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Health, Environment, and Poverty

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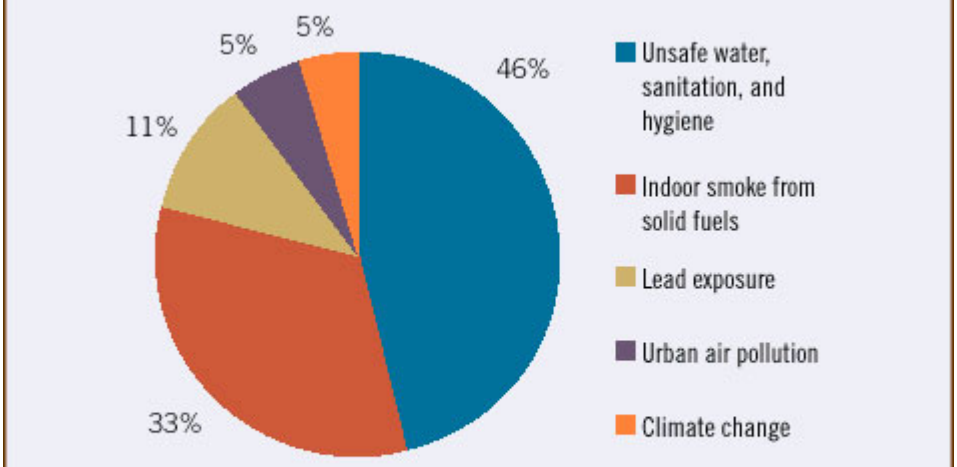
Good health is a basic component of human well-being and a necessity for earning a livelihood. Unfortunately, the poor are much more vulnerable to ill health, and ill health is itself an important factor in reinforcing the poverty cycle. The health vulnerability of the poor has many facets, with environmental exposure being one of these faces.

Health as an Asset

Good health is among the most valuable assets the poor possess. Not only is good health essential to almost any income-generating activity, but most of the other assets of the poor—such as livestock and farmland—yield few returns without the physical capacity to maintain or use them (Barrett and McPeak 2003:8; Lawson 2004:20). Individuals who are sick or disabled are less likely to be hired for wage work, may have difficulty working effectively, and will often be paid less for their services (Narayan et al. 2000:96).

Ill health is not just the lack of an asset, but a negative asset. Having a household member fall ill can destroy a poor family's standard of living. Household and village-level studies show that the illness of a key income-earner—a so-called "health shock"—is one of the leading causes of a household's decline into abiding poverty (Krishna 2004:11; Lawson 2004:3). The immediate loss of income is only the start: health bills can mount quickly and create an urgent need for cash, and since the poor possess few liquid assets that can be used for such emergencies, they may have to sell land or items central to sustaining their livelihoods. Families facing a health shock very often fall into substantial debt, from which they can only emerge with difficulty. One common coping strategy is to pull children out of school and send them to work, depriving them of training they will need in the future to keep themselves out of poverty (Narayan et al. 2000:98).

DALYs attributed to environmental health risks



The Disability-Adjusted Life Year (DALY) is a statistical measure of the human costs of sickness in terms of the number of healthy years lost to illness and disability (Ezzati et al. 2004: 2142-3). Time spent in poor health will translate into a loss of income, making DALY a helpful measure of the impact of health hazards upon the livelihoods of the poor.
Source: Ezzati et al. 2004:2114-45
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Elevated Risk of the Poor

The poor are more likely to suffer serious illness during their lifetime. They tend to live in higher-risk areas, with greater exposures to pollution, disease agents, and natural hazards such as floods. They also tend to work more dangerous jobs and have less access to services than the wealthy. Once ill, they face greater challenges in receiving adequate care. A shortage of trained health personnel and gaps in clinics and hospitals may mean that the poor must travel substantial distances and wait in long lines to receive treatment, particularly in rural areas (Narayan et al. 2000:72, 95; World Bank 2004:135).

Corruption in the public health care sector is also widely reported among the poor in the developing world. Patients may be forced to pay for services and medicines that should be free, and are turned away or given inferior care if they cannot afford to pay (Narayan et al. 2000:102; World Bank 2001:83). In Pakistan, a survey found that 96 percent of patients reported some type of corruption associated with visiting the local hospital, such as having to

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pay extra for beds, X-rays, tests, or medicines (Transparency International 2002:22). As a result, the public health care system is often the last resort of the poor, and many avoid using it at all (Narayan et al. 2000:100; Narayan and Petesch 2002:33-34).

Hunger

Malnutrition is the leading health risk among the poor, accounting for 1 in 15 deaths globally (WHO 2002:54). Of the 1.1 billion people living below the "dollar-a-day" threshold, 780 million suffer from chronic hunger (FAO et al. 2002:8). Because they are often marginalized in society, women and female children in particular may eat last and eat less than the principal breadwinner in the family. Undernourishment of women and children alone accounts for almost 10 percent of the global burden of disease (WHO 2002:54; Economist 2004:68).

Hunger is not only an outcome of poverty but a prime cause for remaining in poverty. Chronically hungry people are less productive at whatever labor they are able to obtain, and thus find it harder to accumulate the financial capital they need to take them out of poverty (FAO et al. 2002:10). The effects of poverty reach across generations as well. Children suffering from malnutrition may suffer physical stunting and impeded cognitive development, and are more susceptible to other forms of disease, both during youth and later in life. An estimated 40-60 percent of children in developing countries suffer from iron deficiencies severe enough to impede cognitive development (Economist 2004:68; WHO 2001:7-8). These disabilities are likely to limit their capacity to generate income in the future, extending the cycle of poverty for yet another generation (FAO 2002:10; WHO 2002:53).

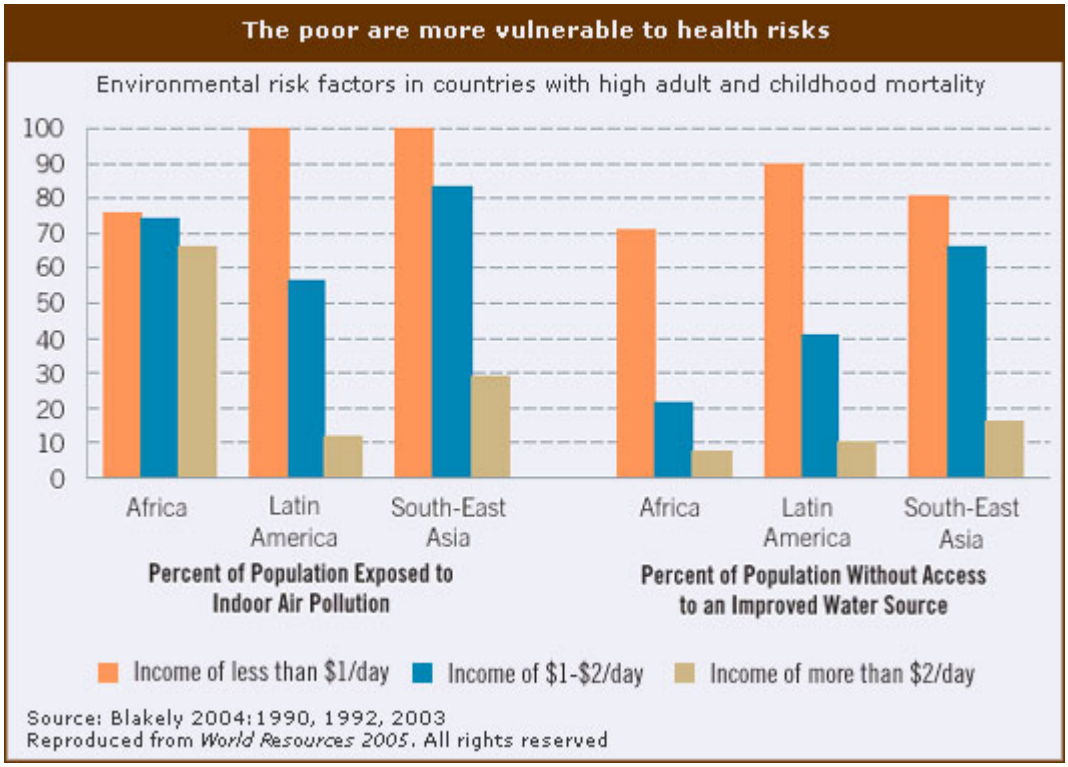
Environmental Health

Environmental hazards comprise a significant portion of the health risks facing the poor. By one estimate, environmental causes account for 21 percent of the overall burden of disease worldwide (the combination of days spent sick and deaths due to sickness) (WHO 2002 in Cairncross et al. 2003:2). Acute respiratory infections and diarrhea rank among the highest contributors to the disease burden in the developing world, and these are mostly diseases of the poor (WHO 2002:83).

A disproportionate share of environmental health risk is borne by the very young. Although children under five constitute just 10 percent of the world's population, they suffer 40 percent of the environment-related burden of disease. Diarrhea, caused by unclean water and inadequate sanitation, is responsible for the deaths of an estimated 1.8 million people worldwide each year, 1.6 million of which are children under five (Gordon et al. 2004:14).

Respiratory ailments are caused in large part from exposure to high levels of indoor smoke from cooking with dung, wood, or other biomass fuels. More than half the world's population— 3.5 billion people—currently depend on such fuels as their main energy source (Desai 2004:vii). Analysis by the International Energy Agency shows that this dependence will likely increase in the years ahead, with an additional 200 million people—most of them poor—relying on these fuels by 2030 (IEA 2002:30).

Indoor air pollution is linked to over 1.6 million deaths a year,



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500,000 of them in India alone. More than half of those who die of respiratory infections related to indoor air pollution are children under the age of five (Warwick and Doig 2003:2). In urban areas, ambient air pollution from auto exhaust, industrial smoke stacks, dust, and other particulates is also a significant health risk. Ambient air pollution causes some 800,000 deaths a year, most of them in the developing world (WHO 2002:69).

Looking to the future, climate change comprises a considerable environmental health risk, since it can intensify existing environmental health threats. Vector-borne diseases such as malaria, dengue fever, schistosomiasis, and Chagas disease could expand their ranges as temperature and rainfall patterns change. Mosquitoes are among the first organisms to expand their range when climate conditions become favorable, so cases of malaria and dengue fever may increase their already heavy toll among the poor (WRI et al.1998:70). Diarrheal organisms are also sensitive to changes in temperature and humidity, with the health risk they pose increasing as average temperatures rise. A study in Peru found that hospital admissions for diarrhea increased as much as 12 percent for every 1 degree C increase in temperature (McMichael et al. 2003:215). On a broader scale, the World Health Organization estimates that in 2000, climate change was responsible for 2.4 percent of all cases of diarrhea and 2 percent of all cases of malaria worldwide (WHO 2002:72).

The Scourge of AIDS

AIDS poses one of the most potent health threats to poor households. High rates of infection are common in many of the poorest nations in Africa and Asia, and the disease has begun to ravage rural household economies in many areas. When AIDS strikes a family member—particularly a key wage-earner—it administers the kind of health shock that often drives the family into profound poverty. In the Tanzanian village of Kagabiro, households with an AIDS patient spent between 29 and 43 percent of household labor on AIDS-related duties— time that previously was available for earning money (Tibaijuka 1997 in Stover and Bollinger 1999:5). A study in Côte d'Ivoire found that when a family member with AIDS died or moved away for treatment, average consumption in the family fell by as much as 44 percent the following year due to loss of income (Bechu 1998 in Stover and Bollinger 1999:4). Research on AIDS-afflicted families in rural Ethiopia found that the average cost of medical treatment, funeral, and mourning expenses amounted to several times the average household income (Demeke 1993 in Stover and Bollinger 1999:4). AIDS also has profound effects on food security. In eastern Africa, AIDS-related labor shortages have led to lower crop yields, smaller amounts of land being cultivated, and a move from cash crops to subsistence crops, as the rural agricultural economy retrenches.

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