

In 2000, 55.7 million people died around the world, succumbing to a wide range of illnesses and conditions.¹ (See Table 1.) Cardiovascular diseases, including various chronic heart conditions and stroke, were the largest cause—killing 16.7 million people.² Infectious and parasitic diseases, including AIDS, tuberculosis and respiratory infections, malaria, and diarrheal diseases, were the second largest, taking 14.4 million people.³ And cancers were the third, responsible for 6.9 million deaths.⁴

On the broadest scale, the two population groups at opposite ends of the income scale—the affluent and the impoverished—are dying

from very different diseases.

LINKS
pp. 68, 70, 106

Infectious diseases primarily plague the developing world, especially people earning less than \$2 a day, who cannot afford clean water, sanitation, or nutritious food.⁵ People in Africa and Southeast Asia are the most gravely affected by these: they account for 75 percent of the deaths from infectious diseases, but just 36 percent of the world's population.⁶ In contrast, cardiovascular diseases and cancers primarily affect those who consume too many unhealthy foods, tobacco, alcohol, and drugs, and who lead sedentary lifestyles—primarily Europeans and Americans.⁷ They account for 42 percent of cardiovascular diseases and cancers, yet only 28 percent of the world's population.⁸

Underlying such overt causes as infectious and cardiovascular diseases are a number of risk factors for these illnesses. In 2002, the World Health Organization identified several major risks and assessed the contribution of each to global mortality.⁹ Of course, risk factors do not act exclusively—for instance, diarrheal diseases can be caused jointly by poor sanitation and poor nutrition. Thus, adding risk factors results in high-end estimates. Even as such, the WHO analysis conveys the significant impact consumption has on mortality. Indeed, in 2000, overabundant consumption of resources accounted for up to 46 percent of mortality, while lack of access to resources accounted for up to 23 percent of deaths—roughly 99 percent of which occurred in the developing world.¹⁰

In the developing world, where people often lack access to clean fuels and well-ventilated shelter, the use of such solid fuels as coal, wood, and dung for cooking and heating caused 1.6 million deaths by triggering respiratory infections and lung diseases.¹¹ Unsafe sex, mainly through spreading HIV or a lack of contraception, killed 3 million people in 2000—75 percent of whom lived in Africa.¹² Due to lack of access to education, condoms, and health care, HIV is growing unchecked throughout this continent, with more than 3.5 million people newly infected in 2002.¹³

Dietary deficiencies, including lack of calories, protein, iron, zinc, and Vitamin A, produced up to 6.2 million deaths, mostly in children and women of reproductive age—primarily by weakening the immune system, thus increasing susceptibility to infectious diseases.¹⁴ The lack of access to clean water and sanitation led to 1.7 million deaths in 2000, the vast majority from diarrheal diseases.¹⁵ Of these deaths, 99.8 percent occurred in the developing world, and 90 percent of the victims were children.¹⁶

Improving the allocation of health resources and sanitation would dramatically reduce infectious disease deaths. Currently, almost 30 million of the 130 million children born each year do not receive vaccinations.¹⁷ Immunizing every child would prevent 3 million deaths each year, while costing just \$1.3 billion more than the world currently spends annually on vaccinations—far less than the costs of long-term treatment and disability.¹⁸ Providing access to sanitation to just half of the 3 billion people who currently lack it would reduce the number of years of lost life by 30 million, at a cost of just \$37.5 billion over 10 years.¹⁹

In the industrial world, deaths brought about by lack of access to resources accounted for just 1 percent of deaths.²⁰ People in these countries suffered primarily from diseases related to poor dietary and lifestyle behaviors.²¹

High blood pressure, high cholesterol, being overweight, and eating too few fruits and vegetables together caused up to 7.6 million deaths in industrial countries by increasing the risk for a number of diseases,

including stroke, heart diseases, cancer, and diabetes.²² These conditions are primarily triggered by a diet too high in salt, sugar, fat, and calories; as these increase in the diet—often in the form of processed foods—they displace healthier, less convenient foods, such as fresh fruits and vegetables.²³

Physical inactivity exacerbates poor dietary behaviors and contributed to 855,000 deaths in industrial countries by increasing rates of heart disease, cancer, and diabetes.²⁴ The use of addictive substances only compounds the problems caused by poor diet and lack of exercise. Tobacco and alcohol use cause heart disease, stroke, and cancers and were responsible for 3 million deaths in the industrial world.²⁵

These problems do not plague only the industrial world. More people die from overconsumption in developing countries (up to 14.3 million) than in industrial ones.²⁶ And even in high-mortality developing countries, where poor sanitation and dietary deficiencies account for up to 42 percent of deaths, overconsumption now accounts for up to 27 percent of mortality.²⁷ As conditions in the developing world improve, those living there often undergo a “risk transition”: increases in income provide more access not only to food and clean water but also to processed foods and to tobacco, alcohol, and drugs; together these shift the disease burden from infectious to chronic diseases.²⁸ In low-mortality developing countries, where poor sanitation and undernourishment are less of a problem, overconsumption now causes up to 45 percent of deaths.²⁹

A few countries have successfully countered the poor health that stems from the increases in unhealthful consumption that can accompany growing affluence. South Korea, for example, has minimized obesity by promoting its traditional diet—high in rice and vegetables and low in fats, salt, and sugar—through a combination of education, support for local farming, and mass media campaigns.³⁰

Two decades after going through a nutritional transition in the 1950s, Finland suffered from one of the highest rates of cardiovascular disease

Table 1: Global Mortality by Cause, 2000

Cause of Death	Number (thousand)	Share of Total (percent)
Cardiovascular diseases	16,701	30.0
Infectious and parasitic diseases	14,398	25.9
Cancers	6,930	12.4
Maternal and perinatal conditions and congenital abnormalities	3,591	6.4
Chronic respiratory diseases	3,542	6.4
Unintentional injuries (such as auto accidents)	3,403	6.1
Digestive diseases	1,923	3.5
Neuropsychiatric disorders	948	1.7
Violence and war	830	1.5
Genitourinary diseases	825	1.5
Suicide	815	1.5
Diabetes	810	1.5
Nutritional deficiencies and disorders	669	1.2
Other	309	0.6
Total	55,694	100

Source: World Health Organization.

in the world.³¹ In the 1970s, the government worked with health experts, the food industry, and local communities to reverse this trend, and by 1995 the program had reduced heart disease deaths by 65 percent.³²

Yet South Korea and Finland represent exceptional cases. Most governments have not faced the epidemic of overconsumption in their societies and will need to work aggressively if they are to prevent rapid growth in mortality in the coming decades.

CONSUMPTION PATTERNS CONTRIBUTE TO MORTALITY (pages 108–09)

1. World Health Organization (WHO), *The World Health Report 2001* (Geneva: 2001), pp. 144–49. Mortality figures for 2001 show much the same pattern; data for 2000 are used here for comparison purposes, as WHO's detailed analysis by risk factor was done with data for the earlier year.
2. WHO, op. cit. note 1.
3. Ibid.
4. Ibid.
5. WHO, *The World Health Report 2002* (Geneva: 2002), p. 51.
6. WHO, op. cit. note 1, pp. 144–49.
7. WHO, op. cit. note 5, p. 57.
8. WHO, op. cit. note 1, pp. 144–49.
9. WHO, op. cit. note 5, pp. 224–27.
10. Ibid.
11. Ibid., pp. 69–70.
12. Ibid., p. 226.
13. Joint United Nations Programme on HIV/AIDS (UNAIDS) and WHO, *AIDS Epidemic Update* (Geneva: UNAIDS, 2002), p. 35.
14. WHO, op. cit. note 5, pp. 52–56.
15. Ibid., p. 68.
16. Ibid.
17. Global Alliance for Vaccines and Immunization, “Immunize Every Child: GAVI Strategy for Sustainable Immunization Services,” at <www.gaviforum.org/forum/bb2/1-1_every_child.pdf>, viewed 31 January 2003.
18. Ibid.
19. Number without sanitation from Peter Gleick, “The Human Right to Water,” *Water Policy*, vol. 1, no. 5 (1999), pp. 487–503; cost from WHO, op. cit. note 5, p. 128. WHO derived this cost using purchasing power parity, not market rates. Years of lost life refers to DALYs (disability-adjusted life years).
20. WHO, op. cit. note 5, p. 86.
21. Ibid.
22. Ibid., p. 226.
23. Judy Putnam et al., “Per Capita Food Supply Trends: Progress Toward Dietary Guidelines,” *FoodReview*, September–December 2000, pp. 2–14.
24. WHO, op. cit. note 5, p. 226.
25. Ibid.
26. Ibid., p. 86.
27. Ibid.
28. Risk transition from *ibid.*, pp. 4–6; Barry Popkin, “An Overview on the Nutrition Transition and Its Health Implications: The Bellagio Meeting,” *Public Health Nutrition*, February 2002, pp. 93–103.
29. WHO, op. cit. note 5, p. 86.
30. Soowon Kim, Soojae Moon, and Barry M. Popkin, “The Nutrition Transition in South Korea,” *American Journal of Clinical Nutrition*, January 2000, pp. 44–53.
31. Puska Pekka et al., “Influencing Public Nutrition for Non-Communicable Disease Prevention: From Community Intervention to National Programme—Experiences from Finland,” *Public Health Nutrition*, February 2002, pp. 245–51.
32. Ibid.