

## Chapter Seven Health Issues in Contemporary Globalization

### Introduction

Contemporary globalization affects human health in multiple ways, from how food and other basic resources such as water, sanitation, and shelter sustain health, to how the globalization of pharmaceuticals and other modern medical interventions extend life in threatening circumstances. In this chapter we will examine five elements of globalization and health:

- The unequal creation and distribution of wealth have significant impacts on health and life expectancy. How do poverty or abundance shape health?
- Globalization and emerging infectious diseases. How do the global linkages among distant places and ways of life create rapidly transmitted epidemics and an increase in infectious disease?
- The impact of globalization on public health. How does the increase in global trade and investment affect how societies protect their health?
- Globalization and healthcare. How does globalization affect the ways that health care systems and finance are developed? How are global labor circuits used to distribute healthcare workers throughout the world?
- The transnationalization of health interventions. How does the global economy influence the forms that medicine and healthcare take in various national settings?

**Inequality and Health:** Health research demonstrates a strong relationship between poverty and health. This relationship holds across time and across space. Find any society and look at the poor, especially the very poor, then observe those who are well off. The former have higher infant mortality rates, higher rates of death in the first five years of life, and significantly lower life expectancies. Tables 7-1, 7-2 and 7-3 indicate this relationship at national levels. Gross national income per capita (GNIP) provides an adequate measure of national income status and is widely used for international health comparisons. The World Health Organization (WHO) Healthy Life Expectancy [figure (HALE) “measures the equivalent number of years in full health that a newborn child can expect to live based on the current mortality rates and prevalence distribution of health states (sic) in the population” (WHO 2004). Education also affects the health of individuals.

Table 7-1 displays the ranks of countries on the basis of healthy life expectancy and also indicates their relative association with gross national income per capita, indicated in dollars and by country rank. While the association is not precise, the trend is clear that healthy life expectancy is very much linked to higher national incomes.

**Table 7-1: Highest Healthy Life Expectancies and GNI Per Capita**

<b>Highest Life Expectancies</b>	<b>GNI Per Capita</b>	<b>Country Rank</b>	<b>Healthy Life Expectancy</b>
Japan	34,510	7	75.00
San Marino	26,720	15	73.40
Sweden	28,840	11	73.30
Switzerland	39,880	4	73.20
Monaco	n/a	20	72.90
Iceland	30,810	10	72.80
Italy	21,560	28	72.70
Spain	16,990	35	72.60
Australia	21,650	27	72.60
France	24,770	23	72.20
Norway	43,350	3	72.00
Canada	23,930	24	72.00
Germany	25,250	22	72.00
Luxembourg	43,940	2	71.80
Israel	16,020	38	71.50
Austria	26,720	16	71.40
Netherlands	26,310	18	71.40
Belgium	25,820	19	71.20
Finland	27,020	13	71.10
Malta	9,260	54	71.10
Greece	13,720	45	71.00
New Zealand	15,870	40	71.00
United Kingdom	28,350	12	70.80
Singapore	21,230	29	70.60
Denmark	33,750	8	70.10
Ireland	26,960	14	69.80
Slovenia	11,830	51	69.50
United States	37,610	5	69.30
Portugal	12,130	49	69.20
Republic of Korea	12,020	50	67.80

Table 7-2 performs the same comparison listing countries from the lowest HLE scores in the WHO data. Again, while some slight disparities exist, the trend is clear when one compares these scores with the corresponding country ranks.

**Table 7-2: Lowest Healthy Life Expectancies and GNI Per Capita**

<b>Country</b>	<b>GNI Per Capita</b>	<b>Country Rank</b>	<b>HLE</b>
Sierra Leone	150	201	28.60
Lesotho	590	157	31.40
Zimbabwe	480	163	33.60
Swaziland	1,350	127	34.20
Zambia	380	176	34.90

Malawi	170	200	34.90
Burundi	100	206	35.10
Liberia	130	205	35.30
Niger	200	196	35.50
Afghanistan		N/A	35.50
Burkina Faso	300	186	35.60
Somalia		N/A	36.80
Mozambique	210	195	36.90
Democratic Republic of Congo	640	154	37.10
Central Africa Republic	260	190	37.40
Mali	290	187	37.90
Rwanda	220	194	38.30
Cote d'Ivoire	660	152	39.50
United Republic of Tanzania	290	187	40.40
Guinea-Bissau	140	202	40.50
Chad	250	191	40.70
Ethiopia	150	201	41.20
Cameroon	640	154	41.50
Nigeria	320	179	41.50
Uganda	240	192	42.70
Benin	440	169	44.00
Togo	310	183	44.60

Table 7-3 performs the same comparison utilizing some of the most populous countries of the world, which do not appear at either the top or the bottom of the HLE list. It is clear that part of what we are observing in these data is the significant income disparities that exist in these large countries, which are associated with both higher and lower HLE's within these same large populations. (Recall the income inequality data for China in Table 2-3, that indicates the much higher income levels of the eastern coastal provinces compared with those of the interior and the western regions of the country.)

**Table 7-3 Selected Healthy Life Expectancies (HLE) and GNI (Gross National Income) Per Capita for Large Populous Countries**

Country	GNI Per Capita	Country Rank	HLE
China	1,100	133	64.10
Philippines	1,080	135	59.30
Russian Federation	2,610	97	58.60
Indonesia	810	146	57.60
Bangladesh	400	174	54.30
India	530	160	53.50
Pakistan	470	166	53.30

With respect to within country inequality, large cities tend to have greater concentrations of wealth when compared to rural areas, but they also are likely to

have significant numbers of poor. All of these complex wealth distributions are linked to corresponding health outcomes. Michael Marmot cites the example of Washington D.C. to illustrate how “localized” this class-based relationship between income and health can be:

If you catch the metro train in downtown Washington, D.C., to suburbs in Maryland, life expectancy is 57 years at the beginning of the journey. At the end of the journey, it is 77 years. This means that there is 20-year life expectancy [gap] in the nation’s capital, between the poor and predominantly African American people who live downtown, and the richer and predominantly non-African American people who live in the suburbs (World Health Organization 2005).

We discuss in other chapters the relationship between economic policies and the production of social inequality, what Coburn terms the “class-based production of inequalities” (Coburn, 2004, p. 41). These may be illustrated by looking at the impact of four major political traditions (social democratic, Christian democratic, liberal, and fascist or neo-fascist) in the advanced industrial countries. Countries with political traditions committed to redistributive policies (both social and economic) and full-employment policies have generally been more successful in improving the health of their populations (Navarro and Shi, 2001, p. 481). Labor-based social democratic political economies in Sweden, Denmark, Norway, and Finland had lower poverty rates for the general population and for children, smaller household income inequalities, and the lowest infant mortality rates during the period 1960-1996 (Navarro and Shi, 2001). The most market-oriented of the liberal Anglo-Saxon countries in this study, the United States, had the highest poverty rates as a percentage of the population (19.1 percent for the general population, 24.9 percent for children), highest household income inequality relative to national median incomes, and highest infant mortality rate of all the selected countries (Navarro and Shi, 2001, p. 486-488). In 1996 the infant mortality rates for the United States at 7.8 deaths per 1,000 live births were nearly double the 4.0 deaths per 1,000 live births for Sweden, Norway, and Finland (Navarro and Shi, 2001, p. 488). These patterns tend to persist over time once established and respond very slowly to policy change.

The role that structural adjustment policies (SAPs) have played in helping to create the kinds of situations represented by these data has been documented by many studies. Three hundred and thirteen SAPs, most of them in Africa, that were designed and intended to increase development through trade liberalization “found that inequality measures worsened dramatically in the first three years following such programs.” While some recovery occurred in the fifth years, in no cases did recovery equal that of the pre-SAP period (Labonte, 2002).

More recent critiques of structural adjustment policies administered by the World Bank and the International Monetary Fund have led to both institutions moving away from this approach to development. However, it must be emphasized that

these more recent changes in policy *have not had* the effect of reversing previous policies. To this extent the countries in which such policies were so prevalent—African countries primarily—have continued to live with their legacy. A significant aspect of the policy deficits affecting health in these countries stem from these policies, including the relatively large amounts of counterfeit pharmaceuticals that flood deregulated healthcare markets (Molyneux, 2005).

Just as the Washington D.C. data cited above suggest the differences that can exist between income and health status within regions of countries, the data in Table 7-3 also suggest that important exceptions exist between nations as well. China is a notable example. When examined in international comparative terms, China is still a relatively poor country. Its gross national income per capita is low, yet its healthy life expectancy is toward the top third of the distribution. It has been suggested that part of this result stems from national efforts in China over the past five decades to stress policies that promote social equality and a system of public health responsibility. An open question for readers is whether China's movement toward its own unique blend of capitalism within socialist institutions, will result in health outcomes that reflect a growing disparity in incomes. A further question is the shift in healthcare policies in China from the national public sector to local governments and the private sector, which has raised questions about whether this version of a socialist safety net legacy serves the society well.

### **Globalization and Emerging Infectious Disease:**

Infectious disease is on the rise throughout the world. Older infectious diseases, such as malaria and tuberculosis, are increasingly prevalent throughout world populations, often, as is the case with tuberculosis, in new, more virulent forms. In part these more virulent strains result from the overuse of antibiotics throughout the world in both human and animal populations, leading to evolving bacterial strains with immunity to particular antibiotics (CDC, 2005). Improved transportation has increased the speed at which diseases move from one part of the world to another.

A major U.S. study of the late 1990s identifies the increase in infectious diseases (long before the H5N1 avian flu virus emerged) as a major threat to national security in terms of the potential damage done.

- Infectious diseases are a leading cause of death worldwide, accounting for a quarter to a third of the estimated 54 million deaths world-wide in 1998. The spread of infectious diseases results as much from changes in human behavior—including lifestyles and land use patterns, increased trade and travel, and inappropriate use of antibiotic drugs—as from mutations in pathogens.
- Twenty well-known diseases—including tuberculosis (TB), malaria, and cholera—have reemerged or spread geographically since 1973, often in

more virulent and drug-resistant forms. For example, one might note that TB is an opportunistic disease among individuals with HIV/AIDS. And that worldwide more people die from TB in the context of AIDS than from AIDS itself (Swivel, 2004).

- At least 35 previously unknown disease agents were identified between 1973 and 1999, including HIV, Ebola, hepatitis C, and Nipah virus, for which no cures are currently available.
- Of the seven biggest killers worldwide, TB, malaria, hepatitis, and, in particular, HIV/AIDS continue to surge, with HIV/AIDS and TB likely to cause the overwhelming majority of deaths from infectious diseases in developing countries by 2020. Acute lower respiratory infections—including pneumonia and influenza—as well as diarrheal diseases and measles, appear to have peaked at high incidence levels (Gordon, 1999; see the section on “useful links” at the end of this chapter.)

The causes of increased infectious disease are found within the various vectors of globalization, especially increasing population, growing inequality, migration, and urbanization. Increasing world population means that numerically there are far more poor people, and consequently more biologically vulnerable, people in the world. Moreover, globalization-driven migration causes hundreds of millions of people to leave their home areas in search of work. Suffice it to say here that unchecked hyper-migration is producing what Mike Davis has called a “planet of slums” in which the spread of infectious disease is accelerated by poor water and sanitation provision (Davis, 2004; UN Habitat, 2004). Living conditions in many global slums are so desperate that individuals have insufficient income to obtain fresh water or their daily minimal caloric needs—they are literally starving to death from poverty, and as they weaken, their vulnerability to disease increases.

Throughout the history of public health, slums lacking both adequate clean water supplies and effective sanitation have had direct links with the spread of infectious diseases (WHO 2005). As indicated above, a growing literature associates these present deficiencies with the legacy of World Bank and IMF structural adjustment policies and the privatization of water, especially in Africa (Collignon and Vezina, 2000.) The pervasive movement of people through the world in search of work also contributes substantially to the spread of infectious disease. Tuberculosis, for example, had declined in both frequency and severity in older industrial economies until its resurgence in the 1970s and 1980s, when migrants from poorer areas of the world with much higher frequencies of the disease spread it to these more industrial countries.

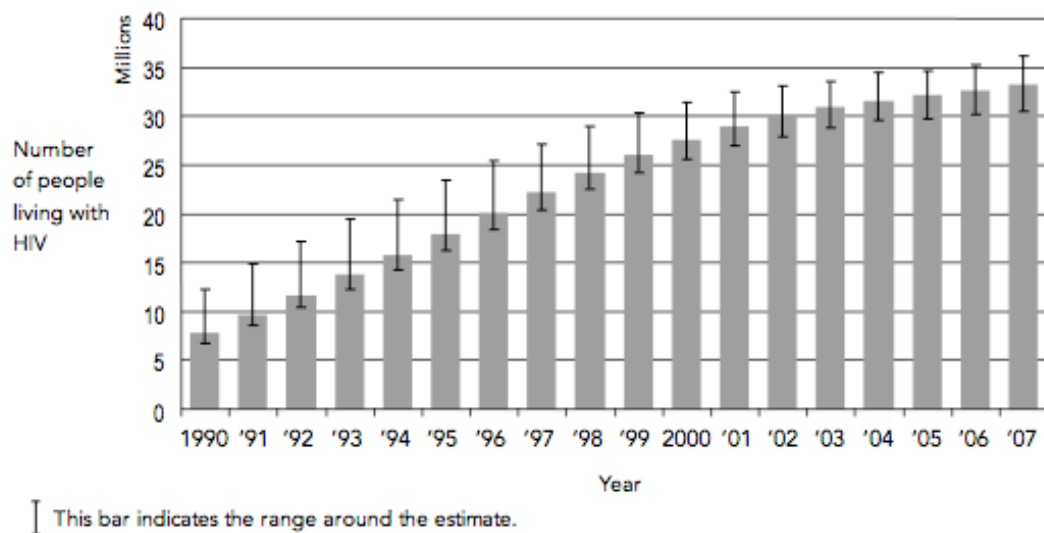
It is difficult to over-estimate the role that endemic and increasing poverty plays in infectious disease. Paul Farmer, for example terms HIV/AIDS a “disease of poverty” by which he means that the totality of social forces that shape the lives of the poor contribute to the spread of the disease. Once infected, the poor are

hundreds of times less likely to be able to find and afford effective treatment. Poverty and inequality, then, are both cause and consequence of HIV infection and treatment (Farmer, 2003). Throughout Africa and increasingly in Asia, the spread of the disease leaves in its wake the dead and the disabled—those too weakened to work—destroyed families, impoverished spouses and children, and numbers of orphans not seen in recent historical times. Poverty affects children in particular, leaving them with health deficits that make their effective participation in education impossible. The life-long consequences that arise from these early nutritional and educational deficits force these individuals onto a downward socio-economic slide.

The UN 2007 global report on HIV/AIDS indicates that as the global prevalence rate for HIV infection (the number of people newly infected with HIV) remains constant over the past few years, the numbers of people living with the infection continues to grow. These data are reflected in Figure 7-1.

**Figure 7-1 Global HIV Infected Population**

Estimated number of people living with HIV globally, 1990–2007



Source: UNAIDS, 2007, p. 4.

While some countries have reported successes in reducing incidence rates (e.g., Brazil and Thailand), throughout the world 6800 people a day are newly infected and 5700 die from HIV/AIDS. Sub-Saharan Africa remains the core of the infection with AIDS being the leading cause of death throughout the region. China and India as the world's two most populous countries had significantly increasing infection rates into 2005. Since that time, incidence rates have

stabilized, but the numbers of infected remains large. Official China figures list 1 million people with HIV/AIDS but other experts question that figure suggesting that China really lacks the capacity to do effective surveys of this situation (China AIDS Survey, 2008). Within Asia an estimated 4.9 million people are living with the disease, with 440,000 persons newly infected and 300,000 deaths annually. In both India and China infection occurs through contaminated injection drug equipment and sexual transmission. Improved surveillance and treatment in both countries is attributed to halting the rapid rates of increase seen earlier in the decade, but in both countries specific areas of the country continue to exhibit rates of infection well above national averages.

The United Nations 2007 Report on the epidemic is, however, encouraging in the sense that it seems to have peaked and is “behaving more like a traditional epidemic,” meaning that like many of the great pandemics of the past, over time the virus loses some of its capacity and begins to run barriers to its transmission, which include the spread of effective measures of prevention. UN data estimate that the rate of annual new HIV infections peaked at about 3.4 million worldwide and then declined. This still leaves an annual new infection rate of 2.5 million concentrated in the vulnerable populations described above (UNAIDS, 2007). Table 7-4 provides regional data for new HIV infections in 2007.

**Table 7-4. HIV New Infections 2007**

Region	Number of new infections 2007
Caribbean	17,000
Eastern Europe and Central Asia	150,000
East Asia	92,000
Latin America	100,000
Middle East and North Africa	35,000
North America	46,000
Oceania	14,000
South and Southeast Asia	340,000
Sub-Saharan Africa	1,700,000

Source: McNeil, 2007

One final note on globalization and emerging infectious disease: Mankind has a long history of infectious diseases moving from domesticated food animals to human hosts. Many of the ways in which diseases are now “emerging” link to pressures that increasing population and intensified economic activity have placed on the world food supply. Over the past three to four decades, the increasing demand for more food has forced farmers further into the forests and onto lands of marginal cultivability. Huge collections of food animals on livestock and poultry farms make the breeding and transmission of animal diseases more likely. As human populations mix more closely with food animals, increased numbers of diseased animals are shipped throughout the world, making the

transfer of new diseases from animals to humans more likely. These *zoonotic* diseases (diseases that move from animals to humans) are the direct results of the heightened patterns of interaction between humans and animals (Garrett, 1994). Such have been the origins of “mad cow disease,” otherwise known as bovine spongiform encephalopathy (BSE) and other so-called *prion* diseases such as Creutzfeldt-Jacob Disease, and scrapie—resulting from the ingestion of infected flesh of one species by another (usually as animal feed). Another disease, the H5N1 flu, the so-called avian flu, has in its early deadly manifestations been tied almost exclusively to humans eating the flesh of or handling diseased birds, or the prevalence of the virus among large flocks and herds in factory farming locations. Developing effective “governance” of these worldwide links between food production and the transmission of disease across boundaries poses one of the primary challenges of a highly interdependent globalized world.

## **Globalization and Public Health**

What is called *public health* differs throughout the world. In some countries a health ministry exists that oversees all health activities from the building and running of hospitals, to funding medical care, to taking collective action to protect the health of the entire public. In other parts of the world these basic activities are divided among different institutions, some under government control and some in the non-state, private sector. What is most commonly meant by public health is the capacity and the authority vested in the state to take action on behalf of the society as a whole. Such actions may be generally *preventive*, designed to prevent people from contacting disease or becoming ill, or based on *direct interventions*, for example, ensuring that sick people have adequate medical care.

Some claim that the primary goal of public health should be distinguished from that of medical care. In this view, the goal of public health is to *reduce incidence*, to ensure that the fewest numbers of people within a country (the public) contact a disease or suffer its ill-effects. The goal of medicine, in contrast, is primarily to treat the sick, those with disease who are ill. At times these goals overlap and interact, as when medical professionals seek to encourage their patients to take preventive action to assure their own health (e.g., to eat right, or not smoke). Sometimes public health will influence the same behaviors, for example, by pursuing a *social marketing* campaign aimed at encouraging people not to smoke. Public health sometimes pursues its larger goals through medical means, such as ensuring that individuals are immunized against various diseases. In countries such as China and India with their rich and enduring medical traditions, the lines between treatment, cure, and preventive health are further blurred. The key distinction to be made here is between the action scale of medicine directed at individuals and public health, which is directed at groups, large numbers, and ultimately the entire population.

We can make four generalizations about the relationship of medicine and public health:

1. The wealthier that individuals, groups and countries become, the greater is their tendency to seek western-style medical interventions. This tendency has great implications for how countries provide for healthcare, which we will discuss later.
2. As countries grow more affluent, particularly those pursuing the patterns of social organization and wealth of the older industrial countries, the relative influence of what has been called *the medical industrial complex* grows stronger and influences governmental policy. The Medical Industrial Complex is the name given to the complex combination of doctors, hospitals, medical organizations, medical equipment makers, pharmaceutical producers, and other medical industry manufacturers—all of whom come to share common interests in how medicine is performed, and who collectively operate to increase the output of the medical system. Out of this relationship, medical interests come to have a greater place in society and the policy process than public health interests. The scientific technologizing of medical care tends to be one of the most active industrial sectors of advanced economies.
3. Compared to the resources spent on individually oriented medical care, public health activities receive only a small fraction of the public budgets organized around health. In the United States, public health receives about 3% of every dollar spent on health care.
4. Over time the ways that people come to talk about health and disease focus on how medicine deals with the individual body. Individual health care comes to be more important in public discussion than notions of the “health of populations.” This pattern may be reversed when broad based epidemics or pandemics threaten countries, such as avian flu. This focus on individual health is accelerated by the continual expansion of identifiable diseases within the medical model, and the proliferation of professionalized ways of dealing with those diseases. In the United States, one in every seven jobs in the society is in “health care” (meaning in almost every case: medical care). Estimates are that within 15 years, one in every five jobs will be in health care and as much as 30 percent of Gross Domestic Product may be devoted to health care. The United States leads the world in these dubious distinctions, but the trends in health care spending, and the proliferation of disease models exist throughout the world and directly parallel patterns of economic prosperity.

The upshot of this tension between public health and medicine is that most social resources tend to be arrayed on the side of medicine, rather than public health. Globalization affects this equation in two very contradictory ways. On the one hand, the current climate of intense global economic interaction and uneven economic growth means that many in the world define their place and assess their own wellbeing by the amount and sophistication of medical care that they

can obtain. Global networking makes possible an accelerating diffusion of medical technology, skills, and interventions. Consequently, a significant amount of the world's treasure is being spent to provide high-end medical treatment for the relatively smaller, wealthier part of the world's population. On the other hand, with human contact increasing through the boundary-breaking influences of globalization, the world faces new and pervasive health challenges. To recite a now-familiar litany, increased poverty leads to greater migration, destruction of infrastructure, migration, and hyper-urbanization, all of which contribute to increases in disease levels. Disease is disproportionately visited on the poor, who become even less able to gain the resources to meet the challenges of every day life, and as a result they fall into ever-increased stages of vulnerability.

From this disturbing situation one could conclude that the challenges for global public health have never been greater. That certainly is the position of the authors of this text. Unfortunately, public health as it is practiced in the world is failing to meet these challenges (Garrett, 2000). One could scale these challenges from the larger, more serious, more complex, and more costly to the smaller, more immediate and not very costly. At the one end would be global pandemics, such as HIV/AIDs and the potential for avian flu. Effectively combating these diseases requires a substantial commitment of global assets and talent, a network of surveillance, and the ability to get national governments to intervene when necessary, policy-making will to act, plenty of money to do the research, identification of the pathogen and its vectors, creation of the vaccine, production of it in large amounts, distribution of it effectively and fairly, and then effective medical treatment to people who contact the disease. After many years in which these things did not happen, these factors have come to be addressed to the HIV/AIDS pandemic, and with some of the positive effects reported on in the preceding section as the spread of the disease seems to have slowed, and a larger number of infected persons are receiving treatment programs. Nevertheless, the lesson this struggle teaches us is that once such resistant pathogens are loosed in the world, gaining control over them requires coordinated, expensive effort over many years.

Laurie Garrett's critique of global public health in the year 2000 made the case that globalization leaves us collectively more vulnerable to emerging infectious disease, and emphasizes that even as our vulnerability increases, other pressures of globalization—from example those that come from state-constraining economic and political policies—were making us less able to deal with these threats. As the threat grows larger, the relative capacity of our responding institutions is being reduced. She makes the further point, one sometimes lost, that this is *the new public health predicament*. As long as globalization continues along its current course, *the more these pandemic consequences will threaten global human health*. Hence, the new predicament of global public health.

Consider how vaccine production relates directly to the issue of the globalization of medical interventions. As the United States faced a serious global threat from a possible outbreak of avian flu in 2004-05, its pharmaceutical industry ironically no longer manufactured flu vaccines. Or, for that matter, does it any longer manufacture a whole host of vaccines and other anti-biotics, known to be effective for a variety of other infectious diseases. When outbreaks of these diseases occur, the United States must purchase its supplies of vaccines in the global market, where they then can be in short supply because many nations want them at the same time. The simple reason for this dilemma lies in the profit decisions made by the major U.S. pharmaceutical companies, which increasingly have become the dominant TNC's in the industry.

These companies resist putting their efforts into making and distributing a non-patented inexpensive medication that is only taken occasionally by part of the population. Given the logic of global competitive markets, these companies argue that they cannot make sufficient profits from such products to complete in these markets and continue their substantial investments into path-breaking research to develop new drugs. Their profits suffer from investment in drugs that will be sold less expensively and might be utilized only on an occasional basis. The firms argue they must concentrate on inventing new drugs (protected by patent law) for which they can charge considerable amounts (some would say enormous amounts), and which have to be taken by patients on a regular, often daily, basis. As a hard-core businessman would state it: there is no money in ordinary vaccines. Industry effort pushes these activities to the margin, and the entire situation tends to be ignored until a crisis emerges, at which time, typically, the pharmaceutical industry looks to government subsidies to stimulate corrective action (Mulrooney, 2004).

It is sensible to ask why government, the primary agent for "public health," either does not manufacture the vaccine itself, or simply mandate that private sector firms do so. The answer lies in the market policies of neo-liberalism, which hold that such an intervention in markets is not an appropriate role for government. Remember that neo-liberal ideology holds that "where demand is sufficient, the market will provide." This ideology actually denies the need to test such economic claims in the market, and denies as well the pressing global health threats from which producers would be wise to protect the customers who buy their patented drugs. Neo-liberal political actors tend not to emphasize the larger needs of the society and believe in their ideology even when it is manifestly does not produce the promised result. While the US pharmaceutical industry giants receive government assistance in the form of tax reductions, protection of domestic markets, price supports on sales to government supported Medicare and Medicaid, and help with overseas sales, neo-liberals in the pharmaceutical industry see their efforts in opposing government regulation as simply a normal exercise of large company power within the conventional political processes that make up government. As U.S. Medicare legislation in the past several years demonstrates, the largest pharmaceutical companies have the political power

and influence to prevent government from taking actions they believe would damage their interests (Neubauer and Pratt, 1981).

One final word before departing this subject: Much effective public health does not cost very much. As we indicate above, the purpose of public health is to reduce incidence by preventing people from getting disease, to protect them from disease when it is present, and to encourage healthy behavior. Some countries—such as China, Japan and Korea—have centuries-old health traditions that encourage people to eat sensible diets, take care of themselves, live within supportive family structures, and adhere to the wisdom of what the west calls “traditional oriental medicine.” But much of the world lacks these traditions, and instead develops the destructive behavioral habits that are so much a part of the global marketing and consumption of contemporary society that wreak havoc on health. The United States, for example, and other parts of the older industrial countries are experiencing an epidemic of obesity and diabetes linked directly to their food choices, the “fast food” diet so readily identifiable from global marketers throughout the world. One child in fourteen now contracts diabetes in the U.S. The cost of dealing with these chronic diseases is enormous. In the United States, about 80 percent of all healthcare costs (read: expenditures on medicine) are consumed by about 20 percent of the population. That 20 percent consists disproportionately of those with chronic disease, and a significant percentage of these diseases originates in poor health and diet behaviors. The United States spent about 16 percent of its gross domestic product on health care in 2004, approximately \$2.3 trillion dollars, roughly equal to the Gross Domestic Product of China, which in 2006 was \$ 2.44 trillion (National Coalition on Health Care, 2008; World Bank 2008).

Much of contemporary public health involves surveillance, community-oriented engagement projects, and education, information-giving efforts to encourage people to change their behaviors. Money is often very hard to find for such projects, in part because they are not considered as newsworthy nor are they deemed to be as important as medical interventions. However, as the financial data tell us clearly, when we witness the course of the globalized world, it is not clear that we *cannot* “afford” to spend on public health; rather, it seems very much the case that we cannot afford not to spend such funds. Not spending the funds leaves us dealing with people who are being made ill by the dynamics of globalization. As these costs mount, they become “unbearable” for governments.<sup>1</sup> To date their primary way of dealing with the burdens of public health on government budgets is to cut back on services. That “solution” not only solves nothing, but worsens the public health threats nations face (Kim, 2000).

### **Globalization, Healthcare Reform, and Healthcare Work**

We have discussed in previous chapters how neoliberal policies seek to limit the role of the state’s activities. With respect to the more advanced economies this involves a persistent review and (often) reduction of social welfare policies.

These tendencies are apparent within the broad policy arena termed “healthcare reform.” Universal healthcare, the idea that every person in society is entitled—by right—to healthcare has been a powerful idea in the world since World War II. The United Nations and World Health Organization have developed broad policies arguing for both the right and the means by which it should be assured within countries. At the value level, the idea of health for all gains general acceptance and support.<sup>2</sup>

However, at the policy level the costs to countries of providing health care either directly to consumers or through insurance mechanisms have become increasingly high. Within what is generally called *western medicine* the introduction of ever more elaborate and expensive technologies (especially imaging and pharmaceuticals) couples with the aging of populations (older people in this model require much more care), and the persistent spread of chronic diseases to drive up costs.<sup>3</sup> Countries respond either by restricting health care access (reducing the numbers and kinds of people who receive healthcare coverage), reducing benefits (restricting the kinds of care and interventions that will be available through coverage), or by increasing the direct costs charged the recipient of care (Anderson and Poullier, 1999). Within complex national health care systems such as those of Europe, this movement is termed a “retreat from universalism,” meaning that the state will no longer be committed to a policy of providing health care for all. The United States, for reasons that have everything to do with its own internal politics, has the largest percentage of its population without healthcare coverage of any developed nation, around 47 million out of a population of 300,000,000, or roughly one in every six persons (US Census Bureau, 2008).

As Table 7-5 suggests, the range of national commitments to health and health care continues to vary significantly. However, repeated analysis demonstrates that there is not *always* a good correlation between what a nation spends and the health outcomes that result. The United States cost/outcomes data have received extensive analyses that point to the practices that rapidly drive up healthcare costs without necessarily improving outcomes—for example, the high costs of administering complex health insurance schemes. The China version of this process has been the passing down of healthcare financing from the central government to local governments beginning in 1978. From 1978-1999, the central government’s share of health care financing fell from 32 to 15 percent. As Blumenthal and Hsiao indicate:

That had the immediate effect of favoring wealthy coastal provinces over less wealthy rural provinces and laid the basis for major and growing disparities between investments in urban and rural health care. In effect, the central government drastically reduced its ability and commitment to redistribute health care resources from wealthy areas to poor areas of a huge and diverse country in which the overwhelming majority of the population lived in the poor regions. Reduction in governmental support for

the health care system also had the effect of largely privatizing most Chinese health care facilities, forcing them to rely more on the sale of services in private markets to cover their expenses after allocations from public sources declined. Public hospitals came to function much like for-profit entities, focusing heavily on the bottom line. The Chinese government informally sanctioned this privatization of hospitals and clinics by ignoring it (Blumenthal and Hsiao, 2005).

Although they are not called neoliberal policies in China, these kinds of policies have had the same effect as similar policies throughout the globe. They are designed to free the central government of burdens to be borne through taxation by privatizing activities, and in the end such policies place greater burdens on users of services in ways that the burdens fall most heavily on those with lower incomes.

**Table 7-5: Healthcare Expenditures by Percent of Gross Domestic Product**

Country	% Of GDP 2000	% of GDP 2006
United States	13.2	15.3
Germany	10.3	10.6
France	9.6	11.1
Canada	8.8	10.0
Sweden	8.2	9.2
Netherlands	8.0	9.3
Denmark	8.3	9.5
Italy	8.1	9.0
New Zealand	7.7	9.3
United Kingdom	7.7	8.4
Spain	7.2	8.4

Source: OECD, 2008

The dilemma at the core of rising health care expenditures lies in the very nature of how medicine continues to expand its range of activities, especially expensive technology-based interventions within the medical model approach to health care. As populations grow and age, the number and costs of medical interventions also grow, and national health care expenditures increase. All countries face this dilemma as they expand their technology-based medical capabilities and seek to expand them throughout their populations.

Among developed countries, as we have seen, dominant political and economic policies legitimize the shifting of these increased costs from the public sector to the private. The story is different for developing countries and especially for poor countries characterized by ineffective governments, such as those in some African states. As discussed above, weak and poor nations have been particularly subject to the structural adjustment policies of the IMF. Structural adjustments attempt to assure that the private sector is open to the influences of

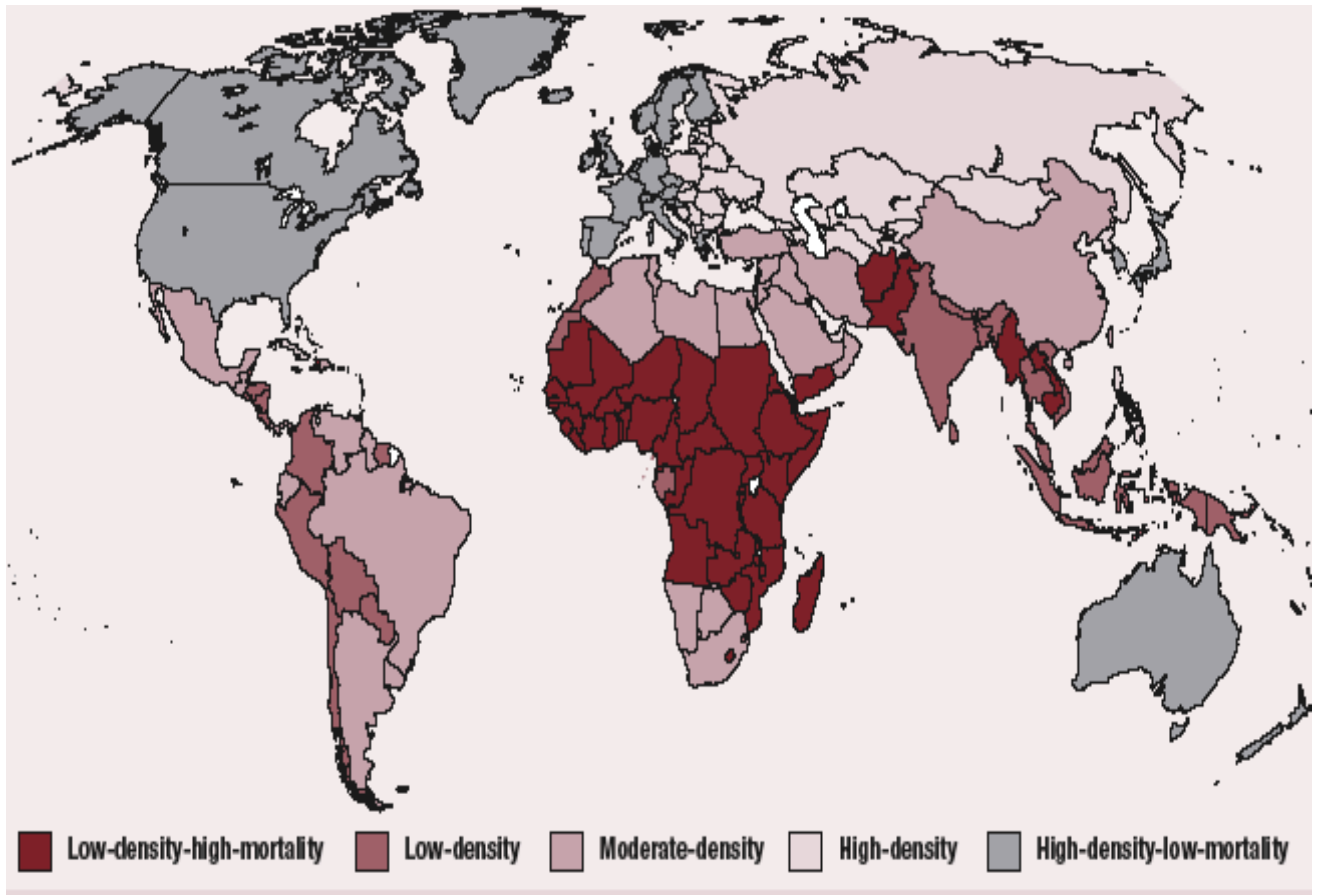
external capital. The result has often been the creation of a wide-open medical/health system in which drugs in particular can be imported and distributed throughout the population essentially without any form of regulation. The penetration of these economies with counterfeit drugs is also widespread, leading to the situation in which people spend disproportionate amounts of their meager income for drugs that are either inappropriate or ineffective (Molyneux, 2005).

Crises also exist within global healthcare with respect to the shortage and migration of trained healthcare workers. Part of the problem lies in shifting global demography. Former third world countries (currently cast as the “developing world” although some are either stagnant or in negative development) are increasingly home to the world’s younger populations. The more mature economies are rapidly aging, some of them already at or below replacement fertility (Douglass, 2002). Aging populations require increased health care, and health care workers are increasingly recruited from the developing world. This “demand pull” of older populations has created a health care “brain drain” that threatens poorer countries whose own health care labor forces have also in some cases been depleted by various epidemics, most particularly malaria and HIV/AIDS. As the report of the Joint Learning Initiative puts it:

On the frontline of human survival, we see overburdened and overstressed health workers—too few in number, without the support they so badly need—losing the fight. Many are collapsing under the strain. Many are dying, especially from AIDS. And many are seeking a better life and more rewarding work by departing for richer countries. Today’s dramatic health reversals risk more than human survival in the poorest countries—they threaten health, development, and security in an interdependent world (JLI, 2004, p. 1).

The report estimates a current world shortfall of approximately 4,000,000 trained health care workers, with the number likely to increase without massive investment by all countries, developed or not, in health care labor forces. Figure 7-2 illustrates the distribution of global healthcare workers.

**Figure 7-2: Global Distribution of Healthcare Workers**



Source: JLI, 2004.

The legacy of under-investment has shadowed the global health economy over the past three decades deriving largely from the politics of structural adjustments required of underdeveloped debtor nations.

Two decades of economic and sectoral reform-capped expenditures, frozen recruitment and salaries, and restricted public budgets, depleting work environment of basic supplies, drugs and facilities... These forces have hit economically struggling and politically fragile countries the hardest (JLI, 2004, p. 1).

The healthcare sectors of advanced economies are among the highest value-added components of the service sector. Healthcare labor shortages bid up wages over time. Because costs increase in healthcare (driven primarily by technology and its requirements for changes in treatment), healthcare providers in turn are driven to seek greater control over labor costs. Importing labor and off-shoring where possible become management strategies that create a strong demand-pull for health care workers.<sup>4</sup>

This demand-pull global migration of health care workers toward richer countries is perhaps best illustrated with Filipina nurses who have been providing health

care labor to an increasing number of advanced economies. Initially drawn to the U.S. market because of similarities in training and certification regimes (a result of the US colonial experience in the Philippines), and visa policies favorable to immigration, Filipina nursing numbers increased in the U.S. throughout the period 1970-2000 and expanded to other English speaking advanced economies, especially the U.K., Canada and Australia, and more recently to the Gulf States (Choy, 2003). The development of a favorable export market for nurses caused, in turn, a revolution in nursing education in the Philippines. Health care personnel responded to the high market incentives and government policies that supported migrating Philippine labor. As a consequence, Philippine workers abroad began sending home remittances that now account for approximately 10 percent of Philippine GNP. In 2007 remittance income in the Philippines amounted to between \$12 and \$14 billion (Farreran, 2007).

The demand-pull of global healthcare markets on healthcare in the Philippines has produced significant problems. While the number of training institutions has grown (absorbing available public and private educational investment), and the numbers of students entering nursing are correspondingly larger, the domestic market for professional nurses has been distorted. Those trained as nurses and unable to migrate are not likely to enter nursing within the Philippines because of low salaries and poor working conditions. The result is that the nursing labor force suffers first from the urban demand-pull within the country and also from the demand-pull of the global market. The result is that the historic urban / rural distortion in the domestic distribution of nurses is perpetuated and reproduced as the national development of nurse's increases (Kline, 2003; Tyner, 2000). In yet another distortion of the domestic healthcare labor market, physicians have begun to retrain as nurses in the Philippines to gain quota access in migration schedules that are closed to physicians in receiving countries, which themselves have physician surpluses.

The pattern of Filipina nursing migration merits study not only for its own role as a global migration circuit, but because it is probably the early wave of a pattern of healthcare migration. As the Joint Learning Initiative study makes clear, the demand-pull for such workers, especially nurses, has already reached crisis proportions throughout Africa. Evidence is beginning to develop of nurses from Taiwan and China joining the migration in significant numbers. Some Philippine nursing schools are signing agreements to train nurses in the Philippines from the PRC. Recent studies in the U.S. healthcare labor force reveal significant shortages of many medical specializations, a situation that may lead to even more forms of global migration of health care workers at all levels.

### **Globalization of Healthcare Interventions**

Healthcare is on its way to being one of the largest industries in the world, but like tourism, we often do not recognize it as such because it is highly advanced in some countries, but not in others. Moreover, as an industry it is composed of

various components that we have not yet grown accustomed to “seeing” collectively as an industry. And with the exception of pharmaceuticals, many of the products of the medical/healthcare industry do not have brand names, or applications that are easily recognizable outside of professional circles. Further, to a significant extent, medical care is still a highly localized activity. Nonetheless, healthcare/medical care is rapidly becoming a globalized industry, imitating the patterns of other globalized industries. In the immediately preceding section we saw how migration of healthcare workers has already come to imitate the migrations of other service industry workers. In this section we will examine three aspects of healthcare industry practices that suggest that it is, indeed, becoming a global industry: (1) the global structure and practices of the pharmaceutical industry; (2) bio-technology; and (3) the development of global elective surgery.

(1) **The pharmaceutical industry.** The globalization of the pharmaceutical industry (often just called *pharma*, or sometimes *Big Pharma* to refer to the largest companies that dominate the industry) fits well within the contested narrative framework. Those who view globalization through the progress lens see the industry as virtually a paradigm of progress, a very good example of the wonders that come from the combination of science, technology, capital, sophisticated organization, and global distribution. It is for many a representation of the knowledge industries of the future that are changing our societies for the better.

For those who subscribe to the disaster narrative, pharma represents virtually everything that is wrong with globalization. A small group of powerful TNC’s (a group getting smaller through constant mergers) is using its superior economic and political power to dominate the world production and distribution of drugs, employing the organizations of transnational regulation, namely the International Monetary Fund and the World Trade Organization, to ensure that drugs that are produced locally will be governed by the intellectual property laws of the developed countries. Western medical care is becoming increasingly dependent on drugs as its primary intervention technology. Consequently, more people throughout the world are increasingly dependent on the small group of powerful firms that dominates the global pharma market.

Table 7-6 lists the largest 20 pharmaceutical firms in the world and their 2003 sales. These are authentically globalized firms, produced from two decades of steady merger and consolidation. Their historic country of origin says little about how they operate in the world. Most operate in 70-100 countries.

The consolidation of these firms has been paced by their global attraction as stock investments, demonstrated by their price rises and relatively high dividend payments to shareholders. In the progress narrative, both the high price of drugs and high profit rates are the costs that must be paid to provide acceptable returns on corporate investments required for drug research and development. In the disaster narrative, the industry indulges in self-justification to disguise both its

high profits and the extremely high percentage of corporate costs devoted to advertising and other techniques of demand creation (Mulrooney, 2004). Critics extend the argument to point out that even were one to grant the relative importance of the research and development expenditures by the industry, several studies indicate that only about 3 per cent of the new drugs brought to market are demonstrably superior to existing drugs. Much of the corporate research and development effort seeks new products that can dominate market share and be sold at patent-protected prices. Many examples exist of companies bringing to market new drugs that are very similar to those whose patent protection is running out. When patent protection expires, and other companies can make and market those formulations, the price typically falls. Companies, therefore, work to keep as many patent protected products on the market as they can, since the prices and profits are much higher.

**Table 7-6. The World's Largest Twenty Pharmaceutical Firms in Terms of 2006 Sales.**

Company	2003 Pharma Sales Volume (US \$1,000,000)
1. Pfizer (US)	\$45,083
2. GlaxoSmithKline (UK)	\$37,003
3. Sanofi-Aventis (France)	\$35,643
4. AstraZeneca (Sweden)	\$25,741
5. Novartis (Switzerland)	\$23,532
6. Merck (US)	\$23,425
7. Johnson and Johnson (US)	\$23,267
8. Roche (Europe)	\$19,300
9. Wyeth (US)	\$15,563
10. Eli Lilly and Co.(US)	\$14,863
11. Bristol-Myers Squibb *US)	\$13,861
12. Abbott Laboratories (US)	\$ 12,395
13. Schering-Plough (US)	\$10,461
14. Boehringer-Ingelheim (Germany)	\$ 10,440
15. Takeda (Japan)	\$ 9,763
16. Bayer AG (Germany)	\$ 8,518
17. Astellas (Japan)	\$ 7,862
18. Daiichi-Sankyo (Japan)	\$ 7,116
19. Eisai (US)	\$ 5,589
20. Merck KgA (Germany)	\$4,674

Source: Contract Pharma, 2007.

Dubey has detailed how the imposition of such patent laws affected the price of drugs in India. During the 1990s great external pressures were brought on the India pharmaceutical industry to be organized on the principles of pharma in Europe and the United States (that is to say, "liberalized"). Changes in the law brought about new rules. Dubey, who employs the *globalization-as-disaster* lens,

has analyzed the consequences of these changes for the consumer and local industry. (He employs the older terminology of multinational corporations, MNC's, rather than transnational corporations, TNCs, that we have adopted.)

The main aim is to impose the conditionalities of WTO and to change the Indian Patent Act as MNCs need more markets and are eyeing Asia which is the largest continent of the world where 60% of the world population lives but contributes only 20% of the world pharmaceuticals business. With a high rate of population growth it is expected that the need of drugs will tremendously increase in the third world countries including India in the next millennium. India contributes 16.1% of the world population, but it produces only 1.2% of world drug production Hence the MNCs are trying to have more control over the pharmaceutical markets of the developing nations.

Developed countries are backing their own big companies to capture markets in other countries even at the cost of the interest of the people there. The United States has successfully battled for the inclusion of strict intellectual property rules in international trade agreements such as NAFTA and GATT. Often the U.S. position has literally been drafted by PhRMA. These trade agreements disregard public health considerations and have forced dramatic changes in the intellectual property rules the world over. Still PhRMA is not satisfied. And when PhRMA is not happy the office of U.S. Trade Representative (USTR) is not happy, says the editorial comment of *Multinational Monitor* (Dubey, 1999).

Following the imposition of pricing policies permitted by market reform, prices for common drugs in India rapidly increased over a five-year period, in some cases by as much as 450 percent. This linkage between the oligopolistic control over the creation, production, and distribution of pharmaceuticals, and worldwide price increases leads many in the "anti-globalization" camp to view availability of drugs as one of the world's leading healthcare crises. When coupled with oligopolistic control of drug availability and prices and the chronic diseases among the poor who can't afford the drugs, the nature of the health care crisis is clear.<sup>5</sup>

(2) **Biotechnology.** Biotechnology is a relatively new industry. Its early history has been one in which the leading information and knowledge economies have had great advantages both in pursuing the basic research that is creating new knowledge, and in developing the industries that are applying it to new technologies. Table 7-7 provides data on the top ten bio-pharmaceutical companies in the world, which are a sub-set of biotechnology. As one can see, even while these sales figures are substantially smaller than traditional pharma firms, they are nevertheless, significant and growing at very high rates. Over time, one can predict that the boundaries between these kinds of firms will disappear.

**Table 7-7. Top 10 Biopharmaceutical Companies by Annual Dollar Volume 2006 Revenues.**

Top 10 Biopharmaceutical Companies		
Rank	Company	Sales (millions)
1.	Amgen	\$13,858
2.	Genentech	\$ 7,640
3.	Novo Nordisk	\$ 6,526
4.	UCB Group	\$ 2,711
5.	Biogen Idec	\$ 2,592
6.	Gilead Sciences	\$ 2,588
7.	Serano	\$ 2,498
8.	Genzyme	\$ 2,278
9.	Medimmune	\$ 1,221
10.	Millennium	\$ 220

Source: Pharma Contact, 2007

These are true knowledge industry firms, and as such, they can exist anywhere in the world, and operate through information networks that are not necessarily place-related. Singapore, for example, has made a significant investment in the development of new biotechnology industries, which it sees as an industry in which it can have significant comparative advantage. The government of Singapore has proved willing and able to purchase knowledge capacity from the United States and Europe to start the industry and compensate for its own limited knowledge base. As one senior government official remarked to one of the authors of this text, “we are in the business of renting brains.” These kinds of investments in knowledge-based industries will likely continue to be characteristic of the global development of biotechnology. Singapore’s biotechnology volume grew over 30 percent to S\$23 billion in 2006 (Biomed Singapore, 2007).

(3) The **development of global elective surgery** offers another example of how the healthcare industry is organizing according to the new possibilities of globalization. The economic problem that lies at the core of this phenomenon is simple: the cost of medical care, especially advanced surgical procedures, is rising throughout the industrial countries. Restrictive healthcare coverage is leaving many people in society without insurance coverage. When surgery is needed, or desired, the costs may prove prohibitive. One solution is to seek surgery in a country with lower costs. Residents from one country now take advantage of the excellent medical care and reasonable costs available in other countries, shaping a new global healthcare industry, one in which patients migrate to healthcare facilities throughout the globe. India, for example, has developed several superior medical facilities that draw patients from overseas. This kind of health care traffic has existed for decades as individuals from lesser-developed countries have sought care from the medical centers of the advanced industrial countries. But now the reverse is true as the developing countries are beginning to serve as health care centers. The phenomenon comes from the

same economic logic that drives the global economy: work will be done where it is cheaper once certain satisfactory quality standards have been assured.

Thailand is developing a global and regional surgical/ medical center capacity that already serves over 1.1 million foreign patients a year, and is targeting annual capacity of 1.5 million (SMH, 2005). In Singapore 233,000 foreign patients sought treatment in 2004, and the country has established an annual volume goal of one million external patients (Parker, 2005). The phenomenon has come to be termed “medical tourism” and is a major part of development planning in India, which like Singapore and Thailand, seeks to become a major center benefiting from the global difference in health care costs. One facet of this medical tourism in Asian countries is the return of South East Asian and South Asian physicians from the United States and Europe to their countries of origin. In another example, some of the 45,000,000 Americans without health insurance have made Mexico a medical tourism destination as well, overcoming American attitudes that characterize Mexico as an undeveloped country without advanced medical facilities and personnel.

Medical tourism can be coupled with digital outsourcing and the pervasive migration of health care workers to draw a picture of a healthcare/medical world that is truly globalized and which is responding to the same economic forces recognizable in other dimensions of the global economy.

#### **Useful Links:**

The BBC: <http://news.bbc.co.uk/go/pr/fr/-/2/hi/health/6959583.stm>

World Health Organization: <http://www.who.int/en/>

OECD health data:

[http://www.oecd.org/document/30/0,3343,en\\_2649\\_37407\\_12968734\\_1\\_1\\_1\\_37407,00.htm](http://www.oecd.org/document/30/0,3343,en_2649_37407_12968734_1_1_1_37407,00.htm)

An interesting site on the relationship of public health to equality:

<http://www.alternet.org/#3E242F>

Wikipedia contains a site that lists world-wide deaths by various infectious diseases: [http://en.wikipedia.org/wiki/Category:Deaths\\_by\\_infectious\\_disease](http://en.wikipedia.org/wiki/Category:Deaths_by_infectious_disease)

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<sup>1</sup> Another way to think about what is going on globally with health and health care expenditures is to see that while the poor in the world are dying because they do not have enough food, clean water, and sanitation, the rich of the world are dying because they eat too much of the wrong things.

<sup>2</sup> The best known statement to this effect is the so-called Alma-Ata Declaration developed by the World Health Organization and UNICEF in 1978, which reads in part: The Conference [The International Conference on Primary Health Care] strongly reaffirms that health, which is a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realization requires the action of many other social and economic sectors in addition to the health sector."

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<sup>3</sup> Older people tend to have more chronic diseases than younger people, but current research in the United States and Europe emphasizes the rapid increase of chronic diseases caused by environmental or behavior factors. For example, the United States has an epidemic of diabetes, which often on-sets at very early ages. Diabetes has genetic correlates, but is also associated with obesity, derived in part from over-eating.

<sup>4</sup> Many of the older industrial societies experience chronic nursing shortages as a result and a fractious labor politics. Increased healthcare burdens induce hospitals to require more of nurses, a situation which in turn, leads the latter to request higher salaries, which are in turn resisted by management, etc. This dynamic overtime has been accompanied by chronic “nurse burn out” which leads to individuals leaving the profession. This leads to yet further shortages, and the cycle continues. (Buchan and Calman, 2004)

<sup>5</sup> As we have indicated throughout the text globalization is full of contradictions. While this review of pharma and liberalization in India are correct, exceptions have come out of the same context and conditions. India, for example, is home to Cipla Ltd, a generic drug maker, which much to the objection of pharma determined to market in 2003 the triple therapy AIDs intervention drug package for \$350, compared with \$12,000 a year in its patent-protected form used by pharma. That generic package has continued to drop in cost, currently running about \$150. (McNeil 2007)