that susceptibility to it was increased by the artificialities of city life. The population had shifted from an agricultural lifestyle with regular exercise and nourishing diets to one of manufacturing where malnutrition was common in the shabby, filthy, and crowded tenements, and work was characterized by unbearable working conditions and hours. Child labor grew and consequently many children suffered from disordered states of nutritive organs, curvature and distortion of the spine, deformity of the limbs, and disease of the lungs which often ended in atrophy and consumption. Dubos and Dubos write, “Tuberculosis was, in effect, the social disease of the nineteenth century, perhaps the first penalty that capitalistic society had to pay for the ruthless exploitation of labor (Dubos 207).”

This quote raises the question of what TB was for the 20<sup>th</sup> century, and Dubos is one of the players in this history. His social view of TB advocated for in his book, helped shape how infectious diseases were perceived in the 20<sup>th</sup> century. As the industrialized world “evolved” with the simultaneous scientific discoveries of the time, the social norms and public health measures in developing nations remained consistent. As is demonstrated by Dubos, the richer countries of the world addressed the “tragedies” that diseased their populations and they became more sanitary, adjusted working and housing conditions, and led movements for social reform. But it is this seemingly linear path that led to the now discounted belief that developing nations were less evolved. As colonialism continued the imperialist countries imposed their ethnocentric attitudes on the nations that they occupied. They did not account for the fact that often the diseases that devastated so many of their troops were brought in on their own ships! They did not consider local or traditional medical precautions or healing practices that may have

drastically reduced the number of European casualties. The history presented here by Dubos affirms the superiority and triumphant conquering of infectious diseases by industrialized nations, thus inferring that similar measures in developing countries would have the same effect. Although industrialized nations have imposed their western biomedicine on the former colonies, they have yet to address the social “tragedies” that reformers worked so hard to eliminate within their own borders in the in mid-nineteenth century.

Dubos continues, outrage over the working and living conditions created by the industrial revolution led to fervent campaigns for social reform. In 1837 famous engineer Chadwick pressed for the appointment of a sanitary commission and in 1848 the General Board of Health fought for fair labor laws (Dubos 208). There was a sanitary awakening led by public-minded citizens and both spitting in public and unguarded sneezing became inappropriate acts. Working hours were shortened and wages increased. But reformers did not stop there, they attacked tuberculosis from two directions: by improving the individual life of man and by correcting social evils (Dubos 210). Emphasis was shifted from treatment of the individual patient to the control of the disease in society, with prevention as the focus. Donations were collected and the public was informed of the dangers of the disease. Epidemiologists observe that those countries which have engaged in large-scale anti tuberculosis campaigns have the lowest mortality rates, but it is those same countries that are enjoying the highest standard of living (Dubos 216). Also, TB mortality began to decrease in most places long before 1900 and its downward rate has remained almost constant, failing to reveal any obvious effect of the ardent campaigns made by the public. A similar decrease is occurring in countries that have experienced no anti tuberculosis campaigns. Furthermore, other infectious diseases have also seen a decrease in the above-named locations.

## **A Disease of “Incomplete Civilization”**

Nevertheless, the only countries which have come close to eradication of the disease are those that have carried out systematic and sustainable anti tuberculosis campaigns. For this, Dubos declares that public health is purchasable, and that TB is a disease of incomplete civilization (Dubos 219). Dubos and Dubos write:

Tuberculosis, it has been said, is a disease of incomplete civilization. Vague as this statement appears at first, it underlines the fact that the antituberculosis movement cannot be properly understood if seen only in its medical perspective, for the historical and social backgrounds loom large in the picture. However desirable a goal, the complete elimination of tubercle bacilli is rendered impossible by economic and social factors. History leaves no doubt that, in their search for happiness or to escape from boredom, people will continue to crowd together and accept the risk of infection and disease (Dubos 219). In their use of the term “incomplete civilization”

Dubos references a form of developmentalism, or evolutionism; the idea that all societies go through certain stages of social development. From an anthropological perspective, this would be an example of ethnocentrism, as the more “complete civilizations” look upon developing nations through the lense of their own, often believing themselves to be superior. In this way, Dubos may be uncritically reproducing some colonial assumptions in his framing of TB as a disease of incomplete civilization. This ethnocentrism that I have identified in Dubos was at work in the way that international organizations responded to the globalization of the disease.

But life in developing nations has not become easier and happier, and disease still affects the population at high rates. Nations with unstable governments do not provide public healthcare, and the gap between the rich and the poor is often tremendous. It is common for nations in this economic state to have large numbers of destitute, starving populations, while the elites enjoy the highest standard of living. This is evident in several African countries as well as across Latin America. Whether the social context is war, internal government corruption, or natural disaster, if the government is not taking care of its population all the way down to the bottom of the

pyramid both disease and inequality will run rampant. When wealth is not spread among the population the resulting low quality of life fosters a disease ridden environment. Regions that continue to have a high prevalence of tuberculosis are those struggling economically and/or politically.

It should be noted that these poor countries are not self-contained. Instead they experience specific and constraining relationships with the more powerful foreign nations that exert enormous influence over them. These poor countries play a role in the international division of labor as debtor nations dependent on the credit extended to them by the IMF and World Bank, which reflect the interests of the former colonial powers. These countries have been forced to scale back their public health and other social welfare programs and to ease tax burdens on foreign companies as a condition of the loans they have received.

### **Ethnocentrism in the Internationalization of TB Control**

By the mid 20<sup>th</sup> century industrialized nations had experienced a virtual disappearance of tuberculosis due to social reforms, as described above by Dubos. But its continued existence in poor countries once more made it a threat to the rich as the world grew smaller and the number of mobile populations increased. Levels of international travel rose higher than ever and the United Nations brought the world's attention to international health policy. The World Health Organization was established in 1948 as a specialized agency of the United Nations combining the Office of International Public Hygiene, the League of Nations Health Organization, and the United Nations Relief and Rehabilitation Administration (Maciocco 36). During the 1960's and 70's WHO initiatives were influenced by political events related to the decolonization of African nations, of nationalist and socialist movements, as well as the replacement of short term technical interventions with long term socioeconomic growth (Maciocco 36).

The International Conference on Primary Health Care was held in Alma Ata in 1978 and marked the first time that representatives from all countries of the world met in regards to universal healthcare (Maciocco 36). It was also the first time that health problems of the poorest countries which had been under oppressive colonial rule were seriously considered on an international level, linking health needs and development (Maciocco 36). This conference was in some way trying to go beyond ethnocentric attitudes. It was intended that the cultural context of the receiving country should be respected and that the community would be involved in implementation and planning.

However, this conference marks an important point in the history of international health understood as a problem of development, and continues the ethnocentric attitude as presented by Dubos and Dubos which is demonstrated in the definition of primary health care generated by the assembly:

“Primary healthcare is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally acceptable to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination... It forms an integral part of the country’s health system, of which it is the central function and main focus, and of the overall social and economic development of the community...It includes at least: education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs...It involves, in addition to the health sector, all related sectors and aspects of national and community development, in particular agriculture, animal husbandry, food, industry, education, housing, public works, communications and other sectors; and the demands and the coordinated efforts of all those sectors (Maciocco 36).”

Ethnocentric attitudes may be extracted from this definition as first, it is clear that the scientifically sound and socially acceptable methods and technology that are referenced refer to

the utilization of Western practices and devices. Secondly, appropriate treatment of common diseases signifies Western biomedical treatment, which is made clear by the inclusion of provision of essential drugs. Thirdly, the conference stresses self-sustainability and the necessary adoption of attitudes of self-reliance and self-determination. This demonstrates that those leaders at the Alma Ata Conference saw a need for a change in attitude in those receiving countries. No responsibility was taken by the industrialized countries for the dependence or the poverty of the developing countries, a poverty that, as will be demonstrated further in this paper, may be traced back to colonization and post-World War II international relations.

Additionally, it should be noted that the above definition sent the strong political message to medical specialists that global health was seen as a very important objective on an international scale that would involve more than only the health sector, but also the participation of several social and economic sectors (Maciocco 36). The social sector includes the “socially acceptable methods and technology” to be made universally acceptable, community participation, the spirit of self-reliance and self-determination, education, adequate supply of food, safe water, and basic sanitation; appropriate treatment of common diseases, prevention and control of locally endemic diseases, and family planning. The economic sector includes national and community development in the areas of agriculture, animal husbandry, food industry, education, housing, public works, communications, and others.

Primary Health Care played a central role in the Alma Ata plan that opened many doors for medical anthropologists, enabling them to play an important role in the planning, implementation and assessment of international health programs. The participants in the Alma Ata Conference asserted that primary healthcare should be based on the following principles: that the local cultural context should be respected; health services should be designed to address needs specific

to the community; the community should participate in the identification, design, implementation, and evaluation of health initiatives; that access should be guaranteed for all; and that there should be full integration of health planning into the overall social and economic development of countries (Joralemon 83). The conference stressed the importance of designing health programs that met the particular needs of individual countries (Joralemon 83).

The focus of biomedicine on expensive hospital-based services and on curative rather than preventative measures was directing the already limited financial resources of developing countries toward priorities and initiatives that did not match with the actual health problems of local populations (Joralemon 83). Public health campaigns for water treatment, sanitation, vaccinations, and improved nutrition often would have been better suited to meet the needs of developing countries. Additionally, the conference concluded that there were too few physicians in poor countries, and those tended to be concentrated in wealthier parts of the country, often in urban areas (Joralemon 83). The expensive training of more physicians by international public health initiatives that coincided with the building of more hospitals was identified as a less urgent and pertinent solution than straightforward public health measures and basic prevention techniques (Joralemon 83). The majority of health risks faced by populations in developing countries are not complex medical problems but rather a result of poor sanitation, insufficient clean drinking water, malnutrition, and the failure to receive vaccinations.

Immediate interventions including vaccinations and treatment agendas could be instituted but unless sustainable programs addressing education, public health, nutrition, community development, housing, and the economy were addressed, the problems of the formerly colonized nations would continue. Unanimous conclusions were adopted and the conference concluded

that a comprehensive approach to primary healthcare was the most just, but costs proved to be very high and amounted to between 5.4 and 9.3 billion dollars by the year 2000 (Maciocco37).

The World Bank proposed fighting only a limited number of diseases by concentrating on a number of specific, cost effective interventions in the form of vaccinations, the promotion of longer breast feeding, anti-malaria activities, and oral rehydration (Maciocco 37). But the fighting against only one or two diseases proved to be insufficient in improving the health in targeted populations. Professor K.W. Newell of the Liverpool School of Tropical Medicine wrote, “Selective PHC is a threat and must be considered as a counter-revolution. It is a form of health feudalism that is destructive rather than an alternative. Attractive to professionals, financing agencies, and governments that are seeking results in the short term, but it is a pure illusion (Maciocco 38).” Newell’s strong reaction to the Bank Proposals is complemented by Joralemon as he asserts that, “By recasting conventional medical interventions as “selective PHC,” international biomedicine preserves its privileged position while appearing to accept reform (Joralemon 85).” According to the two above-mentioned critics, selective PHC would only increase global inequalities, as biomedicine is reserved for the rich, and the public health needs of the poor are prioritized and “selectively” addressed.

In 1993 the World Bank entered as a major financial institution in the health scene as it published its annual report *Investing in Health* written by internationally renowned experts (Maciocco 39). But the World Bank was heavily criticized by PHC advocates for its market oriented solutions to healthcare problems and the following consequences were identified as a result in the poorest participating countries: untreated diseases, reduced access to care, irrational use of drugs and long term impoverishment (Maciocco 40).

In 1998 the World Health Organization regained credibility and prestige in the world health arena with a new Director General. Health was returned to the international political agenda by the WHO and a number of new programs were funded by public and private donors that addressed tuberculosis and other infectious diseases including the Global Alliance for TB Drug Development, the Global Alliance for Vaccines and Immunization, and Stop TB (Maciocco 40). The Global Fund to Fight AIDS, Tuberculosis, and Malaria followed shortly after in 2002, a financing agency that allocates funds to projects developed locally by public and private organizations (Maciocco 41). In 2006 two million people were receiving DOTS, and tuberculosis was receiving 16% of the \$3.5 billion Global Fund budget over the course of three years (Maciocco 42).

### **Tuberculosis: Disease of the Tropics**

The internationalization of disease as it was experienced by the 20<sup>th</sup> century was not an entirely new concept. Such a phenomenon is evident as early as the 1700's and early 1800's as the Europeans competed in the race for colonization. It was a time of maritime exploration, travel, and resettlement. The study of 'diseases of warm climates' emerged; diseases that were understood to be caused by geography, temperature, and climate (Bashford 251). Diseases labeled as tropical include leprosy, cholera, malaria, polio, measles, hookworm, and others. The internationalization of health services and disease prevention in the 20<sup>th</sup> century was motivated by imperialistic attitudes of the European nations.

The tropics were ravaging European military, interfering with their ability to tap into the wealth of such regions (Packard 94). In an effort to overcome the health limitations presented by tropical climates, the European colonizers stimulated an abundance of research in the form of schools of tropical medicine and hygiene both in the United States and Europe (Packard 94).

These turn of the century schools benefitted from the discovery of specific bacteria, viruses and parasites, and the theory of microbes (Bashford 251). According to Alison Bashford, the history of tropical medicine can be divided into three categories:

First, there was an enormous amount of new research in parasitology and in diseases now understood as vector-transmitted. Second, there was the study of normal human physiology in a tropical environment, and... this research was underscored by the attempt to work through issues of racial distinctions in physiology, and mechanisms of acclimatization of racial groups... Third, there continued to be a deep interest in the tropical hygiene, a sort of ‘applied public health model (Bashford 252).

Imperial and economic interests brought the study of tropical medicine to attention as the British went to the West Indies, the Dutch to the East Indies, the French to North Africa, the Americans to the Philippines, and the Australians to Papua New Guinea (Bashford 252). In her discussion Bashford asserts the link between tropical medicine and imperialism as she writes, “There is no mistaking tropical medicine as part of the military and colonial enterprise (Bashford 252).” Tropical medicine was linked to colonial domination.

It is important to note two things about tropical medicine during the era of colonialism. First, the health initiatives were focused on the well being of the European colonizers. It was not until after World War I that health initiatives were expanded to include the native populations. However, the motivation remained European economic interests. The native populations had become the workers, and healthy workers were necessary for the best rates of production (Packard 94). Also for this reason, native populations in rural communities received little or to services.

Second, ‘tropical diseases’ referred to geographical location. The term referred to hot spaces and colonial locations of which white men were not natural, but desired control (Bashford 253). But geographical space and climate are not the main reasons that ‘tropical diseases’ remain prevalent in tropical areas. Factors include low socio-economic status of the local

population, poor sanitation and housing accommodations, and poor diet. The separation between industrialized and developing countries is increasing as the rich become richer and the poor become poorer.

### **In the Shadow of Tropical Medicine; Handmaidens of Biomedicine**

Anthropology plays a large role in researching and providing proposed solutions to the continued health inequity that exists between industrialized and developing nations. It is important to understand the history of anthropology and medical anthropology in order to recognize its present contributions and responsibilities regarding international health. The field of anthropology has gone through more than a hundred years of development in which it has been politicized, understood, and applied in several different contexts. In response to such heavy criticism, both externally and internally, medical anthropologists made their contemporary mission clear in a statement by the Critical anthropology of Health Caucus:

By exploring current and past socioeconomic and political processes, we seek to identify and expose structural patterns that undermine the health of poor and marginalized groups wherever they reside. Further, we seek to understand the international role of health and healthcare in maintaining and furthering systems of inequality. As anthropologists, we are concerned with the impact of structure on local experience, behavior, and meanings. At the same time, we seek to understand how local and broader initiatives about health issues can have an impact on the encompassing social structures (Castro and Millen 2000).

Early developments of anthropology began in the late nineteenth century as the Boasians professionalized the observations of missionaries, traders, and government officials (Leslie 5). Franz Boas, who was later named the Father of American Anthropology, led the movement and was credited with applying the scientific method to the study of human cultures and societies. He also contested the traditional comparison of cultures as civilized or uncivilized, and instead attributed the differences in race and culture to nurture rather than nature. In 1901 a physician named W.H.R. Rivers further contributed to the emerging science through the publication of his

fieldwork in India. He proclaimed that indigenous medical practices were rational and that they followed an internal logic (Castro, Farmer 42). Unfortunately he also established the stereotype that linked non-western medical systems to magic and religion that remained until the first half of the twentieth century (Castro, Farmer 42). By 1932 Clements published *Primitive Concepts of Disease*, the first worldwide comparative survey of beliefs about disease etiology (Castro, Farmer 42).

The above anthropologists and their colleagues were primarily focused on documenting the differences between various cultures across the globe and their own. Their work was made possible as colonialism continued well into the twentieth century. “Tropical diseases” presented a problem for European and American expansion and anthropologists provided the cultural bridge that allowed for the introduction and utilization of biomedicine in developing countries. Western medicine then served as a tool of control in tropical medicine so that the richer nations of the world could dominate those countries in development. Imposing western medicine on poor countries was one mechanism of this domination that became more covert with the fall of imperialism.

Overseas expansion played a substantial role in America’s rise to an international power. But the motivation for U.S. military ventures abroad was not to provide American anthropologists with a wider range of cultures for study. Guam provided a valuable naval base in the north Pacific, the Philippines supplied an abundance of natural resources including timber, petroleum, nickel, cobalt, gold, silver and copper; and Panama would forever change American trading with its invaluable canal that cut right through Central America. Imperialism encouraged the development of anthropology as borders changed and western influence grew.

The role of anthropology in political affairs would become a hotly debated topic within the field as the close of World War II in 1945 shifted the nations of the world toward a trend of decolonization. The defeat of Axis Powers Germany, Italy, and Japan led to their inability to hold on to their colonies and the global map was essentially redrawn. In 1945 the U.S. joined the United Nations and shifted from an isolationist approach to international politics to one of high involvement. The Marshall Plan, or the European Recovery Plan, was also launched in 1947 and provided thirteen billion dollars of assistance to seventeen western and southern European nations during reconstruction. In 1949 Harry S. Truman introduced his four points program. The program pledged continuing U.S. support to the United Nations, stressed U.S. support for world economic recovery, pledged U.S. commitment to supporting freedom-loving nations, and committed to providing technical and scientific expertise and capital to underdeveloped nations. Top-down development and foreign aid programs were executed in emerging nations such as Africa, Asia, and Latin America, and by 1951 the U.S. was involved in over one hundred corporation projects across the globe. The field of anthropology was flipped upside down as anthropologists were suddenly provided with the opportunity to apply their acquired knowledge to solve problems faced by such international aid programs. But the theme of power and imperialism continued into the twentieth century and imperialistic attitudes continued to drive international foreign aid initiatives.

The anthropologists that followed in the fifties and sixties actively participated in the implementation of foreign aid programs as they worked to break down cultural barriers. Public health officials faced entire noncompliant populations due to spiritual or traditional beliefs as well as miscommunication and collaborated with anthropologists. Studies of traditional healers

were used as a way to introduce western biomedicine in terms that the receiving cultures would understand and medical anthropology emerged as a subfield of anthropology.

According to medical anthropologists Paul Farmer and Arachu Castro, medical anthropologists strived to understand why biomedical ideas and therapies were not being accepted by the receiving populations and worked to design culturally appropriate health programs (Castro, Farmer 43). They aided foreign or foreign-trained health technicians in their implementation of top-down development programs in an effort to make changes that could be sustained upon their completion (Castro, Farmer 43). They would later be criticized as being “handmaidens of biomedicine,” similar to the controversial role they had played in the mission of colonialism (Castro, Farmer 43). But Farmer and Castro assert that these “cheerleaders of the Western medical industrial complex” were working hard to get local populations to change their actions and attitudes in order to improve their health (Castro, Farmer 43).

Farmer and Castro are both Ph. D’s and trained medical anthropologists employed by Harvard Medical School. They focus on social inequalities as they present differential risk for disease among the poor. They have both worked in conjunction with the World Health Organization and specialize in infectious diseases. It should be noted that in the above citations they are looking back on the history of medical anthropology and judging it in terms of what they see as the sub-discipline’s current commitments, as well as ethical and political dilemmas. They assert that their mission is to improve the health of the local population, and to provide “culturally appropriate health programs.” By culturally appropriate this means applying western medicine in terms that natives will understand and put into practice. Whether or not the programs they have implemented in recent years are sustainable, as is their spoken goal, will be discussed later in this paper. It is most important now to understand that these rare professionals,

both licensed doctors and medical anthropologists, see themselves as liaisons between the poor and western medicine and institutions.

George Foster, an anthropologist and consultant on international health, was credited with the merge of public health and medical anthropology in the sixties when medical schools and schools of public health began to offer classes on the subject. He led a group of students at the Smithsonian Institution as they explained to health personnel the confictions in belief systems as experienced by non-Westerners regarding biomedicine (Castro, Farmer 44). Farmer and Castro offer that perhaps for the first time, they were “able to demonstrate the practical utility of their knowledge (Castro, Farmer 44).” While anthropologists got a boost in the job market between the fifties and sixties, other factors would effect the future development and definition of its practice.

World War II was closely followed by the Cold War which drove much of the United States’ involvement in developing countries. The postwar world faced the economic and political consequences of rapid population growth which combined with diminishing resources increased potential for economic and political disorder (Sharpless 176). The United States, as the new superpower, promoted development and birth control in the third world. Truman implemented his Point Four Program and asserted that, “the new economic developments must be devised and controlled to benefit the peoples of the areas in which they (were) established. The old imperialism- exploitation for foreign profit- (was) not in the plans (Sharpless 177).” Of course, international aid initiatives were influenced by soviet communism, which added urgency to the mission, and much of the Four Point Program was tied to Cold War objectives. Research aimed at institution building was conducted and American institutions trained foreign scholars in

order for them to return to their home country and head government agencies or demographic research centers at their national universities.

The American vision of the population problem guided the public policy of the U.S. and, consequently, that of the emerging developing nations. During the Cold War, social scientists were utilized by the U.S. government in the form of “think tanks.” There were postwar efforts to make the population studies more scientific and less moralistic, but studies without political or moral biases were not possible. Some professionals jumped on the anticommunist bandwagon in order to fund their programs, while others argued that linking anticommunism to population control would lead unallied nations to resist efforts to institute population control programs.

Meanwhile U.S. worked to contain communism by supporting dictatorships and democracies across the globe, and all had become acceptable in the name of anti-communism. America and the Soviet Union had entered a series of proxy wars and engaged in a battle of influence in order to promote capitalism, in the case of the U.S., and communism in the case of the Soviets. American anthropologists had chosen their promotion, and it seemed it was capitalism. Their efforts helped the United States to overthrow governments, establish markets and extract resources from developing countries, and minimize the spread of the communist regime. Anthropologists providing intelligence to the U.S. government caused a firestorm with ethics in the field. They were faced with a partial responsibility for the horrors in Vietnam, Latin America, and other countries where the U.S. contributed to war efforts.

Medical anthropology had become a recognized and respected practice by the 1970's and although the Vietnam War had come to an end, the Cold War continued. Anthropologists and medical anthropologists alike had proven their value and universities across the country began to offer courses in medical anthropology including the University of California at Berkeley, Brown

University, The University of Arizona, Emory University, and Yale University. The Organization of Medical Anthropology had been founded in 1963 and the Society for Medical Anthropology formed in 1970. By the late 70's Arthur Kleinman had marked the emergence of medical anthropology as a systematic and theoretically grounded field of study within anthropology (Castro, Farmer 46). Through his studies of illness and healing in Chinese cultures he equated the medical system to a cultural system. By 1978 the WHO and UNICEF began using medical anthropologists to design, implement, and evaluate public health programs; anthropology had shifted its studies from tribal to modern (Castro, Farmer 47).

Today medical anthropology continues to face moral issues related to its mission and practice. In the past medical anthropologists...Should they be advocates for health equity? Should they be expected to work to help the poor and other vulnerable groups? Is it appropriate to observe untreated sufferers of disease in developing countries? Today medical anthropology is being utilized and applied more than ever in the field of public health with numerous national and international projects. The field experienced a century of development during which it went from being a collection of applied and atheoretical journal entries, to a political force in the rise of capitalism, and now to its collaborative role with public health officials in analyzing, improving, and evaluating specific problems within health programs. The question is no longer whether or not it is a legitimate science, whether or not ethnographic observations may be used for anything worthwhile, but rather how can they use their knowledge of culture to ensure success of health initiatives. While the study of culture has remained constant, the extent to which this knowledge has been recognized utilized has increased significantly.

Anthropology has undergone a century of development beginning with its creation as an academic discipline in the early twentieth century. Changing global politics and scientific

advances influenced the emerging science. The rise and fall of imperialism, the end of World War II and the consequent trend of decolonization, the rise of the third world, and Cold War conflicts all altered the role of anthropology, and eventually medical anthropology, in the United States. Contemporary medical anthropology is the result of each of the above historical periods and continues to develop as politics change and science progresses.

### **The Critique of International Health**

There was an essential change in the field of medical anthropology as there was a shift in focus from the study of health related customs and beliefs of third world peoples to the study of international health systems themselves as structures of power that have an impact on the health and well-being of the people that they are supposed to help. Anthropologists have criticized international health programs so that they may be exposed and consequently improved; and they call for action. They have exposed the errors, the weaknesses, and the politics of these organizations so that adjustments may be made that will improve the efficiency and the quality of public health programs. They have generated, and continue to generate, knowledge regarding these organizations so that it may be applied and implemented in future public health interventions sponsored by international aid organizations.

Anthropologist George M. Foster criticizes the internal problems of international health programs related to politics and commitment, planning, and the administration of programs and projects. In *Bureaucratic Aspects of International Health Programs* he points out, “In public health we have long since acquired the skills needed to provide pure water and environmental sanitation, to immunize against the common childhood diseases, to design nutritionally balanced diets, and to teach personal hygiene and food safety (Foster 345).” But, he claims, we [anthropologists] are failing to utilize these skills due to political, cultural, ethical, and

bureaucratic factors (Foster 345). He maintains that little research has been done on international bureaucracies to expose the politics of global health organizations which might hold them accountable for their actions, their spending, and implementation of programs.

Foster distinguishes four types of international health agencies through the ways in which they are funded. Multilateral organizations are open to all countries and include the World Health Organization and UNICEF. Membership is open to all countries and it is those representatives that jointly set policy (Foster 348).

Bilateral organizations such as USAID are accessed through ministries of health of recipient countries. They rely on working agreements between the donor organization and its beneficiary (Foster 348). Basic policy is set mostly by the donor organization and it serves as a branch of the foreign policy of the supporting government, although improved health is also a goal (Foster 348).

Private secular organizations include the Rockefeller Foundation and Ford and depend on charitable contributions for funding (Foster 348). These organizations have traditionally focused on preventative medicine and public health measures rather than on clinical activities (Foster 348).

Private religious organizations include medical missions that have been supported by Western European and North American Christian denominations for more than a century (Foster 348). Historically they have stressed curative activities more than preventative measures and they are usually grouped as private voluntary organizations, or PVO's, or nongovernmental organizations, NGO's (Foster 349). Foster notes that these organizations differ from the organizations on the very important point that meeting health needs is not their foremost mission, but rather the definitive goal of making converts (Foster 349).

Foster asserts that those who fund the health initiatives carried out by each of these organizations are often those who determine which programs are implemented and in what manner; and bureaucracies are created in the following manner. Organizations are often required to prematurely or hastily rationalize their budgets to those who footing the bill, leading to quick but not long-term results. They are pressured to produce measurable outcomes to demonstrate progress, a task that is often unrealistic and overrides the primary health objective. Workshops are imposed upon agency actors in attempts to further demonstrate tangible results and progress. Corporate memories are limited and past initiatives of the acting agency or others are not evaluated as new ones are created, and the quality of behavioral research is poor and past mistakes are repeated. Constraints are imposed by western ideologies as the western agency is characterized by ethnocentric attitudes dating back to before the colonial era. Organizations compete with one another rather than collaborating to fight for the common objective, which presumably is healthcare as a human right. But, Foster boldly states, this objective may be forgotten as individual actors become more focused on their personal salary or upcoming promotion in the business.

Foster outlines three models in explanation of the problems experienced by international health organizations. The Silver Platter Model presents an ethnocentric attitude as it utilizes the techniques and institutional forms that worked well in industrialized countries, but that are poorly suited for those still in development (Foster 350). The Sociocultural Model blames the problems on the society and culture of the recipients, namely the social, psychological, and cultural barriers (Foster 351). Thirdly, the Bureaucratic Model recognizes that the sociocultural norms of the innovating organizations are also important, acknowledging that, “we are a part of the problem (Foster 352).”

One must consider the implicit ideals and norms that are behind this criticism. As Foster has himself stated, little research has been done on the bureaucratic aspects of international health programs. For the presented problems to be recognized and understood, research-based critiques must be made accessible to the culprits so that they may make improvements in efficiency and cost effectiveness of programs. This wealth of information must be provided so that agencies may learn from past mistakes, build on successful programs, and work collaboratively rather acting in competition with one another.

Secondly, while underlying motivations of the funding institutions may appear to impede on health initiatives, they are necessary dynamics that are a part of every charity organization. Realistically, altruism cannot be separated from the underlying motive. If charity organizations had no way of imposing their ideals or political agendas on the recipient population, one can presume that they would not participate in such humanitarian efforts. Every bag of rice that the United States donated to the nations of Africa, Latin America, and Asia during the Cold War said “United States of America” in big letters. International aid organizations must receive their funding from somewhere. Regardless of the source or the motivation, whether it is in the name of Christianity or Democracy, great programs and initiatives are implemented as a result of motivated funding organizations.

### **The Convergence of Anthropology, Public Health, and Biomedicine: Critiques and Interventions of Paul Farmer**

Paul Farmer is an American anthropologist and medical doctor who specializes in infectious diseases. He is currently an attending physician at the Brigham and Women’s Hospital in Boston and is a Professor of Medical Anthropology in the Department of Social Medicine at Harvard University. Farmer embodies a particular convergence of medical, public health, and

anthropological concerns regarding international health. His unique experience implementing public health initiatives in Haiti, Peru, and Russia provides invaluable insight into the interaction of politics and health. He cofounded Partners in Health which is a non-profit health care organization aimed at providing a preferential option for the poor. Through this organization Farmer has implemented public health facilities and services in rural Haiti and battled multiple-drug-resistant tuberculosis in the dense cities of Peru. Additionally he was recruited as a consultant in the execution of public health measures after an outbreak of MDRTB invaded Russian prisons. His double qualification as a physician and a medical anthropologist combined with his international experience in developing countries deems him uniquely qualified to present a comprehensive critique on modern biomedicine and public health on an international level.

According to Dr. Farmer, international programs countering the disease continue to be underfunded and underrepresented. He asserts that tuberculosis has been hidden from the top-developed countries that dictate initiatives undertaken by the international health organizations. For this reason scientific publications and the popular press claim that TB has “returned with a vengeance,” and have labeled it an “emerging infectious disease (Farmer 185).” The World Health Organization has reported that tuberculosis claimed three million lives in the year 1996 alone, and that it has not claimed so many lives since the turn of the century (Farmer 185).

Farmer states that the disease has remained hidden because it always disproportionately affected the poor as well as nonwhites. English mortuary registers from the 1930’s reveal that TB deaths were higher at the lowest end of the social ladder (Farmer 186). In early twentieth century America the annual death rates for black Americans were double those of white Americans. As late as the 1940’s access to streptomycin was restricted to fortunate citizens of

the United States and few European nations, and in 1952 René and Jean Dubos wrote, “While the disease is now only a minor problem in certain parts of the United States, extremely high rates still prevail in the colored population (Farmer 186).”

It was in the mid 1900’s that TB seemed to disappear as the gap between the rich and the poor and the rich countries and the poor countries grew (Farmer 187). With effective therapy the disease no longer bothered the wealthy and the variation in disease distribution and outcomes were only further entrenched (Farmer 187).

Tuberculosis remains the leading infectious cause of preventable deaths in adults, and it has been curable since 1952. In the year 1996 the world was rejoicing the discovery of new antiviral drugs that through combination therapy led to a marked decline in detectable HIV (Farmer 264). The announcement led to great excitement, and even talk of a cure. But the reality was that the drugs would cost a patient an annual amount of \$20,000/year with lab tests and provider fees, and as a result HIV continues to disproportionately affect the world’s poor, and the divide between the haves and the have-nots is further increasing.

The twenty first century has brought the “new” TB; a combination of HIV and multiple-drug-resistant tuberculosis, or MDRTB, that has reawaken the developed world to tuberculosis. MDRTB results when patients receive insufficient or inconsistent treatment which makes further treatment more difficult and costly than a primary tuberculous infection. Healthy individuals can contract multiple-drug-resistant strains upon initial infection. It is most often the third world countries that see a high number of cases of MDRTB, and thus face the high cost of second-line drug cocktails. But from 1989-1994 New York City fell victim to an MDRTB epidemic which cost over \$1billion in spending to fix the problem; a problem that was attributed to \$200 million in budget cuts related to TB treatment in the 80’s (Farmer 231). It cost nearly \$250,000 to treat

extreme MDRTB patients, and even more to treat those with MDRTB who were also HIV positive. The endemic affected the poor, prisons, homeless shelters, and public hospitals.

It is common for those who are more fortunate to blame the have-nots for their failure to comply regarding their personal medical care. Advice to such patients in the past has been for them to clean up their acts, but Farmer brings it to attention that often their inaccessibility to drugs may be traced to poverty, racism, and inequality. This is evident in his experience with TB and MDRTB in Haiti.

Soil rich Haiti declared itself independent from France in 1791 with a slave revolt, but the slaves from Africa had brought smallpox, measles, typhoid, and TB to the island. After the War of Independence the doctors and surgeons fled leaving only technologically unprepared health workers in a country without sewage or latrines. Today rural per capita income in Haiti is \$300/year, only 1.8% of the population has safe drinking water, and more than 50% of deaths are children under five- 75% of which are due to malnutrition (Farmer 215). TB remains the leading cause of death for ages 15-49. Project Veye Sante was launched in 1984 in order to train health workers and conduct a controlled experiment which considered economically impoverished patients, noncompliance, and discontinued therapy with the loss of symptoms. The project was made available to communities around the reservoir that was created by the hydroelectric dam that flooded the valley in 1956 (Farmer 218). As a result many families were left landless and destitute. Sector I patients received clinical services that included consultations with a physician, lab work, and all medications for about 80 cents; \$30/ month in financial aid, nutritional supplements, \$5 for travel expenses, and regular health worker visits, and had a 100% cure rate (Farmer 218). Sector II received the same clinical services as sector I (consultations with a physician, lab work, and all medications for about 80 cents), they did not receive any of the other

named benefits, and this group had only a 48% cure rate, at best (Farmer 218). Farmer argues that development efforts cannot be substituted for TB treatment, as his model village was thrown into extreme poverty as a result of such efforts. Project Veye Sante suggests that the central problem in Haiti is not noncompliance, but economic variables beyond the control of the individual.

According to Paul Farmer, external social forces that effect unequal infection and treatment include poverty, inequality, economic policy, war, discrimination by gender/class, and medical incompetence (Farmer 197). Patients are often unfairly labeled as noncompliant due to the social forces that are beyond their control, more often leaving them unable to comply rather than unwilling. Farmer calls for the prevention of the emergence of drug resistance whenever possible, universal treatment, the raising of funds for TB control and treatment, and available treatment in a systematic and committed way. TB was once termed, “the first penalty that capitalistic society had to pay for the ruthless exploitation of labor,” but, Farmer asks, is this perpetually the lot of the poor? (Farmer 210)

Dr. Paul Farmer has headed several admirable and praiseworthy health initiatives in Haiti, Peru, and Russia, but his work must not go without fair critical analysis. While he has successfully implemented public health programs in rural Haiti, for example, they are unsustainable without his continued involvement and exterior funding. The programs are not self-sufficient as there continues to be a need for trained health care professionals, equipment, and drugs; and for years the project was single-handedly funded by a man named Tom White. It is necessary that the host country sustain the program on its own.

Additionally, the hospital Farmer and White essentially built in Cange has provided medical care for many local residents, but others travel from all over the country in order to receive

services from this healthcare center. Duplicate programs are necessary in order to change healthcare for all of Haiti, a feat that Paul Farmer cannot accomplish on his own.

The creation of Partners in Health served as a large step in extending the initiatives set forward by Farmer to a wider array of locations across the globe, and has added a workforce to the mission. This organization adds sustainability to Farmer's health initiatives, and has allowed for greater funding opportunities.

Partners in Health has done many great things, including challenging health bureaucracies. For example, members of the organization recognized the expired patent for certain TB drugs and successfully lobbied for drug companies to lower the price of such drugs. As a result, they were able to provide the TB drugs to poor communities. Farmer's work in Peru where he worked with patients infected with MDRTB, a problem that had been previously determined impossible to tackle in poor countries by the World Health Organization. Farmer provided services to MDRTB patients and proved that it is possible to address such seemingly overwhelming and expensive problems in poor countries.

Dr. Farmer has utilized his skills as an anthropologist in his continual presentation of western biomedicine in a culturally appropriate way so that it may be understood, accepted, and utilized by the population of the receiving country. He has conducted countless interviews and population surveys to find the root of the problem, and has thus discounted the popular and widespread practice of blaming sufferers for noncompliance. He has recognized the inequality that exists between the rich and the poor, and called for action in his announcement that tuberculosis never went away; it was only hiding from the rich. He is an advocate for the poor and impresses a sense of responsibility upon those who have the resources for disease control, as

was demonstrated as he lobbied for lower drug prices. He challenges the business of medical care and works to provide services for all, an enormous feat, but nevertheless not impossible.

Farmer has taken on the mission of providing a preferential option for the poor, and to realize this mission he has implemented public health programs and facilities in regions overrun with poverty. While his work to date is commendable, there is much more to be done and he cannot do it alone. It is important that health efforts in poor countries are combined with efforts to improve the quality of life and the socio economic status of the population in such receiving populations, and that the effects of both healthcare and economic interventions are sustainable.

### **Mark Nichter and James Pfeiffer: A Modern Critique**

Mark Nichter is a Professor of Anthropology and a Professor of Family and Community Medicine at the University of Arizona. He has earned both a masters and a Ph. D. in Social Anthropology and a Masters in Public Health. He has served as the social science advisor for the Rockefeller Foundation Office of Health and is a frequent consultant for the WHO, UNICEF, USAID, FORD, and Rockefeller foundations. James Pfeiffer is an Associate Professor in Health Services and Global Health at the University of Washington. He has a Ph. D. in Anthropology and a Masters in Public Health and his research interests include Medical Anthropology, International Health, and HIV/AIDS prevention.

Nichter and Pfeiffer maintain that the increase in flow of international aid from rich countries to poor countries is attributable to the efforts of health activists, in part medical anthropologists (Pfeiffer and Nichter 1). They write, “We are now facing an unprecedented moment in the history of global health, in which infectious diseases such as HIV/AIDS, malaria, and tuberculosis are no longer peripheral concerns, but primary targets of bilateral aid programs, philanthropy, and research (Pfeiffer and Nichter 1).” Although medical anthropologists have

undoubtedly played a role in the increase of awareness of the need for research and international aid for the above-named diseases, one must also consider that it was not until these diseases began “reemerging” that the rich nations increased funding for research and international aid. With international travel at its peak, these diseases became a global problem and it was in the interest of the rich nations to address it. Pfeiffer and Nichter assert that medical anthropologists fight to keep the health and the healthcare problems of the poor at the attention of wealthier nations by bringing attention to these issues of enlightened self-interest and social justice and as emerging health problems present a growing health crisis (Pfeiffer and Nichter 1). Partly as a result of the efforts of anthropologists, Pfeiffer and Nichter bring to attention the dramatic increases in funding to international aid organizations that has occurred in the recent decade.

Additionally, they claim that medical anthropologists stay alert and bring attention to important concerns relating to the government, oversight, and the impact of high profile public health efforts on state health care systems (Pfeiffer and Nichter 1). In this way they are holding governments, organizations, and bureaucracies responsible for the way in which they implement, change, and direct public healthcare systems in receiving countries.

Pfeiffer and Nichter discourage vertical health interventions that take away from the management of other health problems and they write that anthropologists are, “...concerned by reports of wasteful spending, poor planning, and uncoordinated project development, which suggest a growing anarchy on the ground in global health efforts (Pfeiffer and Nichter 1).” They argue that this anarchy stems from the abundance of resources that have been provided to previously neglected healthcare systems that are currently incapable of managing such funds and services due to twenty years of macro-economic reforms (Pfeiffer and Nichter 1). These structural adjustment programs were promoted by the World Bank and IMF, and called for a

major reduction in public sector spending such as health and education, and instead promoted economic privatization in an effort to repay debt (Pfeiffer and Nichter 1).

This is an example of colonial motives still at work in the 21<sup>st</sup> century, as the rich countries continue to intervene in the interest of their own country. The promotion of the private sector was not beneficial to the receiving countries and destroyed many national healthcare systems. Pfeiffer and Nichter assert that a pressing concern is finding a public-private sector balance that allows for quality services to be provided equally and universally to poor populations (Pfeiffer and Nichter 2).

The medical anthropologists emphasize the importance of international relations in global health and the broader, political economic self-interests of powerful nations, including issues of trade and security that have great effects on international health initiatives (Pfeiffer and Nichter 3). The solution they present to addressing this problem is for anthropologists to get political. They define the contemporary role of medical anthropologists in the following quotation:

As a special interest group of the SMA, we are committed to bringing a critical perspective to global health that encompasses factors that contribute to the maldistribution of disease, health care inequities, and problems in health care management, within a biopolitical environment where hard choices have to be made. In our traditional roles as culture brokers, we are often better positioned, as both health workers and observers, than other public health professionals to document and contextualize the effectiveness of health services as they impact people's lives. (Pfeiffer and Nichter 3)

One should notice that the anthropologists continue to view themselves as cultural brokers. It is this that distinguishes them from other public health professionals and better prepares them to determine the effectiveness of health services. The contemporary utilization of this skill that uniquely qualifies anthropologists in determining those programs or services that are “culturally appropriate” mirrors the role that anthropologists played in the fifties and sixties, post World War II.

Additionally, Pfeiffer and Nichter state that the study of social organization and the distribution of resources is central to the study of anthropology and should be addressed as poverty and economic insecurity result in patterns of social support and mutual assistance (Pfeiffer and Nichter 3). Once again this refers to the issue of developing countries and their continued dependence on rich nations, a “pattern” that continues due to the lasting effects of colonialism as explained earlier in this paper. Leading nations of the world continue to abuse the cheap labor and resources of developing countries. The developing countries are then unable to stabilize their own economies, the country remains poor, and as a result the country is unable to provide adequate public healthcare for its citizens.

A major challenge identified by the partnering medical anthropologists is presenting their findings in a way that allows for their arguments to be received as compelling, timely, and well-balanced (Pfeiffer and Nichter 4). They propose that medical anthropologists carry out this challenge in the following way:

By illuminating the social processes, power relations, development culture, and discourses that drive the global health enterprise, medical anthropologists can contribute in valuable ways to health diplomacy and advocacy efforts, as well as on-the-ground transdisciplinary problem solving. We can help ensure that the evidence-base that frames global health debates is inclusive and represents multiple dimensions of the human experience, including the voices of those whose lives are affected by global processes. (Pfeiffer and Nichter 4)

Here Pfeiffer and Nichter call not only for medical anthropologists to bring attention to the “social processes, power relations, development culture, and discourses that drive the global health enterprise (Pfeiffer and Nichter 4)” –all of which have been included in their above arguments, but they call for advocacy efforts. As medical anthropologists, they assume responsibility for making the voices of the poor heard, and they become advocates for those who cannot advocate for themselves.

## **Anne Barry: Critical Analysis by an Anthropology Undergraduate**

The field of medical anthropology has undergone many changes since its institution in the eighteenth century, changes that are made evident throughout the history of tuberculosis and the legacy of colonialism. Tuberculosis was an ideal case study for this paper because it has “ravaged” mankind for centuries. Being a social disease it has disproportionately affected different populations over time, and as the world changed with the industrial revolution, biomedicine, and the rise of capitalism it has both made evident, and contributed to, the increasing inequity among global populations. Modern rates of tuberculosis are consistently high in developing countries, and it is clear that the lack of adequate public healthcare in such countries is intertwined with global power relations that date back to the colonial era.

Anthropology began as a social science reserved for the exotic, where observations and conclusions were made by the Europeans who were so fascinated by the native populations. Then the scientific method was applied and it became a more respected discipline; a science. With the onset of the Cold War the social scientists became political actors as they aided their country in the name of democracy and anti-communism, acting as the “cultural brokers” in America’s attempt to influence governments of developing countries. According to modern medical anthropologists, today they work to serve as a voice for those who lack their own, they assess the effectiveness of health services, advocate for the poor, criticize bureaucratic health organizations, discourage ethnocentrism, bring attention to social processes, international power relations, and the legacy of colonialism; and they continue to function as cultural brokers.

But the role of medical anthropology is not so black and white. While the social scientists heavily criticize health bureaucracies, they take advantage of such organizations on their own terms. Paul Farmer created his own health bureaucracy, Partners in Health, an

organization that has accomplished many positive healthcare initiatives much like those of other organizations. Anthropologists criticize the business-like characteristics of international health organizations and drug companies, and yet when Partners in Health worked to lower the cost of MDRTB drugs they participated in, and encouraged, competition among major companies. The intentions of bureaucratic health organizations are put into question, but one must consider whether such organizations would exist without such ulterior motives.

Medical anthropologists discourage ethnocentrism, but a current central mission in the field appears to be making western medicine available to developing populations. Paul Farmer has dedicated his life to bringing western medicine, technology, and medical training to countries like Haiti and Peru. Perhaps it is too late to leave these regions to the traditional medical practices that served them well for thousands of years before the Europeans invited themselves and brought such disease and devastation. Perhaps westerners see it as their responsibility, as some native populations across the globe, such as the aborigine Australians, had been virtually disease free before the entrance of the Europeans. They apply their skills as cultural brokers so that the populations of developing countries will accept and utilize western medical models. Is Paul Farmer uniquely qualified as both a medical anthropologist and an M.D.? Or does his western medical training make him especially bias?

Medical anthropologists criticize all of these things, but when it is convenient and necessary in their mission, they become participants. So what is their mission? It seems that medical anthropologists become participants in the very acts and the very organizations that they criticize when it serves to provide better healthcare services to the poor. It appears that a central mission of medical anthropology matches that of Farmer's as identified by Partners in Health, "To provide a preferential option for the poor." Call me ethnocentric, but when thousands of TB

patients recover with the introduction of western medical services, I call this something better than what they already had. It is important for the bureaucratic organizations that affect populations in developing countries to be recognized and criticized so that actors may be held responsible. But medical anthropologists have a mission to realize, and nobody knows the game better than they do.

My name is Anne Barry and I am an undergraduate at the University of Arizona majoring in Anthropology. I look forward to a future in the international health arena, and plan to start my career at a local health bureaucracy in Phoenix, Arizona; a health insurance company. I then have plans to leave in August for the Peace Corps. where I plan to work in a community development program. These two experiences will provide me with a well-rounded perspective in regards to many topics covered in this paper, including bureaucratic health organizations and ethnocentrism in the United States and developing countries, as I function first as a public health worker and then myself advocate for the poor. Upon return I plan to go to graduate school in public health or another related field.

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