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Our Socially Divided World

The social and economic gap between the world's richest 1 billion people and its poorest 1 billion has no historical precedent. Not only is this gap wide, it has been widening for half a century. The differences between the world's most affluent and its poorest can be seen in the contrasts in nutrition, education, disease patterns, family size, and life expectancy.

World Health Organization (WHO) data indicate that roughly 1.2 billion people are undernourished, underweight, and often hungry. At the same time, roughly 1.2 billion people are overnourished and overweight, most of them suffering from exercise deprivation. So while a billion people spend their time worrying whether they will eat, another billion worry about eating too much.¹

Perhaps not surprisingly, education levels reflect the deep divide between the rich and the poor. In some industrial countries, more than half of all young people now graduate from college. By contrast, although five centuries have passed since Gutenberg invented the printing press, 875 million adults are illiterate. Unable to read, they are also excluded from the use of computers and the Internet. Because they cannot read or write, their prospects of escaping poverty are not good.²

Disease patterns also reflect the widening gap. The billion poorest suffer mostly from infectious diseases—malaria, tuberculosis, dysentery, and AIDS. Malnutrition leaves infants and small children vulnerable to infectious diseases. Unsafe drinking water takes a heavier toll on those with hunger-weakened immune systems, resulting in millions of fatalities each year. In contrast, among the billion at the top of the global economic scale, it is diseases related to aging, obesity, smoking, and exercise deprivation that take the heaviest toll.³

Close to a billion people live in countries where population size is essentially stable, neither increasing nor decreasing very much. With another group of comparable size living in countries where population is projected to double by 2050, the demographic divide between rich and poor is wider than at any time in history.⁴

Life Expectancy: A Seminal Indicator

Life expectancy is in many ways the best single measure of economic and social progress. Although income per person is widely used, this measures only average wealth, whereas life expectancy also tells us how widely the benefits of progress are distributed. If these benefits are concentrated in a few hands, life expectancy will be short; if they are broadly distributed, life expectancy will be much longer.

After World War II, life expectancy climbed rapidly throughout the world with advances in public health, vaccines, antibiotics, and food production. But as the twentieth century drew to an end, life expectancy was no longer rising everywhere. The HIV epidemic sharply reduced it in sub-Saharan Africa. Without AIDS, sub-Saharan Africa's 700 million people could expect to live to the age of 62, but in fact their life expectancy has dropped to 47 years. And millions of infants born with the virus are likely to die by the age of 5.⁵

In Botswana and Swaziland, 39 percent of all adults are HIV-positive and the infection is continuing to spread. In Botswana, life expectancy was expected to reach 70 years by now but instead is projected to drop to 40 years by 2005. In Zimbabwe, where 34 percent of the adult population was HIV-positive at the end of 2001, life expectancy is projected to drop to 33 years by 2005—half what it would have been without AIDS. For South Africa, where the epidemic started later, 20 percent of the adult population is now HIV-positive. Life expectancy, which would have been 68 years by 2010, instead will be 42 years.⁶

The decline in life expectancy witnessed thus far in Africa is the beginning, not the end, of the epidemic. A combination of the spread of the virus itself, the deterioration of basic health care as AIDS victims overwhelm the health care system, and the associated fall in food production are combining to further reduce life expectancy. For the first time in history, we see an epidemic that claims primarily able-bodied adults, thus creating a situation where disease begets famine and famine begets disease. The result is a life expectancy more akin to those of the Dark Ages than what we envisaged for the twenty-first century.

The Effects of the HIV Epidemic

Since the human immunodeficiency virus was identified in 1981, this infection has spread worldwide. By 1990, an estimated 10 million people were infected with the virus. By the end of 2002, the number had climbed to 68 million. Of this total, 26 million have died; 42 million are living with the virus. Twenty-nine million HIV-positive people today live in sub-Saharan Africa, but only 30,000 are being treated with anti-retroviral drugs; 6 million live in South Asia, with nearly 4 million of them in India.⁷

Infection rates are climbing. In the absence of effective treatment, the parts of sub-Saharan Africa with the highest infection rates face a staggering loss of life. Adding the heavy mortality from the epidemic to the normal mortality of older adults means that countries like Botswana and Zimbabwe will lose half of their adult populations within a decade.⁸

There is no recent historical example of an infectious disease taking such a heavy toll. To find a precedent for such a potentially devastating loss of life from such a disease, we have to go back to the decimation of New World Indian communities by the introduction of smallpox in the sixteenth century or to the bubonic plague that claimed roughly a fourth of Europe's population during the fourteenth century. HIV should be seen for what it is—an epidemic of epic proportions that, if not checked soon, could claim more lives during the early part of this century than were claimed by all the wars during the last century.⁹

The HIV epidemic is not an isolated health care phenomenon. It is affecting every facet of life, every sector of the economy. Food production, already lagging behind population growth in most countries in sub-Saharan Africa, is now falling fast as the number of field workers shrinks. As food production falls, hunger intensifies among the dependent groups of children and elderly. Malnutrition weakens the immune systems of some, the virus weakens the immune systems of others, and some have immune systems weakened by both. The downward spiral in family welfare typically begins when the first adult falls victim to the illness—a development that is doubly disruptive because for each person who is sick and unable to work, others must devote at least part of their time caring for that family member.¹⁰

Expenditures for health care and medicine in families

with falling incomes and shrinking food supplies further exacerbate the dire situation. As savings disappear, productive assets must be sold, including livestock and farm implements. Medical and funeral costs for parents often leave children in debt. Hunger leaves those with the virus more vulnerable to infectious diseases.¹¹

While the economic fallout from the massive loss of young adults is still poorly understood, the epidemic is already beginning to cut into economic activity. Rising worker health insurance costs are shrinking or even eliminating company profit margins, forcing some firms into the red. In addition, companies are facing increasing sick leave, decreased productivity, and the burden of recruiting and training replacements when employees die.¹²

In these circumstances, companies become less competitive in world markets. Incoming capital flows begin to shrink, and economic growth slows or even turns into economic decline. Both exports and imports are reduced, savings decline, and more countries face the prospect of defaulting on their international debt.¹³

Education is also affected. The ranks of teachers are being decimated by the virus. In some countries, such as Zambia, teachers are dying faster than they can be replaced. When one or both parents die, more children stay home simply because there is not enough money to buy books and support them in school. They must fend for themselves. Universities are also feeling the effects. At the University of Durbin in South Africa, 25 percent of the student body is HIV-positive.¹⁴

The effects on health care are equally devastating. In many hospitals in eastern and southern Africa, a majority of the beds are now occupied by AIDS victims, leaving less space for those who need care for traditional illnesses. Doctors and nurses are often stretched to the breaking point. With health care systems now unable to provide

even basic care, the toll of traditional disease is also rising. Life expectancy is dropping not only due to the lives lost to AIDS, but also due to those lost because of the deterioration in health care.¹⁵

The epidemic is leaving millions of orphans in its wake. Sub-Saharan Africa is expected to have 20 million “AIDS orphans” by 2010—children who have lost at least one parent to the disease. There is no precedent for millions of street children in Africa. But the extended family, once capable of absorbing these numbers, is now itself being decimated by the loss of adults, leaving children, often small ones, to fend for themselves. For some girls, the only option is what has come to be known as “survival sex.” Michael Grunwald of the *Washington Post* writes from Swaziland, “In the countryside, teenage Swazi girls are selling sex—and spreading HIV—for \$5 an encounter, exactly what it costs to hire oxen for a day of plowing.”¹⁶

The HIV epidemic in Africa is now a development problem, a matter of whether a society can continue to function as needed to support its people. It is a food security problem. It is a national security problem. It is an educational system problem. And it is a foreign investment problem. Stephen Lewis, the U.N. Special Envoy for HIV/AIDS in Africa, says that the epidemic can be curbed and the infection trends can be reversed, but it will take help from the international community. The failure to fully fund the Global Fund to Fight AIDS, Tuberculosis and Malaria is “mass murder” by complacency. He says, “The pandemic cannot be allowed to continue, and those who watch it unfold with a kind of pathological equanimity must be held to account.”¹⁷

Writing in the *New York Times*, Alex de Waal, an adviser to the U.N. Economic Commission for Africa and to UNICEF, sums up the effects of the epidemic well: “Just as HIV destroys the body’s immune system, the epi-

demic of HIV and AIDS has disabled the body politic. As a result of HIV, the worst hit African countries have undergone a social breakdown that is now reaching a new level: African societies' capacity to resist famine is fast eroding. Hunger and disease have begun reinforcing each other. As daunting as the prospect is, we will have to fight them together, or we will succeed against neither."¹⁸

Poverty and Hunger

Hunger is the most visible face of poverty. The U.N. Food and Agriculture Organization estimates that 840 million of the world's people are chronically hungry. They are not getting enough food to achieve full physical and mental development and to maintain adequate levels of physical activity.¹⁹

The majority of the underfed and underweight are concentrated in the Indian subcontinent and sub-Saharan Africa—regions that contain 1.3 billion and 700 million people, respectively. Twenty-five years ago, the nutritional status of Asia's population giants, India and China, was similar, but since then China has eliminated much of its hunger, whereas India has made considerably less progress. The principal difference has not been so much in the rate of agricultural production as in the rate of population growth. During this last quarter-century China has accelerated the shift to smaller families. While most of the gains in food production during this period in India were absorbed by population growth, those in China went to raising consumption and upgrading diets.²⁰

Sub-Saharan Africa, the other remaining stronghold of hunger, has been plagued with even faster population growth than India. In the last several decades, its population has grown faster than any other in the world.²¹

Malnutrition takes its heaviest toll among the young, who are most vulnerable during their period of rapid

physical and mental development. In both India and Bangladesh, more than half of all children are malnourished. In Ethiopia, 47 percent of children are undernourished and in Nigeria the figure is 27 percent—and these are Africa's two most populous countries.²²

Although it is not surprising that those who are underfed and underweight are concentrated in developing countries, it is perhaps surprising that most of them live in rural communities. More often than not, the undernourished are landless or live on plots of land so small that they are effectively landless. Those who live on the well-watered plains are usually better nourished. It is those who live on marginal land—land that is steeply sloping or semiarid—who are hungry.

The penalties of being underweight begin at birth. A U.N. report estimates that 20 million underweight infants are born each year to mothers who also are malnourished. The study indicates that these children suffer lasting effects in the form of "impaired immune systems, neurological damage, and retarded physical growth."²³

Worldwatch Institute's Gary Gardner and Brian Halweil report that if an infant's weight at birth is two thirds or less of normal, the risk of death in infancy is 10 times greater. They cite David Barker of Britain's University of Southampton, who "observes soberly that 60 percent of all newborns in India would be in intensive care had they been born in California." WHO epidemiological data indicate that 54 percent of deaths from the five leading causes of childhood mortality in developing countries have malnutrition as an underlying condition.²⁴

University of Toronto economist Susan Horton estimates productivity losses among the moderately undernourished at 2–6 percent and among the severely undernourished at 2–9 percent. Gardner and Halweil note that if Horton's calculations for five countries in South

Asia hold for all developing countries, then “between \$64 billion and \$128 billion is drained from developing country economies just from productivity losses.”²⁵

Eradicating hunger in South Asia and sub-Saharan Africa will be difficult, but it is not impossible. It will, however, require a far greater effort and a shift in priorities. India, for example, opted early on to become a nuclear power. As a result, it now has the dubious distinction of being able to defend with nuclear weapons the largest concentration of hungry people in the world.

Poverty and the Burden of Disease

To be poor often means to be sick. Poverty and ill health are closely linked, and they tend to reinforce each other. Health is closely related to access to safe water, something that 1.1 billion people lack. Waterborne diseases claim more than 3 million lives each year, mostly as a result of dysentery and cholera. These and other waterborne diseases take their heaviest toll among children. Infant mortality in the affluent societies averages 6 per thousand; in the 48 poorest countries, it averages 100 per thousand, or nearly 17 times as high.²⁶

Another reason for the close coupling of ill health and poverty is the lack of sanitation. Some 2.4 billion people live in villages or urban squatter settlements with no sanitary facilities at either the household or community level.²⁷

Many of the world’s poor lack knowledge of the basic principles of good hygiene. The poor and uneducated often do not understand the mechanisms of infectious disease transfer and thus cannot take steps to protect themselves. And people with immune systems weakened by hunger are more vulnerable to common infectious diseases. Poverty also means children are often not vaccinated for these routine diseases, even though the cost may be just pennies per child.²⁸

Among the leading infectious diseases, malaria claims more than 1.1 million lives each year, 90 percent of them in Africa. The number who carry this disease and often suffer from it most of their lives is several times greater. Thousands of children die from malaria each day. Economists estimate that reduced worker productivity and other costs associated with malaria are cutting economic growth by a full percentage point in countries with heavily infected populations.²⁹

Nowhere is the evidence that poverty begets disease and disease begets poverty more dramatically illustrated than with the HIV epidemic in Africa, as described earlier. In this case, we are now witnessing the spread of a fatal disease on a scale that is altering the future of a continent. In addition to the continuing handicaps of a lack of infrastructure and trained personnel, Africa must now contend with the adverse economic effects of the epidemic. AIDS has dramatically raised the dependency ratio—the number of young and elderly who depend on productive adults. This, in turn, makes it much more difficult for a society to save. Reduced savings means reduced investment and slower economic growth, or even decline.

The link between poverty and disease is a strong one, but one that has been broken for most of humanity by economic development. The challenge now is to eradicate this link for that remaining minority who do not have access to safe water, vaccines, education, and basic health care.

The High Cost of Illiteracy

Despite a half-century of unprecedented economic and social development, there are still 875 million adults who are illiterate—unable to take advantage of this basic stepping stone to the modern world. Not only is there a huge

number of illiterate adults, but their ranks are being fed by the 115 million children who do not attend school.³⁰

The world's illiterates are concentrated in a handful of the more populous countries, most of them in Asia and Africa. Prominent among these are India, China, Pakistan, Bangladesh, Nigeria, Egypt, Indonesia, Brazil, and Mexico.³¹

Progress in eradicating illiteracy is uneven, to say the least. From 1990 to 2000, China and Indonesia made large gains in reducing illiteracy. Other countries also making meaningful progress were Mexico, Nigeria, and Brazil. However, in four other populous countries—Bangladesh, Egypt, Pakistan, and India—the number of illiterates increased.³²

Worldwide, some 60 percent of illiterate adults are female. In almost all developing countries, the number of illiterate females exceeds the number of illiterate males. In some countries the gap is wide. In Pakistan, for example, 40 percent of males are illiterate compared with 69 percent of females. In India, the gender gap is almost as wide, with 32 percent of males being illiterate and 55 percent of females. These numbers mean that on the Indian subcontinent a majority of women are unable to read or write. For China, it is 8 percent males and 24 percent females. Brazil is the only one of the more populous developing countries where female illiteracy matches that of males, with both at 15 percent.³³

Where there is illiteracy, there is poverty. They tend to reinforce each other simply because illiterate women have much larger families than literate women do and because each year of schooling raises earning power by 10–20 percent. Illiterate women are trapped by large families and minimal earning power. In Brazil, illiterate women have more than six children each on average; literate women have only two.³⁴

Even though Brazil has an average per capita gross domestic product of \$2,600, its 15-percent illiteracy reflects the heavily skewed distribution of income within the society. When Cristovam Buarque took over as Minister of Education in early 2003, he was aghast to discover that 15 members of the Ministry staff were illiterate.³⁵

Those who are not literate are usually not numerate either. Without rudimentary math skills, it is difficult to think quantitatively. A skill that those who are educated take for granted does not exist for many of the world's adults.

It is difficult to have a functioning democracy with a largely illiterate population. Without literacy and a modicum of education, societies are often governed by superstition, making rational democracy difficult. For those who are illiterate, educational horizons and job opportunities are limited.

Environmentally responsible behavior also depends to a great extent on a capacity to understand basic scientific issues, such as the greenhouse effect or the ecological role of forests. Lacking this, it is harder to grasp the link between fossil fuel burning and climate change or between tree cutting and the incidence of flooding or the loss of biological diversity.

Those who never attend school are also often outside the loop in acquiring basic information on nutrition and hygiene. They may have little exposure to HIV education and no understanding of how the disease is spread. Since vaccinations are often administered through schools, those who do not attend classes may not receive these basic shots. If schools provide free lunches, those who are not there will also miss out nutritionally. For the poorer segments of society, this is not a trivial deprivation.³⁶

There are two key components in eliminating illiteracy quickly. One is to make sure that all children are in

school. The second is to teach adults to read and write. Success in the near-term future means waging the war on illiteracy on both fronts.

Literacy is one of many defining social characteristics of a society, and a steppingstone to other improvements, such as better nutrition and better health. It is the key to breaking the self-reinforcing cycle where illiteracy begets poverty and poverty begets large families, trapping people in poverty. The deteriorating relationship between the global economy and the earth's ecosystem requires an all-out effort to bring literacy to all adults in order to break the poverty cycle and to stabilize population.