An Indian woman of the Bondo Poroja tribe winnows rice that has just been harvested. Rice is a staple throughout much of Asia, but if it is the primary source of calories in a person’s diet, it can lead to malnutrition. In India, millions of children are malnourished not because they lack enough calories to eat, but because they eat an undiversified diet that is devoid of some crucial nutrients.
Ram, a forty-five-year-old husband and father of three, lives in a rural village in India’s most populous state, Uttar Pradesh. He is a shoemaker with just a second-grade education, and he can barely read. Ram is diminutive, having been malnourished for years as a child, but at least he is alive. Two of his eight siblings did not see their fifth birthdays, one of them dying of diarrhea in the 1970s and the other of measles in the early 1980s. Unsanitary conditions and the lack of trained health professionals in his village contributed to both calamities.

Fortunately, Ram’s three teenage children have had a better lot. All three of them have completed primary school, and one is finishing up secondary schooling in a nearby town with dreams of landing a plum government job. They have also avoided major health catastrophes, and Ram never experienced the misfortune his parents did of losing a child, in part because the village now has piped water and a health clinic. Still, struggles remain. Ram’s children, although seemingly well fed, ate a diet in their youth that lacked in protein. As a result, they, like their father, are undersized. Moreover, while Ram is proud of his children’s educational achievements, he is the first to express frustration at the quality of the education they received in the village. Teachers frequently did not show, and Ram is convinced that they discriminated against his kids for being members of a scheduled “lower” caste.

Ram’s family embodies the recent development tragedies and triumphs of not just India but of much of the less developed world. Quality of life is improving, as evidenced by the better health and educational outcomes of Ram’s children in comparison to those of himself and his siblings. Yet it remains far below that of high-income countries on a number of grounds, as evidenced by their malnourishment and low-quality education.
This chapter describes the nature of health and education in the developing world. In doing so, it introduces and illustrates the concept of human development, a notion that envisions development not just as economic progress and income gains, but also as improvements in health, education, and other forms of social development. The chapter conducts two kinds of comparisons in describing health and educational outcomes in the global South. One is a snapshot or cross-sectional comparison that contrasts today's South with today's West. This approach portrays the clear social deficits between the developing and less developed worlds that are so visible and, to many, so discouraging in the contemporary global scene. The “snapshot” sections also point out how disparities within countries, particularly between urban and rural areas, are sharper in LDCs than in high-income countries. The other type of comparison appears in the “trends” sections, which conduct longitudinal comparisons to assess changes within the developing world through time. This perspective paints a far more optimistic picture, one of major improvement in human development within the global South over the past fifty years.

Defining Human Development

Underdevelopment is more than an economic status. For example, being poor entails more than just the inability to procure the modern amenities that a high income affords, such as personal computers, automobiles, and spacious houses. Economic underdevelopment also accompanies poor health, undereducation, and a frustrating lack of self-fulfillment. These are the fundamental aspects of human development.

The Human Development Approach

A leading body of scholarly thought on the noneconomic aspects of underdevelopment is the human development approach, also called the capabilities approach. Pioneered by philosopher Martha Nussbaum and economist Amartya Sen, the human development approach holds that low-income or economic poverty is important because it is a source of the broader and more important problem of capability deprivation. Capabilities are substantive freedoms—that is, a set of opportunities that persons can choose that allows them to be who they want to be and do what they want to do. Capabilities include the opportunities to live, to be educated formally, to have nourishment, and to be professionally treated when sick or disabled. Capability deprivation (sometimes called human poverty) exists when one faces a lack of freedom to pursue these fundamental opportunities and, thus, to live the kind of life one has reason to value. To Nussbaum and Sen, the goal of social and economic progress should be to advance human development, which is the process of removing substantive unfreedoms, such as the inability to eat healthy food, to pursue an education, or to see a qualified doctor or nurse when sick.

Central capabilities are those that are considered particularly important for human fulfillment, in part because they are fertile in building capabilities in multiple areas of life. While advocates of the capabilities approach do not universally agree on what the list of central capabilities should be, there is consensus that healthiness and formal education are among the most fundamental capabilities for achieving human potential—hence the focus of this chapter. Premature death is the antithesis of human fulfillment, but nonfatal health problems such as chronic pain, preventable disabilities, recurring sickness, and malnourishment also hinder the ability of humans to live fulfilled and creative lives. Health problems are also detrimental to earning power and financial livelihood. An unexpected sickness can be devastating to a family's budget, and maladies such as malaria and chronic malnutrition stunt a person's productivity and brain development. Formal education is also a fertile capability as it creates a broader array of employment opportunities and career choices, as well as personal economic independence. Education also grants the ability to
communicate and participate more effectively in one's society, and it improves health outcomes by making people more knowledgeable about modern medicine. Other capabilities that are central to most conceptualizations of human development include group equality, gender equity, and political rights, all of which are discussed in later chapters.

The Complex Relationship between Economic and Human Development

In general, rich countries have contexts that provide wider options for human fulfillment than LDCs. To Sen, “The process of development . . . is not essentially different from the history of overcoming . . . unfreedoms.” Economic development contributes substantially to enhancing capabilities since low personal and societal incomes are associated with restricted opportunities and limited potential for human fulfillment. On average, rich countries have better health and education outcomes, as well as greater political freedom and gender equality, than poor ones.

That said, human development and economic development are conceptually and empirically distinct. On a conceptual level, human development values education, health, social equality, and political freedoms for their own right, not just as a means to greater material wealth. Indeed, the approach flips standard economics on its head: “Improvements in health, education, and security are what we want from development, while income is just a tool to help achieve them.” On an empirical level, economic and human development, although correlated with one another, do not always march hand in hand. Major advances in human development have often occurred in lieu of economic growth. Most telling is the fact that, over the last forty years, health and education outcomes have improved throughout the developing world, and, on average, they have improved just as rapidly in countries with slow-growing economies as in those with fast-growing ones. Indeed, whereas Chapter 1 painted a picture of material divergence around the globe during the era of modern economic growth, a focus on human development reveals a far more optimistic pattern. Due to gradual improvements in health and education, much of the developing world is converging toward rich-world qualities of life, leading some observers to conclude that “global development is succeeding.” Some of the evidence for this is presented below.

Health Snapshot: Description and Causes of the Developing World’s Deficit

Good health is the most important aspect of human development. This section introduces some indicators of health and uses them to illustrate differences in health quality across world regions. The comparisons reveal one of the major human development deficits between LDCs and the West, although the size of the deficit varies by region. The section then describes the precise nature and immediate causes of various health problems.

Key Health Indicators: Life Expectancy and Child Mortality

Perhaps the most important overall measure of a society’s health is its life expectancy at birth, which is the average number of years that newborns are expected to live if current mortality patterns prevail for their entire lives. Longer life expectancies mean fewer premature deaths are occurring, with more people living into old age and dying of natural causes. For the globe as a whole, life expectancy at birth is around seventy years, and in the developed world, average life expectancies are seventy-five or above. In contrast, they are quite a bit lower in South Asia and Southeast Asia, where they typically lie between the high fifties and mid-sixties, and they are a good deal lower in sub-Saharan Africa, where most countries have life expectancies in the forties.
Aid agencies that provide humanitarian assistance to improve health and education outcomes in less developed countries are legion. They range from major international governmental organizations affiliated with the United Nations (UN) to small groups run by a single director. The premier health organization worldwide is the World Health Organization (WHO), a specialized agency of the UN that coordinates major health initiatives. For example, the WHO plays a leading role in overseeing efforts to combat communicable diseases such as malaria, HIV/AIDS, and polio. UNAIDS plays a more focused role to achieve its declared goal of zero new HIV infections and AIDS-related deaths. The UN Educational, Scientific, and Cultural Organization (UNESCO) administers a multi-organization effort called Education for All (EFA) to make major improvements in educational access and quality, as well as literacy, by 2015. Finally, the UN Development Programme (UNDP) is the agency most associated with the capabilities approach, as it promotes a wide array of development goals and publishes an annual report that tracks human development worldwide.

Private organizations are also plentiful and range greatly in size. The Bill and Melinda Gates Foundation has a multibillion-dollar endowment from which it makes grants to humanitarian groups that are often (although not exclusively) involved in improving LDC health. Among other things, the Gates Foundation funds research and dissemination of vaccines. On a much smaller scale, philanthropist Greg Mortenson founded the Central Asia Institute to build schools in remote mountain communities of Afghanistan and Pakistan. Other small humanitarian groups devoted to health and education number in the thousands.

Although they engage in philanthropic and humanitarian work, these groups are not beyond criticism. Some are accused of having excessive administrative costs, meaning a high share of their revenues (which largely come from charitable donations) goes toward employee salaries, marketing, and other operating costs rather than toward the advertised humanitarian purposes. For example, one study alleged that fully half of all the UNDP’s revenue went toward employee salaries. Lack of transparency and accountability are other commonly cited problems, as many of these organizations do not keep or publicize financial records about how donations are used. For instance, Mortenson has faced heated allegations of mismanaging donations, including the charge that he used them to promote book sales for personal gain.

or low fifties. That said, many countries classified as less developed have life expectancies that are in the low seventies and thus quite close to those enjoyed in the developed world. In China and most nations of the Middle East and Latin America, the life expectancy gap with the developed world is less than ten years. In 2010, Brazil’s was 72.9, China’s was 73.5, and Egypt’s was 70.5, all within a decade of that in the United States (79.6). Map 2.1 reports life expectancies for every country.

Two other leading indicators of a society’s health are its child and infant mortality rates. Child mortality, or under-five mortality, is the death of a child before her or his fifth birthday.
Every year, around 10 million children die before their fifth birthdays; more than 1,000 child deaths occur worldwide every hour. Almost all of these deaths are considered to be preventable in the sense that they would not have occurred had the child been born in a high-income country. Seventy percent of these deaths are cases of infant mortality, in which the fatality occurs before the child’s first birthday. Experts define a country’s child and infant mortality rates as the number of deaths that occur per 1,000 live births. Across the developing world, the child mortality rate is around 75 deaths per 1,000 live births, whereas in the developed world it is just seven. Sub-Saharan Africa has the world’s most severe rates of child mortality, as fully half of all instances of child mortality occur there despite its having less than 15 percent of the world’s population. Africa has thirty countries where more than 10 percent of children die before they turn five. Figure 2.1 reports child and infant mortality rates by world region.

Another characteristic of LDCs is that urban-rural disparities in human development are sharp. Rural residents tend to have shorter lives and run a higher risk of experiencing child mortality than their compatriots in the cities. For example, in Cambodia’s capital city, Phnom Penh, the infant mortality rate is thirteen deaths per 1,000 births, on par with that prevailing throughout much wealthier countries such as Thailand and Uruguay.
Chapter 2

The Immediate Causes of Poor Health Outcomes

What are the immediate causes of the shorter life spans, higher rates of child mortality, and other health problems in the less developed world? This section gives biological, social, and economic answers to this question, looking at the higher prevalence of malnutrition and infectious diseases and then moving to the lack of funding for and information about modern health techniques.

Malnutrition. Malnutrition is a condition in which the body does not receive enough nutrients. In LDCs, malnutrition has two major causes. The most obvious is insufficient caloric intake, estimated to be the cause of malnutrition in a billion people. In contrast, rates range from fifty to ninety deaths in its rural provinces.12

Life expectancy and child mortality indicators capture life-and-death matters, yet disparities between rich and poor countries also exist across a wide array of other health problems. One example is stunting, which is a severely slowed rate of body and brain development in children. In a variety of countries throughout sub-Saharan Africa and South Asia, between 15 percent and 25 percent of children have stunted development and are thus much shorter, thinner, and cognitively delayed than are healthy children. By some measures, Pakistan has the highest rate of stunting in the world at 30 percent.13 Moreover, many less life-threatening problems are more prevalent in LDCs than in developed countries. Life without modern dental care, corrective eyewear, anesthesia, pain relief, the setting of fractured bones, prosthetic limbs, orthopedic surgery, and so on is an important reality for many in the global South.

Life without modern dental care, corrective eyewear, anesthesia, pain relief, the setting of fractured bones, prosthetic limbs, orthopedic surgery, and so on is an important reality for many in the global South.

In contrast, rates range from fifty to ninety deaths in its rural provinces.12

Life expectancy and child mortality indicators capture life-and-death matters, yet disparities between rich and poor countries also exist across a wide array of other health problems. One example is stunting, which is a severely slowed rate of body and brain development in children. In a variety of countries throughout sub-Saharan Africa and South Asia, between 15 percent and 25 percent of children have stunted development and are thus much shorter, thinner, and cognitively delayed than are healthy children. By some measures, Pakistan has the highest rate of stunting in the world at 30 percent.13 Moreover, many less life-threatening problems are more prevalent in LDCs than in developed countries. Life without modern dental care, corrective eyewear, anesthesia, pain relief, the setting of fractured bones, prosthetic limbs, orthopedic surgery, and so on is an important reality for many in the global South.

Malnutrition. Malnutrition is a condition in which the body does not receive enough nutrients. In LDCs, malnutrition has two major causes. The most obvious is insufficient caloric intake, estimated to be the cause of malnutrition in a billion people. Full-scale famines are mercifully rare in the modern world and tend to be associated with extreme events such as war or natural disaster. Yet millions of people simply cannot afford or access the necessary minimum number of calories. Another billion suffer from a less obvious form of malnutrition called hidden hunger. Hidden hunger occurs in a person that consumes a sufficient number of calories, but the calories are lacking in necessary nutrients such as vitamin A, iodine, iron, or protein.14 In this sense, the person is eating the wrong foods. Many malnourished people do not even know of their condition since they are eating regular meals. For example, although malnutrition is widespread in India, just 2 percent of the population says it lacks enough food.15 A contributing factor to hidden hunger can also be a body’s failure to properly utilize nutrients once they are consumed, with diarrhea and intestinal worms being the most common causes of this nutrient malabsorption.
The World Health Organization (WHO) sees malnutrition as the single greatest threat to global public health because of the large number of complications that go with it. Indeed, Jean Drèze and Sen call it a “many-headed monster.” Most dramatically, malnutrition is present in at least 35 percent of child mortality cases. Moreover, half a million children worldwide are blind because of vitamin A deficiency. Iron deficiency can cause anemia, which is life threatening in pregnant women and can cause mental retardation. On top of these specific ailments, malnutrition weakens the immune system, making individuals susceptible to infectious diseases. It causes lethargy, which makes children less attentive in school and workers less efficient. Malnutrition is also the main source of stunting, causing irreversible damage if experienced in the first 1,000 days of life. It can even affect children through their mothers since malnourishment in pregnant women can lead to low birth weight, stunting, or infant mortality. For all of these reasons, some experts see malnutrition as the cause of a poverty trap in LDCs: poverty causes malnourishment, which in turn makes the poor less productive, which in turn keeps them impoverished.

Infectious Diseases and Poor Water Infrastructure. Developing world populations suffer from a high burden of infectious diseases (also communicable diseases), which for this reason are sometimes called diseases of poverty. An infectious disease is one resulting from the presence in the body of a harmful microorganism. Examples include malaria, tuberculosis, cholera, AIDS, measles, and influenza. Infectious diseases are the primary cause of premature death in LDCs. Indeed, four of the five main causes of child mortality are infectious diseases: diarrhea, acute respiratory infections (mainly influenza and pneumonia), measles, and malaria. In contrast, the vast majority of citizens in the developed world die from noncommunicable diseases such as heart disease, cancer, and diabetes, and these diseases are thus called diseases of affluence. To illustrate, only 28 percent of sub-Saharan Africans die of noncommunicable diseases, compared to 87 percent of Westerners.

A primary reason for the greater incidence of infectious disease in LDCs is the suboptimal water infrastructure. In particular, LDCs have shortages of improved water sources that provide clean drinking water and improved sanitation systems that reliably separate people from their bodily waste. Many contagious diseases, such as cholera and rotavirus, are waterborne or passed among persons through contact with feces. Water that is soiled by human waste or other contaminants and then used for drinking, bathing, cooking, or swimming is a leading means of contracting harmful communicable diseases. Most of the time, the person with the disease suffers a few days of diarrhea and survives, but in some cases the diarrhea causes dehydration, electrolyte imbalance, and death. Indeed, diarrhea from these and other infectious diseases are involved in 20 percent of child mortality cases, killing around 1.5 million children per year. Besides diarrhea, a similar family of infectious diseases caused by intestinal worms (hookworm, roundworm) is also common where water quality and sanitation are poor. Intestinal worms infect millions of children throughout rural Africa. Although they are rarely fatal, they cause health problems such as abdominal pain and malnutrition that keep children from attending school and workers from going to their jobs.

Worldwide, an estimated 1 billion people do not have even remotely clean freshwater within one kilometer of their residence, and another 2 billion have it within one kilometer but not through a household tap. Both sets of persons must use untreated water fetched from streams, ponds, wells, rainwater collectors, or other sources, and they thus risk exposure to harmful pathogens. The inability to easily access an improved water source is a more widespread problem in rural than in urban parts of LDCs. That said, even in the cities of many middle-income countries where household connections are common, tap water is not sufficiently treated by utility providers to be trusted to drink. Instead, users rely on expensive bottled water.
Proper sanitation is even scarcer than clean drinking water in the developing world. It has been said that “the toilet has saved more lives than any other health device,” since its primary function is to immediately distance humans from the dangerous microbes in their waste. Despite this, a majority of the world’s people lack access to Western sanitation standards, defined as a flush toilet that dumps excreta into a sewer system that in turn treats the wastewater. Instead, fully 1 billion people worldwide defecate outdoors in a nearby field, ditch, forest, or body of water, risking the exposure of themselves and others to the pathogens in their feces. People in urban slums who use “flying toilets,” in which one defecates into a bag and simply leaves it or tosses it in the street, are also part of this category. Another 1 to 2 billion people use various types of latrines—communal bathrooms that store the waste underground in a pit or a tank. Latrines are a notch up in safety from open-field defecation since they collect and hold waste in a central location that individuals naturally avoid. By some estimates, they reduce diarrheal illness by as much as 50 percent. Still, because they can allow waste to contaminate groundwater that may ultimately be drunk by humans, latrines are not as safe as the flush toilet. Of course, billions of developing world residents do have access to flush toilets that dump into public sewers, but even here exposure to feces can occur since utility companies in most LDCs do not treat wastewater before dumping it into rivers, lakes, and oceans.25 For all of these cases, whether open-field, latrine, or toilet defecation occurs, waterborne diarrheal diseases can still be contracted if users do not have a nearby place to wash their hands.

Figure 2.2 shows the share of populations in each world region that lack improved water and sanitation. Proper sanitation is even scarcer than clean drinking water in the developing world. It has been said that “the toilet has saved more lives than any other health device,” since its primary function is to immediately distance humans from the dangerous microbes in their waste. Despite this, a majority of the world’s people lack access to Western sanitation standards, defined as a flush toilet that dumps excreta into a sewer system that in turn treats the wastewater. Instead, fully 1 billion people worldwide defecate outdoors in a nearby field, ditch, forest, or body of water, risking the exposure of themselves and others to the pathogens in their feces. People in urban slums who use “flying toilets,” in which one defecates into a bag and simply leaves it or tosses it in the street, are also part of this category. Another 1 to 2 billion people use various types of latrines—communal bathrooms that store the waste underground in a pit or a tank. Latrines are a notch up in safety from open-field defecation since they collect and hold waste in a central location that individuals naturally avoid. By some estimates, they reduce diarrheal illness by as much as 50 percent. Still, because they can allow waste to contaminate groundwater that may ultimately be drunk by humans, latrines are not as safe as the flush toilet. Of course, billions of developing world residents do have access to flush toilets that dump into public sewers, but even here exposure to feces can occur since utility companies in most LDCs do not treat wastewater before dumping it into rivers, lakes, and oceans.25 For all of these cases, whether open-field, latrine, or toilet defecation occurs, waterborne diarrheal diseases can still be contracted if users do not have a nearby place to wash their hands.

Figure 2.2 shows the share of populations in each world region that lack improved water and sanitation.
sanitation. The figure reports percentages for both urban and rural populations, highlighting the degree to which the latter in LDCs lag in this health-related factor. By one estimate, extending modern water infrastructure to the millions that do not have it would reduce the incidence of diarrhea by an estimated 95 percent and save billions of dollars spent on treating the ailment.²⁶

Others Causes of Infectious Disease. Another reason for the prevalence of infectious disease in LDCs is the more limited dissemination of vaccines (also called vaccinations or immunizations), which are treatments that make one immune to a certain disease. For example, two leading killers of children worldwide are measles and tuberculosis, both infections of the respiratory system. Measles and tuberculosis are highly contagious because they can be communicated through salivary drops that travel through the air. Death from either is extremely rare in developed countries because more than 90 percent of children are immunized via injections they receive from a health professional in infancy. In contrast, in many LDCs, only 60 to 80 percent of children are immunized against measles, leaving millions vulnerable.²⁷

Infectious diseases are also particularly problematic in the developing world because a host of maladies called tropical diseases exist in warm climates, where poor countries tend to be located, but not in temperate ones, where rich countries are usually found. The most widespread tropical disease is malaria. Certain species of mosquito carry the malaria parasite and pass it to human hosts by biting them. In most of the 200 million cases of malaria that occur worldwide each year, the human host has a debilitating fever for several days and then recovers. In well over half a million of these cases, however, recovery never occurs and death results. Around 90 percent of these fatal cases occur in sub-Saharan Africa. Even when recovery does occur, the disease can stunt physical and cognitive development in children if contracted multiple times in youth, as is often the case. A number of other tropical diseases, such as river blindness and dengue fever, also pose severe health risks.

A final contributor to the wider prevalence of infectious diseases in LDCs is the relative lack of information in the population about how they are contracted. To the untrained person, the notion that sickness is caused by living things that are invisible to the naked eye is not self-evident. The behaviors one should employ for prevention—such as washing one's hands frequently, avoiding swampy places where mosquitoes breed, and not letting children play where people have defecated—are also not readily obvious.

A particularly notorious example of the power of poor information to contribute to disease and premature death is the HIV/AIDS epidemic in Africa. Acquired immunodeficiency syndrome (AIDS) is an infectious disease that is caused by the human immunodeficiency virus (HIV). AIDS, along with tuberculosis, is the leading infectious killer of adults worldwide.²⁸ HIV is transmitted through bodily fluids that are capable of carrying the virus, namely blood, semen, vaginal fluid, and breast milk. The vast majority of transmissions occur through heterosexual intercourse, although women often transmit the virus to their children during birth or breastfeeding. Left untreated, HIV causes a person to develop AIDS, a condition that destroys his or her immune system and, in turn, leads to death over the course of about ten years. The developing world carries a disproportionate burden of the global AIDS epidemic: 95 percent of the world's 33 million HIV-positive individuals reside in the developing world, and fully 60 percent of these are in sub-Saharan Africa.²⁹ At the epidemic’s peak around 2000, more than 15 percent of the adult population of several African countries was HIV-positive.

Misinformation and a lack of correct information played and still play a role in exacerbating Africa’s AIDS epidemic. During the 1980s and 1990s, the prevalence of the disease spiraled upward and became an epidemic, yet at the time...
relatively few Africans knew about the disease and about how to avoid contracting it. Most who died from AIDS did not even know they had it. Africa’s societies at the time were predominately rural, poorly educated, and relatively unconnected to modern mass media, so transmitting information about the disease and prevention behaviors was difficult. To worsen matters further, many politicians avoided discussing the issue in public, and some even propagated false information, as was the case when South African president Thabo Mbeki’s (1999–2008) made his famous assertion that HIV did not cause AIDS. This situation has improved in recent years as HIV testing and public awareness campaigns have proliferated, but these corrections came too late for millions.

**Poorly Functioning Health-Care Sectors.** Throughout the developing world, large-scale shortcomings in health-care provision exacerbate the suffering and death rates caused by all kinds of health ailments. Virtually all governments in the South provide some health care to their populations, with these public services being free or highly discounted to users. This makes health-care provision an important part of the broader welfare state, which is the part of government that seeks to promote or protect the well-being of its citizens by providing such social services as education, housing, water, and retirement pensions. However, an underlying reason for shoddy health-care systems in poor countries stems from the fact that the governments are themselves poor. Governments rely on their citizenries through taxation to supply much of their revenues, yet poor citizenries cannot pay much in taxes. Overall, per-person public health expenditures are a fraction in LDCs what they are in the developed world. In 2007, average public spending on health per person per year in highly developed countries was around US$4,000. In very low-income countries, it was US$66.30

To fill the gap, the private sector often provides a large share of health-care services in LDCs, ranging from 20 percent to 80 percent in most cases, yet reliance on the private sector brings its own problems. Typically, users must pay out of pocket for services, putting the poor on the constant brink of economic ruin should one of their family members get sick. Moreover, the quality of care is not necessarily higher in the private sector since the sector is only as well funded as its customer base. It is also less regulated, and research shows that private-sector care in LDCs is prone to overtreatment, in which prescription-happy health professionals provide unnecessary procedures and medicines because they profit from them. For example, in Brazil, birth by caesarean section is more common in the private than the public sector.31

The lack of funding for both the private and public health sectors manifests as a number of problems for patient care. First, many countries have a severe shortage of trained and qualified health-care personnel (physicians, nurses, and midwives). In high-income Western countries, there is an average of one doctor for every 350 people. In the developing countries of East Asia, the figure is one doctor per 850 people. In South Asia, it is one per 1,600 people, and in sub-Saharan Africa it is a mere one per 6,000 people. Some low-income countries have fewer than one physician per 10,000 people.32 The consequences are severe. Because of the shortage of qualified personnel, the few available doctors and nurses are often in high demand. This inclines many of them to provide suboptimal patient care because they are rushed during their workday and have little fear of being out of work if they perform poorly. Moreover, millions in need simply do not see a health expert. For example, influenza is a leading cause of child mortality in LDCs, yet experts estimate that half of all children with flu and other acute respiratory infections do not see a health professional.33

Due to the relative lack of trained health professionals, false and underqualified ones often emerge to fill the void. Throughout the developing world, many individuals without medical degrees advertise
themselves as doctors or nurses and attract a patient base. Without proper training, they end up missing easy diagnoses or mistreating common illnesses, with sometimes fatal results for their patients. Many patients cope with the shortage of qualified doctors by instead visiting traditional healers (herbal clinicians or medicine men). Traditional healers do not feign expertise in modern medical techniques, but they are visited nonetheless when they are closer, more quickly available, or less expensive than the nearest doctor or nurse.

Second, the lack of properly trained health professionals is exacerbated by widespread absenteeism. Many doctors and nurses fail to show up at their clinics or hospitals because of low pay and weak incentives to report in. One study of six LDCs in 2002–2003 found that doctors and nurses were absent from their posts 35 percent of the time.34 This can be particularly devastating to rural individuals who may have walked long distances feeling miserable or with a sick child just to reach a health clinic that is, with no explanation, not staffed for the day.

Finally, health-care systems in LDCs are often characterized by deep inequalities. Public spending on health is often regressive, meaning the wealthy benefit more than the poor. Again, the urban-rural divide in access to professional care tends to be deep. High-quality doctors typically prefer living in cities where support staff, supplies, and pay tend to be better. As one illustration of this, virtually all urban households in Africa are within an hour’s travel of a health center, while less than 50 percent of rural residents are that close to one.35 Moreover, many medical treatments are hard to carry out without electricity and clean water. For example, vaccinations can be difficult to administer in rural areas because they require refrigeration.

Poor Decisions by Health Consumers. To be fair to the doctors and governments of the developing world, problems of a more bottom-up variety also exist in patient care. Many citizens of the global South fail to properly take advantage of health services even when they are available. Some do not get themselves or their children immunized simply out of procrastination. Many immunization courses require multiple visits over several months to a clinic, making them inconvenient. Also, immunizations’ positive effects are largely invisible, so they seem less pressing to adults. As another example, patients themselves are often complicit in doctors overprescribing medications. After all, patients want to feel as if they have been treated for their illness, especially if they have walked a few kilometers while feeling downright miserable to reach a health clinic. On top of this, more times than not, they will feel better soon after the visit by virtue not of the medicine but of their bodies naturally defeating the illnesses. Either way, it hardens patients’ resolve to be treated with something the next time around. A final example is a lack of breastfeeding, which is a powerful combatant against malnutrition at a most crucial time in a person’s life. Worldwide, less than 40 percent of infants are breastfed exclusively for the first six months of life because mothers are too busy working in the fields or are unaware of the health benefits.36 Of course, suboptimal consumer behaviors are also common in the developed world, but, given the more precarious health environment, their consequences can be more severe in poor countries.

Health Trends: Tracking Improvements in LDCs

Compared to the developed world, in LDCs infectious diseases and infant mortality are more prevalent, lives are shorter, and health-care systems are shoddier. Viewed from a longitudinal perspective, however, health in the developing world can be seen as a major success story. Comparing the contemporary South to itself a mere fifty years ago paints a picture of impressive progress.
Longer Lives

As a whole, life expectancies in the less developed world have increased by more than twenty years over the past half-century—the most rapid advance in human history. This has shrunk the gap between the high-income countries and all the others, as improvements in life expectancy have been more than twice as rapid in low-income countries as those in the wealthiest. Figure 2.3 illustrates this vividly by showing trends in life expectancy in six world regions since 1960. Improvements have been most dramatic in the Middle East and East Asia, where life expectancies rose by over twenty-five years in each. Improvements in Latin America (eighteen years) and South Asia (twenty-two years) were almost as impressive. Africa, despite the noteworthy headwind of the AIDS epidemic, also saw a net improvement of fourteen years, as the AIDS epidemic stalled an upward trend that reemerged in the 2000s. Although a gap between rich and poor countries remains, it was visibly smaller for all world regions in 2010 than it was in 1960.

Part of the driving force behind better life expectancies is that infant and child mortality rates have fallen. In 1960, the number of children under the age of five that died was around 20 million, fully twice the number in 2010 despite there being only half as many people in the world. Stated differently, in 1960 the infant mortality rate averaged 200 deaths per 1,000 live births throughout the developing world; today, the number of countries with rates at or above that could be counted on one hand. The fall was most dramatic in the Middle East and North Africa. Under-five mortality rates of 250, meaning that fully one-quarter of children died before their fifth birthday, were reduced to the thirties by 2011. In sub-Saharan Africa, child mortality fell from 250 deaths per 1,000 live births in the mid-1960s to around 110 by early 2013. In South Asia, it fell from 240 to 60, and in Latin America it fell from 160 to less than 20. In short, tens of millions of young people in the developing world are alive today who would not have been alive had they been born just a few decades earlier.

Causes of Convergence: The Declining Cost of Good Health

Why and how did this stunning recent success in prolonging lives and saving children occur? The most important reason is that it has gotten less expensive over time to.
achieve better health outcomes. Constructing toilets, piping clean water, administering vaccines, treating diarrhea, curing infectious diseases, growing crops, adding precious micronutrients to food, and doing other things that are beneficial for health have become dramatically cheaper in recent decades. To give one example, Vietnam had a GDP per capita in 2000 that was similar to that of the UK 200 years ago, yet Vietnam’s life expectancy was sixty-nine years, compared to a life expectancy in the UK in the early 1800s of forty-one years. As another example, between 1950 and 2002, per-capita income in Haiti fell by 25 percent, but infant mortality also fell—by 66 percent.38

The worldwide spread of ideas and technologies has contributed to the declining cost of good health outcomes. Far and away the most important example of this is success in the discovery and dissemination of accurate scientific knowledge about infectious diseases, along with the distribution of effective preventions and treatments for these diseases. For instance, awareness campaigns regarding the importance of hand washing and rehydration solutions for diarrhea spells have yielded lifesaving results. A six-vaccine package distributed by international health organizations costs less than US$1,39 and a de-worming pill that kills 99 percent of harmful intestinal worms in a body costs twenty cents.40 Through the dissemination of vaccines, smallpox has been eradicated and polio and guinea worm disease nearly eradicated. The share of the world’s children who are immunized against measles has ballooned from 2 percent to 80 percent in just fifty years.41 Progress in combating even malaria, one of the most intractable diseases because it has no vaccine, has also been rapid, as aid groups and domestic governments have distributed bed nets that protect sleeping children from mosquito bites and drained swampy areas where mosquitoes breed. Finally, through the combined efforts of governments, international aid organizations, private sectors, and community groups, billions of people have gained newfound access to safe water and clean sanitation through investments in water infrastructure. All told, because infectious diseases have become less of a threat, the main causes of death in the developing world are increasingly becoming the diseases of affluence, such as cancer and heart disease.

The spread of technology and ideas has also mitigated the severity of hunger and malnutrition. As population sizes have continually swelled in the developing world, food production per capita has grown even more quickly, making it possible for humanity to more than keep pace in feeding its fast-growing population. Since 1960, the amount of food the world produces has more than doubled while the number of acres harvested has largely remained constant.42 Technological innovations such as fertilizers, irrigation, and pesticides have increased farmer and land productivity. These adoptions have made food cheaper, resulting in rarer famines and less malnutrition. For example, China and India used to experience recurring famines, and in fact the most deadly famine in world history occurred just over fifty years ago in China (1958–1961). Today, however, a famine in either country would be almost unthinkable. Moreover, the world’s citizens are eating more meat and protein-rich foods, so malnourishment has declined from an average of 25 percent of the developing world’s population to about 16 percent in 2005.43


Formal education is instruction provided by trained individuals in a structured and certified schooling organization. Besides good health, access to formal education is widely regarded as the most important central capability, since it not only creates life and job-market skills, but also turns people into more empowered members of their community. This section describes the
nature and causes of the educational deficits in the developing world.

Key Education Indicators: Attainment and Achievement

Indicators of education are often divided into quantity, which measures attainment or access, and quality, which gauges achievement or learning. The purpose is to distinguish between mere exposure to formal education and actual knowledge and skill acquisition. A number of markers exist to gauge quantity, or the number of people who are attaining formal education. A commonly used one is the net enrollment ratio at the primary and secondary levels. Net enrollment is the percentage of people of the relevant age group (ages six to eleven/twelve for primary, eleven/twelve to seventeen/eighteen for secondary) that are enrolled in school. Figure 2.4 shows these ratios for six world regions in 2007. In developed countries, primary school attendance is virtually universal, typically 97 percent or above. Primary enrollment ratios are also nearly universal in Latin America, East Asia, and the Middle East, all of which have percentages above 90 percent. The gap opens up, however, in looking at the percentages for South Asia (86 percent) and sub-Saharan Africa (74 percent). Worldwide, around 70 million primary-school-aged children are not in school, and nearly all of them reside in these two regions.

Figure 2.4 shows that the gap between developed and developing world is even greater when considering enrollment ratios at the secondary level. In the developed world, more than 90 percent of children remain enrolled in school after completing their primary studies. Percentages are far lower across the developing world: 48 percent in South Asia and 26 percent in sub-Saharan Africa. In Latin America, East Asia, and the Middle East, secondary enrollment ratios are higher but still range only between 65 percent and 75 percent. Gaps in tertiary (college, university, or postsecondary vocational training) enrollments are even more yawning, as less than one African in twenty receives some postsecondary education, whereas two-thirds of Westerners do.

Two other indicators of educational attainment are mean years of schooling and the adult literacy rate. Mean years of schooling is the average number of years of formal education...
education per adult (defined as those aged twenty-five and up). Adults in the developed world average 11.4 years of schooling, but that number drops to just eight in Latin America, 5.7 in the Middle East, and 4.5 in South Asia and sub-Saharan Africa. The adult literacy rate is the percentage of adults (persons older than fifteen) who can read and write. In practice, the bar for literacy in most statistical datasets is quite low, merely testing whether individuals can read and write a short text. Again, literacy rates in the developed world are typically 99 percent. In contrast, in the Middle East they are just 72 percent, and in South Asia and sub-Saharan Africa they are around 63 percent. Worldwide, around 900 million adults, about one in six—are illiterate. As with health outcomes, rural areas tend to have lower rates than urban ones on these measures: in low- and lower-middle-income countries, adult literacy rates are anywhere from ten to forty percentage points lower in the countryside than in the cities.45

These attainment indicators are relatively easy to gather, since they are the rough equivalent of counting heads. They fail to capture, however, the amount of actual learning and skill acquisition that takes place in formal educational settings. Measures of quality can fill this gap, but they are harder to collect. The evidence that does exist shows that students in developing countries learn less per year of schooling than those in developed ones. One rough but widely available proxy for quality is the average number of students per instructor, or the pupil-teacher ratio. In 2010 in the developed world, the pupil-teacher ratio in primary schooling was 12.1, and it was 14.2 at the secondary level. In contrast, ratios in the developing world were notably higher. In South Asia and sub-Saharan Africa, they were more than thrice as high at the primary level—in the low forties. A few countries, such as Rwanda, even have ratios in the sixties. At the secondary level, classrooms in South Asia and sub-Saharan Africa were nearly twice as crowded as those in high-income countries, with ratios in the mid-twenties. In other less developed regions, ratios are a good deal smaller than those prevailing in these two, but they still fall short of those in the developed world. Another more direct indicator of quality lies in internationally comparable math and reading test scores, but these are available for only a small subset of LDCs. One study of twenty countries found that eighth graders in developing countries scored only as well, on average, as developed-country fifth graders.47

**The Immediate Causes of Poor Educational Outcomes**

All told, education systems in LDCs pose a dual disadvantage to their citizens: students attain less formal schooling and learn less while they are in school. Scholars cite at least three immediate causes for this.

**Low Funding.** As with health, an overriding cause of poor education is a relative lack of funding. At the primary and secondary levels, the vast majority of children attend public schools funded by government expenditures. In fact, privately funded schools are much rarer than privately funded clinics and hospitals in LDCs. Not surprisingly, the funding gap between developed and less developed countries is vast. In developed countries, spending per primary student averages US$3,760, but it is one-eighteenth that amount (US$202) in low-income countries and one-eleventh that amount (US$338) throughout sub-Saharan Africa. Even in middle-income countries such as many of those found in Latin America, the Middle East, and East Asia, spending per primary student is only one-fourth that of the developed countries.

Lack of funding also results in an absence of schools where they are needed. Many areas, especially rural ones, face an undersupply of schools. In the millions of villages that lack a primary school, children may have to walk long distances just to attend classes. Low funding can also mean decrepit or inadequate facilities. Many girls drop out of school
upon reaching puberty because of a lack of private and sanitary bathrooms. Finally, limited government support means that many public schools in the developing world charge user fees, even of primary students. In Africa, an estimated 30 percent of educational funding comes from these fees. Mandatory uniforms, school supplies, and lunch money are also costs that deter many parents from keeping a child in school.

**Poor Instruction.** Concerns related to poor instruction are also prevalent. First, in LDCs, 10 percent of primary teachers and 30 percent of secondary teachers are not formally trained as such. Second, many schools are lacking in basic equipment such as blackboards, chalk, textbooks, or even an actual building. Third, school days are, on average, shorter in the developing world. Many schools, even in medium-income countries such as Brazil, operate on double shifts, in which children attend for just a half day (either in the morning or afternoon) with one teacher covering both shifts. Fourth, because of bad or no incentives, absenteeism among teachers is common. One study of seven developing countries found that teachers were absent an average of one out of every five days.

Even when trained teachers are present, the curriculum and quality of instruction are often highly inadequate. Instruction in LDCs tends to be by rote memorization, with teachers reading or copying directly from a book onto a blackboard. Moreover, teaching often carries an elite bias that is allegedly a carryover from colonial days. For starters, millions of children in LDCs are taught in a nonnative language. Countries throughout Africa and South Asia teach in the official (often colonial) language, such as English, French, or Hindi, which a majority of children do not speak or understand prior to enrolling in school. Similarly, many instructors teach to the top of the class to prepare talented students for secondary and university entrance exams, a remnant of the pre-independence era when schools were meant to create a colonial elite. Students that are average or below receive little remedial instruction and are simply left behind by this approach.

**Parental Decisions.** Bottom-up decisions, particularly those by parents, also shape school enrollment. In most instances, children fail to attend school or drop out early by choice of their parents, who have a variety of good reasons for making such a decision. Most importantly, when parents are poor, the opportunity cost of keeping their able-bodied children in school is high, especially since the benefits of schooling are not reaped until the future. Children can provide valuable assistance around the house or in the fields, and they can even hold wage-paying jobs that contribute to family income. Foregoing this help or income is too much for many needy parents. For this reason, the prevalence of child labor, when a child under the age of fifteen engages in sustained full- or part-time work (rather than just occasional household chores) tends to be high where educational enrollments are low. In sub-Saharan Africa, about 20 percent of children below fifteen are at work, the vast majority in agriculture on family or village plots. Even in middle-income countries such as those in Latin America the figure is around 5 percent.

Parents’ perceptions of opportunity costs can seem particularly high when the eventual pay-off from education is low. Many economies do not reward formal education, so parents see little value in keeping their kids in school. Without a well-developed industrial base or modern service economy, some LDCs simply have little demand for trained labor or do not provide wages to workers with secondary or college educations that are sufficiently higher than those paid to untrained workers. Similarly, when schooling is of low quality or when a child appears to be lost in her or his studies, it is natural for parents to conclude that it is a waste of time, especially when opportunity costs are high. Indeed, many poor families with multiple children invest in the child that they think has the best academic prowess by removing all but that child
from school and encouraging her or him to be the one to pursue secondary and tertiary studies.

Bottom-up reasons also exist for low achievement, even in the absence of a child fully dropping out. Absenteeism among students, like that among teachers, runs high, ranging from an average of 14 percent of days in some countries to nearly 50 percent in others. Many days are lost to illness and to parents’ wish that their children do episodic work around the house fetching water, harvesting food, or watching a younger sibling. Finally, even when present, students who are malnourished learn less than well-fed ones.

**Education Trends: Tracking Improvements in LDCs through Time**

As with health outcomes, educational quantity and quality seem dire relative to those of the developed world. Again, however, a look back into recent history reveals dramatic improvements over a relatively short period of time.

**Higher Enrollments and Better Quality**

Since 1960, the mean years of schooling throughout the developing world has more than tripled, rising from 1.9 years to 6.4. Partly as a result, the literacy rate of the entire developing world jumped from 50 percent to 81 percent between 1970 and 2010. It nearly tripled (from 23 percent to 65 percent) in sub-Saharan Africa, and in South Asia it more than doubled (from 31 percent to 66 percent). Not a single country has seen a decline in its basic education indicators since 1970. In short, the developing world is educating a higher share of its youth than ever before, and widespread illiteracy is gradually becoming a problem of the past. Figure 2.5 depicts these improvements and the global convergence by plotting average net primary enrollments in six world regions through time.

As further indication of these encouraging patterns, some experts point to promising trends in another statistic, the expected years of schooling. This is the average number of years that children of school-entering age can expect to receive if contemporary patterns of enrollment prevail throughout their lives. In countries where enrollment rates are improving quickly, the expected years of schooling can be a much larger figure than the mean years of schooling and a much better indicator of a society’s current commitment to educating its children. That is because mean years of schooling can be pulled down by older adults who received little education because they were children in more austere times. For example, sub-Saharan Africa’s expected years of schooling is 9.0, fully twice its current mean years of 4.5. South Asia’s expected years (10.0) is more than twice its current mean (4.6), and in every other developing world region the expected mean is at least 60 percent higher than the current one. In short, the educational attainment of less developed societies will continue to improve over the next several decades.

The quality of education has also improved, at least according to available indicators. Pupil-teacher ratios have declined from a developing-world average of thirty-two in 1970 to twenty-seven in 2010. The pace of this change, however, has been uneven across world regions, with only East Asia, Latin America, and the Middle East seeing improvements.

**Causes of Convergence: Better Funding and Parental Commitment**

The causes of these improvements lie in two developments. First, the developing world’s governments are devoting more funds to education. Because education is almost universally seen as an important element of nation-building and economic success, most governments have ramped up their efforts to construct schools, especially in rural areas where distance is such a barrier to attendance. The spread of democracy to many formerly dictatorial countries also precipitated an increase in public expenditures on social services, including education. As part of their efforts, many governments have also tried to
entice parents to keep their children in schools. One set of government programs that appears to have been successful in doing so is called conditional cash transfer (CCT) programs, forms of which have been enacted in more than thirty countries worldwide in the last fifteen years. Governments give cash grants to poor families that can demonstrate their compliance with certain behavior requirements, which almost always include school attendance for children. As another means to encourage parental commitment, several LDCs, such as Ethiopia, Kenya, and Malawi, recently abandoned user fees for primary schooling.

The calculus of whether to keep their children in school may also be changing for parents. Economic growth has transformed economies in the developing world. Globalization, industrialization, technological dissemination, urbanization, and the emergence of a modern service sector have all increased the demand for specialized skills and education. Formal education is thus increasingly rewarded with high-wage jobs that are ever more prevalent. In other words, education increasingly pays. It boosts eventual earning power, so parents are more willing to absorb the immediate sacrifices of keeping their children in school.
A leading effort to address some of the shortcomings of GNI and GDP as measures of human well-being resulted in the establishment of the Human Development Index (HDI) by the United Nations Development Programme (UNDP) in the early 1990s. Based in part on Amartya Sen’s claim that the fundamental goal of human progress should be the expansion of capabilities, the HDI uses more than just income to measure societal well-being. Specifically, a society’s HDI is a single number that is a composite of its overall health, educational attainment, and income. Four individual measures are used to construct this composite: life expectancy at birth, mean years of schooling, expected years of schooling, and logged GNI per capita. Each of the four individual indicators is converted to a 0 to 1 scale. Zero equates to subsistence values, which are roughly the minimum levels that people in a society would need to even survive, and 1 is equivalent to the maximum score ever observed in human history (for instance, life expectancy of 83.2 in Japan in 2010). The four scores are then collapsed by taking the average across all four, with the result being a single number, also varying between 0 and 1, that is a society’s HDI. The UNDP classifies countries into one of four human development categories (depicted in the figure) based on their HDI score.

The Human Development Index

The figure here shows the relationship between HDI and GNI per capita for 2011. Each point in the scatterplot is a country, and it is plotted according to its level of GNI per capita (indexed on the x-axis) and its HDI (indexed on the y-axis). The figure shows that the relationship between the two variables is far from a simple, one-to-one correspondence. For example, Botswana ranks relatively high on GNI per capita (62nd worldwide) but low on human development (.633 ranks...
118th). This indicates that it, like all countries below the trend line, does a relatively poor job of converting its income into good health and educational outcomes. By comparison, Cuba’s HDI rank (.776 ranks 51st) is much better than its GNI per-capita rank (103rd), which, as is the case with the countries above the line, means Cuba does an efficient job in buying good health and educational outcomes with relatively limited income. More generally, increased GNI improves HDI in low-income countries, but its impact declines considerably in middle- and high-income ones. In other words, upper-middle-income countries are much closer to high-income countries in terms of health and educational outcomes than they are to low-income countries. This is a classic case of a logarithmic relationship.

Users of the HDI should keep in mind that this nonlinear relationship between HDI and GNI is partly by design, since GNI per capita in logged form is one of the four variables that goes into the composite. Furthermore, by incorporating GNI, HDI is partially subject to the standard criticisms (discussed in Chapter 1) of this measure. This is especially so since most countries have HDI scores that are close to what their GNIs would predict, as evidenced by how closely most of the points are to the line in the figure. More generally, some critics of the HDI doubt that it adds much beyond the individual indicators that comprise it. The decision to average the four indicators to create a final composite score is largely arbitrary, so one might be better served, if interested in studying human development, by analyzing mean years of schooling or life expectancy at birth on their own.

- What are the advantages and disadvantages of an index such as the HDI that summarizes multiple and very different indicators of a country’s development with a single number?
- What would you conclude about the well-being of a population in a country that has a high HDI but a relatively low GNI? What about the reverse situation—a low HDI but a relatively high GNI?

The world’s second-largest country is underdeveloped. Fully 70 percent of India’s 1 billion citizens live below the global poverty line of US$2.00 per day, giving it nearly half of the world’s poor. But does economic underdevelopment limit capabilities and human development in India? In 2010, India had an HDI index of .52, placing it in the “medium human development” category. This middling score leaves plenty of leeway for interpretation. It is far short of that prevailing in the “very high human development” countries (average of .88) but a good deal higher than the mostly “low human development” countries of sub-Saharan Africa (average of .39). Moreover, India’s HDI is up from .32 just thirty years earlier. Thus, depending on how one looks at it, India could be viewed as a human development nightmare or a success. This case study reviews evidence from both perspectives. (Recall that the South/West/natural world format for case studies is not presented until Chapter 4.)
Health and Education Challenges

The challenges and shortfalls of human development in India are particularly severe in the arena of health. India’s child mortality rate of sixty-three per 1,000 live births is more than ten times that prevailing in developed countries, and its life expectancy of sixty-five falls short by fifteen years. India struggles mightily with malnutrition. Stunningly, over 45 percent of children under five (60 million in total) are malnourished, a figure that is more than five times greater than that prevailing in China and that remains stubbornly high even after two decades of booming economic growth. India also lags in providing sanitation and clean water, so infectious diseases are common. Just 35 percent of Indians have access to a latrine or toilet. In major cities, water is available through pipes just a few hours per day, and many of the faucets are publicly shared and thus long queues result. In rural areas, much of the population lacks access to piped water entirely. Regardless of location, piped water cannot be safely drunk straight from the tap.

Not surprisingly, basic medical care is also poor. India is sorely lacking in trained health professionals and equipment. On a per-capita basis, it has one-fifth the trained physicians and less than one-eighth the nurses of high-income countries. Less than 40 percent of self-proclaimed “doctors” in the slums of Delhi have a formal medical degree, and the numbers are even lower in rural areas. Many individuals set up a doctor’s office not because they have completed medical school, but simply because they think they would be good at it. Furthermore, public medical clinics have high absentee rates, with health professionals showing up only 57 percent of the time. Even when present, doctors spend little time with patients and often recommend wrong or excessive medicines. One research team that observed patient-provider interactions in India coined the term “3-3-3 rule”: the typical interaction lasted three minutes, the provider asked three questions, and the patient was offered three medicines.

Internationally, India is near the bottom in terms of how much money its government spends on health care. In 2003, public-sector spending on health was just 1.2 percent of GDP, and even this was distributed inequitably. The poorest quintile (20 percent) was targeted by just 10 percent of
this spending, while 30 percent of it benefited the wealthiest quintile. The private sector partially fills the gap, providing around 80 percent of all health services, but it is lightly regulated and expensive.\textsuperscript{65} Unlike the public sector, its doctors do not need to be formally trained, and patients pay out of pocket.

Educational outcomes also lag in India. In terms of attainment, India has more than 30 million (mostly rural) children of primary school age who are not enrolled in school. This figure represents more than 10 percent of its age-eligible population and a third of the world’s unenrolled children.\textsuperscript{66} Fewer than two in three Indian adults can read.\textsuperscript{67} Moreover, even students who are in school receive a low-quality education. One study found that half of fifth graders could not read a simple story, and less than one in three could do simple division.\textsuperscript{68} At the primary level, there are forty students per teacher. A shocking study by the World Bank found that Indian primary teachers in public schools did not show up an average of one out of every four days and, when present, they often did not bother to teach, instead spending hours per day socializing with other teachers or reading the newspaper.\textsuperscript{69} Despite this, as unionized public school teachers, they were almost never fired.

The Indian government devotes about 2 percent of GDP to spending on primary education, a figure that comes out to less than US$50 per student per year. India’s public schools thus have high pupil-teacher ratios and high dropout rates. Moreover, public school teachers, who must be formally trained and thus often come from urban areas where training facilities are located, are often loathe to teach in remote rural areas. Because of these shortcomings in public education, there is widespread demand in India for private elementary schools, and private schools do have lower absenteeism and higher test scores.\textsuperscript{70} Somewhat surprisingly, they are also within financial reach for many poor families, as some cost as little as US$1.50 per month.\textsuperscript{71} But they have their own drawbacks. Aside from the fees, private school teachers are less likely to be formally trained. Indeed, private schools are often established in rural villages by a local citizen who is motivated to fulfill pent-up demand for schooling.

**Health and Education Successes**

These facts and figures on health and education seem dire, yet they look far less so when tracked over India’s recent history. India’s HDI was

---

### Table 2.1

<table>
<thead>
<tr>
<th>Indicator</th>
<th>India 1980</th>
<th>India 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita at PPP</td>
<td>US$844</td>
<td>US$3163</td>
</tr>
<tr>
<td>Human Development Index</td>
<td>.344</td>
<td>.547</td>
</tr>
<tr>
<td>Life expectancy at birth</td>
<td>55</td>
<td>65.4</td>
</tr>
<tr>
<td>Means years of schooling</td>
<td>1.9</td>
<td>4.4</td>
</tr>
<tr>
<td>Expected years of schooling</td>
<td>6.5</td>
<td>10.3</td>
</tr>
</tbody>
</table>


---

Uncorrected page proof. Copyright © 2014 by CQ Press, an imprint of SAGE Publications, Inc. No part of these pages may be quoted, reproduced, or transmitted in any form or by any means, electronic or mechanical, without permission in writing from the publisher.
.20 lower just thirty years ago, and it graduated from low human development to medium human development around 2005. Table 2.1 summarizes some of these human development trends.

In the area of health, the signs of improvement are overwhelming. At independence in 1947, child mortality in India was 253, nearly four times its 2010 rate and higher than even the worst country’s rate today. Life expectancy at birth has nearly doubled over that time, rising from thirty-six to sixty-five. Today, the leading cause of death is not diarrhea or malaria, but the very rich-country-sounding heart disease. Malnutrition remains today’s plague, yet India used to have recurring famines that killed millions. It has not had a major one since 1943. Access to clean water and sanitation have also been trending upward, both increasing by around twenty percentage points since 1990. Finally, the quality of medical care is improving since the number of certified health professionals per person has more than tripled since 1960.

Improvements have also been massive in education. The literacy rate is up by twenty-five percentage points since 1981. The mean years of schooling doubled in the three decades following 1980, and the average child born in India today can expect to complete ten years of schooling, reaching well into secondary school. India is now “within striking distance of universal elementary education,” and public spending per elementary student nearly doubled in the 1990s. Today’s Indian children will be far more literate and far better educated than any generation that preceded them.

***

This data on human development in India conveys the nuance with which well-informed Westerners should view the developing world. As is widely assumed, educational and health systems do leave much to be desired in LDCs. The social deficits between rich and poor countries, however, are often smaller than many think, and these gaps are shrinking at an impressive speed that leaves plenty of room for optimism.

Thinking Critically about Development

- Since 1980, India’s GDP per capita has tripled. What are some ways in which economic growth has caused the country’s advances in human development, and what are some ways in which human development caused this economic growth?
- Is the human development approach sufficient for prioritizing what is important for well-being in India, or are there other criteria by which its progress should be judged?
- Will India’s remaining problems in health and education simply disappear as its economy continues to grow, or will the government need to take direct action to improve the welfare state in order to better human development?
Key Terms

- capabilities, p. 30
- capability deprivation, p. 30
- child labor, p. 44
- child mortality, p. 32
- HIV/AIDS epidemic, p. 37
- human development, p. 30
- Human Development Index (HDI), p. 47
- infant mortality, p. 33
- infectious disease, p. 35
- life expectancy at birth, p. 31
- malnutrition, p. 34
- net enrollment ratio, p. 42
- noncommunicable disease, p. 35
- vaccine, p. 37
- welfare state, p. 38

Suggested Readings


Web Resources

Demographic and Health Survey, www.measuredhs.com/
Global Hunger Index, www.ifpri.org/ghi/2012
Barro-Lee Educational Attainment Dataset, www.barrolee.com/