

Services can work for poor people but too often they fail

chapter 1

With seven other children to care for, Maria's mother, Antonia Souza Lima, explained that she could not afford the time—an hour-and-a-half walk—or the 40-cent bus fare to take her listless baby to the nearest medical post. Maria seemed destined to become one of the 250,000 Brazilian children who die every year before turning 5. But in a new effort to cut the devastating infant mortality rate here, a community health worker recently started to walk weekly to the Lima household, bringing oral rehydration formula for Maria and hygiene advice for her mother, who has a television set but no water filter. Once a month, the 7,240 workers in the Ceará health program enter the homes of four million people, the poor majority of a state where most people's incomes are less than \$1 a day. Erismar Rodrigues de Lima, a neighbor of the Limas, listened intently to instructions on filtering drinking water. "I am the first member of my family to ever receive prenatal care," said the 22-year-old woman, who is expecting a baby in June.

From the *New York Times*⁴⁰

I go to collect water four times a day, in a 20-litre clay jar. It's hard work! . . . I've never been to school as I have to help my mother with her washing work so we can earn enough money. I also have to help with the cooking, go to the market to buy food, and collect twigs and rubbish for the cooking fire. Our house doesn't have a bathroom. I wash myself in the kitchen once a week, on Sunday. At the same time I change my clothes and wash the dirty ones. When I need the toilet I have to go down to the river in the gully behind my house. I usually go with my friends as we're only supposed to go after dark when people can't see us. In the daytime I use a tin inside the house and empty it out later. If I could alter my life, I would really like to go to school and have more clothes.

Elma Kassa, a 13-year-old girl
from Addis Ababa, Ethiopia⁴¹

Citizens and governments can make services that contribute to human development work better for poor people—and in many cases they have. But too often services fail poor people. Services are failing because they are falling short of their potential to improve

outcomes. They are often inaccessible or prohibitively expensive. But even when accessible, they are often dysfunctional, extremely low in technical quality, and unresponsive to the needs of a diverse clientele. In addition, innovation and evaluation—to find ways to increase productivity—are rare.

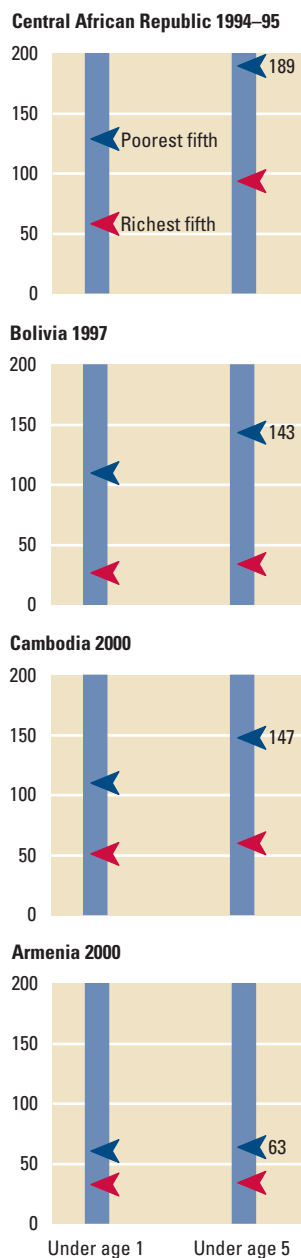
Many services contribute to improving human welfare, but this Report focuses on services that contribute directly to improving health and education outcomes—health services, education services, and such infrastructure services as water, sanitation, and energy. “Services” include what goes on in schools, clinics, and hospitals and what teachers, nurses, and doctors do. They also include how textbooks, drugs, safe water, and electricity reach poor people, and what information campaigns and cash transfers can do to enable poor people to improve outcomes directly. Much of all this is relevant for other sectors, such as police services, so the Report features examples from those sectors as well.

Just how bad can services be? Testimonies show that they can be very bad. In Adaboya, Ghana, poor people say that their “children must walk four kilometers to attend school because, while there is a school building in the village, it sits in disrepair and cannot be used in the rainy season.”⁴² In Potrero Sula, El Salvador, villagers complain that “the health post here is useless because there is no doctor or nurse, and it is only open two days a week until noon.”⁴³ A common response in a client survey by women who had given birth at rural health centers in the Mutasa district of Zimbabwe is that they were hit by staff during delivery.⁴⁴

This chapter illustrates many types of failures—inaccessible or unaffordable services, and various shortfalls in quality—using testimonials from poor people, compilations

Figure 1.1 Child mortality is substantially higher in poor households

Deaths per 1,000 live births



Note: Fifths based on asset index quintiles.
Source: Analysis of Demographic and Health Survey data.

of data from several countries, and in-depth studies. The chapter also provides examples of services that are working for poor people. Learning from success and understanding the sources of failure require a framework for analysis. Chapters 3 to 6 of the Report present and develop that framework; Chapters 7 to 11 consider options and issues for reform.

Outcomes are substantially worse for poor people

Just how bad are outcomes? Rates of illness and death are high—and rates of school enrollment, completion, and learning are low—especially for poor people (box 1.1). In Cambodia under-five mortality is 147 per 1,000 births among the poorest fifth of the population; in Armenia it is 63 (figure 1.1).⁴⁵ Many children are unlikely to complete even primary schooling. Among adolescents 15 to 19 years old in Egypt, only 60 percent in the poorest fifth have completed the five years of primary school (figure 1.2). In Peru only 67 percent of youths in the poorest fifth have finished the six-year primary cycle, even though almost all started school. In both countries nearly all adolescents in the richest fifth of the population completed primary

school.⁴⁶ These countries are not special cases. Worldwide more than 100 million children of primary school age are not in primary school.⁴⁷ Almost 11 million children, roughly the population of Greece or Mali, die before their fifth birthday.⁴⁸

Most countries have rich-poor differentials in education or health outcomes. This is not necessarily evidence of services failing poor people—there are many determinants of outcomes (see crate 1.1 at the end of this chapter).⁴⁹ Comparing outcomes for richer and poorer people within countries highlights two things. First, it shows the absolutely bad outcomes among the poor—for example, in Bolivia 143 children of every 1,000 from the poorest quintile died before their fifth birthday, and in Niger fewer than 10 percent of adolescents from the poorest quintile completed grade 6. Second, within-country comparisons give a sense of the possible—that is, specific goals already being reached within a country.

Affordable access to services is low—especially for poor people

In many of the poorest countries, access to schools, health clinics, clean water, sanitation

BOX 1.1 Who are “poor people”?

Defining who is “poor” is always a difficult proposition because there are several concepts of poverty. Perhaps most familiar is the one used to identify the poor in sample surveys in low-income countries: that is based on a composite measure of total household consumption per member (with adjustments for household size and composition).⁵⁰ “Poor people” are then defined as those living in households below a particular threshold of this measure of consumption, such as below \$1 or \$2 a day, or below a nationally defined level.

An alternative approach divides the population into various groups, for example, quintiles, according to a ranked ordering of the measure. The poorest quintile or poorest fifth, for example, is the 20 percent of people who live in households with the lowest values of the consumption measure.

Many surveys, including some used in this Report, do not include consumption data, which are difficult to collect. One approach to assigning people to quintiles is to aggregate indicators of a household’s asset ownership and housing characteristics into an index, and then to rank households according to this index. To distinguish these approaches in this Report, quintiles based on the

latter method are typically referred to as “asset” or “wealth” quintiles (since asset ownership and housing characteristics are arguably reflections of a household’s wealth).⁵¹

But poverty based on consumption, “wealth,” or an alternative derived from income, is not the only social disadvantage that creates difficulties in the demand for and provision of services. Gender can exclude women from both household and public demands for better services. In many countries ethnicity or other socially constructed categories of disadvantage are important barriers. People with physical and mental disabilities are often not accommodated by education and health services.

Even broader concepts of poverty are relevant to effective services. “Poor people” include people experiencing any of the many dimensions of poverty—and those vulnerable or at risk of poverty—in low-income and lower middle-income countries.⁵² So poor people can be seen as the “working class,” or “popular” in Spanish, or simply just “not rich.” Even in middle-income countries the “poor” includes a large part of the population: much of the population cannot insulate itself from the consequences of failures of public services.

facilities, rural transport, and other services is limited. For children in Aberagerema village in Papua New Guinea, the nearest school is in Teapopo village, an hour away by boat, two hours by canoe.⁵³ This is not unusual: the average travel time to the nearest school in that country is one hour.⁵⁴ The availability of services varies dramatically across countries. Typically, however, poor people need to travel substantial distances to reach health and education services—and often much longer distances than richer people in the same country. In rural Nigeria children from the poorest fifth of the population need to travel more than five times farther than children in the richest fifth to reach the nearest primary school, and more than seven times farther to reach the nearest health facility (table 1.1). And traveling these distances can be hard. In Lusikisiki village, South Africa, it may be necessary to hire neighbors to carry a sick person uphill to even reach the nearest road, which may be inaccessible during the rainy season.⁵⁵

On top of this, staff are getting rarer in some parts of the world. There is mounting evidence that AIDS is reducing the pool of people able to become teachers or health professionals (box 1.2), and international labor markets are making it hard to keep qualified medical staff in poor countries (chapters 6 and 8).

Coverage of other services is also far from universal. More than a billion people worldwide have no access to an improved water source, and 2.5 billion do not have access to improved sanitation. In Africa only half the rural population has access to improved water or improved sanitation. In Asia only 30 percent of the rural population has access to improved sanitation.⁵⁶ Again, there are large variations across and within countries. In Cambodia 96 percent of the richest fifth of the population has access to an improved drinking water source, but just 21 percent of the poorest fifth does (figure 1.3). In Morocco in 1992, 97 percent of the richest fifth of the population had access to an improved water source, but just 11 percent of the poorest fifth did. In Peru the corresponding shares are 98 percent and 39 percent.⁵⁷

This need not be. Indonesia expanded access to primary education in the mid-1970s by using its oil windfall to build new schools

and hire more teachers. Primary enrollment doubled between 1973 and 1986, reaching 90 percent—though the story on quality is less positive.⁵⁸ Despite a limited budget El Salvador expanded access to schooling in poor rural communities after a civil war in the 1980s by using innovative institutional arrangements (see Educo spotlight).

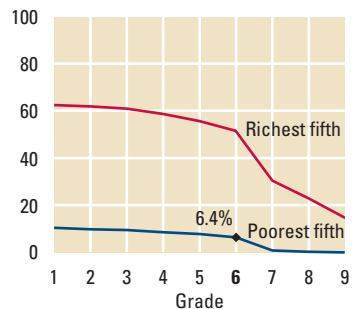
The exact relationship between use of services and prices or family income varies, but for poor people, lower incomes and higher prices are associated with less use.⁵⁹ Poor people spend a lot of their money on services: 75 percent of all health spending in low-income countries is private, 50 percent in middle-income countries.⁶⁰ Based on government sources, these broad aggregates are probably underestimates, hiding the heavier burden on poor people. And poor people often need to pay more for the same goods. For example, poor people often pay higher prices to water sellers than the better-off pay to utilities (chapter 9). In Ghana the approximate price paid per liter for water purchased by the bucket was between 5 and 16 times higher than the charge for public supply, even though women and children often had to walk a long distance to purchase the water. In Pune, India, low-income purchasers of water paid up to 30 times the sale price of the metered water that middle- and upper-income households used.⁶¹

The poor also lack the collateral needed to formally borrow to pay for expensive services for which they lack insurance, and therefore resort to informal moneylenders who charge very high interest rates. If this financing channel is unavailable, they use more expensive traditional or private providers who often provide more flexibility in the terms of payment.⁶²

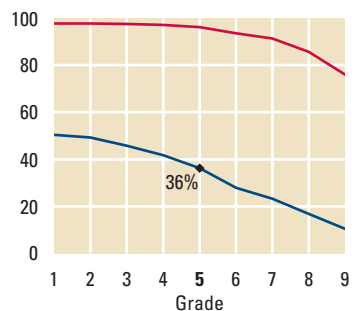
This need not be. In Egypt making health insurance available to school children in the early 1990s almost doubled the probability of a health facility visit among the poorest fifth of the population, substantially reducing the rich-poor gap.⁶³ In Mexico an innovative program—Progresa—provided parents with cash transfers if they attended health education lectures (where they also received nutrition supplements), and family members got regular medical checkups. The impact of this combination of higher income and facility visits was

Figure 1.2 The poor are less likely to start school, more likely to drop out
Percent of 15- to 19-year-olds who have completed each grade or higher

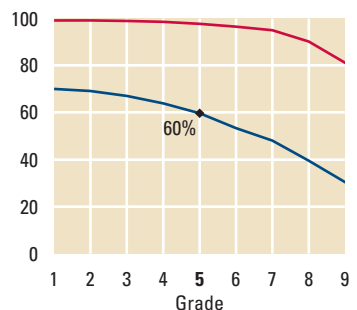
Niger 1998



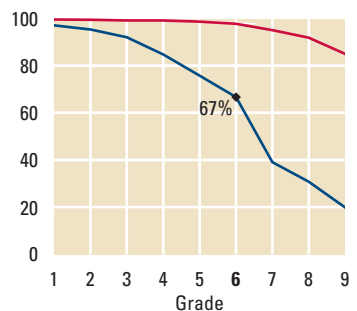
India 1998-99



Egypt 2000



Peru 2000



Notes: The grade number boldfaced denotes the end of the primary cycle. Fifths based on asset index quintiles.

Source: Analysis of Demographic and Health Survey data.

Table 1.1 The nearest school or health center can be quite far

Mean distance to nearest facility in rural areas among the poorest and richest wealth quintiles in 19 developing countries

	GNI per capita	Distance to the nearest primary school (kilometers)			Distance to the nearest medical facility (kilometers)		
		Poorest fifth	Richest fifth	Ratio	Poorest fifth	Richest fifth	Ratio
Bangladesh 1996–97	374	0.2	0.1	1.6	0.9	0.7	1.3
Benin 1996	395	1.5	0.0	—	7.5	2.8	2.7
Bolivia 1993–94	1004	1.2	0.0	—	11.8	2.0	6.0
Burkina Faso 1992–93	336	2.9	0.8	3.9	7.8	2.6	3.0
Central African Republic 1994–95	819	6.7	0.8	8.9	14.7	7.7	1.9
Cameroon 1991	611	2.6	0.7	3.8	7.0	5.4	1.3
Chad 1998	250	9.9	1.3	7.6	22.9	4.8	4.8
Côte d'Ivoire 1994	788	1.4	0.0	—	10.5	3.4	3.1
Dominican Rep. 1991	1261	0.6	0.4	1.3	6.3	1.3	5.0
Haiti 1994–95	336	2.2	0.3	6.4	8.0	1.1	7.2
India 1998–99	462	0.5	0.2	2.3	2.5	0.7	3.6
Madagascar 1992	303	0.6	0.3	1.8	15.5	4.7	3.3
Mali 1995–96	281	7.9	5.2	1.5	13.6	6.7	2.0
Morocco 1992	1388	3.7	0.3	13.1	13.5	4.7	2.9
Niger 1998	217	2.2	1.5	1.5	26.9	9.7	2.8
Nigeria 1999	266	1.8	0.3	5.5	11.6	1.6	7.1
Senegal 1992–93	933	3.8	2.3	1.7	12.8	10.0	1.3
Tanzania 1991–92	224	1.2	0.6	1.9	4.7	3.0	1.6
Uganda 1995	290	1.4	0.9	1.5	4.7	3.2	1.5
Zimbabwe 1994	753	3.0	3.5	0.8	8.6	6.3	1.4

Note: Gross national income (GNI) per capita is that at the time of the survey, expressed in 2001 dollars. Medical facility encompasses health centers, dispensaries, hospitals, and pharmacies. Although some of these data are a bit dated, they are the latest that were collected in a consistent manner across these countries. The situation in some countries may be different today.

Source: Analysis of Demographic and Health Survey data.

significant: illnesses among children under five fell by about 20 percent (see spotlight).

Quality—a range of failures

Lack of access and unaffordability are just two ways services fail. In low- and middle-income countries alike, if services are available at all they are often of low quality. So, many poor people bypass the closest public facility to go to more costly private facilities or choose better quality at more distant public facilities. An in-depth study of the Iringa district in Tanzania, a poor rural area, showed that patients bypassed low-quality facilities in favor of those offering high-quality consultations and prescriptions, staffed by more knowledgeable physicians, and better stocked with basic supplies.⁶⁴ A study in Sri Lanka found similar behavior, with patient demand for quality varying with the severity of the illness.⁶⁵

One result: underused publicly funded clinics. In the Shekhupura district of rural

Punjab, Pakistan, only about 5 percent of sick children were taken for treatment to rural primary health care facilities; half went to private dispensaries, and the others to private doctors.⁶⁶ When quality improves, the demand for services increases—even among poor clients.⁶⁷

Services are often dysfunctional

Ensuring that positions are filled, that staff report for work, and that they are responsive to all their clients is a major challenge. The more skilled the workers, the less likely they are to accept a job as a teacher or a health worker in a remote area. A recent study in Bangladesh found 40 percent vacancy rates for doctor postings in poor areas.⁶⁸ In Papua New Guinea, with a substantial percentage of teaching positions unfilled, many schools closed because they could not get teachers.⁶⁹ Incentive payments might encourage professionals to work in remote areas, but they can

BOX 1.2 HIV/AIDS is killing teachers

Many countries lack reliable data on AIDS-related deaths and HIV prevalence among teachers, but the available information suggests rising teacher mortality in the presence of HIV/AIDS. For example:

In the Central African Republic 85 percent of teachers who died between 1996 and 1998 were HIV-positive. On average they died 10 years before they were due to retire.

In Zambia 1,300 teachers died in the first 10 months of 1998, compared with 680 teachers in 1996.

In Kenya teacher deaths rose from 450 in 1995 to 1,500 in 1999 (reported by the Teaching Service Commission), while in one of Kenya's eight provinces 20 to 30 teachers die each month from AIDS.

HIV-positive teachers are estimated at more than 30 percent in parts of Malawi and Uganda, 20 percent in Zambia, and 12 percent in South Africa.

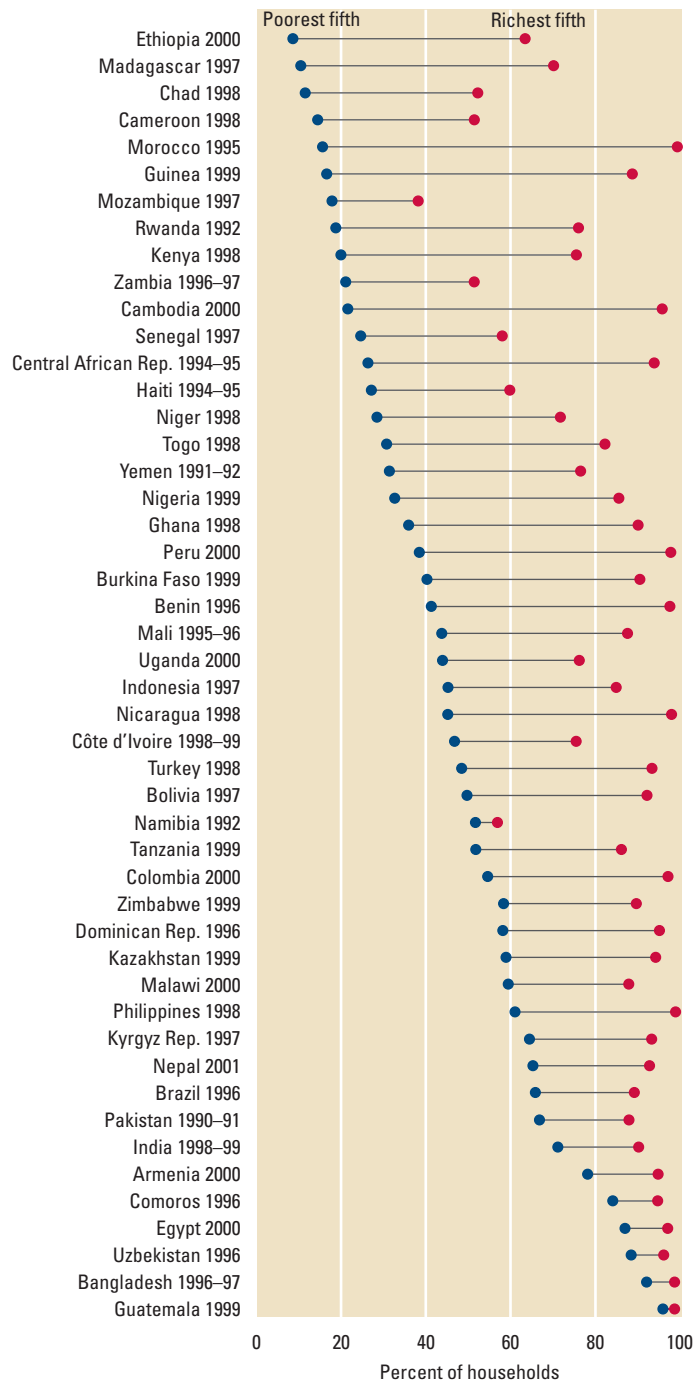
Sources: Coombe (2000), Gachuhi (1999), Kelly (1999), Kelly (2000), UNAIDS (2000), World Bank (2002h).

be expensive. A study in Indonesia estimated that doctors would need to be paid several times their current salaries to induce them to go to the most remote areas.⁷⁰

Even when positions are filled, staff absence rates can be high. In random visits to 200 primary schools in India, investigators found no teaching activity in half of them at the time of visit.⁷¹ Recent random samples of schools and health clinics in several developing countries found absence rates over 40 percent, with higher rates in remote areas and for some kinds of staff—although there is wide variation within countries (tables 1.2 and 1.3). Earlier studies have found similar results. Up to 45 percent of teachers in Ethiopia were absent at least one day in the week before a visit—10 percent of them for three days or more.⁷² Health workers in rural health centers in Honduras worked only 77 percent of the possible days in the week before a visit.⁷³ In rural Côte d'Ivoire only 75 percent of doctors were in attendance on the day before a visit.⁷⁴

Staff alone cannot ensure high-quality services. They also need the right materials—books in schools, drugs in clinics. Studies in Ghana and Nigeria in the early 1990s found

Figure 1.3 Water, water everywhere, nor any drop to drink
Percent of households who use an improved water source, poorest and richest fifths



Note: The poorest fifth in one country may correspond to the standard of living in the middle fifth in another country. Within-country inequalities reflect inequality in access to water and in the wealth index used to construct quintiles. An "improved" water source, as defined by UNICEF, provides adequate quality and quantity of water (that is, a household connection or a protected well, not an unprotected well or bottled water).
Source: Analysis of Demographic and Health Survey data.

Table 1.2 Staff are often absent
Absence rates among teachers and health care workers in public facilities (percent)

	Primary schools	Primary health facilities
Bangladesh	—	35
Ecuador	16	—
India*	25	43
Indonesia	18	42
Papua New Guinea	15	19
Peru	13	26
Zambia	17	—
Uganda	26	35

*Average for 14 states.

Table 1.3 Absence rates vary a lot—even in the same country

Absence rates among teachers and health care workers in public facilities in different states of India (percent)

	Primary schools	Primary health facilities
Andhra Pradesh	26	—
Assam	34	58
Uttar Pradesh	26	42
Bihar	39	58
Uttar Anchal	33	45
Rajasthan	24	39
Karnataka	20	43
West Bengal	23	43
Gujarat	15	52
Haryana	24	35
Kerala	23	—
Punjab	37	—
Tamil Nadu	21	—
Orissa	23	35

Notes for tables 1.2 and 1.3: The absence rate is the percentage of staff who are supposed to be present but are not on the day of an unannounced visit. It includes staff whose absence is "excused" and "not excused" and so includes, for example, staff in training, performing nonteaching "government" duties, as well as shirking.

— indicates data not available.

Sources for tables 1.2 and 1.3: Chaudhury and others (2003), Habyarimana and others (2003), and NRI and World Bank (2003). Data should be considered preliminary.

that about 30 percent of public clinics lacked drugs.⁷⁵ A quarter of rural clinics in Côte d'Ivoire had no antibiotics.⁷⁶ By itself, the availability of drugs in a health facility is an ambiguous measure of quality: stockouts could be caused by high demand. But when medicines are lacking in clinics and available on the black market, as is often the case, something is amiss. Educational materials are similarly lacking in schools. In Nepal a study found as many as six students sharing local-language textbooks. In Madagascar textbooks had to be shared by three to five students, and only half the classrooms had a usable chalk board.⁷⁷

When staff report to work—as many do conscientiously—and when complementary inputs are available, service quality will suffer if facilities are inadequate or in disrepair. Conditions can be horrific. An account of a school in north Bihar in India describes classrooms ". . . close to disintegration. Six children were injured in three separate incidents when parts of the building fell down, and even now there is an acute danger of terminal collapse. . . . The playground is full of muck and slime. The overflowing drains could easily drown a small child. Mosquitoes are swarming. There is no toilet. Neighbors complain of children using any convenient place to relieve themselves, and teachers complain of neighbors using the playground as a toilet in the morning."⁷⁸ The same study in India found that half the schools visited had no drinking water available. In rural areas of Bangladesh and Nepal a study found an average of one toilet for 90 students, half of them not usable.⁷⁹ In Pakistan there were no separate toilet facilities for girls in 16 percent of schools visited in one study.⁸⁰

Another problem is corruption in various forms. Teachers and principals might solicit bribes to admit students or give better grades, or they might teach poorly to increase the demand for private tuition after hours. Surveys in 11 Eastern and Central European countries found that the health sector was considered one of the most corrupt.⁸¹ Officially only 24 percent of health spending in Europe and Central Asia is estimated to be private, but this fails to include the informal payments—gratuities and bribes—that many patients pay. More than 70 percent of patients make such payments in Azerbaijan, Poland,

and the Russian Federation—more than 90 percent in Armenia.⁸²

Corruption hurts patients elsewhere too. For example, studies based on data from the mid-1990s found that informal payments substantially increased the price of health services in Guinea and Uganda.⁸³ A recent review of case studies in Latin America found widespread corruption in hospitals, ranging from theft and absenteeism to kickbacks for procurement.⁸⁴ Villagers in one North African country where people are covered by "free medical care" reported in a discussion group that "there isn't a single tablet in the clinic and the doctor has turned it into his private clinic."⁸⁵

Again, this need not be. In Benin cost-sharing in health clinics—in line with the Bamako Initiative—and revolving drug-funds increased the availability of drugs in clinics that previously provided services free but almost never had any drugs. Use increased in all the clinics that introduced these measures (see spotlight).⁸⁶ Innovative arrangements can encourage teachers to report for work. In Nicaragua between 1995 and 1997 teacher attendance increased by twice as much in primary schools that were granted autonomy as in state schools managed through the bureaucratic system.⁸⁷ In India a large-scale basic education program in the 1990s doubled the toilets and drinking water facilities in schools in districts where it was implemented. Stakeholders can mobilize to reduce corruption. Public sector unions have organized an anticorruption network (UNICORN) that is supporting national initiatives to protect whistleblowers.

The technical quality of services is often very low

Services also fail poor people when technical quality is low—that is, when inputs are combined in ways that produce outcomes in inefficient, ineffective, or harmful ways. For example, health workers with low skills give the wrong medical advice or procedure, or schools use ineffective teaching methods. Gross inefficiency was identified as the reason for soaring expenditures in a hospital in the Dominican Republic.⁸⁸ A multicountry study of health facilities in the mid-1990s found shockingly low cases of proper assessments of

diarrhea in children under five, and even fewer cases correctly treated or advised. For example, in Zambia only 30 percent of cases were correctly assessed, and only 19 percent correctly rehydrated.⁸⁹ Another study in Egypt found only 14 percent of acute cases of diarrhea were treated appropriately with oral rehydration salts.⁹⁰ A recent study in Benin found that one in four sick children received unnecessary or dangerous drugs from health workers.⁹¹ In India the contamination of injection needles used by registered medical practitioners was alarmingly widespread.⁹²

Even though technical quality is more difficult to identify in basic education, some indicators raise alarm. For example, spending is ineffectively allocated, with substantially more going to teacher salaries relative to other factors that would be more efficient.⁹³ Or time is misspent: in five Middle Eastern and North African countries primary school students spend only about 65 percent of the potential time actually on task.⁹⁴ In Indonesia first and second grade students officially spend only 2.5 hours a day in school, and absences and classroom time spent on administrative tasks reduced time spent learning even further.⁹⁵

Services are not responsive to clients

Services also fail in the interaction between provider and client. Clients are diverse: they differ by economic status, religion, ethnicity, gender, marital status, age, social status, caste. They may also differ in the constraints on their time, their access to information and social networks, or their civic skills and ability to act collectively. The inequalities between these groups are mirrored in the relationship between clients and providers.⁹⁶ In India districts with a higher proportion of lower castes and some religious groups have fewer doctors and nurses per capita, and health outreach workers are less likely to visit lower-caste and poor households.⁹⁷ Clients report that they value health facilities that are open at convenient times, with staff who treat them with respect. In El Salvador infrequent and inconvenient operating hours greatly reduced the use of health posts. According to focus group respondents: “Health posts operate only twice a week. Waiting time is three hours on average. Only those who arrive by 8 a.m. get a consultation.”⁹⁸ In Sub-Saharan Africa school

often starts at 8 a.m. while girls are still fetching water, and school holidays are at odds with local market dates.

The “social distance” between providers and their clients can be large. In Niger, a mainly rural country, a study found 43 percent of the parents of nurses and midwives were civil servants, and 70 percent of them had been raised in the city. All of them went to work by car—a rarity in that country.⁹⁹ Sad consequences of the social distance between providers and clients are not hard to find. In Egypt participants in a discussion group complained about the attitude of staff at the local rural hospital, with one respondent summing up the experience: “They have their noses up in the air and neglect us.”¹⁰⁰ In South Africa a focus group member comments about a primary health care provider: “Sometimes I feel as if apartheid has never left this place. . . . They really have a way of making you feel like you are a piece of rubbish.”¹⁰¹

Services must be relevant—filling a perceived need—or there will be little demand for them (box 1.3). If primary schools teach skills relevant only for secondary school—and not for life outside of school—only children from richer families who expect to continue to the secondary level will deem it worthwhile to complete primary school. In Ghana one respondent claimed: “School is useless: children spend time in school and then they’re unemployed and haven’t learned to work on the land.”¹⁰² In India one component of an integrated childhood development program failed when beneficiaries rejected the food

BOX 1.3 *School services for girls are not in high demand in Dhamar Province, Yemen*

“At the back of the classroom of 40 boys sat 2 girls. . . . What did the girls want to be when they grew up? ‘A teacher,’ one said. ‘A doctor,’ said the other. But less than a quarter of the women in Yemen are literate, and they must follow the path of the traditional village women, who usually marry in their teens and have an average of 10 children. In the countryside of Dhamar Province, one of the country’s poorest, there are few professional activities for anyone, much less for women. Besides, most parents won’t let their daughters go to school—deeming it unac-

ceptable for them either to learn alongside boys or to walk to class in the street.”

In Yemen girls make up about one in three students at the primary level, one in four at the secondary level. More than 75 percent of women over 15 are illiterate, compared with 35 percent of men. Girls’ education is not the only problem, however. The net enrollment rate for boys is only 75 percent at the primary level, 70 percent at the secondary level.

Sources: Mayer (1997), World Bank (2002g).

grain supplied. Eventually the program changed what it offered to match varying preferences in different parts of the country.

And again, this need not be. In the Nioki area of Zaire (now the Democratic Republic of Congo), where the use of health services declined substantially between 1987 and 1991, it increased in clinics with nurses who had good interpersonal skills.¹⁰³ Among indigenous peoples in Bolivia, Ecuador, Guatemala, Mexico, Paraguay, and Peru, promoting bilingual and intercultural education contributed to improved schooling outcomes.¹⁰⁴ An innovative public health campaign among sex workers in Sonagachi, India, trained “peer educators” to pass information to their co-workers. Disseminating information in this way resulted in more condom use and substantially less HIV infection than in other cities. The approach had knock-on effects as well: sex workers organized a union and effectively lobbied for legalization, reduction in police harassment, and other rights.¹⁰⁵

Little evaluation, little innovation, stagnant productivity

In most settings there are few evaluations of new interventions, and so no effective innovation and improvement in the productivity of services. Evaluating innovative service arrangements—such as new forms of accountability—is rarer still. If systems don’t build in ways of learning about how to do things better, it should be no surprise when they stagnate. Relying on research from other countries, while useful, is not enough. Finding out how a particular intervention works in each country setting is crucial, since history, politics, and institutions determine what works, what doesn’t, and why.

Once again, this need not be. Although rarely carried out, some programs have tried to incorporate evaluation components to learn about the program. Mexico’s Progresá explicitly included randomization and evaluation in its design. The results of the evaluation—well documented and disseminated in the media—helped solidify support for the program. They showed what was most effective, contributing to the program’s extension to a large part of the country’s poor people (see spotlight). But even without an experi-

mental design, it is possible to learn about systems and to innovate. For example, the Probe study in India documented a variety of shortcomings of the quality of primary schools. The widely publicized results contributed to mobilizing support for reform.¹⁰⁶

Making services work to improve outcomes

Many of the examples discussed so far describe failures in the public sector’s provision of services, but they are not the only story. The 20th century has seen enormous improvements in living standards. Life expectancy has improved dramatically in nearly every country. The expansion of schooling has been similarly remarkable. In nearly every country illiteracy has been reduced dramatically, enrollment rates have gone up, and the average schooling of the population has more than doubled. Civil service bureaucracies providing good services have been integral elements of those successes. In many settings staff must overcome major obstacles—including threats to their own safety—in order to teach children or provide care to the sick.

What do services that work look like? Safe and pleasant schools with children learning to read and write. Primary clinics with health workers dispensing proper advice and medicine. Water networks distributing safe and dependable water. Direct subsidies to poor children and their families encouraging demand. Services that are accessible, affordable, and of good quality—helping to improve outcomes for poor people.

Governments take on a responsibility to make services work in order to promote health and education outcomes. Chapter 2 addresses the reasons for this responsibility, dwelling on three seemingly straightforward ways to discharge it: relying solely on economic growth, allocating public spending, or applying technical fixes. None of them is enough by itself. Making services work requires improving the institutional arrangements for producing them. Chapters 3 to 6 of this Report develop a framework for analyzing those arrangements. Chapters 7 to 11 apply the framework and draw lessons for governments and donors.

CRATE 1.1 *Determinants of health and education outcomes—within, outside, and across sectors*

Health and education outcomes are determined by more than the availability and quality of health care and schooling. Better nutrition helps children learn. Better refrigeration and transport networks help keep medicines safe. Many factors determine outcomes on both the demand and the supply sides, linked at many levels. The demand for health and education is determined by individuals and households weighing the benefits and costs of their choices and the constraints they face. The supply of services that affect health and education outcomes starts with global technological knowledge and goes all the way to whether teachers report for work and communities maintain water pumps.

Demand: individuals and households

Benefits and costs determine how much an individual invests in education or health. What are the benefits? Higher levels of education and health are associated with higher productivity—and higher earnings. Investing in human capital is a way to get those

returns. But the returns might vary for different people, such as lower expected earnings for women or for ethnic minorities. In these cases one would expect different levels of investment: different desired levels of schooling, for instance. A crucial element of demand is the degree to which individuals rather than society reap the rewards. Goods with large positive externalities—in the extreme, public goods—will be demanded at less than the socially optimal level.

What are the costs? There are direct costs: user fees, transport costs, textbook fees, drug costs. Some of these can be borne by families—though not all families. Coping mechanisms for those that cannot are often hard to use. For example, the lack of insurance markets can make it hard to absorb the financial burden of sudden illness. Or the inability to borrow against future earnings can make it hard to borrow for schooling investments.

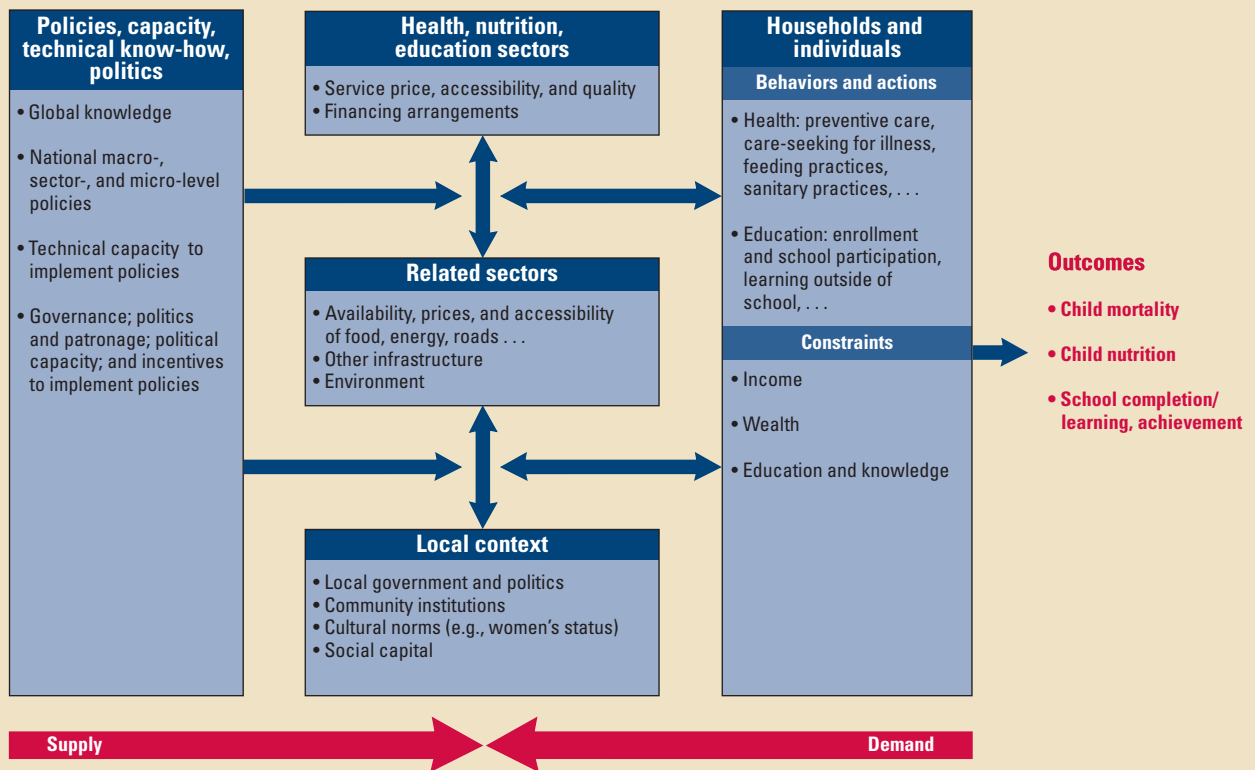
Indirect costs can also be large. For example, children often contribute to household

income by working inside or outside the home (looking after siblings, working on the family farm). The value of this contribution is forgone if they spend substantial time in school.

The total cost of illness includes days of work lost recovering, seeking care, or looking after the ill. Richer families can cope better with these costs, which leads to a direct association between income and outcomes. In addition, better health and education are often valued in themselves. As incomes increase families demand more of them, which again results in an association between income and outcomes.

The production of health and education depends on the knowledge and practices of adults in households. This works through both the demand for human capital and the generation of outcomes. A review of four hygiene interventions that targeted hand washing in poor countries found 35 percent less diarrhea-related illness among children who received the interventions. And factors

The determinants of supply and demand operate through many channels



(continued)

CRATE 1.1 *Determinants of health and education outcomes—within, outside, and across sectors (continued)*

in the home complement schooling: books and reading at home contribute to literacy.

Investments in the human capital of children are sensitive to the allocation of power within households: families in which the bargaining power of women is stronger tend to invest more in health and education. A study in Brazil found that demand for calories and protein was up to 10 times more responsive to women's than men's income. This result, strongest in societies that proscribe women's roles, tends to affect girls more than boys.

More generally, the roles and responsibilities of different household members can affect how investments are made. A woman in Egypt says: "We face a calamity when my husband falls ill. Our life comes to a halt until he recovers." Her husband's earnings are crucial for sustaining the family. Since productivity is related to illness, households respond. In Bangladesh a study found that household members who engaged in more strenuous activities received more nutritious food. Daughters' education might be less valuable to parents if sons typically look after them in their old age, so parents might be less willing to send girls to school.

Demand: links between sectors at individual and household levels

Health and nutritional status directly affects a child's probability of school enrollment and capacity to learn and succeed in school. Malnutrition among children was associated with significant delays in school enrollment in Ghana. Improving child health and nutrition at the pre-primary level has long-term impacts on development. A study in the Philippines found that a one-standard-deviation increase in early-age child health increased subsequent test scores by about a third of a standard deviation.

Improving the health and nutritional status of students positively affects school enrollment and attendance. A longitudinal study in Pakistan found that a one-third of a standard deviation increase in child height increased school enrollment by 19 percentage points for girls and 4 percentage points for boys. An evaluation of school-based mass treatment for deworming in rural Kenya found that student absenteeism fell by a quarter—but test scores did not appear to be affected. Improving nutrition is not as simple as supplementary feeding at school: households can reallocate resources with the effect of "sharing" that food. A study in the Philippines found no such sharing in general,

but for a school snack program there was sharing in poorer families.

Parents' education has intergenerational effects on the health, nutritional status, and schooling of their children. Adult female education is one of the most robust correlates of child mortality in cross-national studies, even controlling for national income. Similarly, mother's education is a strong determinant of lower mortality at the household level, though the relationship weakens when other household and community socioeconomic characteristics are controlled for. A large part of this effect might not be general education but specific health knowledge, perhaps acquired using literacy and numeracy skills learned in school, as a study in Morocco found. The effects can also be interspatial: a study in Peru found that the education of a mother's neighbors significantly increases the nutritional status of her children. Parents' education is similarly associated with the schooling of their children, though the magnitude of the effect—and the relative roles of mother's and father's education—vary substantially across countries.

Access to—and use of—safe water, as well as adequate sanitation, have direct effects on health status. Hand washing is a powerful health practice, but it requires sufficient quantities of water. An eight-country study found that going from no improved water to "optimal" water was associated with a 6-percentage-point reduction in the prevalence of diarrhea in children under three years of age (from a base of 25 percent) in households without sanitation. Nutritional status was likewise associated with access to improved water. But not all studies find strong associations between water source and better health.

The water source is only part of the story: in Bangladesh water accessed through tube-wells—an "improved" source—is frequently contaminated with arsenic. One study found that arsenic levels higher than the World Health Organization's maximum acceptable level are associated with twice the level of diarrhea in children under age six. Extremely high levels of arsenic are associated with shorter stature among adolescents.

The same eight-country study mentioned above found that going to "optimal" sanitation from none was associated with a 10-percentage-point drop in recent diarrhea in households with no improved water source. As in education, there are spillover effects: sanitation practices at the community

level impact everyone's health. In Peru the sanitation investments of a family's neighbors were associated with better nutritional status for that family's children.

The use of safe energy sources affects both health and education. Indoor air pollution—from using dirty cooking and heating fuels—hurts child health. One review of studies found that the probability of respiratory illness, or even death, was between two and five times higher in houses where exposure to indoor air pollution was high. A study in Guatemala found birth weights 65 grams lower among newborns of women who used wood as a domestic cooking fuel. Coping with the cold, in cold climates, affects health and imposes substantial direct and indirect costs on households. Education is affected as well: schools have to close when there is not enough heat, and it is hard to imagine that working on schoolwork at home is an option when indoor temperatures are below freezing.

Supply: global developments

At any given income, health and education outcomes have been improving. A continuing trend in improvements in health going back several decades is interpreted as advances in technologies and leaps in knowledge about health and hygiene. More recently, at a national income of \$600 per capita, predicted child mortality fell from 100 per 1,000 births to 80—a full 20 percent reduction—between 1990 and 2000. If this association were sustained, major headway would be made toward the Millennium Development Goal through these changes alone. Major breakthroughs in immunizations for malaria—or HIV—could have a huge impact on mortality at all income levels.

Recent years have seen major developments in global funding for health and education expenditures. Debt relief through the Heavily Indebted Poor Countries initiative is tied to increases in expenditures on these sectors. New assistance, delivered through multisectoral products such as Poverty Reduction Support Credits, requires explicit strategies for human development investments. Global funds for health and the "Fast-Track Initiative" for education are international pledges to support initiatives in the sectors (chapter 11). Easing financial constraints goes hand in hand with using resources effectively to support services that work for poor people.

CRATE 1.1 *Determinants of health and education outcomes—within, outside, and across sectors (continued)*

Supply: national resources

National income is strongly associated with child mortality and primary school completion. Income and health and education outcomes build on each other. More income leads to better human development outcomes, and better health and education can lead to increased productivity and better incomes. Studies that have tried to disentangle these relationships typically find income to be a robust and strong determinant of outcomes.

National endowments are also a strong determinant. Geography and climate sometimes make it tougher to overcome health problems. For example, areas conducive to mosquito survival have great difficulty in combating malaria—and widely dispersed populations are difficult to serve through traditional school systems.

The performance of public expenditure in producing outcomes varies substantially across countries. There are large differences in achievements at similar levels of expenditure and similar achievements with very large differences in expenditures—conditional on income. Spending more through the public sector is not always associated with improved outcomes. This is not to say that spending cannot be helpful—but the way resources are used is crucial to their effectiveness.

Supply: political, economic, and policy context

Governance affects the efficiency of expenditures: in corrupt settings money that is ostensibly earmarked for improving human development outcomes is diverted. Staffs ostensibly delivering services do not. But the effects of poor governance can be deeper. Famines are caused as much by human factors as by nature. And the repercussions run across national borders. For example, a drought combined with misguided policies and bad governance in Zimbabwe resulted in a regional food shortage.

Managing public expenditures can be a critical link in ensuring that allocated expenditures get put to uses that improve outcomes. “Cash budgeting” in Zambia led to unpredictable social service spending and deep cuts in spending on rural infrastructure.

Conflict leaves long-lived scars on health and education. Children in war-torn countries are hard to find, hard to get into school, and hard to keep in school. During Sierra Leone’s recent civil war, tens of thousands of children attended primary school but hundreds of

thousands did not. Wars, including civil wars, lead to “lost generations” of undernourished and undereducated children. These deficiencies are difficult—if not impossible—to make up for. When children have been out of school for a long time, it is hard to return. And bad health and poor nutrition at an early age affect children throughout their lives.

Periods of national economic and social crisis can result in bad health and education outcomes. This is clear in Russia’s recent history: adult mortality has increased dramatically over the past 10 years. Sustained economic depression can severely compromise children’s health and have cascading effects on subsequent development and learning. The evidence of shorter-term economic crises is more mixed. In middle-income environments school enrollments might increase as the opportunity cost of time for young people falls. Even in Indonesia, a relatively poor country, the deep economic and social crisis of the late 1990s had smaller impacts on outcomes than initially feared. This was partly because broad social safety nets were rapidly put in place.

Supply: the local context of government and communities

Decentralization can be a powerful tool for moving decisionmaking closer to those affected by it. Doing so can strengthen the links and accountability between policymakers and citizens—local governments are potentially more accountable to local demands. It can also strengthen them between policymakers and providers—local governments are potentially more able to monitor providers. But local governments should not be romanticized. Like national governments they are vulnerable to capture—and this might be easier for local elites on a local scale.

Community-level institutions, shaped by cultural norms and practices, can facilitate or hinder an environment for improving outcomes. A review of safe-water projects in Central Java, Indonesia, associates success with greater social capital. In Rajasthan, India, manifestations of “mutually beneficial collective action” were associated with watershed conservation and development activities more generally. A broader review of the literature suggests that participatory approaches to implementing projects are more successful in communities with less economic inequality and less social and ethnic heterogeneity.

Supply: services and their financing

Services themselves are important. Inaccessible or poor-quality services raise the effective price of health care and schooling, which results in higher mortality and lower educational achievement. Poor-quality schools deter enrollment and reduce attainment and achievement, especially among children of poor families. Health clinics where the technical skills of staff are so bad as to be dangerous will lead to higher mortality. Lack of water will significantly hurt child health.

Financing arrangements matter. Absorbing the burden of unpredictable large expenditures through health insurance can reduce impoverishment, which in turn will affect outcomes. Financing primary schooling might seem relatively minor: direct costs are typically small. Even so, a lack of access to credit has been found to be associated with lower school enrollment. Borrowing to pay the direct costs of primary school is almost unheard of, but there could be second-round effects if the lack of access to credit means that families need children to engage in home production.

Supply: services working together to produce outcomes

Links among services are critical. Vaccines can become less effective, ineffective, or even dangerous if they get too hot, freeze, or are exposed to light. The ability to transport and store vaccines properly thus determines the success of immunization campaigns. In cold climates schools and health facilities often need to close because of the lack of heating, and dependable energy sources can directly affect health and education outcomes. The accessibility of services can be a deterrent to their use: roads and adequate transport contribute to the total cost of using a service. Since the expected return to education determines the benefits of schooling, labor markets that are not fundamentally distorted (for example, through discriminatory practices toward marginalized groups) can contribute to higher education achievement. Services therefore need to work together to promote improved outcomes.

Source: Sources are detailed in Filmer (2003a).

Conditional cash transfers to reduce poverty in Mexico

Progresa, the Education, Health, and Nutrition Program of Mexico, transferred money directly to families on the condition that family members went for health checkups, mothers went for hygiene and nutrition information sessions, and children attended school. By documenting success through rigorous evaluation, the program has improved, scaled up, and taught others.¹⁰⁷

When Ernesto Zedillo became Mexico's president in 1995, a fifth of the population could not afford the minimum daily nutritional requirements, 10 million Mexicans lacked access to basic health services, more than 1.5 million children were out of school, and student absenteeism and school desertions were three times higher in poor and remote areas than in the rest of the country. The country had a history of unproductive poverty alleviation programs. Worse, the 1994–95 economic crisis left the government with even fewer resources—and greater demands, as more people were falling into poverty.

The administration decided that a new approach to poverty alleviation was needed. The Education, Health, and Nutrition Program of Mexico, called Progresa, introduced a set of conditional cash transfers to poor families—if their children were enrolled in school and if family members visited health clinics for checkups and nutrition and hygiene information.

The program was intended to remedy several shortcomings of earlier programs. First, it would counter the bias in poor families toward present consumption by bolstering investment in human capital. Second, it would recognize the interdependencies among education, health, and nutrition. Third, to stretch limited resources, it would link cash transfers to household behavior, aiming at changing attitudes. Fourth, to reduce political interference, the program's goals, rules, requirements, and evaluation methods would be widely publicized.

The program has been rigorously evaluated, and evaluators have exploited the randomized way the program was rolled out. The results have been impressive. To emphasize the apolitical nature of the program, the government suspended the growth of the program for six months prior to the election in 2000—to show that Progresa was not a political tool.

When President Vicente Fox was elected, his government embraced the program, built on it using the evaluation results, expanded it to urban areas, and renamed it *Oportunidades*. By the end of 2002 the program had about 21 million beneficiaries—roughly a fifth of the Mexican population.

Designing a comprehensive program

Children over seven were eligible for education transfers. Benefits increased by grade (since opportunity costs increase with age) and were higher for girls in middle school, to encourage their enrollment. To retain the benefits, children needed to maintain an 85 percent attendance record and could not repeat a grade more than once.

Eligible families could also receive a monthly stipend if members got regular medical checkups and mothers attended monthly nutrition and hygiene information sessions. Households with children under three could also receive a micronutrient supplement.

The transfers went to mothers, who were thought more responsible for caring for children. The program imposed a monthly ceiling of \$75 per family. In 1999 the average monthly transfer was around \$24 per family, nearly 20 percent of mean household consumption before the program. Transfers were also inflation-indexed every six months (today the maximum is \$95 and the average is \$35).

Highly centralized, the program has just one intermediary between program officials and beneficiaries—a woman community promoter chosen by a general assembly of households in targeted communities. She can also liaise between beneficiaries and education and health providers.

By the end of 1999 the program covered some 2.6 million rural families—about 40 percent of rural families and a ninth of all families in Mexico. The program budget was almost \$780 million, or 0.2 percent of gross domestic product and 20 percent of the federal poverty alleviation budget.

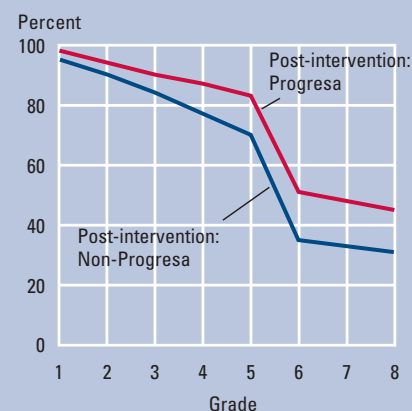
Almost 60 percent of program transfers went to households in the poorest 20 percent of the national income distribution and more than 80 percent to the poorest 40 percent. This is impressive. The median targeting effectiveness in 77 safety net programs from around the world was to have 65 percent of benefits go to the poorest 40 percent (according to one recent study).

Even with careful targeting and monitoring, the program's administrative costs were less than 9 percent of total costs—substantially lower than earlier poverty alleviation efforts in Mexico. Despite its initial large scale, the program did not cover all the poor, particularly in urban areas.

Boosting enrollments

Girls' enrollment in middle school rose from 67 percent to around 75 percent, and boys' from 73 percent to 78 percent. Most of the increase came from increases in the transition from primary to middle school (figure 1). The program worked primarily by keeping children in school, not by encouraging those who had dropped out to return. It also helped reduce the incidence of child labor.

Figure 1 Higher school retention, more transitions from primary to middle school
Expected grade completion before and after intervention, and with and without Progresa



Note: Among children who enroll.
Source: Schultz (2001).

Labor force participation decreased by about 20 percent for boys. Still, a substantial number of children from poor families continue to combine work with school.

The impacts on learning are less clear. Teachers report improvements, attributing them to better attendance, student interest, and nutrition. But a study conducted one year after the program started found no difference in test scores.

Improving nutrition and health

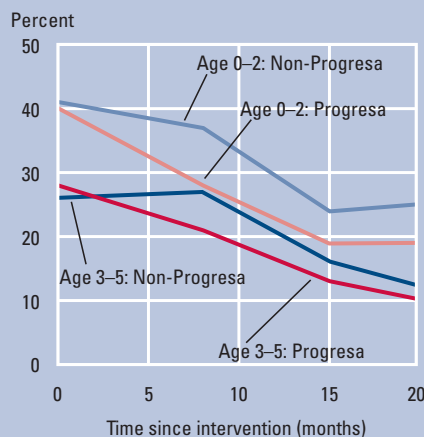
The program helped reduce the incidence of low height for age among children one to three years old. (Before the program stunting was very high, at 44 percent.) Annual mean growth in height was 16 percent for children covered by the program. On average, height increased by 1–4 percent, and weight by 3.5 percent. These gains were achieved despite evidence that some households did not regularly receive nutrition supplements and that supplements were often “shared” with older children. Part of the effect can be attributed to spending more on food and to consuming more nutritious food, as recommended by the nutrition information sessions. There were also positive spillover effects for nonbeneficiaries in the same community.

The program substantially increased preventive health care visits. Visits by pregnant women in their first trimester rose 8 percent, keeping babies and mothers healthier. Illnesses dropped 25 percent among newborns and 20 percent among children under five (figure 2). The prevalence of anemia in children two to four years old declined 19 percent. Adult health improved too.

Reducing poverty

The program is not only raising incomes temporarily, it should help raise future productivity and earnings of the children benefiting. Modeling exercises find that nutritional supplements alone would boost lifetime earnings by about 3 percent and edu-

Figure 2 Improving child health
Percentage of children reported to have had an illness.



Note: Age at start of intervention.
Source: Gertler (2000).

cation impacts would increase them by 8 percent. A general equilibrium analysis of Progresa found that the welfare impact was 60 percent higher than that of the highly distortionary food subsidies that Mexico used previously.

Evaluating impacts

Progresa was unusual in integrating evaluation from the beginning, enabling it to assess impacts fairly precisely. To ensure political credibility, the evaluation was contracted out to a foreign-based research group, the International Food Policy Research Institute.

Phasing in communities in a random fashion—required for budgetary purposes—allowed the construction of 186 control and 320 treatment groups. Having the control groups enabled evaluators to “wash out” confounding factors, including time trends and shocks (economic and climatic). Eventually all control communities were incorporated in the program. Both quantitative and qualitative evaluations were conducted, the latter using semistructured interviews, focus groups, and workshops.

The evaluation design captures the many determinants of outcomes. But it has limitations. Policymakers would benefit from knowing how the program could be manipulated to improve impacts. For example, what is the impact of conditioning the transfers rather than giving pure unconditioned transfers? In addition, households in the control group might have been affected by the intervention or by knowing that they might receive it in the future, an effect that would muddy the comparisons.

Evaluations can address these issues, but the complexity (and expense) increases substantially. Alternative approaches that rely on modeling—imposing additional assumptions on the analysis—might be necessary. Such analyses are currently underway.

Evidence makes the difference

A conditional cash transfer program can be a powerful way of promoting education, health, and nutritional outcomes on a massive scale. The success of the Progresa program has led to similar programs, especially in other Latin American countries (Colombia, Honduras, Jamaica, and Nicaragua).

Evaluation was not an afterthought. It continually fed back into improving program operations. And its rigor increased confidence in the validity of assessments of the program’s effects.

Evaluation was important for domestic and international political and economic support—and thus contributed to program sustainability. Unlike previous programs, this one was not abandoned after a change in government. Clear and credible evidence of large benefits for the country’s poor contributed to maintaining the integrity of the program’s design (albeit with a name change). It also made it easier to get support from the Inter-American Development Bank for a major expansion of the program.