The Social Determinants of HIV/AIDS in Cambodia: Is It Too Early to Call Micro Medical Efforts a Success?

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SOCIAL DETERMINANTS OF HIV/AIDS IN CAMBODIA: IS IT TOO EARLY TO CALL MICRO-MEDICAL EFFORTS A SUCCESS?

A Thesis

Presented to

the Faculty of Social Sciences

University of Denver

by

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August 2011

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ABSTRACT

Cambodia, a least developed country (LDC) with a recent history of civil war and genocide, has been widely considered to be a success story when it comes to the fight against HIV/AIDS. Within a few years of the first HIV positive blood test in the kingdom in 1991, it quickly became the country with the highest prevalence in the region, with estimates of as many as 4% of the population being infected at one point.

In recent years, Cambodia’s HIV/AIDS infection rates have plummeted to below 1%, with most of the credit being given to the implementation of micro-medical measures, such as a 100% condom use campaign among sex workers and clean needle programs. While these steps are necessary, and undoubtedly beneficial, a closer examination of the underlying social and economic factors that helped spur the initial epidemic – the social determinants of HIV/AIDS in Cambodia – suggest that the fight may be far from over. In fact, ongoing structural changes in the Cambodian economy may be placing Cambodians at a higher risk for contracting the disease. Accordingly, in this study, we examine the social determinants of HIV/AIDS in Cambodia, as well as possible implications for the future.

Through a review of the primary underlying determinants of HIV/AIDS – we find that there may be greater cause for concern than available data suggests.
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Chapter I: Introduction

Cambodia, a least developed country (LDC) in Southeast Asia, has experienced the region's worst HIV/AIDS epidemic, despite having its first infection not arrive until 1991 – seven years after neighboring Thailand had begun fighting the disease (Bith, 2004). Within the span of one year, 15 more cases were reported, with new cases spreading until estimates of the nation's infection rate ran as high as 4% in late 1999 (Cohen, 2003).

The onset of Cambodia’s HIV/AIDS epidemic coincided with a period of social and economic transition, as the country was falling into United Nations administration after more than eight years of civil war and conflict with the U.S. and Vietnam. The new UN program brought with it a certain amount of political and military stability, but also a rapid influx of Western investment and armed forces (Curtis, 1993).

This combination of foreign soldiers and money, along with the collapse of the communist Khmer Rouge regime, which left millions of women without husbands, fathers, or work, is credited with a rapid rise of prostitution in Cambodia, especially in the capital city of Phnom Penh (Cohen, 2003). That tens of thousands of new sex workers were suddenly interacting with foreign clientele away from their homes and families, in turn, has been blamed for the quick spread of HIV/AIDS infections (Cohen, 2003).
Early efforts to fight the disease within Cambodia centered on tactical, ground-level micro-medical strategies (Saphonn et al., 2004). These included 100% condom use campaigns for sex workers, educational programs aimed at brothel workers, and clean needle exchanges. While there were also committees formed and educational systems put into motion for the general public, the clear focus was on halting the spread of HIV/AIDS by stemming the flow of the disease from the highest risk groups to the rest of the population, and especially from sex workers to their clients (Charles, 2006).

That the Cambodian response to HIV/AIDS should have been similar to Thailand's efforts is perfectly reasonable. Not only are the two countries close geographically, but both have a long history of socially accepted prostitution, and Thailand had seen its HIV/AIDS new infections peak at 143,000 in 1991, and steadily decrease to 14,000 in 1993, where the prevalence rate has remained steady at 1.4% (Cohen, 2003).

Judging strictly by the numbers, Cambodia's efforts to fight HIV/AIDS would have to be considered a similar success. From its peak infection rate of around 4% in 2002, rates quickly dropped to 2% in 2003, and have stabilized at around 1% over the last few years (Cohen, 2003; UNAIDS, 2010).

Within so-called "high-risk groups" such as commercial sex workers and intravenous drug users, new infections have also decreased. New surveys conducted by NGOs and government groups indicate that micro-medical measures are succeeding; sex
workers are increasingly using condoms with their clients and fewer needles are being shared (Charles, 2006).

Given these facts, it seems clear that the small nation has made up a lot of ground quickly when it comes to decreasing the spread of HIV/AIDS, and it would seem that Cambodia should not be at an especially high risk for another pandemic. In fact, the country's own governmental HIV/AIDS department forecasts even lower incidence levels in the coming years (see Figure 1).

But there are some indications that the progress made against HIV/AIDS in Cambodia may be a strong first step, rather than a decisive victory. To understand why, we must consider the nation's HIV/AIDS situation in regard to the social determinants of health (SDH). Rather than simply think of diseases as individual biological events, or the opportunities for health as being based purely on medical inputs, the SDH approach takes into account a multitude of factors that affect a person or population’s health outcomes, from the time they are born until their death.

While we will examine the social determinants of health in more detail in the following chapter, note that life expectancy, disease prevalence rates, and other major health indicators have been shown empirically to correlate closely to socio-economic status, gender, and race (Wilkinson, 1996; Diderichsen et al., 2001; Marmot et al., 2006). These factors, in turn, influence one another in a myriad of ways within different countries and societies. What is most striking, however, are the ways in which they can be shown to affect health on the national, population, and individual level, beyond simple
biological differences between races, genders, and income or social classes (Wilkinson, 1996; Marmot, 2004).

**Figure One: Projected New HIV/AIDS infections in Cambodia**

![Projected New HIV/AIDS infections in Cambodia](image)

**Figure 3: Projected number of new HIV infections annually among the general population aged 15-49 years (2006-2012)**

In a very broad sense, SDH recognizes that these factors play an important role in determining whether any individual will have the chance to live a healthy, productive life or will be limited in his or her opportunities (Marmot, 2004; Wilkinson, 2006; Marmot, 2008).

As such, the SDH approach doesn’t only consider the purely medical aspects of health – for instance, whether a person is a smoker, or the presence of a disease in their bloodstream – but also the factors in their life and environment that have contributed to these circumstances. In other words, it is very often a matter of searching for the “causes of the causes” (Wilkinson, 1996).

Often, those causes can help to explain the social and economic dynamics that result in the "risk behaviors" that are prevalent in medical and policy literature. By understanding the "how's" and "why's" of the choices and circumstances that individuals and nations face, SDH proponents can advocate changes in policy and focus that may be more effective in improving health outcomes than specific medical interventions, and at significantly lower costs.

The SDH perspective can be helpful in understanding general health metrics at the national level, but it can also be refined to understand health risks and outcomes for specific societies and diseases. In particular, as we shall see in this study, variables of social positioning manifest themselves uniquely within Cambodia (or any country) and affect HIV/AIDS in a way that is specific to the disease and its transmission.
The purpose of this study is to examine and evaluate Cambodia's HIV/AIDS crisis from a social determinants of health perspective, with particular attention paid both to the underlying factors that may have contributed to an initial outbreak, and the potential effects ongoing trends could have if they persist. At the moment, no similar analysis exists within available published academic works\(^1\), and the conclusions that follow draw us to an alternative view of the early success seen in micro-medical programs targeted toward high HIV/AIDS risk populations. In addition, they allow us to make limited recommendations as to further preventative measures.

As encouraging as the success of medical HIV/AIDS prevention measures have been, an examination of the underlying social determinants of health suggests that the risk for a resurgence of new infections may be higher than the available data would seem to show. The second chapter of this study will begin the exploration of that observation by briefly introducing the Social Determinants of Health (SDH) approach, which suggests that a number of societal and economic factors, rather than only medical ones, can often be seen at the root of any outbreak in disease.

From that point, we will examine in Chapter Three the social determinants of HIV/AIDS, which represent a specific subset of factors that have been identified as contributing to the spread of the virus. Subsequently, we will briefly cover the history and current state of Cambodia, both as a society and a population currently fighting an HIV/AIDS epidemic in Chapter Four.

\(^1\) Although a study of neoliberalism and its effects on Cambodia with respect to HIV/AIDS has been conducted by Yasar (Yasar, 2010), it focused mainly on gender vulnerabilities.
In Chapter Five, we will further sharpen our lens to look at the Social Determinants of HIV/AIDS in Cambodia, and especially current economic and policy shifts that may be changing key dynamics as they relate to new infections. And finally, in Chapter Six, we will come to conclusions and see what recommendations can be made about future policy from the available data on hand.
Chapter II: Social Determinants of Health

What causes disease? It has been known for hundreds of years that certain viruses, bacteria, and other organic invaders can be a source of illness, and medicine has gotten better at identifying them and defining the associated risks.

An interesting question arises, however, when one begins to consider where those risks can be thought to reasonably begin and end. In the medical tradition, risk factors for disease are usually limited to influences upon the individual. That approach, which focuses on individual causes and remedies for illness (and especially risk behaviors), will be referred to throughout this paper as “micro medical,” as it is in existing literature. Seeing health in individual terms is undoubtedly sound, scientifically speaking.

But do socioeconomic factors – the conditions under which we live and work – contribute to health risks and opportunities as well? A growing number of studies centered on the Social Determinants of Health (SDH) suggest that they do. Rather than simply think of diseases as individual biological events, or the opportunities for health as being based purely on medical inputs, the SDH approach takes into account a multitude of factors that affect a person or population’s health outcomes, from the time they are born until their death.
While these factors may be harder to detect and quantify than micro-medical indicators at the individual level, aggregated health outcomes (such as disease prevalence and life expectancy at birth, or LEB) can be empirically tied to social determinants such as income and status (both national and relative), gender equality, and race, which can be combined to form a person's "social positioning"\textsuperscript{2} (see Figure 1). These factors exert an influence both within and between different populations and influence biology while at the same time being influenced by it. Social positioning is an important health determinant because it relates, directly or indirectly, to power within a given society. Those who sit atop the social and economic structure will, on average, experience the most favorable health outcomes, in terms of higher LEB, lower disease incidence levels, and a decreased rate of mental stress and illness\textsuperscript{3}.

Two caveats need to be applied, though. Income and wealth, themselves large components of social positioning, are closely related to health within countries but not between them. In other words, the wealthiest in any society have the best health outcomes, while the poorest have the worst, regardless of GDPpc as an aggregate (Wilkinson, 1996); and second, a disparity in wealth, income and status does not just

\textsuperscript{2} This term is borrowed from existing literature and is often used as a proxy for the combined relative values of a person's income, wealth, status, gender, and race within the context of a society as a whole. In other words, social positioning attempts define an easy way to determine an individual's place within the socioeconomic hierarchy (Diderichsen et al., 2001; Marmot, 2004; Marmot et al., 2006; Wilkinson, 2006).

\textsuperscript{3} While the majority of this study, through the remaining chapters, will concentrate on HIV/AIDS prevalence rates as a primary health indicator, it should be noted that LEB is widely considered to be a standard way of measuring health outcomes across and within different societies. Additionally, note that LEB is affected primarily not by an increase in lifespan by the elderly, but through lower mortality rates at younger ages through disease, accidents, etc. In other words, LEB improvements are not typically the result of the old living to be older but of more of the population reaching old age (Wilkinson, 1996).
affect the poor. Indeed, nations with large gaps in wealth and status tend to have poorer health outcomes for all their residents, as compared to nations with more egalitarian systems (Wilkinson, 1996).
Figure 1: A Social Determinants of Health Framework

(Diderichsen et al., 2001)
How Social Positioning Affects Health

It would be easy to dismiss health outcomes that are related to social position (and its main components of income, education, occupation, gender, and race\(^4\) (Diderichsen et al., 2001) as a case of the better-off enjoying more and better access to health care, perhaps through better nutrition or fewer detrimental environmental factors.

These assertions, however, fail to hold up on the empirical level. Empirical studies have shown that, in some developed nations, the wealthiest and highest-status individuals actually utilize lower levels of health care. Despite that, mortality among those occupying lower social positions is higher, regardless of specific cause. As an example, some of the healthiest societies in the world have high rates of smoking. On an individual level, of course, smoking would have to be considered a risk factor for number of diseases and ailments. However, on a national scale, it does not correlate as strongly to mortality rates as some of the social determinants of health do, such as the disparity in incomes between those with the highest status rankings and those with the lowest (Wilkinson, 1996).

If not through direct exposure to disease and/or nutritional inputs, then how can wealth and status affect health on a personal level? There is substantial evidence that demonstrates that poverty, stress, and lower social standing can physically degrade endocrine and immunological systems, which have the effect of slowly wearing away health over the course of a person’s life (Marmot et al., 2006). Additionally, the desire to

\(^4\) Although race is a major component of social positioning across most of the world's societies, Cambodia is largely homogenous, ethnically speaking, with 90% of residents made up of ethnic Khmer. For that reason, issues of race and status will receive less attention than would be necessary in other contexts.
improve upon a lower social standing can trigger flight or fight responses within the
body, including a number of chemical responses that can have lasting effects on health if
they are induced repeatedly (Marmot, 2008).

Moreover, income and power inequalities can indirectly affect an individual's
health by altering their perception of themselves within a society, and subsequently,
inducing them to take on riskier behaviors in order to achieve better social positioning
(Raphael, 2006; Wilkinson, 2006). One of the major assertions of the SDH approach is
that behavior is largely socially determined (Diderichsen et al., 2001; Marmot, 2004;
Wilkinson, 2006), causing individuals to take actions that, while appearing to be "risky"
from a medical point of view, are rational and appropriate within their socioeconomic
contexts. Understanding how strongly environment can precede and incite behavior can
help bridge the gap between an understanding of the major determinants on a national or
population level and the micro-medical behaviors and risk factors that must be considered
in relation to disease prevention.

**Specific Determinants of Health**

In as many ways as differences in social position and inequalities affect health
outcomes on different levels, they are somewhat abstract concepts to measure within and
across societies, much less target through changes in policy. For that reason, much of the
SDH literature is concentrated on the means in which they manifest themselves in more
tangible pathways. While the relative importance of various determinants continues to be
debated, accepted studies all agree that income and wealth disparities, gender equities,
racial standards, the availability of health care, social cohesion, daily working conditions,
access to education, urbanization, and women's rights are all critical pieces of the puzzle when it comes to understanding why health inequities are so persistent. Another factor, which shall be addressed separately in this chapter, is the introduction of neoliberal social and economic policies. While any discussion on the determinants as unique health factors is meant to highlight the ways in which they affect health and behavior, it should be noted again that they are all interrelated, and that changes in policy to one area will almost always affect the others as well. A few of the specific determinants deserve special attention as they relate closely to the study of this thesis.

**Inequalities in wealth and income produce inequalities in health and poorer health outcomes for all.** As mentioned, the wealthiest and highest-status members of society can expect to enjoy longer life expectancy at birth, fewer incidences of disease, and lower mortality rates for all major causes of death and every age group. Additionally, however, nations and societies with the greatest gaps between those who rank most highly in status and those who rank at the bottom (whether measured through Gini coefficients or other means) experience lower LEB and higher mortality rates for all members of the population (Wilkinson, 1996) (see Table 1).

---

5 While the broad literature on the social determinants of health agrees that social positioning (as measured by income, occupational status, gender, race, and education), gender, and race factor heavily into health outcomes, there are minor variations in the ways in which specific determinants are named and represented. Accordingly, the following descriptions should be considered an amalgamation of three leading descriptions: A Conceptual Framework of the Social Determinants of Health (Solar et al., 2007) and How Social Justice Becomes Embodied in Differential Disease and Mortality Rates, and A Framework for Elucidating the Pathways from the Social Context to Health Outcomes and for Introducing Policy Interventions (Diderichsen et al., 2001).

While each is conceptually and empirically valid, they are not substantially different enough to warrant separate discussion in this study.
**Women's rights affect health for everyone.** Due to imbalances of power and status that result from gender inequities, the progression of women's rights within a society can be a helpful health indicator. Some of these disparities, such as the difference in caloric intake between male and female children in the developing world (Sen et al., 2007), are so straightforward as to scarcely require explanation. Children starting with a nutritional deficiency are far more likely to die at younger ages and suffer from communicable diseases. Other connections, however, are less obvious and more reliant on local gender norms. For instance, in many countries gender roles dictate that females care for children, the elderly, and the ill within a home, which doesn't just serve to limit their own income and advancement, but also to directly link their own health to that of everyone else in the household (Diderichsen et al., 2001).

In a more direct manner, differential treatment of males and females, both in the third world and beyond, can create significantly different opportunities for men and women. Often, these are manifested in straightforward ways, such as the prevalence of violence against women, their ability to choose sexual partners, the timing of sexual encounters, and the decision of whether to raise children or not (Sen et al., 2007). Additionally, in many societies there are fewer employment and earning opportunities for women, which leaves them more likely to find themselves in lower paying and less secure occupations, as well as informal working arrangements (Sen et al., 2007).
Table 1: Life expectancy at birth and GDP (gross domestic product) in U.S. dollars in 2001 adjusted for purchasing power

<table>
<thead>
<tr>
<th>Country</th>
<th>Life Expectancy at birth</th>
<th>GOP per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>81.3</td>
<td>25,130</td>
</tr>
<tr>
<td>Sweden</td>
<td>79.9</td>
<td>24,180</td>
</tr>
<tr>
<td>Canada</td>
<td>79.2</td>
<td>27,130</td>
</tr>
<tr>
<td>Spain</td>
<td>79.1</td>
<td>20,150</td>
</tr>
<tr>
<td>Switzerland</td>
<td>79.0</td>
<td>28,100</td>
</tr>
<tr>
<td>Australia</td>
<td>79.0</td>
<td>25,370</td>
</tr>
<tr>
<td>Israel</td>
<td>78.9</td>
<td>19,790</td>
</tr>
<tr>
<td>Norway</td>
<td>78.7</td>
<td>29,620</td>
</tr>
<tr>
<td>France</td>
<td>78.7</td>
<td>23,990</td>
</tr>
<tr>
<td>Italy</td>
<td>78.6</td>
<td>24,670</td>
</tr>
<tr>
<td>Netherlands</td>
<td>78.2</td>
<td>27,190</td>
</tr>
<tr>
<td>New Zealand</td>
<td>78.1</td>
<td>19,160</td>
</tr>
<tr>
<td>Malta</td>
<td>78.1</td>
<td>13,160</td>
</tr>
<tr>
<td>Greece</td>
<td>78.1</td>
<td>17,440</td>
</tr>
<tr>
<td>Cyprus</td>
<td>78.1</td>
<td>21,190</td>
</tr>
<tr>
<td>Germany</td>
<td>78.0</td>
<td>25,350</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>77.9</td>
<td>24,160</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>77.9</td>
<td>9,460</td>
</tr>
<tr>
<td>Singapore</td>
<td>77.8</td>
<td>22,680</td>
</tr>
<tr>
<td>United States</td>
<td>76.9</td>
<td>34,320</td>
</tr>
<tr>
<td>Ireland</td>
<td>76.7</td>
<td>32,410</td>
</tr>
<tr>
<td>Cuba</td>
<td>76.5</td>
<td>5,259</td>
</tr>
<tr>
<td>Portugal</td>
<td>75.9</td>
<td>18,150</td>
</tr>
</tbody>
</table>

(Wilkinson, 1996)
Access to health care is a straightforward, but critically important, determinant of health outcomes. The availability of doctors, medicines, and health education can affect LEB and other health indicators through the treatment of diseases and spread of health information. As with income and poverty, the availability of health services can apply differently at the national, regional, and individual level. Just because access to health care is prevalent within a population does not mean that every person will have the means to access or afford it, resulting in very different outcomes for individuals living in different areas or in separate social, racial, and gender classes (Diderichsen et al., 2001).

Inequalities in health care availability can result in greater gaps in social position, even in developed countries. Poor health, or untreated conditions, can limit prospects for advancement and income, as well as leaving a heavy financial burden on individuals and caretakers. As an example, a person files for bankruptcy due to a serious health problem once every thirty seconds in the United States (Healthcare, 2008). The consequences can be even more severe in LDCs, where relatively expensive medical treatment and the loss of a primary earner's income can result in “poverty traps,” which lead to further inequities and behavior that increases health risks (Van Doorslaer et al., 2006).

Social cohesion is a strong determinant of health and specifically "high-risk behaviors." Usually measured in criteria like voter participation, attendance of religious ceremonies, and other indicators of average levels of homogeneity and community participation across a population, social cohesion compares the "sameness" of one society or population to the next. Certainly, it may be the case that low social cohesion is often
related to large gaps in income and social positioning, but a more encompassing view, however, can help clarify behaviors that persist inside and outside of societal norms. For instance, although all major causes of death are correlated to differences in income distribution, lower levels of social cohesion are most strongly related to mortality rates stemming from alcohol, homicide, and accidents at the population level (Wilkinson, 1996).

While it may seem logical to assume that individuals with stronger social networks are more likely to stay within the bounds of accepted behaviors, and thereby engage in fewer "high risk" activities, it appears that social cohesion molds policy and behavior at the national level as well. The more tightly-knit a society, the less likely they are to enact laws and standards that lead to poor health outcomes for everyone. Wilkinson characterizes this as a situation where "individuality in the values of the market are restrained by a social morality" (Wilkinson, 1996). This idea will be important when we return to an examination of the effects that neoliberal policies have on the social determinants of health.

**Employment conditions play a major factor in health outcomes.** Not only does the type, availability, and wages offered for one's work affect income and living conditions, but evidence shows that mortality rates have been shown to be significantly increased among temporary workers and those with unstable work arrangements (Kivimäki et al., 2003) Temporary work tends to be more dangerous in terms of injury risk and exposure to environmental hazards, but it also brings the combined health difficulties of increased stress and feelings of insecurity regarding future income and
stability. In the cases of migratory work, there can be the additional loss of established social networks and an increased propensity for risk-taking behavior (Artazcoz et al., 2005). Similarly, chronic unemployment and job insecurity have been associated with some forms of health-damaging behavior, such as smoking and alcohol abuse (Ferrie et al., 2002).

**Education levels can directly affect health outcomes.** The level of education achieved, especially in children, is a key leading indicator of future social positioning, and thus, future health risks and opportunities. In the same way, poor health in childhood can affect educational opportunities, as sick children can be kept from school, limiting their ability to learn at the same rate as their peers (Wilkinson, 2006).

While it should be understood that education, like all sub determinants, is very closely related to gender and social position, inequities are often expressed most profoundly in nations and populations where women's rights are low. In such environments, educational opportunities may be more available to males, with females achieving lower literacy and graduation rates (Sen et al., 2007). Also, they may be kept at home to care for a sick member of the family, in which case poor health and accepted gender roles combine to put females at an economic and social disadvantage. In these ways, education and a lack of gender equity combine to leave women in a disempowered status, with lower earning capability, than males.

**Urbanization produces mixed health outcomes.** The global trend of people moving from rural areas and into urban ones can skew the social determinants of health in a number of ways. Growing urban areas can produce slums with poor sanitary
conditions, a rise in disease prevalence, and more health problems stemming from environmental issues (Campbell et al., 2007). Urbanization is also associated with rises in alcoholism and substance abuse, possibly stemming from the new social patterns that arise when individuals are removed from their established networks (Campbell et al., 2007). Mortality rates in urban areas also increase in relation to violent crime and suicide, with 90% of both occurring in low and middle income countries (Krug et al., 2002).

On the other hand, by concentrating wealth and power in major cities, urbanization often creates incomes and opportunities within cities that simply aren't available in rural areas. This in turn fuels more mobilization, as well as creating situations where urban residents enjoy incomes (and access to health systems) not found elsewhere. In this way, urbanization helps to reinforce the income and wealth disparities previously mentioned (Wilkinson, 1996).

**Understanding Health Risks on a Larger Scale from an SDH Perspective**

Recognizing that the social and economic conditions that shape the opportunities and choices available to individuals will necessarily affect their actions and decisions is a critical piece of the SPH framework. It allows us to move beyond the concept of individuals behaving in a way that corresponds only to internal motivations and grants that there are conditions and constraints that lie beyond their direct control. By examining the determinants of health on a wider scale, we can think of populations being more vulnerable and susceptible to certain diseases and health outcomes by virtue of the conditions under which they live and work (Diderichsen et al., 2001; Solar et al., 2007). We can recognize that many of the most pressing health variables for a specific man,
woman, or child are externally imposed – or at least strongly influenced – by environment, policy, and especially social structure.

This represents a minor departure from traditional thinking on health and disease prevention. Although a wide body of medical literature recognizes that social determinants can be important within nations and societies (especially in the field of epidemiology), policy interventions are usually staged and designed at the micro-medical level (Marmot et al., 2006). By viewing micro-medical behaviors and risk factors as a smaller part of, and natural consequence to, the prevailing social conditions, we can arrive at alternate courses of action designed to decrease susceptibility and vulnerability, rather than treat medical ailments individually.

Undertaking such a view can be necessary, given that the major determinants of health, expressed in terms of social position, are often manipulated unintentionally by changes in policy or socioeconomic structure at many levels. Frequently, the goal of these changes is not to explicitly alter health outcomes (although there may be situations where that is the case, as with public health reform).

One of the areas where unintended impacts have been most debated is the increasing trend toward trade liberalization and neoliberal economic policies, both in the Western world and developing nations. Neoliberalism, in this context, can be thought of as a set of policies that favor free-market competition – and especially globalization – as a way of creating efficiencies in pricing and distribution. This often leads to a decrease in tariffs and reduction of other barriers to import and export. The prevailing mindset of such policies is that state-managed markets and exchanges create inefficiencies, and
therefore are less preferable than more competitive environments that should, in theory, lead to sustained economic growth (Woodward et al., 2006; Labonte et al., 2007).

These goals and policies have become preferred by major trade, relief, and development institutions like the international monetary fund (IMF), the World Bank, and the World Trade Organization (WTO) in recent decades, largely stemming back to a consensus achieved in the 1980s. The result, especially in LDCs, has been "policy changes that focus on reducing domestic consumption, shrinking the public sector through privatizations and cutbacks in government services, and orienting economic activity toward export then toward domestic needs" (Collins et al., 2000). Proponents of neoliberal policies point out that by earning more, developing countries would theoretically both attract direct foreign investment and have more money to make payments on existing loans, leading to even more investments in the future.

The intertwined success of trade and Gross National Product Per Capita (GDPpc) follows a logical thought process. Rises in household income, caloric intake, and life expectancy are all correlated with positive GDPpc growth (up to a certain point). Given that fact, it could be assumed that any policy that raises incomes at the national level should, generally speaking, bode well for health outcomes at the same time (Feachem, 2001).

That assumption holds up fairly well to empirical observations, but only to an income level that raises a nation or population to the point where food and shelter are no longer immediate concerns. In other words, economic growth has been shown to improve health standards, especially when the population in question is currently unable to meet
basic needs and thus is vulnerable to starvation, malnutrition, easily-treatable infectious
diseases, and so on. By raising the incomes and standards of living to the point where a
minimum standard of nutrition and shelter can be provided for, and the most rudimentary
preventative measures can be taken, the overall health of a society can be improved. In
that sense, there does seem to be a "tipping point" between income and health
(Wilkinson, 2006).

A World Bank 1993 report showed that increases of GNP were associated with
longer life expectancies, but only to a level of around $5,000 per capita in 1990. Beyond
that point, further GNP growth was no longer associated with greater lifespan. There are
diminishing returns to income and health outcomes, and they often lie at a point that is far
lower than the line where most would consider a nation or population to be "wealthy."

More to the point, it should be noted that any LEB improvements will not fall
uniformly across a population, and within any society, the poorest individuals with the
weakest social networks nearly always have the lowest life expectancies and are more
susceptible to disease (Wilkinson, 1996).

This brings us to one of the major dilemmas surrounding the introduction of
neoliberal policies, from a social determinants of health viewpoint: Economic growth,
even when it is successful, does little to alleviate the higher mortality rates and lower
standards of living that affect those without status and power. Although liberalization and
the proliferation of "free trade" policies are largely driven and implemented by
organizations supported by governments and other major stakeholders in the
industrialized world, those same organizations are forced to admit that the ties between GNPpc performance and improved health outcomes are tenuous.

The United Nations' own report on the Social Determinants of Health, finalized in 2008, acknowledges in the executive summary that "[economic] growth by itself, without appropriate social policies to ensure reasonable fairness in the way its benefits are distributed, brings little benefit to health equity."

Regardless of whether increases in national income can improve health, there is a number of ways that neoliberal policies themselves can possibly create, or further exaggerate, health inequities.

**The Effects of Liberalization on the Social Determinants of Health**

Globally, rapid transitions to neoliberal policies have been linked with inequitable rises of communicable disease among those lowest on the social position ladder (Dollar, 2001; Ceukelaire, 2003; Deaton, 2004). One explanation of the failure of neoliberal policies to impact health outcomes for the better may be found in the removal of public equity from the decision-making process at the national level. Health care is treated like any other good, leaving prices and options to the market rather than in the realm of government policy. Economic liberalization is often accompanied by the introduction of user fees for service and medication. There is strong evidence to show that this commercialization in health services leads to larger inequities (Whitehead et al., 2001; Hutton, 2004), particularly in low-income countries where the choice between health care and basic necessities like food and shelter must be made. Without proper safeguards it is probable that the market will under serve the public good in many areas, particularly
health care (Barnett, 2002). In the words of development economist Angus Deaton, "As far as health is concerned, the market, by itself, is not a substitute for collective action" (Deaton, 2004).

In a broad sense, neoliberal policies, even when they have been successful in raising GDPpc, have had the recognized side effect of increasing disparities in income between the wealthiest and poorest. Simply put, they can aggravate the single greatest determinant of health by creating a larger space between the haves and have-nots (Birdsall, 2006). While the effects on gender and race are typically less straightforward, women and minorities are almost always the marginalized parties in any society, meaning that they have the least to gain, and the most to lose, by a further transfer of power and wealth to those who already have it.

By concentrating wealth and power into smaller circles, and shifting employment into areas where export-led growth creates jobs, neoliberal policies also have the effect of bringing more people into urban areas. Although urbanization is a global trend, and one seen in many developing countries, open trade agreements can produce large populations of working poor who move rapidly into major urban areas. In this way, the urbanization and movement patterns that take place as a result of liberalization are intensified and combined with the already mentioned income gap growth. As large numbers of workers flow into a city to find low-wage jobs, normal social patterns and standards are often disrupted, while at the same time urban incomes may increase rapidly over rural incomes.

And so, despite the fact that neoliberal policies are usually associated with net economic growth and fewer public debts on the national level, the net effect of these
changes, on the whole, have tended to produce worse health outcomes, regardless of the level of development of a country. For that reason, it is possible for changes to succeed economically but fail at the social level and increase inequities in health.
Chapter III: Social Determinants of HIV/AIDS

Although many facets of the SDH approach are still being studied and debated, a growing amount of research is concentrating on the interplay between the social determinants of health and HIV/AIDS. Aside from representing a global health concern, HIV/AIDS, perhaps more than any other disease, conforms tightly to the SDH approach. Because two of the most common modes of transmission – sexual intercourse and intravenous drug use – could easily be classified as "social" phenomena rather than purely medical behavior, the path from determinants to infections is less obscured than it might be in epidemics of different types.

About HIV/AIDS

Medical researchers currently believe that HIV/AIDS originated in Western Africa as a simian virus (the Simian Immunovirus, or SIV, which affects the sooty mangabey, or white collar monkey) (Gao, 1999; al., 2003). The disease then spread to humans in that area, who most likely became infected through the hunting and butchering of the infected animals. There is some debate about when exactly these first infections occurred, but evidence suggests that a limited number of humans were infected in the

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6 Although HIV and AIDS represent separate medical conditions, they will largely be referred to together as HIV/AIDS for this study, as they involve different stages of the same disease. The Human Immunodeficiency Virus (HIV) is a retrovirus that leads to Acquired Immune Deficiency Syndrome (AIDS), which kills by attacking the body’s immune system.
1930s through the 1950s, although these cases were rare, and the deaths mistakenly attributed to other causes (Rojanapithayakorn, 2006). The first confirmed case of HIV occurred in Congo in 1959, where later analysis of a tissue sample from that year yielded a positive result. In the 1960s, however, the virus began infecting greater numbers of people.

HIV began to make its way first through African villages along ground trade routes and then overseas. For most of the world, the Caribbean island of Haiti was the conduit. It is believed that a single person brought the virus to that nation in 1966, as one of a group of workers who had been laboring in Africa (Carter, 2007). From that infection, HIV spread through and from Haiti, first appearing in New York most likely between 1969 and 1972. Forensic analysis of early U.S. infections suggest that it was again a single person who brought the disease from Haiti and into the United States (Chong, 30 October 2007).

Once it was introduced into the U.S. population, however, the virus traveled quickly. The virus began to attract the attention of medical professions in New York City in 1981, where unusual cases of Kaposi’s Sarcoma and pneumonia were noted by doctors (Sepkowitz, 2006). Within months, it was recognized that a new infectious disease, targeted at the body’s immune system, was responsible. By the end of the year, infections of the new and unknown illness were also reported in California and the UK (Sepkowitz, 2006).

Today, HIV/AIDS is a global health care crisis. More than 5 million people have died from the disease, and more than 40 million have been infected. Ninety-five percent
of all new infections are in the developing world (Collins et al., 2000), especially in Southeast Asia and Sub Saharan Africa, where infections have moved far beyond the traditional “high risk” groups of prostitutes, gay men, and needle drug users to high rates of infection in heterosexual men, their partners, and children. In fact, although male-to-male sexual contact and intravenous drug use remain common pathways of transmission for HIV/AIDS for much of the globe, within the most-affected regions of Sub Saharan Africa and Southeast Asia, a higher proportion of new infections can be traced from sex workers to their male clients, from heterosexual men to their spouses, and from women to children\(^7\) (Collins et al., 2000).

Two details in this brief history should receive special attention. The first is that, perhaps more than any other communicable disease that has been studied so far, HIV/AIDS truly has a strong social component. Although the disease first appeared in the late 1900s, it did not become a widespread cause of death until other contributing factors (in this case, shared needle drug uses and "risky" sexual practices) contributed to create new pathways of transmission. Secondly, at a time when there was low information about the disease, it only took a single person to carry infections from one population to another. Unlike other diseases, which may cause immediate and visible signs of infection like coughing, sores, etc., HIV/AIDS shows no immediate symptoms, so without the

\(^7\) Differences in HIV/AIDS transmission pathways in the developing world can be partially explained by the presence of different HIV viral subtypes than are typically seen in industrialized countries, but also from the lower general health, poor nutrition, and presence of other STIs, which make both men and women susceptible to infection (Stillwaggon, 2002).
proper preventative measures and precautions, entire communities face an increased risk of exposure.

**Treatment of HIV/AIDS**

There is, as of yet, no cure for HIV/AIDS, although antiretroviral therapy (ARTs) can significantly slow its progress. Without access to ARTs, an infected individual will typically survive six to eight years, although there is evidence that suggests these averages will vary greatly depending on nutrition, general health, and the presence of other illnesses (Stillwaggon, 2002). With ART cocktails, which are readily available in the developed world, an infected person can expect to live two decades, and possibly much longer. It should also be noted that new studies show persons taking ARTs may be up to 250 times less likely to infect other individuals, due to the lower viral load found in their bloodstream.

As no cure for HIV/AIDS exists, the focus on fighting the disease, from a medical standpoint, lies largely in preventative micro-medical measures. These include 100% condom campaigns and clean needle exchanges among "high-risk groups" like sex workers, needle drug users, and homosexual men. The implementation of these campaigns around the world has curbed the spread of the disease considerably in most areas. One criticism of these efforts, however, is that they tend to pay little attention to the social economic context in which people live, especially in LDCs where little information exists and behavioral changes may be hard to enact on a societal level (Collins et al., 2000).
In fact, even in the developed world, preventative measures that are based solely on behavior modification may present themselves as unrealistic solutions. In 1999, a UNDP report noted "inner-city poor neighborhoods often shelter vigorous drug trade, numerous opportunities for strangers to engage in drug-mediated, unprotected sex, and worse locations where these and other risk behaviors go virtually unchallenged." That assessment didn't arise from a neighborhood in Southeast Asia or Sub Saharan Africa, but one located in an urban area in the United States (Collins et al., 2000).

Defining HIV/AIDS Risk through SDH

Despite those criticisms, the micro-medical approach has been unquestionably effective in stopping progress of HIV/AIDS in many parts of the world, and it is important to view the SDH approach as building on top of these measures rather than replacing them.

This is especially pertinent in the case of HIV/AIDS, where it is immediately recognized that promoting condom use and proliferating antiretroviral treatments are crucial to combating the disease on the individual level (Barnett et al., 2000). To suggest that frontline measures are unnecessary would be more than irresponsible. Still, there is an overwhelming case to be made that these tactics are not wholly sufficient in and of themselves. From an SDH perspective, stopping the spread of a virus medically is necessary, but exploring the reasons behind an epidemic that spreads particularly quickly throughout a nation or region is beneficial as well.
Alongside high-risk “groups” and “activities” as defined by medical providers in relation to HIV, the SDH approach focuses on high-risk HIV/AIDS situations (Zwi et al., 1991) that lead to individual behaviors and coincide with HIV/AIDS pandemics around the world (see Table 2). Whereas intravenous drug use and male-to-male sexual contact pose great dangers of HIV/AIDS transmission on the personal, micro level, the worst regional epidemics have been associated with migrant labor, poor access to health care, rapid urbanization, and a prevalence of commercial sex work stemming from a lack of alternative employment in Africa and Asia (Wilson et al., 1990). None of these links is hard to interpret or understand, yet they fall outside the traditional range of concerns in the fight against HIV/AIDS.

And so, SDH proponents must return to the causes of causes, searching for the motivations that might lead individuals to engage in so-called "high risk" activities. Individual behavior might still be at the root of bigger trends, but macro conditions often set the stage for certain behaviors by encouraging or discouraging them. The connections between individual behaviors that lead to increased HIV/AIDS exposure and prevailing social and economic situations are often straightforward. For example, a lack of access to quality health care can be thought of as a macro condition, whereas untreated sores or other symptoms of sexually transmitted diseases (one inevitable byproduct of an underserving health care system) can be seen as directly encouraging transmission by exposing more people to an increase of blood and other bodily fluids. This, in turn, increases the risk of HIV/AIDS as well as many other elements for all members of a given community (Collins, 2001; Barnett, 2004).
Table 2: HIV Epidemic Determinants

<table>
<thead>
<tr>
<th>Distal determinants</th>
<th>Proximal determinants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Macro-environment</strong></td>
<td><strong>Behavior</strong></td>
</tr>
<tr>
<td>Wealth</td>
<td>Rate of partner change</td>
</tr>
<tr>
<td>Income distribution</td>
<td>Prevalence of concurrent partners</td>
</tr>
<tr>
<td>Culture</td>
<td>Sexual mixing patterns</td>
</tr>
<tr>
<td>Religion</td>
<td>Levels of violence</td>
</tr>
<tr>
<td>Governance</td>
<td>Access to health care</td>
</tr>
<tr>
<td></td>
<td>Women's rights and status</td>
</tr>
<tr>
<td><strong>Micro-environment</strong></td>
<td><strong>Biology</strong></td>
</tr>
<tr>
<td>Mobility</td>
<td>Virus subtypes</td>
</tr>
<tr>
<td>Urbanization</td>
<td>Stage of infection</td>
</tr>
<tr>
<td></td>
<td>Presence of other STDs</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
</tr>
<tr>
<td></td>
<td>Circumcision</td>
</tr>
<tr>
<td></td>
<td>STD treatment</td>
</tr>
<tr>
<td></td>
<td>Blood safety</td>
</tr>
<tr>
<td></td>
<td>Antiretroviral therapy</td>
</tr>
<tr>
<td></td>
<td>during pregnancy</td>
</tr>
</tbody>
</table>

STD = sexually transmitted disease

(Barnett et al., 2000)
Recall that a key point to be made is that behavior is largely socially determined. Biological factors may be responsible for the presence of the disease, but prevailing social and economic conditions in their actions create the pathways in which the disease can spread itself through population (Barnett et al., 2000). Viewed in that light, HIV/AIDS risk is "characteristic of the environment rather than individuals or the particular practices" (Barnett et al., 2002). Using needle-injected drugs is considered "risky" behavior for HIV/AIDS transmission, but it only became so after the introduction of that particular virus; the existing social circumstances created pathways and should be considered as much a root cause as the introduction of the disease itself.

Likewise, prostitution can be viewed as an activity or occupation engaged in by an individual. Clearly, trading sex for money is a very high-risk behavior. But what factors promote such behavior? Low information, lack of access to other career opportunities, and the presence of wealthier migrant or foreign populations clearly increase the odds that the men, women, and children living in a society will choose prostitution or other dangerous occupations as a means of supporting themselves and their families, as it will the odds that customers will seek out sex workers (Fenton, 2004; Göran, 2009). These are all "high-risk behaviors," but ones that can easily be predicted to occur in a high-risk environment.

**HIV/AIDS Susceptibility and Vulnerability**

In regard to existing literature on the SDH of HIV/AIDS, two important concepts – the assessment of susceptibility and vulnerability as well as the identification of high-risk situations – need to be brought into a more specific light.
The SDH approach examines the “risk” of HIV/AIDS in two specific ways: the susceptibility of a population – an increased likelihood of transmission, whether at the national, population group, or household level – to the illness, and the vulnerability to its effects. In other words, it recognizes that some groups are at increased odds for contracting HIV/AIDS and that others will, by the nature of their circumstances, be impacted more firmly by infections and illness (Barnett et al., 2000) (see Table 3).

Some of the identified factors that increase a population or society’s susceptibility to HIV/AIDS include changes in population movements, certain sexual practices or beliefs, and an unequal distribution in income (Barnett et al., 2000). These are fairly easy to comprehend, as they erode established social norms, create opportunities for variance in traditional sexual behaviors, and encourage risk-taking on the part of displaced or disadvantaged communities and individuals.
Table 3: Social Determinants of HIV/AIDS

<table>
<thead>
<tr>
<th>Social Cohesion</th>
<th>Wealth</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High susceptibility</td>
</tr>
<tr>
<td>Low susceptibility</td>
<td>Low vulnerability</td>
</tr>
<tr>
<td>High susceptibility</td>
<td>Low vulnerability</td>
</tr>
<tr>
<td>Low vulnerability</td>
<td>Low vulnerability</td>
</tr>
</tbody>
</table>

(Barnett et al., 2000)
Vulnerability, on the other hand, focuses on the effects of the virus. A household with one income source, whose sole earning value revolves around hourly wages, will necessarily be more affected by an illness to that person (or someone that person could miss work to care for) than a household where there are multiple earners with several streams of income. Likewise, a group with several cohesive members will most likely have an easier time caring for their sick than a household or community where each member is effectively looking after their own concerns. And while this analogy is presented in a way that describes the vulnerability of a handful of people, the same dynamic rings true on a larger scale. A society that is dependent on a few people, or labor-intensive industries, will likely be more affected by an HIV/AIDS epidemic than one that isn’t.

Having made the distinction between susceptibility and vulnerability, it should be noted that the two commonly go hand in hand. Indeed, many LDCs, Cambodia included, find themselves unfortunately positioned as both highly susceptible to an HIV/AIDS epidemic and vulnerable to its effects. However, to reiterate, it is not simply a case of the poor getting sicker.

In fact, the two greatest factors in predicting the susceptibility and vulnerability to HIV/AIDS infections appear to be the disparity of wealth within a society and the degree of social cohesion that it enjoys. Thus, even within the United States, a wealthy nation by any measurable standard, there lie populations (especially in urban areas) that are considered especially susceptible to HIV/AIDS infections.
Some of the factors contributing to HIV/AIDS susceptibility, such as the availability of health education, coincide directly with SDH factors for overall health, while others are more specific to the disease (Zwi et al., 1991). Some of the determinants unique to HIV/AIDS are shown on Table 3 (Barnett et al., 2000). A few bear a closer look, as they relate directly to our study of Cambodia.

**Income distribution is generally more important than wealth.** Interestingly, the national or regional incomes earned seem to account for less, in terms of HIV/AIDS epidemics, than the disparities that exist between rich and poor (Göran, 2009). While this is true in terms of all health outcomes at the national level, HIV/AIDS prevalence correlates more sharply to income inequity, even for LDCs that have yet to reach the $5,000 GDPpc level where LBE increases.

It could be assumed that an individual in a wealthier country with a strong health care network will usually enjoy greater access to preventative measures, and stronger treatment options, than his or her third-world counterpart, but these comparisons don’t always hold up, especially on the national level (Stillwaggon, 2002). There have been surprisingly strong epidemics in relatively “wealthy” areas of Africa and Asia, while many of their poorer neighbors have been able to keep infection rates low (Fenton, 2004; Göran, 2009).

Evidence suggests that this may be due to the fact that larger disparities between rich and poor encourage migration, urbanization, and some of the other HIV/AIDS determinants, as well as restricting health care to those who can afford it and creating
incentives for risk-taking behavior among the poor (Collins, 2001; Gazin et al., 2006; Holmqvist, 2009). Medical anthropologist Paul Farmer summarizes this dynamic nicely:

[Risk behaviors], unless carefully contextualized, also exaggerate individual agency, and leave unacknowledged unexplained ways in which large-scale social and economic factor structure risk for individuals and groups, particularly those who are systematically marginalized from power and from access to the goods, services, and opportunities which power ensures... Poverty cannot be just another cofactor along biological considerations, gender inequality, and cultural considerations (Farmer et al., 1993).

**Gender rights can directly affect the spread of HIV/AIDS.** Women are especially vulnerable to HIV/AIDS infection in many parts of the world because of their marginalized role. This is particularly true in many LDCs, where cultural norms dictate that females occupy a lower social status than men. This increases their HIV/AIDS risk in a number of ways. In the home, they may not be able to control the timing and/or conditions for sexual encounters, meaning that preventative HIV/AIDS measures may not be available to them.

In the workplace, societies with low amounts of gender equality often place women at a disadvantage in the economy because they have lower levels of education and may earn less money for comparable work in the marketplace regardless of their qualifications. For these reasons, large numbers of women are forced into sex work (be it in formal or informal settings) where they are at greatly increased risk for attracting HIV/AIDS as well as other STIs.
Women may also face increased exposure when cultural gender inequalities create opportunities for males to solicit sex workers outside the home, increasing the odds that they will spread HIV/AIDS to their spouses and unborn children (Barnett et al., 2000).

**Social cohesion and cultural norms can affect HIV/AIDS transmission pathways in unique ways.** Traditional religious and sexual mixing patterns can exert a heavy influence on individual behavior and may partially explain why some relatively wealthier nations (South Africa, for instance) struggle to reduce HIV/AIDS infection rates and others, such as Iran or Senegal, do not.

For example, in some areas of Africa and the Middle East, there are religious norms that may deter sexual contact outside of socially acceptable partnerships and arrangements. In many HIV/AIDS affected regions, however, there are long-established routines that encourage HIV/AIDS transmission, including the acceptance of prostitution, genital mutilation, and sex with multiple and concurrent partners. A change or breakdown in any of these cultural norms may change the sexual mixing patterns within communities, often creating opportunities for greater numbers of partners or sexual encounters that are based on relative power and economic need. This behavior, in turn, creates greater opportunities for the spread of HIV/AIDS (Barnett et al., 2000).

**Increased urbanization is associated with rises in HIV/AIDS prevalence.** The tie between urbanization and HIV/AIDS seems to rest on a number of factors, most notably as a way of measuring cultural cohesiveness. Changing living patterns remove individuals from their families and established social traditions, which can lead to
increases in alcohol and drug abuse as well as new sexual mixing patterns that are less exclusive than existing societal norms.

Urbanization may also create both incentives and demand for sex work, especially when migratory or temporary labor is involved (as with Export Production Zones). Not only do such arrangements separate men and women from their established social networks and sexual partners, but they may create larger wealth disparities, as incomes in urban areas tend to be much higher than those in rural areas. These sorts of shifts can be sudden in third-world areas, where both males and females move to urban areas to seek higher wages, although regular employment is less assured, especially for females, who may resort to formal or informal sex work in order to maintain or replace lost wages (Nishigaya, 2002; Hor et al., 2005).

Additionally, urbanization in the developing world is often tied to increased mobility. Evidence from parts of Africa suggests that the introduction of roads, airports, sea ports, and other forms of mobility can help to trigger an HIV/AIDS epidemic, and poverty-driven labor migration is tied to increased HIV/AIDS prevalence in both men and women (Fenton, 2004). In part, this can be traced to increased exposure to the disease from outside the community. But, as with urbanization and cultural dissonance, it may also break individuals from cultural and sexual norms, while at the same time encourage migrant workforces that frequent sex workers during the time that they are away from home (Stillwaggon, 2002).

**Access to health care affects both vulnerability and susceptibility to HIV/AIDS.** As the early success of micro-medical programs would suggest, the
availability of health services within a community is a strong determinant of future HIV/AIDS incidence. On the preventative level, strong health networks can halt new infections by educating the public about transmission risks, test and screen individuals to make them aware of their HIV status, remove HIV-positive samples from blood banks, and treat related STIs that increase the odds of HIV transmission. Additionally, a strong network of healthcare providers can properly diagnose AIDS and contribute to accurate record-keeping and forecasting, which remains a challenge in much of the developing world.

In terms of treatment, there is no cure yet for HIV/AIDS, but the availability of antiretroviral medications can have an enormous impact on the lifespan of an infected person as well as their probability of infecting others. The ability to treat the disease and its symptoms, however, varies greatly from one region of the world to the next and from one population to another, stemming from the relatively high cost of ARV cocktails. With these medications, an infected person can live more than a decade while still contributing economically to a household or society, but without them, life expectancy is only a few years.
Chapter IV: Cambodia and HIV/AIDS

About Cambodia

Cambodia is a small country situated on the Southeast Asian Peninsula between Thailand and Vietnam (see Figure 2). Sometimes referred to historically by an alternative spelling, Kampuchea, at 180,000 square kilometers, it is roughly the same size as Missouri. It has roughly 14 million inhabitants, 90% of whom are Khmer (ethnic Cambodians), with Chinese, Vietnamese and Thai residents as the significant minorities. Buddhism is the dominant religion, with Khmer being the most widely spoken language (although French and English are also prevalent). Politically, the nation is arranged as a multiparty democracy under a constitutional monarchy (State, 2008).

Demographically, Cambodia looks similar to many other war-torn third world nations. Despite 6% GDP growth over the last ten years, mainly due to peaceful conditions and foreign investment (Bank, 2008), poverty remains pervasive. Between 40 and 45 percent of the population lives below the poverty line\(^8\) (Beresford et al., 2004), with the majority of those (18.5% of all residents) surviving on less than one dollar per day (Bank, 2008). Even these numbers are skewed, as the 20% of all citizens living in urban areas typically enjoy higher incomes than their rural counterparts (Beresford et al.,

\(^8\) Cambodia has not yet set an official poverty line; however, a baseline profile has been established by the World Bank, based on minimum caloric intake and other benchmarks for the Southeast Asian region. While it has already been noted that up to 45% of all citizens currently live below this line, it should also be pointed out that a large number live just above it, as well (Beresford et al., 2004).
With few paved roads, and the low availability of services like clean water and electricity, Cambodia ranks 130 out of 175 nations in terms of development (Beresford et al., 2004). Subsistence farming, mainly of rice, supplies the means for most of the country, while tourism and the garment industry provide the main engines for economic growth (Bank, 2008).

**Cambodia's History**

It would be impossible to understand the current social, economic, and political landscape in Cambodia without first briefly considering its unique and turbulent history.

Organized as an empire for centuries, during which time it briefly flourished and the famed temples at Angkor Wat were constructed, Cambodia’s modern history begins with the arrival of French missionaries in the eighteenth century (Chandler, 2000). The nation quickly became a French protectorate, supplying teakwood to France in exchange for protection from neighboring rulers in Vietnam and Thailand. This arrangement persisted until 1953, when the French, who had been losing influence throughout World War II (which had seen the Japanese effectively govern Cambodia), agreed to transfer power to the reigning sovereign.

Cambodia’s leaders inherited a difficult situation. To the east, the communist revolution in Vietnam had taken hold. By the early 1960s, a state of outright civil war existed between the communists in the North and the U.S.-led Southern forces. Unable to remain neutral, they secretly agreed to allow transit of Vietnamese forces, and in 1969 the U.S. began a bombardment of border villages as part of the effort against the North Vietnamese military supply chain. Over one hundred thousand tons of bombs were
dropped on the Cambodian countryside over the next four years, killing hundreds of thousands and driving refugees west into the capital (Chandler, 2000).
Figure 2: Political map of Cambodia
Following a coup in the Cambodian capital, the Communist Party of Kampuchea (CPK) started to gain ground in the countryside. Led by Pol Pot, the movement took on its own momentum, controlling 60% of the territory by 1973. Finally, on New Year’s Day in 1975, the rebels launched an offensive at the remaining areas of government control – mainly the larger cities and major transportation centers – that collapsed the existing government. The last government forces surrendered in April, when the rebel army entered Phnom Penh.

Victory over the government marked the beginning of Cambodia’s well-known history under the CPK, or Khmer Rouge (Red Khmer). Seeking to create a communist agricultural utopia, the CPK’s first act was to evacuate all cities. Millions of people, especially those living in Phnom Penh and Battambang, were moved into the countryside to be reassigned to farming work. In another aspect of the purge, citizens with ties to the former government or military were executed, as were most academics and professionals. Private property was abolished, along with religion, banking, and currency (Chandler, 2000).

As part of the CPK’s “four-year plan,” in which the country’s net rice exports would be tripled (thereby paving the way for improvements in industry and infrastructure), most men and women were forced to work ten to twelve hours a day. These efforts failed to achieve their intended effect, however, and an estimated two million people, representing one-fifth of the population, died as a result of the policies. Many of these deaths are attributed to overwork, fatigue, disease, starvation and malnutrition. An additional one hundred thousand were executed, either because they
were thought to oppose the new government, had ties to the former regime, or even were party insiders suspected of being traitors.

The internal pressures of dissent and famine were soon matched by external problems. The CPK, which saw itself as separate from the communist movement in Vietnam, began raids on Vietnamese territories. In response, the Vietnamese invaded Cambodia on Christmas Day 1978, moving through the country so quickly that within days they were closing on Phnom Penh. After securing the capital, they moved quickly to install a government made of Khmer exiles and citizens free of CPK associations. With political stability under foreign rule, some normalcy returned, bringing slow developments in commerce, agriculture, and infrastructure until the Vietnamese army’s departure in 1992. No longer the recipient of Soviet aid itself, Vietnam removed its last 30,000 soldiers, leaving the United Nations to continue the rebuilding effort.

While these events are fading into Cambodia’s history, they still cast a long shadow over the country’s social and economic landscape. One notable effect is the nearly complete lack of intellectual capital in several fields needed for sustained growth and social improvement. For instance, it is estimated that there were roughly 1,000 doctors working in Cambodia at the time the Khmer Rouge took power; when the Vietnamese army arrived four years later, there were 14 (Fraser, 2005). This ongoing shortage of medical professionals represents an important contributing factor in Cambodia’s HIV/AIDS situation, and they are similarly deficient in teachers, engineers, lawyers, and other professional groups.
After a summit in Paris, it was decided that United Nations Transitional Authority in Cambodia (UNTAC) would assume control on a military and peacekeeping mission (Curtis; Curtis, 1993). Along with a hefty aid package, to the tune of $2 billion, came an influx of foreigners and new ideas. Their immediate aims were clear: to disarm the militias and put an end to the fighting that was still pervasive throughout the countryside, repatriate the hundreds of thousands of refugees still arriving in their homeland, begin reconstituting the country’s ailing infrastructure, and pave the way for free and open elections (Curtis, 1993).

The mission, which entailed more than 16,000 soldiers and 7,000 civilians (Curtis, 1993), was a qualified success. While the fighting didn’t cease completely, a transitional government made up of the ruling powers and major opposition parties was put into place, followed by elections in which more than 90% of the population participated (Chandler, 1996; Downie et al., 2001).

The arrival of foreigners and their money, however, began to warp the Cambodian economy, especially in the capital city of Phnom Penh. With UNTAC’s program budget rivaling the nation’s existing GDP, inflation spiraled in the capital. Rents began to rise steadily (Curtis, 1993; Chandler, 1996). Wages, especially for those few Khmer with more than a primary education or multilingual skills, matched pace. By offering income that was several times what a citizen could make in public service (and roughly 15 times the national average), the UN drew into employment Cambodians who might have found employment in other areas – including medicine and education (Curtis, 1993; Beresford et al., 2004). At the same time, Western-style hotels and restaurants, financed by
foreigners, began to spring up around the city. In short, the gap in income and resources between those living in the urban capital and those in the countryside began to exaggerate itself, drawing more young people into the city.

The UNTAC mission ended in November of 1993, handing control of the country back to its newly-elected leaders, many of whom had already been in power as part of the CPK before the project began. The trend of foreign development and policy advisement remained in full force, however. The United Nations, in establishing the Millennium Development Goals for Least Developed Countries (United Nations. Economic and Social Commission for Asia and the Pacific. et al., 2005), continues to be a driving force in Cambodia’s administration. Likewise, investment from overseas has only continued, based mainly on the cheap labor and natural resources that the country boasts.

In short, the end of the UNTAC period transitioned Cambodia into what it is today – a culture and economy that is evolving on unsteady ground. Their struggle to join the modern world is both guided and sometimes overshadowed by the hundreds of social and economic experts living in the capital, who represent an economy in and of themselves.

**Health Care in Cambodia**

A few brief points should be made about the current state of health care, and its availability, within Cambodia, as they relate to the rest of this study. Coverage by doctors, nurses, and facilities is sparse. A 1999 survey showed that only 12% of rural villages had clinics, and an even lower 4% had regular access to a medical doctor (Beresford et al., 2004).
Government health expenditures amount to 19.3% of all health care expenditures, with private expenditures (mostly come in the form of donors and international relief agencies) making up the remaining 80.7% (Beresford et al., 2004). Due to the low wages paid to medical workers (around $10-$15 per month), informal payments made to healthcare providers and pharmacies make up a substantial part of the Cambodian healthcare system (Hardeman et al., 2004; Jacobs et al., 2004).

**HIV/AIDS in Cambodia**

The HIV/AIDS epidemic in Cambodia has been one of the most rapid and widespread seen anywhere outside Sub Saharan Africa. The first HIV infection in Cambodia came during a 1991 screening of donated blood (Organization, 2001). It was two years later, in 1993, that the country’s ministry of health diagnosed its first case of AIDS (Organization, 2001). Fifteen cases were reported within the next year, and within only five years, in 1998, a staggering 3.6% of the population was estimated to be infected\(^9\) (Bith, 2004) (see Table 4).

It has not been lost on many observers that the beginnings of HIV/AIDS within the kingdom roughly coincided with the UNTAC mission. While it is a common

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\(^9\) Any statistical data regarding Cambodia, and especially those that represent aggregates for the country, should be considered useful within the context but not altogether reliable. Given the pervasive poverty, extensive corruption, widespread illiteracy, and lack of reliable government offices and officials, Cambodian health records – like those of many third-world countries – are notably inconsistent (Attaran, 2005).

In some areas, even births and deaths are not accurately recorded, and these difficulties have shown themselves in Cambodia’s fight against HIV/AIDS. For instance, UNAIDS has been forced to revise its own estimates several times, as various surveys have offered conflicting viewpoints of the crisis. Regardless of the specific numbers cited, however, it should be clear to the reader that the HIV/AIDS crisis in Cambodia has been severe.
misconception that prostitution began in Cambodia with the arrival of the UN – it had had been noted and recorded in the kingdom for hundreds of years (Kaye Sung Chon, 2003) – it is true that the practice was outlawed and virtually eliminated under the Khmer Rouge, only to explode again with the arrival of foreign troops and professionals. The Cambodian Women’s Development Association estimated that the number of prostitutes in the country rose from around 6,000 to more than 25,000 during the years UNTAC oversaw its affairs (Whitworth, 2007). They also documented a sharp rise in prostitution in provincial villages away from the capital city, and child prostitution (Whitworth, 2007).
Table 4: HIV Seroprevalence\(^1\) among Sentinel Population in Cambodia (2003)

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Female Sex Workers (Prevalence %)</th>
<th>Indirect Female Sex Workers (Prevalence %)</th>
<th>Police (Prevalence %)</th>
<th>Antenatal Care Clinics (Prevalence %)</th>
</tr>
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<tbody>
<tr>
<td>1 Banteay Meanchey</td>
<td>26.7</td>
<td>5.3</td>
<td>3.3</td>
<td>2.0</td>
</tr>
<tr>
<td>2 Battambang</td>
<td>29.5</td>
<td>9.3</td>
<td>3.3</td>
<td>1.8</td>
</tr>
<tr>
<td>3 Kampong Cham</td>
<td>17.3</td>
<td>14.7</td>
<td>2.2</td>
<td>2.1</td>
</tr>
<tr>
<td>4 Kampong Chhang</td>
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<td>10.0</td>
<td>2.0</td>
<td>1.5</td>
</tr>
<tr>
<td>5 Kampong Speu</td>
<td>20.4</td>
<td>(-) (^2)</td>
<td>1.9</td>
<td>2.8</td>
</tr>
<tr>
<td>6 Kampong Thom</td>
<td>26.7</td>
<td>14.0</td>
<td>1.2</td>
<td>2.1</td>
</tr>
<tr>
<td>7 Kampot</td>
<td>19.5</td>
<td>16.9</td>
<td>1.2</td>
<td>1.6</td>
</tr>
<tr>
<td>8 Kandal</td>
<td>16.8</td>
<td>12.4</td>
<td>2.8</td>
<td>1.6</td>
</tr>
<tr>
<td>9 Koh Kong</td>
<td>29.0</td>
<td>2.4</td>
<td>12.8</td>
<td>2.5</td>
</tr>
<tr>
<td>10 Kratie</td>
<td>11.1</td>
<td>1.6</td>
<td>1.2</td>
<td>0.5</td>
</tr>
<tr>
<td>11 Oddar Meanchey</td>
<td>25.5</td>
<td>21.1</td>
<td>(--</td>
<td>(--</td>
</tr>
<tr>
<td>12 Pailin</td>
<td>29.0</td>
<td>9.1</td>
<td>5.8</td>
<td>2.7</td>
</tr>
<tr>
<td>13 Phnom Penh</td>
<td>23.8</td>
<td>14.0</td>
<td>4.0</td>
<td>1.7</td>
</tr>
<tr>
<td>14 Preah Vihear</td>
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<td>10.3</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>15 Prey Veng</td>
<td>13.8</td>
<td>9.5</td>
<td>2.0</td>
<td>1.8</td>
</tr>
<tr>
<td>16 Pursat</td>
<td>23.4</td>
<td>14.8</td>
<td>2.0</td>
<td>1.3</td>
</tr>
<tr>
<td>17 Ratanak Kiri</td>
<td>21.6</td>
<td>(-) (^3)</td>
<td>2.2</td>
<td>1.1</td>
</tr>
<tr>
<td>18 Sihanem Reap</td>
<td>24.5</td>
<td>18.0</td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>19 Sihanouk Ville</td>
<td>15.3</td>
<td>19.2</td>
<td>4.0</td>
<td>2.7</td>
</tr>
<tr>
<td>20 Stung Treng</td>
<td>24.1</td>
<td>(--</td>
<td>1.6</td>
<td>1.9</td>
</tr>
<tr>
<td>21 Svay Rieng</td>
<td>9.1</td>
<td>15.4</td>
<td>2.2</td>
<td>1.4</td>
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<td>22 Takeo</td>
<td>29.2</td>
<td>11.9</td>
<td>2.1</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: Sobheap et al. (2006a).

1. All data adjusted for quality control. Police and antenatal care clinics data were smoothed with estimations and projections package.

2. (-) denotes number too small to produce reliable estimates.

3. (--\(^\) denotes that data were available for only one year and that smoothed estimates could not be generated.
As the reconstruction efforts fueled a rise in urban incomes, especially in Phnom Penh, young people flocked to the cities. However, not all of these new workers were able to find employment with UNTAC or the dozens of other NGOs that were springing up. Perhaps it was inevitable, then, that between Cambodia’s unusual demographics and the influx of unattached foreigners with currency to spend, an active sex trade market would spring into being. The increase in prostitution brought with it new HIV infections. Within months, the number of infected sex workers soared, in some areas rising to over 50% (Saphonn et al., 2004), and the disease began to make its way into the local and foreign populations.

Indeed, the medical officer of UNTAC mission at the time predicted that seven times more soldiers would die from AIDS than from combat duty (Whitworth, 2007). This may have been an accurate forecast; one hundred cases of HIV infection among UN personnel were recorded, although it’s not known how many personnel became infected and didn’t know or report it. Locals, too, came to associate the epidemic with foreigners. Prime Minister Hun Sen echoed that view when responding to a question of what he thought the legacy of the UNTAC mission would be. His reply: “AIDS” (Findlay, 1995; Gorbach et al., 2000).

Despite having gone a relatively long amount of time without reporting their first infection, Cambodia quickly became the southeastern Asian nation with the worst

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10 As of 1993, coming out of the civil war, roughly 65% of Cambodia's adult population was female, and many women were finding themselves as the heads of their households for the first time, mostly owing to the greater proportion of men killed in the civil fighting (Curtis 1993).

11 The first cases of HIV/AIDS came to the region in 1984 (Mann, 1992).
HIV/AIDS epidemic. The first infections were found in traditional high-risk groups, sex workers and intravenous drug users (Narain, 2004), but the virus appeared shortly after in lower risk groups like heterosexual couples and children, where it continues to spread today (Mills et al., 2005). The main transmissions for HIV transmission in Cambodia are through intravenous drug use, commercial sex work, and from female workers to male clients who contract HIV/AIDS while away from their families and in turn pass it back to their spouses and children (Organization, 2001). In fact, nearly half of all new HIV infections in Cambodia are among married women, and one-third are from mothers to newborn infants (UNAIDS, 2008).

One reason for the particularly strong growth of the epidemic in Cambodia can be traced to lack of public knowledge about preventative measures, and indeed the disease itself. Most of those infected in the first ten years didn’t even know they had the virus. For example, in 2004, among an estimated 160,000 persons infected, less than 10,000 were aware of their status (Bith, 2004). It should come as no surprise, then, that those persons unknowingly continued to spread the virus quickly.

The immediate response to the HIV/AIDS epidemic in Cambodia was modeled after similar efforts in other countries, most notably Thailand (Cohen, 2003). With similar populations and cultures – although by no means identical, especially with regard to infrastructure and education – it made sense to treat the situations in the two Southeast Asian countries in a similar way. The neighboring country, which had its first diagnosed case of AIDS in 1984, had also faced a chain of transmission that began with sex workers and intravenous drug users and made its way into the larger population.
At its peak, the epidemic in Thailand saw 2.4% of the population HIV positive, including 40% infection in high-risk groups (i.e., sex workers and needle drug users) (Narain, 2004). By the mid-1990s however, infection rates seemed to have leveled off and began to decrease. Micro-medical measures, especially a 100% condom use campaign, have been credited with the decrease (Cohen, 2003; Rojanapithayakorn, 2006).

The Royal Government of Cambodia established a national AIDS committee in 1993, later changing its name in 1998 to the National Center for HIV/AIDS, Dermatology and STDs, or NCHADS. The first order of business was to arrange a similar program to the one that had been put in place in Thailand, namely health education and prevention measures among high-risk groups. In practice, these amounted to a 100% condom campaign among sex workers, screening of transfused blood, and a reduction in the number of shared needles between intravenous drug users (Saphonn et al., 2004).

The 100% condom campaign, introduced in 1998, met with limited success. Although the educational measures (largely carried out by the western consultants and NGOs) effectively reached large number of sex workers in the urban and provincial areas, many openly admitted to continuing to have transactional sex without protection. Among the reasons given for their reluctance was pressure from customers (Sopheab et al., 2008). That is, many workers stated that their clientele preferred not to use condoms, so they consented out of fear for lost income (Wong et al., 2003).

An additional factor hampering preventative measures was found in apathy toward the future. Since many of the women polled had little hope for long and fulfilling
lives, the specter of a "far away" event like an HIV/AIDS infection was not a significant
deterrent to short-term risk-taking behavior (Wong et al., 2003).

And finally, the program has been particularly limited in its scope. Because it is
targeted directly to "sex workers," it has missed a significant portion of the female
population engaged in some form of indirect prostitution, including, "sweethearts," "bar
girls," and so on, of which there are estimated to be more than 20,000 in Cambodia
(Saphonn et al., 2004). This continues to be a major challenge, as UNAIDS has noted a
sharp increase among women engaging in paid sex work outside of brothels.
Interestingly, many of these women do not consider themselves sex workers (Kim et al.,

These programs, endorsed by the Ministry of Health and carried out largely
through the funding and logistical support of relief agencies and NGOs, have made a
recognizable impact since they began in 1995. In fact, there are an estimated 75,000
people currently living with HIV/AIDS in Cambodia, representing 1.1% of the
population (UNAIDS, 2008). While this leaves Cambodia with the highest infection

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12 Even these raw numbers can be somewhat misleading. A person who contracts HIV/AIDS in Cambodia,
especially in a rural area, faces grim odds of surviving more than a few years. Considering that many aren’t
even aware of their infected status (Bith, 2004), and that few options for any form of medical treatment,
much less antiretroviral therapy, are available outside the larger cities, it is perhaps not surprising that many
die within a few years (Saphonn et al., 2004).

Obviously, this is devastating on a social and economic level. Statistically, however, it has served to
artificially lower the country’s HIV/AIDS infection rate; as large numbers of infected persons pass away,
the epidemic has the appearance of having “run its course,” even though the underlying transmission risks
remain, and perhaps are even increasing.

Less than 3% of all Cambodians living with HIV were taking antiretroviral therapy in 2004 (Bith, 2004).
rate in the region, many view the reduction in overall rates as proof that current micro-
medical efforts to the fight the epidemic have been an unqualified success (Organization,
2001; Cohen, 2003; Saphonn et al., 2004; Mills et al., 2005).

**Rebuilding the Cambodian Economy with Garments**

From the first days of the UNTAC mission, the liberalization of Cambodia’s
economy has been a major aim of policymakers in the kingdom, both internally and from
Western advisors. To that end, free market principles were scripted into the constitution
for the Cambodian Royal Government, sponsored and accepted by the United Nations in
1993 (Downie et al., 2001).

As an impoverished, war-torn nation, Cambodia held little in the way of
infrastructure, technology base, or any of the other building blocks of a modern economy.
It had no factories or production facilities, little in the way of natural resources for export,
and few citizens with any technical expertise (Beresford et al., 2004). However, what the
county did boast was large amounts of available unskilled labor, wages that were
substantially lower than even the surrounding nations, and favorable tax conditions for
foreign investment (Beresford et al., 2004). From those beginnings, the Cambodian
garment industry was born.

At the time when Cambodia's economy was opening, the General Agreement on
Tariffs and Trade (GATT) was, in essence, limiting the amount of textile and garment
imports that firms in industrialized countries could bring in from a single nation, in an
effort to shield domestic economies from drastically cheaper overseas competition
(Bargawi, 2005). Manufacturers, in response, looked for new places to produce in (and
export from). Cambodia, with its large pool of cheap, untrained labor, was a natural choice.

With low average incomes pervasive throughout the country, few skills necessary to obtain factory work, and lack of other options for employment, garments quickly became the backbone of the Cambodian economy. From the first 20 garment factories that opened in 1995 (which generated $20 million income\(^\text{13}\)), production expanded to the point where Cambodia was home to more than 200 factories only five years later. By the year 2000, garments represented more than 90% of all of Cambodia's exports, employing more than 200,000 people – mostly young girls from rural provinces (Bargawi, 2005) (see Table 5: Export Oriented Garments Industry in Cambodia (2003) & Figure 3: The Growth of the Garment Industry in Cambodia, 1995-2005)\(^\text{Figure 1}.\)

\(^{13}\) It should be noted that figures in this study will be quoted in U.S. dollars. This is practical for a number of reasons. The first, obviously, is to make the figures more accessible to the reader. At the same time, most of the accounting done within the kingdom, especially relating to trade figures and estimates of economic activity, is done by Western relief agencies that prefer to denominate in dollars. Finally, Cambodia (and especially Phnom Penh) is "dollarized," meaning that U.S. dollars are preferred as payment over local currency (due to its historical weakness and volatility). The prevailing exchange rate among urban markets and vendors is 1 U.S. dollar = 4,200 Cambodian riels.
<table>
<thead>
<tr>
<th>Nationality</th>
<th>Count</th>
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<th>Count</th>
<th>%</th>
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<th>Count</th>
<th>%</th>
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<td>280</td>
<td>100.0</td>
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</table>

Source: Yasar, 2010
Figure 3: The Growth of the Garment Industry in Cambodia, 1995-2005

(Yasar, 2010)
As part of this development, the Cambodian government established a number of special export processing zones (EZPs) in which manufacturers could ship materials in and finished goods out under preferential tax and tariff guidelines. In addition to being located near ports and roads, these EZPs were designed to have quicker and more reliable access to both electricity and government administrators, both of which are frequently absent throughout large portions of the country.

Cambodia's rapid increase in – and reliance upon – the garment industry has often been referenced as the driving factor behind the country’s equally aggressive moves to integrate globally. Although the sector had grown quickly, the availability of surplus labor in other areas, combined with the high mobility of manufacturers, meant that factories were at risk of moving elsewhere. While its 1999 admission to ASEAN did little to foster trade in garments (with most exports heading to North America, and to a smaller degree, Europe (Bargawi, 2005)), it did help to pave the way for Cambodia's successful entry into the World Trade Organization (WTO) on July 22, 2003.

As one of only a handful of LDC members, Cambodia was an unorthodox candidate for WTO membership. The move was especially risky, given that it would require Cambodia to lower tariffs and protections, particularly in the area of pharmaceuticals, where it would be forced to honor international patents for HIV/AIDS medications. Despite those risks, Secretary of State for Commerce at the time succinctly clarified the RGC's motivations: "We have to have WTO accession because the fate of 220,000 workers is at stake if we don't enter" (Chea et al., 2005).
While that assessment may have been accurate (more than one million rural people are fed through remittances from garment industry workers, and another 250,000 were estimated to be indirectly employed via restaurants, transportation, and other services for factory workers (Povarchuk, 2004)), there is also the possibility that it led to less comprehensive policy and impact reviews. One participant in the process noted that government negotiators rejected any assistance offered by international NGOs and did not consult any of the 29 least developed countries who are already WTO members (Chea et al., 2005).

Following entry into the WTO, Cambodia's garment sector continued to grow at a rapid rate, providing much-needed jobs and income. However, there have been some early difficulties. The rapid expansion of the sector has been one problem in and of itself. Garment exports from Cambodia increased so quickly that the U.S. (which absorbs nearly 75% of all the exports (Chan et al., 2006)) introduced the same kinds of quotas that other producer nations faced (Bargawi, 2005). Relief came in the form of rewards for higher labor standards and increased workers’ rights. Public awareness in developed countries to the traditionally poor working conditions in garment factories over the past two decades have meant that increased labor standards actually give factories a competitive edge. Like “CFC free” spray cans, or “dolphin safe” tuna, “fair trade” has become a requirement for manufactures who wish to comply with their customers’ wishes for more responsible production.

Even this has been a mixed bag, however, as the workers’ rights standards hold employers to strict measures about overtime. In a day-to-day sense, it prohibits factories
from utilizing any one worker for more than 60 hours per week (Samsen et al.). While this measure is laudable in that it seeks to prevent “sweat shop” conditions, it has the practical effect of limiting wages available, regardless of demand. At $45-70 per month, the average garment worker earns far more than his or her rural counterparts, yet this represents a lower sum than is required to improve the standard of living, much less support relatives in the country (Samsen et al.; Becker, 2005; 2008). Forbidden from working longer hours, Cambodian garment workers have repeatedly threatened work stoppages, reducing their competitiveness on the world market (Samsen et al.; Marston, 2007).

Further challenges have come in the form of increased competitiveness from other garment manufacturing nations. In 2005, the existing Multi Fibre Agreement that had established quotas and limited imports from large producing nations like China and India expired. At the time, a number of analysts predicted that the removal of these quotas would lead to a large reduction in demand for Cambodian garments, with producers choosing to relocate and other areas (Bargawi, 2005; Vuthy et al., 2007).

Somewhat surprisingly, garment production in Cambodia continued to grow, with exports increasing by 10% in 2006, and the industry employing more than 270,000 workers in over 250 factories (Vuthy et al., 2007). Much of the credit has been attributed to relatively high labor standards within the kingdom, and producers’ preference to
operate in areas where they will receive less scrutiny for manufacturing practices (Becker, 2005).14

While the garment sector proved to be somewhat insulated from foreign competition, however, it has been less equipped to overcome decreases in demand from North America. In 2009, the Cambodian Garment Manufacturers Association reported that over 100 factories had closed around the capital city and that several others were reducing their hours and output (Sullivan, 2009). Also as a result of the MFA phase-out and shortages of demand, some factories are offering shorter contracts for workers, reducing stability in employment (Vuthy et al., 2007).

**Tourism Growth in Cambodia**

The opening of Cambodia's economy has also led to the rise of tourism as a viable industry within the country. While not producing nearly as much income as the garment industry, the sector grew by an average of 1.5% per year from 1995-2002, and following a brief lull, 21% a year from 1998-2000. It now represents roughly 11% of GDP (Beresford et al., 2004).

There are three main tourist attractions in Cambodia. The lack of urban development, combined with dense jungles and an exotic climate, has made it a destination for backpacking and outdoor adventure groups. Several major outfitters offer guided journeys through the countryside, infusing the local economy with foreign

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14 Additional credit should be given to the RGC for extending tax incentives, although these have been viewed in part as an attempt by the government to make up for Cambodia's other manufacturing disadvantages, mainly extensive corruption, frequent power outages, poor roads, low technical skills for workers and engineers, etc. (Bargawi, 2005).
currency. Additionally, the famous temples at Angkor Wat draw thousands of more traditional tourists every year. Numerous hotels and restaurants have sprung up around Siem Riep catering to foreigners and bringing an influx of dollars, euros, yen and yuan.

The third group of people estimated to be roughly 22% of all visitors to the kingdom (Hach et al., 2002), come to Cambodia because of its active sex trade. It is bittersweet that the international attention that fell on Cambodia in the 1990s because of its HIV/AIDS crisis bought not only relief agencies, but also sex tourists, some of whom arrived after reading or hearing about the high proportion of child prostitutes working in the country (Lim, 1998; Kaye Sung Chon, 2003).

**Prostitution in Cambodia**

Prostitution in Cambodia takes several forms. The most common is in brothels, where women offer outright sexual services, usually to local residents, for prices ranging around $2 (Freed, 2003). The country also has a number of massage parlors, which may or may not offer any sort of therapeutic services, where customers frequently offer workers payment for sex. And finally, there are a number of hostess bars and karaoke bars which serve as de facto places of prostitution, but mainly cater to foreigners (Kim et al., 2005). In some cases prostitutes working at hostess bars may be employed by the bar owner explicitly for sex work, whereas others work as waitresses or “beer promotion girls” (who use prostitution as a way to generate extra income) (Kim et al., 2005), or freelance prostitutes who are working for themselves.

The spread of prostitution in Cambodia has been rapid. At the start of the UNTAC mission in 1991, there were an estimated 6,000 sex workers throughout the country, a
number that had risen to 20,000 just two years later when the mission ended (Curtis, 1993). Today, as many as 100,000 women may be involved in sex work in Cambodia, although estimates vary greatly, due to the difficulties in measuring a technically-illegal activity, as well as the fact that many indirect sex workers do not self-identify themselves as such, and despite trading sexual favors for material considerations, may fall outside the traditional definition (Steinfatt, 2003).

HIV/AIDS rates are much higher among sex workers of all types as compared to the Cambodian population in general. HIV Sentinel Surveys of the highest risk groups estimated in 2002 that prevalence among direct sex workers was 28.8%, and 14.8% in indirect sex workers (Kim et al., 2005). The HIV/AIDS prevalence rate for direct sex workers has been decreasing (from 43% to 1998 to 29% in 2002), but the prevalence rate for indirect sex workers has not. Two prevalent explanations for this phenomenon are that indirect sex workers do not enjoy as much access to preventative measures (i.e., the 100% condom program) and that they may be more likely to have unprotected encounters with men who have semi-exclusive relationships with them (Kim et al., 2005).

Cambodian prostitutes working in brothels earn the least, averaging $50 per month. Those working in massage parlors typically earn a bit more at $70 per month, while a girl working in one of the hostess bars might make as much as $100-$150 per month or even more (Freed, 2003). In addition to females in prostitution, there is a small but active sex trade for homosexual males in Cambodia, and especially Phnom Penh. Like their female counterparts, male prostitutes constitute an exceptionally high-risk group for HIV/AIDS; however, because their impact on and from the larger economy is
much less profound, I have not made them the focus of my discussion. It is interesting to note, however, that the main mode of transmission within this community appears to be from males having sex with female sex workers and then other men, contrary to trends in other parts of the world (Girault et al., 2004).

Although prostitution is technically illegal in Cambodia, it was largely tolerated by the government until 2008, when authorities raided a number of brothels in and around Phnom Penh (Cheang, 2008). The move was seen by many as an attempt to appease the U.S. government, which rates nations (and trading partners) based on trafficking estimations (Busza, 2006; Cheang, 2008). While sex work in the kingdom seems to be unaffected as an industry, the increased police pressure on brothels has driven much of the practice underground, making prevention campaigns aimed at direct sex workers more difficult to execute\textsuperscript{15} (Colley, 2009).

**Linkages between Garments, Tourism, and Sex Work**

The tandem growth of the two largest export industries in Cambodia and its also-growing sex trade should not be considered separate phenomena. On the contrary, it is important to note that they have distinct ties to one another, and those ties have SDH and HIV/AIDS implications.

In the case of tourism, the linkages to sex work are relatively straightforward. Foreign travel into Cambodia has been steadily rising since 1993, with visitors coming for cultural tourism (32%), business in the kingdom (45%), and for sex tourism

\textsuperscript{15} In a sad twist of irony, police in Phnom Penh have tried to use condom possession as grounds for prostitution arrests (Voice of America, 2008)
(Beresford et al., 2004). Although the first 72% may not visit Cambodia for the purpose of soliciting sex workers, anecdotal evidence suggests that the high number of informal sex workers found at restaurants, hotels, massage parlors, etc., contributes to a crossover effect, making legitimate tourism inseparable from the sex industry in Cambodia (Yasar, 2010). Because the fees paid to informal workers may be as much as 25 times higher than those working in brothels, the demand for these activities continues to draw young women from the provinces and into establishments where they may meet relatively wealthy foreign clients (Kim et al., 2005).

In a similar way, the draw of males from rural provinces into EZPs, or urban areas of the country where tourism incomes can be generated, creates a similar demand for sex work. Migratory labor has long been associated with increases in prostitution in Asia and elsewhere (Lim, 1998), as displaced workers may seek out transactional encounters when removed from established social networks.

The link between garment work in the sex trade is less clear, but probably more impactful in Cambodia’s fight against HIV/AIDS. Roughly 3,000 females migrate from rural provinces into urban areas and EPZs every year (Samsen et al., 2006). Among those who make the choice to leave for Phnom Penh or the other production centers, however, not all are able to find (or keep) jobs in the garment industry\textsuperscript{16}. Factories add and shed employees as demand from manufacturers fluctuates. Turnover is also high, and employment is insecure. As a result, female workers can frequently find themselves out

\textsuperscript{16} Other studies in Africa have found that the prospect of employment and income in urban areas may be overstated within rural populations (Tawil et al., 1995)
of work and with no means to support themselves, much less their families back at home who count on their continued income.

Some find employment in other factories, but a high number (perhaps as much as 80% by some estimates) become sex workers (Çagatay et al., 2001; Nishigaya, 2002; Grown, 2005). Following the layoffs in 2009, many of the laid-off readily admitted to reporters that they would be seeking sex work to find new wages, and in fact local media reported increases in the number of prostitutes working in the area (Sophon, 2009).

This is not as surprising as it would be in other parts of the world. Sex work is one of the few options available that doesn't require any sort of formal education or training. Additionally, sex work typically pays as much or more than their factory jobs did. A survey of prostitutes in Phnom Penh found that the average sex worker earned $50 per month, with girls who worked in hostess bars or discos making on average over $100 per month – or more than twice the factory minimum (Hor et al., 2005). Sex work, risky as it is, may also not be perceived as more difficult or physically demanding. In a survey, 60% of garment workers who had been employed in the industry for two years or more reported negative health effects from the long hours and poor working conditions prevalent in factories (Chan et al., 2006). Additionally, many out-of-employment female garment workers who lose their jobs would like to return to rural provinces but are unable to because they owe money that was borrowed to pay for travel, lodging, and recruitment fees for factoring jobs (Grumiau, 2004). Many also incur relatively high costs to secure

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17 As high as that number may seem, my own informal interviews suggested even higher figures, where more than 95% of informal sex workers in Phnom Penh expressed an initial desire to find employment in garments.
jobs in the garment industry, such as sewing school and unpaid periods of "trial employment" (Samsen et al., 2006). There is also evidence that some garment workers will engage in informal sex work as a way to earn extra money (Nishigaya, 2002; Webber et al., 2010).

Once they've entered the sex work industry, most find it very difficult to leave. The constant flow of young women from the provinces to the cities ensures that competition for garment jobs remains stiff, and at a lower wage than they earn in prostitution. Perhaps more importantly, the social stigma attached to sex work means that most factory employers will be unwilling to hire them. In this way, the entry into sex work becomes a dead-end (Stolzberg, 2005).

**Cambodia's Economy Today**

While modern industry has come to Cambodia's few urban areas, agriculture, mainly of rice, is still the predominant industry, employing 70% of all Cambodians (Beresford et al., 2004). It should be noted, however, that much of the "income" that is derived from these activities is focused on subsistence, and thus generates little or no disposable income for households.

Nearly all exports and foreign income in the formal sector arrive as a product of the garment industry, and to a lesser extent, tourism\(^\text{18}\). Through the growth of the garment industry, and the liberalization of its economy, Cambodia has placed an increasing

\(^{18}\text{Cambodia has achieved positive growth in a few other areas as well, most notably construction, communications, and services (Beresford et al., 2004). But because these are, to greater or lesser degrees, dependent on the foreign income that comes from Western agencies and NGO's operating in Cambodia, the garment industry, tourism (and likely the sex trade to a lesser extent), they have a smaller impact on (and from) the social determinants of health.}
amount of weight on direct investment and wages stemming from specific sectors in tightly defined geographic areas.

In a sense, the growth of these industries and urban areas represents a solid step forward for a country that had very little in terms of resources and development at the end of the Civil War. On the other hand, from social determinants of health perspective, growth and rapid liberalization have not done much to improve the position of the nation's poor. Despite the fact that thousands of Cambodians are relocating to cities every year, in search of higher wages and more opportunities, income disparities are continuing to rise and at a time when future growth is dangerously dependent on a set of tightly clustered industries and geographic areas.
Chapter V: Social Determinants of HIV/AIDS in Cambodia

Just as the different social determinants of health can vary and become intensified for a single disease, so too can they become more specific for that disease within a country or region. In this chapter, we will examine the Cambodian situation through an SDH lens, especially with regard to the recent and ongoing structural changes discussed in Chapter Four, and their potential impact on HIV/AIDS in the future.

Recall that the main determinants of HIV/AIDS, at the national level, include income, disparities in wealth, urbanization, inequalities in gender rights, and access to health care.

Income and Inequality in Cambodia

Even as a poor nation, Cambodia has very poor average citizens. Per capita income is $542, nationally, and even that figure paints an optimistic figure, as more than 50% of all residents earn less than $1 per day, especially in rural areas (Beresford et al., 2004).

It's interesting, although not unusual in LDCs, to note that even in the midst of such pervasive poverty, income disparity is very high (Cambodia's Gini index number is 40), with the top 20% of earners claiming nearly half of all wealth. Economic growth in Cambodia has not produced any significant poverty reduction; if anything, income
inequality is growing (Beresford et al., 2004) Beyond subsistence level wage jobs, the poor have been relatively unaffected by growth (Samsen et al.; Beresford et al., 2004). One of the reasons is that they had so little capital and expertise to start with. Even in the expanding garment industry, more than 90% of factories are owned by foreigners (Bargawi, 2005), and most of those prefer to bring in managers and technical experts from their own countries (Chan et al., 2006), meaning that the lion's share of factory profits, along with the best salaries, represent capital outflows.

Low access to health care by the poor may also be another factor contributing to new gaps in wealth. Given that more than two-thirds of the country relies on agriculture for income and nutritional intake, landlessness is a strong indicator of poverty in Cambodia. One study showed that 10% of Cambodia's land changed hands in a five-year period beginning in 1998 (Beresford et al., 2004), with the wealthy being net buyers and the poor being net sellers. The sale of agricultural land often follows a major health crisis, as many of the rural poor cannot afford doctor's fees and medications.

The combination of extensive poverty and high income and wealth disparity, especially between the rural and urban areas, is important to note because it has heavy implications for the country's SDH outlook when it comes to HIV/AIDS. Unlike in many other countries, with similarly high disparities, Cambodia has not only a population of underprivileged individuals trying to claim a larger slice of national wealth, but a high number of men, women, and children trying to meet basic necessities like food and water. All the while they are surrounded by (relatively) wealthier Cambodians, and tens of
thousands of foreigners who enjoy an income level and standard of living that are far beyond anything they know.

This contrast between those that are in possession of wealth and those that aren't creates powerful incentives for migration, social change, and even "high risk" behavior like sex work among the poorest half of the country. It has been shown for some time that globalization and liberalization tend to be "asymmetrical" phenomena – bringing far more benefit to those who already have capital, both across borders and within individual nations and communities (Birdsall, 2006). That observation seems consistent with Cambodia's case, where the liberalization of the economy is fueling both greater income disparities between the rich and poor, and an ever-increasing trend of urbanization\textsuperscript{19} to the capital and main export zones.

**Social Cohesion in Cambodia**

Their recent history of civil war and governmental change has left the Cambodian population socially fractured and disorganized (Chandler, 1996). Many of the older generations who might have passed on or enforced previous cultural ideas didn't survive the civil conflict, which ended less than three decades ago and still casts a long shadow on Cambodian society\textsuperscript{20}. Governmental participation also suffers, at the local and national levels, both from apathy and fear of opposing existing regimes (Curtis, 1993).

\textsuperscript{19} The proportion of Cambodians living in an urban area is expected to have doubled from 2015 levels by 2015 (World Bank, 2005)

\textsuperscript{20} It is interesting that one study linked colonial legacy as a social determinant of HIV/AIDS (Holmqvist, 2009), by means of disrupting social norms, encouraging migration, and creating greater imbalances in income, status, and wealth. While Cambodia's colonial ties to France are probably not strong enough to put it in such a category, the same effects could be said to result from their recent civil war.
Likewise, the rise of the tourism and other export-related industries has meant that nearly every new job created by liberalization and direct foreign investment has been in one of the urban areas of Phnom Penh, Sihanoukville, and Battambang (Bargawi, 2005). The trend that began with the UNTAC mission continues, exaggerating the income disparities between urban and rural citizens, and funneling money to those at the top (Curtis, 1993; Beresford et al., 2004). This in turn helps to fuel the steady migration from the provinces into urban areas, and especially EZPs, disrupting established social norms, taking men and women away from their social and sexual networks, and leading to higher incidences of drug abuse and other urban phenomena that bode poorly for the country's fight against HIV/AIDS from a social determinants of health perspective.

**Women's Rights in Cambodia**

There is no strong history of women's rights in Cambodia. Social traditions dictate that "good girls" stay home with their families, get married, and raise children. Those who leave home, on the other hand, are considered tainted for having stepped outside of the established gender roles (Gorman et al., 1999).

The patriarchal nature of Cambodia society leads to an emphasis on educating boys, often at the expense of their sisters (Gorman et al., 1999). It is not uncommon for the girls in a household to leave school after only two or three years of primary school to work with their mothers in the home, and only 22% of Cambodian women are functionally literate (Beresford et al., 2004). This lack of any formal education puts them
at a severe disadvantage for the small amount of skilled employment available, even above and beyond the social attitudes that exist about women.

The current program of liberalization in Cambodia, and the rising importance of the garment industry, has increased participation by women in the formal economy\textsuperscript{21}, but has not as of yet positively impacted their social positioning.

Rice farming, Cambodia's predominant occupation, especially in the rural provinces may in certain years fail to generate income to sustain households, much less provide for savings and investment. In fact, many village families are unable to produce enough to even feed themselves, much less support sick relatives or invest in agricultural equipment, so there are few employment opportunities available in these areas (Beresford et al., 2004). Moreover, the handful of jobs (in this case opportunities to farm the family's land) traditionally go to sons. As such, there aren't always jobs available for young girls in the provinces in which they were raised. And so, unless a girl happens to be married in her village at a very young age, her best current option is typically to move to an urban area and look for employment. This presents an interesting dilemma, as the choice that is most economically viable for the individual also lowers her social positioning within her community.

And so, the 250,000 women who work in Cambodia's garment factories (90% of whom come from rural areas (Chan et al., 2006)) represent something of an enigma, being both the engine of Cambodia's export growth on the one hand and something of a

\textsuperscript{21} With 82\% of working age females employed, mostly through agriculture, garments, or services, Cambodia has the highest percentage of working women in Asia (Beresford et al., 2004)
social discomfort on the other. The female workers in the garment industry don't just boost the country's trade balance figures; they subsidize and support nearly everyone else. Of the average $72 wage earned (comprised of a $45 minimum plus overtime (Chan et al., 2006)), an estimated half of earnings is used for food, shelter, and other basic amenities, while as much as half is used to support family in the countryside (Chan et al., 2006). With more than 90% of garment workers sending money back to the provinces, more than 1.7 million people are dependent, directly or indirectly, on the garment export industry (Samsen et al.). A portion of those funds may even allow for investment in agriculture, particularly in equipment and fertilizer (Chan et al., 2006). Moreover, because of the large number of small businesses and industries that exist to support garment workers, a 2006 study by the Economic Institute of Cambodia estimated that every $100 generated by garments resulted in $205 in new demand within the kingdom (Samsen et al.).

Traditional Cambodian gender roles dictate that the young females who move away from their villages are considered undesirable, while at the same time, much of the country is at least somewhat dependent on their income. The result is a dynamic where young girls are compelled to leave their homes and go to work, but aren't free to return and join the social networks they left behind; they are needed by their families and villages, but not respected within them22. In one survey, 45% of garment workers

22 This same stigma is not applied to males, who often migrate to urban areas at high rates. In fact, SDH gender studies have shown that men returning home from migrant work may enter rural villages with increased disposable income, and may seek sex from several concurrent partners (potential wives) because of unequal power arrangements (Collins et al., 2000).
expressed a wish to return to their native province and engage in agricultural work, an option that may not be viable because of existing debts, social stigmas, and family obligations (Grumiau, 2004; Chan et al., 2006; Samsen et al., 2006).

Gender norms in Cambodia are not changing as quickly as the economic policies which are impacting them. As with the disparities in income, the current structural shifts in the Cambodian economy may be further marginalizing several groups, especially women, lowering their social position and placing them at higher risk for disease.

**Access to Health Care in Cambodia**

While healthcare service is generally becoming more available to Cambodian residents, utilization of doctors and hospitals remains low. In 2009, only one out of every 40 Cambodians living in an urban area had been to see the medical provider, a figure that dropped to one out of every 100 in the rural provinces (Jacobs et al., 2004).

One of the key features of Cambodia's ongoing reform has been the privatization of several sectors, including health care (Bhushan et al., 2006). As a staple of most neoliberal programs, this feature should not be surprising (Kapur et al., 2000; Kim et al., 2000). User fees have been introduced at hospitals and medical centers as a way to increase revenue for ongoing treatment programs, raise the standard of care, and formalize payments for services, which have been historically been offered "under the table" to government employees (Hardeman et al., 2004; Jacobs et al., 2004).23

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23 In fact, many government employees point to the possibility of additional incomes as their reason for choosing these positions (Beresford et al., 2004).
Although there have been some increased efficiencies through the implementation of user fees along with "equity funds" that help the poor to afford treatment (Hardeman et al., 2004), the net effect has been a decrease in health services availability for the poor. At an average of $3.2 per appointment (Jacobs et al., 2004), most Cambodians find doctor visits and medicines an unattainable luxury. Hence, they either skip visiting the doctor altogether or wait until their medical situation has deteriorated to the point where no other options exist (Beresford et al., 2004), which further increases the risk of previously mentioned medical poverty traps. This truth has been acknowledged even by the proponents of the user fee health system. In 1992, a World Bank report stated that "the fact that most public sector services now are provided on a fee-for-service basis disenfranchises the poorest segment of the Cambodian population and also endangers the long-term financial sustainability of the country's public sector social services" (Curtis, 1993).

The decrease in public health expenditures and availability has meant fewer screenings and treatments for virtually every ailment that affects the poor. As a result, Cambodians face increased infant mortality, malaria and tuberculosis rates, and a shorter life expectancy that stems from the failure to recognize and treat diseases early on (Jacobs et al., 2004).

This low rate of medical care affects the social determinants of HIV/AIDS in Cambodia in a number of ways. In the most direct sense, of course, it prevents healthcare providers from diagnosing illness effectively, treating symptoms, and educating the public about care and prevention. These are important first steps, as identifying patients
who are HIV positive before they spread the disease to spouses and unborn children could help stop one of the most prevalent chains of infection.

Even when HIV/AIDS is properly diagnosed in Cambodia, liberalization means that infected persons are less likely to have access to life-saving medication. Adherence to Trade Related Aspects of Intellectual Property Rights (TRIPS), which forced Cambodia to acknowledge and enforce patents of large pharmaceutical companies, was a necessary component in Cambodia’s accession to the WTO.

ARTs, which reduce the amount of diseased cells in the bloodstream, potentially prolong an HIV positive patient's life by decades and may greatly decrease their chances of infecting another person, are currently patented and thus covered by TRIPS protection. In the developed world, ARTs cost $10,000-12,000 per year, using patented drug treatments, generally “cocktails” that contain three or four medications used in tandem to fight a particular strain, and customized for a patient’s age, physical well-being, viral load, and so on (Coriat et al., 2006). Even though preferential pricing programs exist for LDCs, they have traditionally been unable to compete with generic alternatives manufactured in India. A three-drug cocktail produced in India, for example, costs less than $350 per year (Frontières, 2005; Coriat et al., 2006).

In fact, generics have not only been cheaper, but in some cases made simpler for patients, as well. For instance, one Indian manufacturer combined three drugs that make a common antiretroviral cocktail into a single pill (Frontières, 2005). This may seem to add only a small amount of practical value in the developed world, but in LDCs, where the
majority of the population might lack access to running water or accurate clocks with which to schedule their multiple doses, these improvements have been significant.

Beginning in 2016, Cambodia will not be legally able import these discounted generic ARVs. This may leave patients in one of the world’s poorest countries in a precarious position: They cannot afford the crucial antiretroviral medications that could save their lives, but face slim odds of survival without them.

Despite the 100% condom and clean needle programs, HIV/AIDS prevention remains a problem because so many of Cambodia’s infected are unaware of their HIV positive status (Senya et al., 2003). By removing medical professionals from the equation, privatization and the introduction of user fees is encouraging that trend is likely to continue. Additionally, the presence of other untreated STDs greatly increases the risk of contracting HIV/AIDS, another role that doctors play in stemming the tide of new infections. For those reasons, the current liberalization of Cambodia has to be considered a poor sign from a social determinants of health perspective.

**The Social Determinants of HIV/AIDS in Cambodia: A High-Risk Situation**

Having examined the social determinants of HIV/AIDS in Cambodia – and the ongoing effect of neoliberal policy shifts on those determinants – an overall picture begins to arise, one that shows a country that is both increasingly susceptible and vulnerable to another HIV/AIDS pandemic (Figure 4).

Liberal economic and trade policies are exaggerating income disparities between the highest and lowest earners in Cambodian society (Beresford et al., 2004). Those in
urban areas are able take advantage of the influx of foreign capital by securing relatively higher wages than their rural counterparts, which in turn is helping to accelerate the flow of men and women leaving the provinces and heading into cities, and especially EZPs (Samsen et al., 2006). The rapid increase in urbanization has been tied to changing sexual and drug abuse patterns among the working poor, and especially a higher incidence of prostitution (Nishigaya, 2002).

Each of these shifts changes the dynamics of HIV/AIDS transmission, and they all negatively affect the SDH of HIV/AIDS situation (Barnett et al., 2000; Collins et al., 2000; Barnett et al., 2002; Barnett, 2004). As long as young, uneducated females are compelled to leave their homes and flock to urban areas, the potential for entry into sex work will exist. This is particularly true in an environment where incomes are low and unpredictable, and the presence of a large, wealthier (to a smaller, lesser degree) male population of foreign visitors and migratory workers also exists.
* Denotes focal points of micro-medical efforts

Figure 4: SDH of HIV Cambodia
Prostitution has been steadily increasing as a component of Cambodia's informal economy since 1991, and its growth has mirrored the gains seen in tourism and garment production (Beresford et al., 2004). Given that neoliberal and export-oriented policies are firmly established in place, there is little reason to expect this trend will abate in the near future. More likely is that it will accelerate, based on the fact that garment industry jobs can be relocated quickly and with few costs in the event that cheaper labor becomes available elsewhere, or global demand for textiles decreases appreciably (Bargawi, 2005; Chan et al., 2006).

Sex work, regardless of whether it's formal or not, remains a "high risk" activity for HIV/AIDS, not to mention a host of other STIs, medical ailments, and psychosocial difficulties (Hor et al., 2005; Kim et al., 2005; Sopheab et al., 2008). However, in an environment where it offers higher incomes than other available jobs and can be the only option for supporting one's self or family members in the provinces, it becomes a perfectly rational economic decision (Holmqvist, 2009). Again, we are reminded that behavior, far from being a result of individual motivations, is largely determined by prevailing social and economic environment that an individual is faced with (Diderichsen et al., 2001).

Despite government pressure, it seems unlikely that the established pathways between tourism, garment work, and the sex industry will go away. Based on recent and anecdotal experience, a focus on programs that aim to further penalize sex workers through legal means should be expected to result in even greater numbers of indirect sex workers (Busza, 2006; Kunthear, 2010) who are more difficult to reach through
established micro-medical HIV/AIDS prevention measures (Rojanapithayakorn, 2006; Sopheab et al., 2008), such as the 100% condom campaign, which is targeted exclusively to direct sex workers in brothels (World Health Organization, 2001; Kim et al., 2005). With or without interference from police, however, the size and scope of sex work in Cambodia's urban areas and EZPs should be expected to continue as long as garments and tourism remain growth industries. Accordingly, a rise in the aggregate STI and HIV/AIDS incidence could logically follow – regardless of whether prevalence rates improve, which is contraindicated from existing surveys (Sopheab et al., 2008; Couture et al., 2011).

Indeed, the presence of more prostitutes may, in another itself, create greater HIV/AIDS risks for Cambodia's existing population of sex workers. In the past, low bargaining power and increasing numbers of prostitutes, and some cases even competition from other prostitutes in neighboring countries\textsuperscript{24} have led Cambodian sex workers to agree to unsafe sexual practices in order to secure income (Sopheab et al., 2003; Gazin et al., 2006; Couture et al., 2011). Afraid to lose the valuable currency that comes with a paying customer, 80% of the prostitutes in one survey have reported agreeing to unprotected encounters with customers (Wong et al., 2003).

Given that one of the most prominent modes of HIV/AIDS transmission in Cambodia is from female sex workers to their male clients, who in turn spread the disease to wives and unborn children (Bith, 2004; Hor et al., 2005; UNAIDS, 2010), a resurgence

\textsuperscript{24} There is some anecdotal evidence that sex tourists visiting Thailand enter Cambodia for the prospect of unprotected sex with prostitutes. In this way, paradoxically, the success of the 100% condom program in Thailand actually hurts Cambodia's HIV/AIDS effort, since the prostitutes working in Phnom Penh have less education and more competition, causing them to more readily accept their clients’ terms.
of HIV/AIDS in Cambodia remains a distinct possibility, especially among the rural uneducated. At the same time, the proliferation of neoliberal policies – including the privatization of health care and adherence to TRIPS provisions – means that fewer treatment options may exist for Cambodia's poor in the near future\textsuperscript{25}. The fact that so many households could quickly lose their primary income through wages, or land sold in the event of a medical poverty trap, necessitates the assessment that the kingdom has been made particularly vulnerable to the effects of another HIV/AIDS pandemic as well.

The incentives created by a liberalized economy in Cambodia actively encourage HIV/AIDS transmission by the most socially and economically underprivileged. Ongoing structural shifts are further marginalizing millions, especially females and the migratory poor, lowering their social position to the point where "high risk" behaviors become economically rational. This greatly increases Cambodia's susceptibility to HIV/AIDS at all levels of society, while is simultaneously made more vulnerable by the reliance on a few labor-intensive industries and the removal of health care as a public good.

While certain aspects of the ongoing liberalizing changes may be helping the country's balance sheet, from a social determinants of health perspective, they add up to what can only be considered a very high-risk situation.

\textsuperscript{25} In the short term, availability of ART medications in Cambodia has actually been improving; however, this is largely the result of UN interventions and NGO donations. Future funding and availability remain unclear (UNAIDS, 2010).
Chapter VI: Discussion and Conclusion

In comparing the available data about HIV/AIDS in Cambodia with the picture painted by SDH determinants, we arrive at two opposing views: On the one hand, new infections have inarguably decreased, and on the other, an examination of the underlying indicators of risk for increased incidences of HIV/AIDS shows that the situation could potentially be expected to worsen, not improve. So is Cambodia really the HIV/AIDS success story that so many consider it to be?

The early success of micro-medical interventions should not be diminished or unappreciated by this question. Thousands of lives have undoubtedly been saved by programs that strive for 100% condom use among sex workers and clean needle exchanges. The issue at hand is not whether these interventions have been necessary, but whether they could have been made more effective through attention to the underlying social determinants of HIV/AIDS, and whether they can continue to work so effectively in the future without further intervention.

To find an accurate answer to that question, it makes sense to begin by taking a closer look at the reported numbers themselves. While the infection rate of HIV/AIDS in Cambodia has certainly decreased, the matter of how much is less clear. With no internal government, and fewer than twenty doctors in the country at the close of the nation's civil
war in 1993 (Fraser, 2005), Cambodia, like many LDCs, has long suffered from inaccurate medical record-keeping. It has been noted by many that even births and deaths in rural areas of LDCs are not tallied correctly (Attaran, 2005), and few countries suffer from such poor information as Cambodia. All figures attached to HIV/AIDS prevalence within the kingdom – from the highest to lowest – represent good estimates at best, educated guesses at worst. In fact, UNAIDS has been forced to revise its own estimates of the Cambodian epidemic several times (UNAIDS, 2010). Some of these revisions in estimates of the HIV/AIDS prevalence rate can be traced to new information; others to changes in the models from which the figures were derived. There has never been a national screening for HIV/AIDS, or any other disease, in Cambodia so it's simply not known whether the epidemic was ever as statistically severe as has been reported, or if it has improved as much as the newer numbers suggest.

Adding to the difficulty is the possibility that Cambodia's HIV/AIDS rate remains somewhat artificially low. This is due to the fact that, without access to antiretroviral medication or other forms of treatment common in the Western world, a Cambodian who contracted HIV/AIDS in the first years when prevalence rates were higher had a very short life expectancy, only a few years at best. Therefore, after the initial "burst" of infections, it's possible that many suffering from the disease died out, leaving a lower overall prevalence rate, but the same potential for future difficulties (Page-Shafer et al.; Charles, 2006).

Regardless of whether past and current models prove to be accurate, however, there are troubling signs that another wave of infections remains a possibility. From a
social determinants perspective, indications would have to be that the current liberalization of the country's economy is aggravating a set of conditions that is somewhat similar to those that preceded the widespread HIV/AIDS infections seen in the first few years after the disease was introduced to the country. With the heavy gears of political and economic motion having been set in motion nearly two decades ago, and with billions of dollars worth of international support and enthusiasm behind them, it seems unlikely that the trends of urbanization, liberalization, and a reliance on foreign investment are going to abate in the near future. However, it is these very same dynamics that suggest Cambodia could be perched on the edge of another HIV/AIDS epidemic, rather than gracefully exiting the last one.

**Shortcomings of Neoliberalism and the Micro-Medical Approach**

Having summarized the ways in which neoliberal policies are deteriorating Cambodia's social determinants of HIV/AIDS stance, it is unnecessary to rehash them exhaustively at this point. What should be highlighted, however, is that the growing gaps in equity and social position have not been unrecognized side effects, even by those who are most in favor of the liberal policies in question.

Even the World Bank admits that increased inequality in countries accounting for 86% of the world's developing population should expect to suffer loss of status, power, and personal security through 2030, with the "unskilled poor" being left even further behind than they are now (World Bank, 2007). Modern manufacturing techniques allow for unprecedented movement between countries and regions, with few transition costs (Nickell et al., 1995). The result is a system where unskilled labor will trend toward
countries with the lowest production costs, perhaps translating into lower standards of living, least amount of workers' rights, and highest gaps in social positioning between those at the top of the societies and those of the bottom. In that context, the lessons and observations they can come from judging Cambodia's HIV/AIDS success in a new perspective could carry important implications for other liberalizing economies going forward.

Beneath the juxtaposition of the social determinants of health and the recognized statistical success of micro-medical measures (regardless of the confidence we may have in those figures), lie smaller, more concrete sets of indicators that may demonstrate that socioeconomic factors could have the potential to overwhelm existing preventative interventions.

One such indicator is the noted rise in HIV incidence – and corresponding failure of 100% condom campaigns – in both direct and indirect sex workers. Although the 100% condom campaign has been called a success and supported by both public and private sources, there has been no appreciable decline in overall STIs amongst sex workers, (Sopheab et al., 2008) and HIV/AIDS rates, while lowering, still sit at nearly 29%.

Three good arguments have been provided to explain this discrepancy in the existing literature. The first is that high turnover in brothels makes the spreading of information difficult, so gains in 100% condom compliance are sometimes lost when new sex workers migrate in and out of areas frequently (Sopheab et al., 2008). Another is that police intervention has made it more difficult to manage programs aimed exclusively at
sex workers, forcing them to do business more confidentially (Sopheab et al., 2008). And a third points out that indirect sex workers, who make up an increasingly large portion of Cambodia's sex trade, are less impacted by these programs and are also more likely to engage in unprotected sex with "sweethearts," "boyfriends" and other regular partners.

Each of these probably contributes to the persistently high incidence of HIV/AIDS and other STIs among sex workers in Cambodia, but they may also obscure a bigger truth already recognized in SDH literature: HIV/AIDS policies that focus only on behavior modification are likely to fail (Stillwagon, 2002). As long as the conditions which drive individual and so-called "high risk" behavior exist, then stemming the tide of new infections is necessarily going to be a run against the wind at best and a losing battle at worst. If we accept that much of our behavior is socially determined, then the difference between high-risk behaviors and high-risk situations – and the inefficiency of remediing one and not the other – becomes strikingly clear.

Despite concentrated attempts to enforce 100% condom use among the population most at risk for contracting HIV/AIDS, consistent condom use was reported by only 80% of formal sex workers, and only 38% used condoms with casual partners. Sixty-seven percent reported having been forced or convinced by a client not to use a condom in the past week (Sopheab et al., 2008). From a medical standpoint, taking the risk of contracting a terminal, incurable disease for a daily wage makes no sense. Within the context of the life of a marginalized migrant worker in Cambodia, however, it is not irrational. That's especially true when you consider that most have very low bargaining power and value the present income far more than future worries that may or may not
ever arrive (Wojcicki et al., 2001). In other words, the threat of HIV infection is remote, but survival of one's self or the dependent family back in the province is an immediate and pressing concern, and the threat of poverty is stronger than the threat of AIDS (Collins et al., 2000; Holmqvist, 2009).

Changing behavior on the individual level is always a tricky proposition, even in the industrial world. Studies have shown empirically that concentrated attempts to alter negative health behaviors like smoking and drinking have shown poor results (Freudenberg, 1987). If a committed team of professionals in the United States has been unable to alter expensive, socially unwelcome habits in men and women with many years of life expectancy ahead of them, what sort of hopes can we pin on programs that can potentially remove income from those who are living just above the level of starvation? As Zwi notes, "Conventional health education is likely to fail in high-risk settings" (Zwi et al., 1991).

If behavior modification was itself powerful enough in such settings, then it is possible that the number of sex workers would not be increasing in Cambodia in the first place. However, in impoverished communities with low social position, the decision to enter sex work has been demonstrated as a perfectly rational option (Collins et al., 2000).

If we accept that micro-medical measures may not be sufficient to stop the flow of new infections or will never be able to reach high enough compliance within "high-risk populations" to entirely contain HIV/AIDS to those communities, then the recognized secondary chains of transmission gained new importance. Recalling that one of the most prevalent means of HIV/AIDS infection in Cambodia is from female sex workers to their
male clients, and that almost half of all new HIV infections in the kingdom are among married women (Webber et al., 2010), then the implicit dangers of trying to prevent spread of disease at a single point are exposed.

It may have taken a single person to spread HIV/AIDS from Haiti to the United States, and a small network of individuals with low information engaging in "high-risk behavior" to spread it all over the world. With its rapid growth, urbanization, and breakdown of social norms, could the same not happen in Cambodia, where few micro-medical safeguards are in place to inform and protect the rural poor?

A recent UNAIDS report warns about increasing risks of a resurgence of the HIV/AIDS pandemic in Cambodia, highlighting the persistent infection rates and sex workers and the spread of the disease from married men to their wives and unborn children in the provinces (UNAIDS, 2010). Although it calls for an increase in funding and more adherents to micro-medical campaigns, it is possible that these tactics don't have the power to stop new infections at their most important sources.

**Liberalization and Health: The Intersection of Competing Interests**

An interesting parallel exists between the early, micro-medical efforts to fight HIV/AIDS in Cambodia and the steps taken to incite economic growth in a country with a limited base of resources and technical expertise. Specifically, the neoliberal policies which have been instituted, largely at the advice of foreign advisors, could almost be seen as a "micro medical" approach to poverty reduction. Just as condoms and clean needles have prevented infections without removing incentives for high-risk behavior, liberal economic policies have been successful in so far as they have been able to create new
jobs, instill growing industries in the country, and raise GDP by an average of 6% over the past ten years, while still not doing much to alleviate the misery of the country's poor (Beresford et al., 2004).

The question is not whether Cambodia’s leadership or stakeholders want better health – fighting HIV/AIDS and generally improving the social safety net could only strengthen the kingdom and its economic base. The issue, rather, is whether they are willing to put matters of public health and social health interests over other concerns, namely a commitment to neoliberal polices that negatively affect the social determinants of health, and especially HIV/AIDS. If we are to use the history of their actions as a base, we can only come to the conclusion that they are not.

Fighting infectious diseases in the developing world is an often-stated goal. In fact, the United Nations, which remains one of the most visible and enduring presences in the Cambodian capital years after the UNTAC mission ended, has publicly stated its desire to be guided by the Millennium Development Goals – a set of social and economic targets put forth to steer aid in the most important directions. Among these, a subset of which are specific to Cambodia, a decline in HIV/AIDS and a reduction in poverty are explicitly named. And yet, while this project remains underfunded and mired in disagreements over its scope and metrics (Attaran, 2005; Sachs, 2005), the liberalization program continues unopposed, with fast-tracked WTO admission and sweeping reforms implemented quickly.

It isn’t that these tracks are simply competing, but that they seem to be at odds with one another. In their report on the social determinants of health, a United Nations
committee (Marmot et al 2008) concluded that, in order to close the gap between those with the best worldwide health outcomes in those with the worst, it would be advisable to improve the daily conditions in many areas by:

- Increasing permanent employment (rather than temporary working arrangements)
- Establishing universal health care where health protection does not exist
- Decreasing and equitable distributions money and power
- Increasing gender equality
- Reversing the trend of commercialization and health care

There are, of course, other recommendations in the study, but these are the overarching goals that could be considered most critical to achieving positive outcomes from a social determinants of health viewpoint. In almost every case, the move toward a more liberalized Cambodian economy has undermined these stated efforts by shifting labor to temporary and transitional employment (especially in the garment factories and export zones), commercializing and decreasing the availability of health care, all while further marginalizing women and others with lower social position.

Given that both the United Nations’ goals and the liberalizing economic policies that have come to Cambodia have been largely imagined and encouraged by outside advisors, it is easy to see that much of the world is of two minds when it comes to finding the appropriate course of action for nations struggling to join the modern world. When it comes to achieving changes in policy, however, it is clear that economic growth through liberalization has been the higher priority.
Policy Recommendations

To balance the benefits of export and GDPpc growth against the potential of another HIV/AIDS pandemic in the future, there are a number of policy shifts that could be pursued by the major stakeholders in Cambodia. While any change to the country's current socioeconomic structure carries the potential for even more unintended side effects, these are seven tools that could improve Cambodia's HIV/AIDS position from an SDH standpoint.

1. Enact a reduction in user fees for the poor
2. Change taxation patterns to achieve more equitable income distribution
3. Promote stronger gender rights
4. Create a stronger social safety net for the sick
5. Apply for compulsory licenses or negotiate better ART coverage
6. Promote workers’ rights in other parts of the world
7. Continue and expand current micro-medical measures

Enact a reduction in user fees for the poor

For many Cambodians, health care (and especially preventative treatments) is a luxury that remains beyond their means. That means that unless an illness is particularly severe, it remains undiagnosed and untreated, leaving the individual less productive and more prone to other opportunistic infections.
In one study, user fees were reduced or eliminated for the poorest residents\textsuperscript{26} of a rural Cambodian province (Hardeman et al., 2004). The result was increased efficiency, better patient care, and fewer medical poverty traps. Although this system was funded from external, non-governmental donors, a similar program could conceivably be put into place by raising user fees for other segments of the population.

**Change taxation patterns to achieve more equitable income distribution**

Although redistributive policies are generally at odds with neoliberal philosophy, there is some evidence that suggests they may be helpful in creating more equitable health outcomes (Wilkinson, 2006). The poorest men and women in every country experience higher mortality rates, lower social positioning, higher incidence of disease, and generally worse health; conversely, the most egalitarian societies will enjoy better health and higher LEB throughout all social positions (Wilkinson, 1996).

Those observations would seem to be strong indicators that reducing inequity could be a way to increase health in nearly any country, but in Cambodia there is the potential for them to be particularly effective, given that those with the lowest social position have so many incentives for "high risk" behavior, and so few reasons to avoid them. In one study, it was shown the Latin American nations were able to reduce poverty through redistributive policies that amounted to the equivalent of many years of solid economic growth (Paes de Barros et al., 2002). Similar shifts in Cambodia, as unpleasant

\textsuperscript{26} As part of this program, staff were trained to help identify customers who might not have the ability to pay. Since the introduction of user fees, many of the sick in rural Cambodia engage in economically-hazardous behavior (like selling land or taking out high-interest loans) in order to finance hospital visits before they arrive. By noting that some could not afford food and other necessities, coverage was extended to those in need beyond those who self-reported.
as they may be to policymakers and economic advisors, could conceivably help to alleviate some of Cambodia's crushing poverty and improve its chances of stemming of another HIV/AIDS epidemic.

**Promote stronger gender rights**

As quickly as economic growth and change have come to Cambodia, progressive attitudes within society have been slower to adjust (Hill et al., 2004). The fact that so many Cambodian women are subject to domestic abuse (Nelson et al., 1996), that social stigmas are attached to migration for work (Samsen et al., 2006), and that prostitutes are regularly attacked and raped by police, young men, and others with higher social position without consequence (Jejeebhoy et al., 2005) are all indicators of how far behind females really are in Cambodian society.

Beyond the societal troubles that may result from these attitudes, they represent a key weakness from a SDH of HIV/AIDS point of view. Because of the dependence that their families may have on them, many unemployed garment workers and other young females turn to sex work out of necessity. Often, they engage in these activities until they become older or infected with an STI and return to the rural provinces, often to continue sex work and a lower competition environment (Sopheab et al., 2003). Given that medical facilities and preventative treatments are not as prevalent outside the urban areas, this is one way in which the path of HIV/AIDS transmission can move from traditional "high-risk groups" to the greater population at large.
A campaign for stronger women's rights, and especially one that put an emphasis on training and education for young women looking to transition away from sex work, could help break some of the most damaging links in this process. By offering more job skills, and decreasing the social stigma attached to working women – in the sex trade and otherwise – Cambodia could raise their social position and potentially decrease both susceptibility and vulnerability to HIV/AIDS. If long economic traditions can change so quickly in Cambodia, then it's possible that, with a focused effort, social and gender patterns could as well.

**Create a stronger social safety net for the sick**

Medical poverty traps exist in many parts of the world, even in wealthy countries with high average incomes (Wilkinson, 2006; Labonté et al., 2007; Marmot, 2008). In Cambodia, however, the risks are more extreme. One study concluded that that 25% of rural residents in the area were at risk of falling into extreme poverty in the event of a serious illness (Hardeman et al., 2004). Once these illnesses occur, the sick (or their remaining family members) are often even more impoverished than they were before, possibly without any land or remaining forms of consistent income. This, in turn, can easily lead to migration and higher risk medical behaviors, like sex work.

In the same way that equity funds at hospitals and medical centers have the potential to increase standards of health care for the poorest, a stronger social safety net could prevent relatively common medical maladies from imposing extreme poverty on Cambodians.
Apply for compulsory licenses or negotiate lower cost ART coverage

Globalization and liberalization may bring export benefits to LDCs, but they also carry heavy costs. While the kingdom has yet to feel the full effect of adherence to TRIPS, it is possible that complying with international patents for ARTs may severely restrict access to life-saving medicines in the future\(^\text{27}\) (Hoen, 2002; Ceukelaire, 2003; Coriat et al., 2006).

Currently, India is in the process of working through the legalities of the generic production of antiretroviral medications (Orsi et al., 2007). Should they prove successful, the Cambodian government should apply for a compulsory license to import these generic cocktails into the country. Doing so may carry the risk of making the nation seem less "business friendly," but the potential economic and social effects of a strong HIV/AIDS resurgence are too heavy to ignore.

Promote workers’ rights in other parts of the world

In the short term, Cambodia's economic performance is very likely to remain tied to sustained demand and growth from the garment sector, which accounts for roughly 90\% of all exports (Beresford et al., 2004; Grumiau, 2004). To this point, Cambodian

\(^{27}\) The estimated cost for HIV/AIDS treatment in Cambodia to cover all infected individuals would be as much as 7\% of GNP (Bith, 2004).
factories have largely been able to minimize the effects of overseas competition. This is credited, in large part, to the preference of manufacturers to support higher labor standards within the kingdom and avoid association with "sweat shop" factories, but most observers feel that a relatively low-cost supply of labor is crucial to maintaining Cambodia's strong presence in the garment industry (Bargawi, 2005; Chan et al., 2006; Sullivan, 2009).

With higher skilled and potentially lower cost competitors emerging in places like China, India, Cambodia's Garment Manufacturing groups should continue to publicly press issues of workers' rights. This runs contrary to the notion that they can increase demand by further lowering labor costs, but could create a situation in which they remain a preferred producer because workers' rights are lower in other areas. Public awareness and concern are Cambodia's biggest competitive strength in garments, and it may serve them to highlight conditions in other nations rather than decrease labor standards in their own.

By examining current pathways between migration, garment work, and prostitution, it is reasonable to assume that a short-term contraction in Cambodia's garment industry could lead to an increase in formal and informal sex work (Nishigaya, 2002; Webber et al., 2010). Therefore, sustaining this sector could be important in the fight against HIV/AIDS, but only if it can be accomplished in a way that doesn't further marginalize women and encourage high-risk behavior.

**Continue and expand current micro-medical measures**
Clearly, the micro-medical campaigns that are in place have been a crucial factor in containing HIV/AIDS in Cambodia over the last decade. However, as they could be considered the "last line of defense" in a high-risk SDH situation, it is imperative that they begin to reach further than traditional risk groups and into other parts of the population.

Although direct sex workers may be easier to identify and target, current estimates suggest that indirect sex workers account for 60% of all prostitution in Cambodia (Sopheab et al., 2008). Outside of those groups, preventative measures are even lower. Condoms are simply not considered in most marriages and even semi-exclusive relationships. A study of 102 female garment workers showed that 87% never used a condom with their partners. The most cited reasons were that use of a condom would indicate a "lack of trust," and a fear that the request could bring about an end to the relationship (Webber et al., 2010).

Given that nearly half of all new infections are among married women, it's clear that the virus has the potential to move beyond the "at risk" communities that currently receive the most attention. It's important that education and micro-medical preventative measures are conducted more extensively with all parts of the Cambodian population, if micro-medical interventions are to continue to play such an important role in Cambodia's fight against HIV/AIDS.

**Two Final Thoughts on Policy Change**

Two brief notes should be added to the policy recommendations in this study. The first is that several of these recommendations obviously sit in stark contrast to the
prevailing economic changes that are sweeping through Cambodia. Indeed, they tend to
target income and wealth redistribution, directly or indirectly, which is not a direction
likely to be chosen by many of the predominant development organizations operating in
the kingdom, like the World Bank or IMF.

But while they might not be consistent with neoliberal economic theory, they are
fairly consistent with its practice in the real world. Industrialized nations, such as those in
North America and Western Europe, rely on a system of complex tariffs and treaties to
protect domestic interests. Few would claim that any of these countries are against
globalization, but the implicit moral of the story is clear: We love free trade but are
willing to make laws to keep its most insidious effects at bay. A number of critiques have
pointed out that proponents of neoliberal policies often overestimate their positive effects
and under-account for the transitions and interim stages that developing countries go
through (Bretton Woods Project, 2005).

In the case of Cambodia, such realizations could have important health
implications. While diseases certainly affect an individual's circumstances, they also
bring heavy costs to the rest of society, through lost productivity, exposure to illness, etc.
(Wilkinson, 1996; Kim et al., 2000). Who is the real "user" when a person contracts an
STI and carries the potential to infect others with a deadly disease? Changing the way
policymakers think about health, and especially HIV/AIDS, and the country may require
a perspective that's different from those provided by the neoliberal framework but is
ultimately more effective in halting spread of the disease.
The second point to be made is that it is highly unlikely that the official policymakers in Cambodia would be able to enact these changes on their own. On a surface level, pervasive corruption, combined with low skill and information levels, make it difficult for the Cambodian government to enact lasting reforms in any area (Beresford et al., 2004). Of larger consequence, however, is that they are in many ways beholden to donors and advisors who yield tremendous amounts of influence in the country, a situation that is not uncommon in the developing world (Barnett, 2002).

As an example, the imposition of a tariff on an American product, for example, within Cambodia would have very small effect on any major American producer (like a pharmaceutical firm, for instance.) But if the situation were reversed, and a Cambodian producer were to find new barriers or fees to ship goods to North America, the effect would be enormous and devastating, since that income might be crucial to the firm – not to mention each of its employees and even the Cambodian government. Thus stakeholders have few bargaining chips left to use if they want to leverage policies back in their favor. Liberalization, by its very nature, disembowels small governments relative to the owners of financial capital (Barnett, 2002; Birdsall, 2006). Because investments can be withdrawn or relocated with few barriers, the implicit danger is always that development, wages, and other lifelines will be withdrawn if the "wrong" policies are pursued.

For that reason, much of Cambodia’s future reform, and any serious efforts to stem off another pandemic of HIV/AIDS, will likely need to originate in, or at a minimum be supported by, the various foreign stakeholders operating in the country. As
much as health is a stated priority of many Western relief agencies and international groups, it remains overshadowed by their actions. For the social determinants of HIV/AIDS in Cambodia to improve substantially, more attention and commitment will have to be offered from the rest of the world's more powerful players.

As important as condoms and clean needles are to the fight against HIV/AIDS, it’s becoming increasingly important that planners and advisors see Cambodia's pandemic as an issue that has social and economic as well as health components. The purpose and intention of this study is not to predict a resurgence of HIV/AIDS in Cambodia, but to point out that the underlying susceptibility and vulnerability risks that preceded the first, rapid wave of HIV cases have not gone away, and indeed may actually be worsened for some populations. The micro-medical measures in place to fight HIV/AIDS in Cambodia are necessary, but they might be even more effective if they weren’t the only line of defense.
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