INTRODUCTION

Unfulfilled Promise
The Failure of International Health and Development Strategies to Protect Children's Lives and Health

A Rude Awakening: Cholera Makes a Deadly Comeback

The most terrifying and deadly of the diarrheal diseases is making an alarming comeback. During most of the twentieth century, cholera was largely confined to Asia.[1] In Latin America it was considered a plague of the past. But in January 1991 a few cases of cholera were discovered in Peru.[2] Within two months 70,000 people were infected. The outbreak swiftly spread as far as Brazil in the east, Chile in the south, and Mexico in the north. By late 1991 all but seven nations in South and Central America were affected.[3] By the end of 1992 more than 730,000 cases of cholera had been reported, with over 6,300 deaths.[4] Despite massive control and education efforts, sporadic outbreaks still occur, mostly in the rapidly growing "septic fringe" of towns and cities. In Mexico, where the 1994 peso crash caused a sharp decline in living standards, cholera cases doubled in 1995.[5] The World Health Organization (WHO) predicts that in Latin America cholera will become *endemic* (there to stay).[6]

The Latin American cholera outbreak is part of a global resurgence of the disease that began in Indonesia in 1961 and that has spread through much of the Third World within the last few years. Ominously, the present pandemic has lasted much longer than its nineteenth century predecessors. Today cholera remains a major problem throughout much of Asia, Latin America, and Africa.[7] In 1991 Africa reported over 150,000 cases and 14,000 deaths from cholera—until then the highest figures ever recorded for that continent. The numbers continue to rise. The 1994 cholera epidemic among refugees from Rwanda is one of the most disastrous outbreaks to date.

Far from approaching the proclaimed global goal of "Health for All by the Year 2000," the Third World is now fighting a losing battle against a scourge once considered a disease of the nineteenth century.[8] Health workers and citizens throughout much of the Third World are asking in bewilderment: *How could this happen? What went wrong?* The resurgence of cholera can be directly linked to deteriorating living conditions for increasing numbers of people. It starkly illustrates that prevailing health and development strategies are grievously flawed.

Cholera is not the only disease of poverty on the rise. Malaria, which in the 1970s was thought to be largely under control, is also making an alarming comeback in many countries, despite major efforts to fight it.[9] An upsurge of tuberculosis is ravaging much of the Third World, as well as the mushrooming inner city neighborhoods of the United States and other rich countries.[10] And AIDS—which is fueled by conditions of poverty and inequity[11]—is spreading like wildfire, especially in Africa, Southeast Asia, and parts of Latin America.[12]

As the year 2000 approaches it is increasingly clear that the ambitious programs mounted by WHO, UNICEF, USAID, the World Bank, and other institutions to address problems of disease, hunger, and poverty in the Third World have fallen far short of their goals. In many countries progress toward health has stagnated during the last decade. In others, the living conditions and health status of growing numbers of impoverished people have actually been deteriorating.

In particular, these global programs have failed to adequately reduce the continuing high rates of malnutrition, illness, and death among Third World children. The substantial gains achieved by the narrowly focused "child survival" campaign (using technological interventions such as immunization) have, to a large extent, been offset by a worsening standard of living for much of humanity. According to UNICEF's latest calculations, 12.5 million of the world's children under age five still die each year.[13] The agency asserts that without its Child Survival Revolution, the number of children dying yearly would have risen to 17.5 million by 1990 as a result of Third World population growth. Although the percentage of children dying has dropped, it is deeply disturbing that approximately the same number of children are dying today as were dying ten years ago.[14]

A persistent high death rate among children is widely considered to be the most telling indicator of unmet health needs in a population. In the world today, one in five people (more than 1 billion) lives in absolute poverty—earning less than one dollar a day—and 1.5 billion are unemployed.[15] One in four people lacks clean drinking water, and never sees a trained health worker.[16] In the Third World alone, at least 780 million people are undernourished. This is pertinent because malnutrition is an underlying cause of most child deaths. Every day some 40,000 children die from causes related to hunger.[17] As a result of chronic undernutrition, 190 million children in the Third World suffer from poor health, often accompanied by delayed mental and physical development.[18] Overall, one in four of the world's children is malnourished.[19]

The first years of the 1990s have shown ominous reversals in some of the earlier gains toward widespread coverage of protective health measures. This is true even of the so-called "twin engines" of the Child Survival

Revolution: immunization and oral rehydration therapy (ORT). In spite of a global campaign to improve immunization coverage, and the remarkable increase in coverage which occurred throughout the 1980s, from the start of the 1990s the percentage of the world's children protected by immunization began to decline. This decline is evident on the graph in Fig. I-1, adapted from UNICEF's 1994 *State of the World's Children Report*.[20]

In the 1995 edition of the report, UNICEF claims that such reversals have been at least partially corrected; for example new cases of polio, which rose substantially in 1992, began to drop again by 1993. However, Zaire, which has immunized only 29% of its children against polio, experienced the worst polio epidemic in its history in June, 1995.[21] Globally the number of child deaths from measles has been rising steadily since the begin

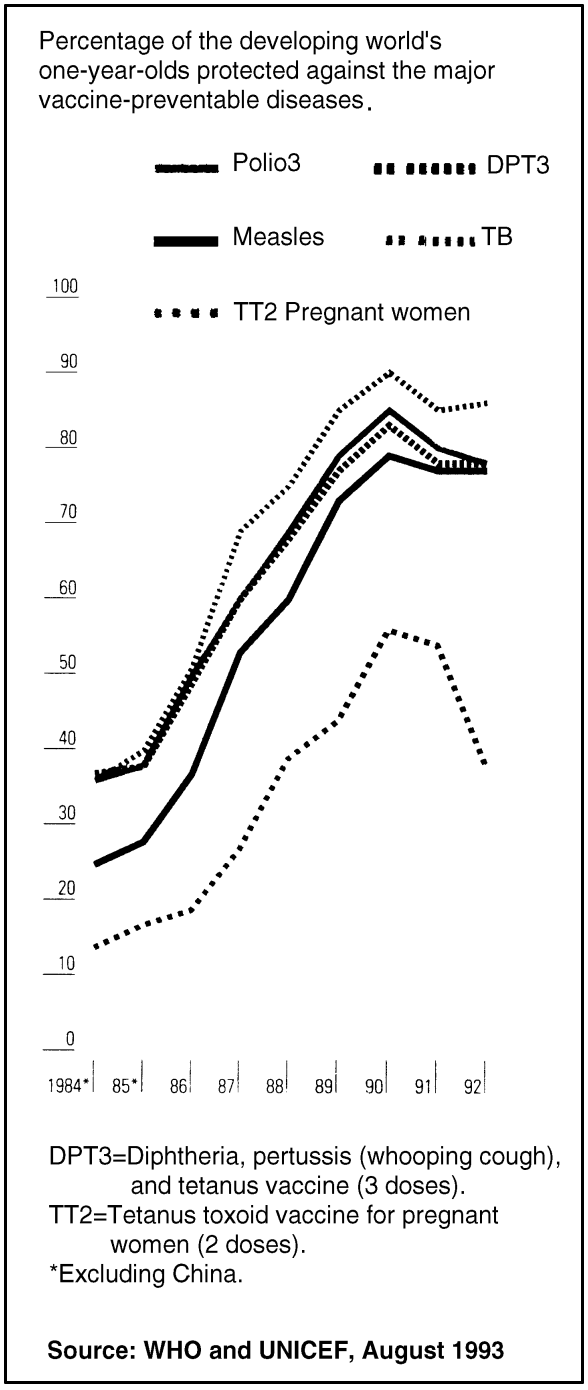

Fig. I-1 Global Immunization coverage.

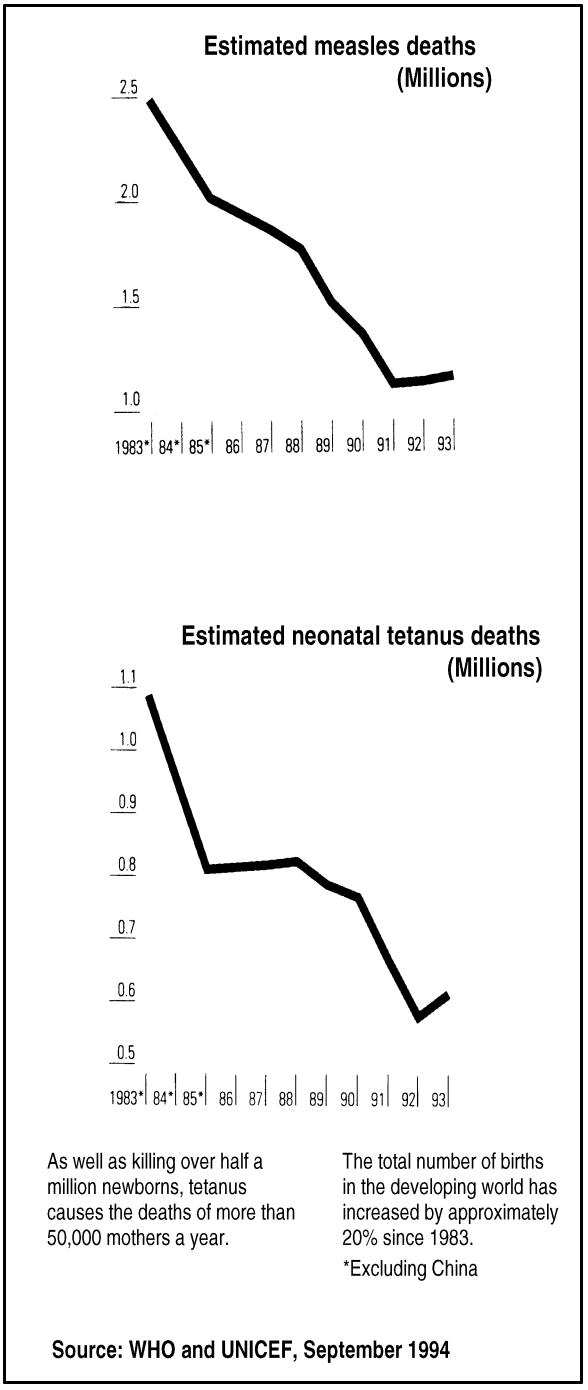

Fig. I-2 Global deaths from measles and tetanus (millions).

ning of the 1990s.[22] And the number of newborn children dying from tetanus is sharply increasing (see Fig. I–2).[23]

Previous health gains from the use of oral rehydration therapy as the primary treatment for diarrhea in children appears to be backsliding since the start of the 1990s. Such reversals include the showcase success story in Egypt, where ORT usage rates have declined alarmingly.[24] (See Chapter 7.) The risk of child death from malnutrition and diarrhea is compounded by the fact that increasing numbers of the world's mothers are bottle-feeding their babies instead of breastfeeding them.[25] (See page 89.)

While considering the direct and indirect causes of hunger, disease, and death among the world's children, we must not overlook the swelling tide of social unrest, crime, and violence, including armed conflict. One example is the cholera outbreak in 1994 among refugees from the war in Rwanda which took the lives of thousands of children and orphaned thousands more.

The optimistic goal of "Health for All" is increasingly remote. The purpose of this book is to investigate the reasons for the failure of prevailing strategies to improve health, especially in children, and to explore more promising alternatives. As a focal area for in-depth study, we will examine the continuing high child death rate from diarrhea. Specifically, we will explore the case of oral rehydration therapy (ORT), the major intervention of the Child Survival Revolution which has been promoted to combat death from diarrhea.

ORT is a method for combating dehydration, the most common immediate cause of death in children with diarrhea.[*26] Simply put, ORT consists of giving *increased fluids* (and *food)* to a child with diarrhea. This book's critical analysis of the approach UNICEF and WHO have taken to promoting ORT helps explain its limited success in reducing child death rates from diarrhea. It also sheds light on the larger issues of why the Child Survival Revolution, Primary Health Care, and ultimately, international development have not done more to safeguard children's health and lives.

The resurgence of cholera in the Third World starkly illustrates the central flaw of current health and development strategies. Instead of working to resolve the root causes of poverty and poor health, policy-makers have settled for promoting stopgap technological interventions. ORT is a prime example.

It is clear that if ORT were promoted in ways that would make it quickly and readily available—even in emergencies—it could help to prevent deaths from cholera. But ORT does nothing to check the spread of this dreadful disease. *Vibrio cholerae*, the cholera bacterium, is spread through contaminated water and food, and thrives on unsanitary conditions. WHO attributes the resurgence of cholera in Latin America and Africa to a "decline of living standards."[27] Many of the various factors that contribute to this decline—migration of destitute peasants to large cities, overcrowding in shantytowns, rising unemployment, falling wages, and cutbacks in public spending—are direct consequences of current development and structural adjustment policies.

It has been said that "sanitation is the only cure for cholera."[28] The UN designated the 1980s as the "International Drinking Water and Sanitation Decade."[29] But high hopes have proved wishful thinking for much of Latin America and the Third World. In many poor communities, sanitation and water supplies have deteriorated as a result of the economic recession and cutbacks in public spending during the 1980s.[30] According to UNICEF, "by the end of the century … the number of people without adequate sanitation will have increased to approximately 1.9 billion." Given that one out of three human beings lacks adequate sanitation, it is hardly surprising that cholera is making a global comeback. The World Bank's 1993 *Investing in Health* report claims that, although water and sanitation projects provide "substantial health gains," they are not cost effective.[31] Latin American countries have a vast foreign debt, and their limited resources have largely been earmarked for interest payments and grandiose development projects, not basic sanitation and primary health care.

WHO Director-General Dr. Hiroshi Nakajima sums up the lesson of the cholera epidemic of the 1990s:

> Improvement of water supplies and sanitation is the ultimate solution to the problem, and action to this end must commence immediately. What must be faced, however, is the reality of increasing poverty and widespread underdevelopment around the world. Today, we live in a world where the gap between rich and poor, north and south is painfully apparent, and even more sharply illustrated by this current outbreak. We know how to control cholera, but the disease can easily get out of control when economic, social and health infrastructures fail. Cholera is but one dramatic symptom of the failure of development. In combating cholera, and many other health problems as well, we are

[*] According to UNICEF, dehydration is now responsible for almost half of the deaths from diarrhea among children under five years old. Malnourished children are especially vulnerable to dehydration.

combating underdevelopment as well as striving for better health.[32]

The 1994 Rwanda-Zaire Cholera Outbreak: The Tragic Cost of Not Promoting a Local Solution

> The high mortality rates experienced by Rwandan refugees in eastern Zaire were almost unprecedented in refugee populations, and the world must take note of the lessons from this disaster. The immediate, medical cause of most of the deaths was diarrhoeal disease, but the underlying causes were the historical, ethnic, demographic, socioeconomic, and political factors that led to the collapse of Rwandan society and to this mass population migration.[33]
>
> — *The Lancet*, February 11, 1995

The 1994 cholera epidemic that ravaged the Rwandan refugee camps in Goma, Zaire provides compelling support for some key points we are trying to make in this book.* One of these is the importance of promoting ORT (and other potentially life-saving solutions) in ways that place control in the hands of users. Another more basic point is that tragedies such as that among Rwandan refugees—and the inequities which precipitated such massive displacement—must be prevented. To achieve this, local and global power structures need radical rethinking and revision. First, let us consider the question of ORT.

The major symptom of cholera is severe watery diarrhea, which can drain the life out of a person within a number of hours. Until the 1970s the main way that doctors used to combat dehydration from cholera was with intravenous solutions (IV drips). Although highly effective for those it reached, this approach was so costly and impractical that in major cholera epidemics mortality rates sometimes ran as high as 30 to 40%.[34] Then in 1971, during a huge cholera outbreak among refugees of a civil war in East Pakistan (now Bangladesh), ORT was introduced for the first time on a major scale. Amazingly, mortality dropped to as low as 1%. This discovery—heralded as a great breakthrough in public health—should have made it possible to achieve low death rates in cholera epidemics from then on.

Why then did the death rate from cholera among Rwandan refugees reach between 24% and 50% (according to varying reports) of severe cases, with as many as 2,000 deaths a day?[35] What happened to the life-saving potential of ORT?

When the sudden outbreak of cholera began striking thousands of people, neither the refugees nor the health personnel on the scene were sufficiently informed or prepared to cope with the epidemic. As cholera and other forms of acute diarrhea ravaged the camp, thousands of people rapidly became dehydrated and many died without receiving any kind of rehydration. A cry went out internationally. After a flurry of faxes and meetings, relief agencies rallied to respond.

Within two weeks a massive supply effort was launched. First, over 10,000 liters of IV solutions were flown in, only to find too few health personnel to administer them. Then US President Bill Clinton promised 20 million packets of oral rehydration salts. But delivery of goods was delayed by logistical problems. Airplanes released their loads from too high up. Some of the relief packages landed on grounded helicopters, and others so far from the camps that trucks that were needed to deliver clean water lost time hunting for the missing supplies. In short, for thousands of dehydrating men, women, and children, ORT was made available too late. An effort was made to save those who were most severely dehydrated by providing them with intravenous solutions. But many were too far gone. Mothers with I.V. drips in their arms died while breastfeeding their babies.[36]

The Child Health Foundation reports that when cholera experts were finally brought to Rwanda from Bangladesh, "they observed the use of inadequate amounts and the wrong solutions of intravenous fluids, poor assessment of the need for ORT and improper composition of the solution, and the use of antibiotics to which the strain of cholera was resistant."[37] After treatment centers and rehydration posts were set up, personnel trained, and an adequate supply of packets of Oral Rehydration Salts (ORS) shipped in, the situation improved dramatically. Within 10 to 12 days the mortality rate from cholera dropped from around 24% (WHO's estimate) to less than 2%.[38] Some epidemiologists consider this another success story for ORT.

But for the 20,000 men, women and children who died of dehydration during the first days of the outbreak, there was no success story. Could this enormous loss of life have been avoided? And if so, how?

Some observers say that during the first days of the crisis—as hundreds of thousands of uprooted, desperate

---

* The July, 1994, cholera outbreak among Rwandan refugees was complicated by a simultaneous epidemic of especially virulent shigella dysentery, which also caused thousands of deaths. Although the causal organism in the vast majority of deaths was not identified, the cholera death toll has been estimated at between 10,000 and 20,000.

people poured into the refugee camp—the degree of chaos made it impossible to set up any kind of functional treatment centers or rehydration posts. These observers also point to shortages of clean water and of adequately trained health care personnel. One WHO official explained that in such crises there is always considerable lag time before achieving successful management of the extraordinary fluid loss associated with severe cholera; inexperienced health personnel only seem to "learn through a number of deaths." Like many other observers, he contends that it would have been virtually impossible to have prevented the initial high death toll from cholera.

Some health activists disagree. They suggest that had a different approach to oral rehydration been taught in Rwanda prior to the crisis, many lives might have been saved. Rather than teaching people to depend on manufactured packets of ORS—which are often unavailable when and where they are needed—it would have been more practical to teach people (during peace time, before the crisis occurred) to prepare effective rehydration drinks from local ingredients. In the refugee camps such ingredients could have consisted of the maize and other foods the refugees were cooking on their campfires. (Indeed, research has shown that home drinks made from a local grain can reduce fluid loss from cholera up to twice as effectively as can the standard ORS formula. See Chapter 10.)

Clearly, once the cholera epidemic hit the Rwandan refugee camp, it was too late to teach people how to effectively prepare their own rehydration drinks. But if in recent years, WHO's and UNICEF's international ORT campaigns had placed more emphasis on teaching about effective home fluids, and less on marketing ORS packets as a magic wonder drug, perhaps more lives could have been saved.

This is, of course, debatable. We have encountered different opinions—even among those present at or knowledgeable about the Rwandan disaster—as to whether self-made rehydration drinks would have been feasible under those circumstances. Were sufficient water and food available? Some say no, claiming that there was an acute water shortage. Others, however, observed streams of people trekking back and forth from Lake Kivu with pots of lake water. (The refugees initially settled in a town located right on the lake shore, but were subsequently relocated out of town and further from the lake; for some refugees the distance to water—other than that which was trucked in—was several kilometers.) Whatever the case, it appears that at least some firewood, food, and water were available. News reports mentioned that it was difficult to breathe in the camps

because of all the smoke from 50,000 cooking fires. Evidently, people were cooking cereal gruels and other foods which might have been diluted to form life-saving rehydration drinks. What the refugees and the on-site health care personnel lacked was the know-how.

Some experts argue that even if the refugees had been taught ahead of time about home-mix ORT, it would have been extremely difficult for families—even in more amenable circumstances—to have coped with the extraordinary fluid loss associated with cholera. These experts contend that only specially trained personnel would have been able to assure fluid replacement in sufficient quantities to prevent fatal dehydration. Others argue, however, that there is nothing magical or sophisticated about this treatment. What is needed is 1) an understanding that *what comes out must be replaced*, no matter how large the amount, and 2) the persevering concern (or love) required to coax the sick person to drink the huge amounts of fluid required. Often the person most qualified to make sure that the sick child drinks enough is the mother, so it is important that she learn about these concepts and be empowered to use them.

Dr. William Greenough, co-founder of the International Child Health Foundation who has conducted research on oral rehydration therapy over the last 25 years, makes the following comment on the Rwandan cholera outbreak:

> I could not agree more that had Rwandans learned how to make effective ORT solutions from ingredients at hand and used lake water, however contaminated, many lives would have been saved. Disaster planners and executors simply have not learned the lessons of 1971 from the Bangladesh refugee experience.[39]

⌘

These continuing tragedies in cholera outbreaks are appalling. More appalling still, however, is the continuing high death rate of children from ordinary (non-

cholera) diarrhea. Indeed, for every child who dies from cholera, more than 100 die in the silent emergency of fatality due to commonplace watery stools. UNICEF has stated that oral rehydration therapy—if it were promoted in such a way that people could understand it, prepare it, and give it using local resources—could prevent many of the 3 million child deaths from diarrhea that occur each year.[40] And we suggest that if ORT were integrated into a comprehensive, empowering health care strategy, that the child death rate from diarrhea and other diseases of poverty could be substantially and sustainably reduced.

Unfortunately, however, high level health and development policies have done discouragingly little to address the root causes of widespread poor health. Despite WHO's global campaign for Health for All, many millions of people are worse off today than ten years ago in terms of living conditions, nutrition, health status, and overall quality of life. What went wrong? Why have international health strategies not had greater impact? It is essential that those of us concerned with the rights and well being of children take a fresh look at the causes of high child death and sickness rates, and place them in the context of poverty and underdevelopment.

⌘

The second major point we will explore in this book is illustrated by the Rwandan experience. Even if ORT had been applied in a more effective and timely manner, any amount of suffering and death would have been unacceptable. Prevention of the disaster—which would have required taking steps to avert the tide of violence that drove over two million refugees out of their country—is the larger issue. Timely action to address Rwanda's underlying sociopolitical and economic problems were the missing keys.

Rwanda was not always a country at war with itself. Before Christian missionaries from Germany arrived in 1880, the indigenous people of Rwanda, Hutu and Tutsi, were not divided into ethnic groups as we now think of them. After the Belgians took over Rwanda in 1919 under the terms of the Treaty of Versailles, they assigned the Tutsis (the herders), who tended to be taller and more "European-looking," superior status over the Hutus (the farmers).[41]

The Belgians imposed colonial ideology and stripped the Rwandan people of their culture and wealth, sowing the seeds of ethnic resentment. Tensions became especially acute after the Roman Catholic Church reversed the roles of the Hutus and Tutsis, paving the way for the Hutus to prosper at the Tutsis' expense. The increasing economic polarization that occurred during the colonial

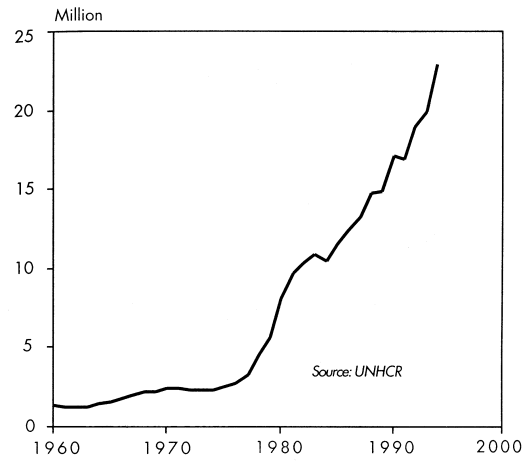

Figure Note: Figure includes only those refugees registered by UNHCR as having fled persecution.

Fig. I–3 Increase of refugees worldwide, 1960–94[42]

period further exacerbated these tensions, especially when set against the backdrop of overcrowding and land scarcity. (Rwanda is the most densely populated country in Africa.)[43]

In November of 1990 the government devalued the Rwandan franc by 50 percent at the insistence of the International Monetary Fund (IMF). The devaluation coincided with the commencement of civil war and was coupled with a sharp increase in the price of fuel and other basic consumer goods. It destabilized the economy. Real earnings plummeted, child malnutrition soared, and health and education services all but disappeared.[44]

The Hutu's politically inspired genocidal attack on the Tutsis took the lives of more than one million people in three months. Clearly, not all of the blame can be placed on Rwanda's colonial history of ethnic and economic destabilization. However, these factors set the stage for Rwanda's downward spiral and political unrest. Alarmingly, Rwanda's dire situation is not unique. As we will explore in Part 3, a number of countries around the world share Rwanda's colonial history and are being systematically sundered by transnational corporations and the economic policies of the global power structures and financial institutions.

The resurgence of cholera is a dramatic symptom of development gone amok. However, a far more pervasive symptom is the unyielding high rates of child malnutrition and death. Until health and development policies effectively confront the problems of increasing poverty and deteriorating living conditions millions of children will continue to die from preventable diseases. In order for health workers to achieve lasting gains in the health of their communities, they must address short-term health needs in ways that lay the groundwork for the more far-reaching changes that promote basic human rights and fairer social structures. In the following pages we will attempt to show why this is true and how it can be accomplished.