

# Human capacities

## chapter 7

Expanding people's capabilities to lead fuller lives, the aim of all development, means investing in their education and health and in their ability to manage risks. But as chapters 5 and 6 discussed, failures in markets and governments conspire to generate large inequalities in people's opportunities to build their capabilities. Children from poorer families start out life with greater disadvantages than their wealthier peers, attend lower-quality schools, have less access to health services, and are not as protected from economic downturns and family crises. By the time they are adults, they are far less equipped to be productive members of society. Economic, political, and sociocultural inequalities fuel such differences in life chances, perpetuating them across generations.

Public action can level the playing field and broaden opportunities by addressing inequalities in access to quality education, health care, and risk management. Well-designed policies will result in more equitably distributed opportunities to acquire endowments and boost overall productivity. As potentially talented and productive individuals gain access to the services from which they may have been excluded for reasons that have nothing to do with their potential, societies make gains through greater efficiency and greater social cohesion in the long run.

Still, there are challenges. Programs require resources, administrative capacity, and political support. This means paying attention to the design of tax systems, tailoring program intervention to context, and above all building constituencies for change. We focus on leveling the playing field mainly through augmenting the capacities of those with the fewest opportunities, but we recognize that it may be necessary to attack the undue influ-

ence of the powerful and the wealthy to be able to shape public policies to benefit the rest of society. As we have seen, successful transitions are far more likely where the power of the excluded to influence public action has been enhanced.

There are strong complementarities among the different investments in people. Better nourished children have higher cognitive abilities. Well-educated parents, especially mothers, invest more in their children's education and health. More educated individuals are likely to be more resilient to shocks. Instruments to smooth consumption will spur people to take on not only higher risk but also potentially higher return activities and prevent them from disinvesting in themselves (lowering food intake, forgoing treatment) or in their children (pulling them out of school) in times of shocks. And people with more human capital and better risk management capabilities can reduce the variability and increase the level of their incomes.

The policies we consider in this chapter are particularly important in arresting the intergenerational transmission of inequalities. We begin with a review of the rationale and potential for early childhood development programs. We next consider broader education and health policies for expanding access to quality education and care, and finally discuss transfer policies that help manage risks and provide for efficient and equity-enhancing redistribution.

### Early childhood development: a better start in life

By the time poorer children in many countries reach school age, they are at a significant disadvantage in cognitive and social ability. The Ecuadorian study cited in chapter 2 docu-

mented substantial differences at six years of age, related to socioeconomic status and parental education. Differences in childhood cognitive abilities are indeed apparent as early as 22 months of age. One study in the United States shows that by age three the gaps in learning, measured by vocabulary, are already large among children from different social groups (figure 7.1).<sup>1</sup> Cognitive learning is affected by a child's socioeconomic status through health (malnutrition, iron and micronutrient deficiency, parasite infections) and the quality of the home environment, including care-giving and cognitive stimulation.<sup>2</sup> Scientific evidence on brain development supports this. Recent research findings revamp earlier thinking that assumed that the structure of the brain was genetically determined at birth and point to the determining influence of early experiences—from conception to age six, and particularly the first three years—on the architecture of the brain and capacities in adulthood.<sup>3</sup>

As a child ages, environmental effects appear to accumulate. Poor cognitive and social abilities are associated with weaker future academic performance and lower adult economic and social outcomes, including poor health, antisocial behavior, and violence.<sup>4</sup> These underachieving adults influence the cognitive abilities of the next generation of children, creating an intergenerational cycle of poverty and unequal opportunities.<sup>5</sup> Studies using internationally comparable student achievement tests confirm that socioeconomic background is the overwhelming determinant of learning outcomes, with schools accounting for no more than 20 percent of the variation in test performance.<sup>6</sup>

### Benefits of early interventions

Early interventions can substantially enhance a child's life chances and loosen the intergenerational grip of poverty and inequality. In recent years, interest has expanded in early childhood development (ECD) in low- and middle-income developing countries, paralleling greater attention in developed countries.

Early childhood development programs comprise a range of interventions that include providing nutritional supplements to

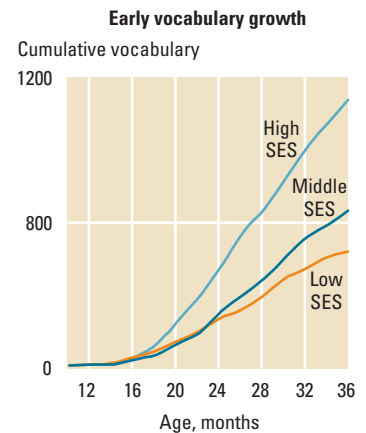
children, regularly monitoring their growth, stimulating the development of their cognitive and social skills through more frequent and structured interactions with a caring adult, and improving the parenting skills of caretakers. The evidence suggests that these programs can be highly effective in addressing problems experienced later in schooling and adulthood.

A recent study in the United States shows that investments in the early years of life, before children reach the formal school system, give greater returns than later investments (figure 7.2).<sup>7</sup> Well-designed longitudinal studies—mainly from developed countries—indicate that programs typically register improvements for children in health, cognitive ability, academic performance, and tenure within the school system and, later in life, higher incomes, higher incidence of home ownership, lower propensity to be on welfare, and lower rates of incarceration and arrest.<sup>8</sup> This suggests a strong productivity case for investing in early childhood development; the arguments for public subsidies to disadvantaged families are compelling on both productivity and equity grounds. As Heckman argues,

early interventions in children from disadvantaged environments raise no efficiency-equity trade-offs; they raise the productivity of individuals, the workforce and society at large, and reduce lifetime inequality by helping to eliminate the factor of accident of birth.<sup>9</sup>

Studies of ECD programs in developing countries also document strong benefits

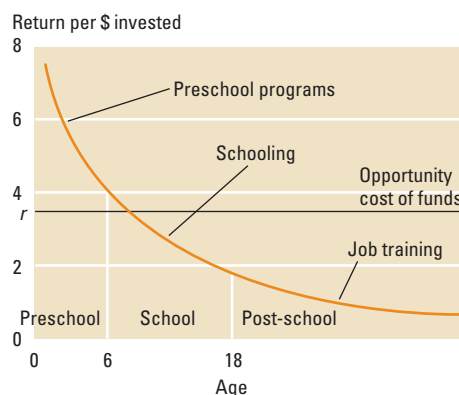
**Figure 7.1 Children from better-off households have a big edge in cognitive abilities by age three**



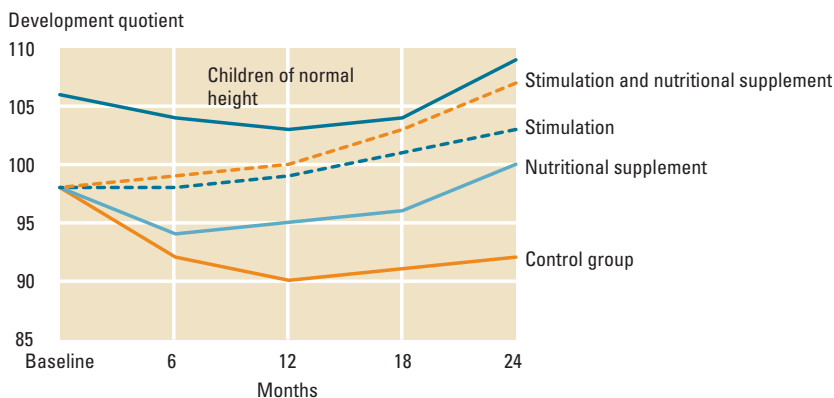
Source: Hart and Risley (1995).

Note: SES refers to socioeconomic status.

**Figure 7.2 Early childhood interventions are good investments**



Source: Carneiro and Heckman (2003).

**Figure 7.3 Catching up through early intervention**

Source: Grantham-McGregor and others (1991).

Note: The Development Quotient is an index composed of ratings in four behavioral and cognitive development indicators: locomotor (large-muscle activities, running, and jumping), hand-eye coordination, hearing and speech, and performance (shape recognition, block construction, and block patterns). "Months" refers to time after entry into the program, generally at around 9 months old.

### BOX 7.1 ECD programs are an essential ingredient for the attainment of education for all

There is sufficient evidence from studies throughout the world to make a case for placing early childhood education among the key interventions to achieve the education Millennium Development Goals (MDGs).

**Higher school enrollment.** Colombia's ECD program PROMESA reports significantly higher enrollment rates in primary school for children participating in the program, compared with children not participating. ECD programs in India (Haryana) and Guatemala resulted in a significant decline in enrollment age for girls.

**Less grade repetition.** In Colombia's PROMESA program, the Alagoas and Fortaleza PROAPE study of Northeast Brazil and the Argentina ECD study, children who participated in the programs repeated fewer grades and progressed better through school than did nonparticipants in similar circumstances.

**Fewer dropouts.** In India's Integrated Child Development Services program in Dalmau, attendance of children ages six to eight in primary school increased by 16 percent for children who had participated in the program; dropout rates did not change

significantly for children from the higher caste, but fell a dramatic 46 percent for the lower caste and an astonishing 80 percent for the middle-caste students. In Colombia the third-grade enrollment rates for children who participated in the PROMESA program increased by 100 percent, reflecting their lower dropout and repetition rates. In addition, 60 percent of the children who participated in the ECD program attained the fourth grade, compared with only 30 percent of the comparison group.

**Higher intelligence.** ECD programs encourage young children to explore and facilitate the social interaction that promotes cognitive development. Children who participated in Jamaica's First Home-Visiting Program, Colombia's Cali Project, Peru's Programa No Formal de Educación Inicial (PRONOEL), and the Turkish Early Enrichment Project in low-income areas of Istanbul averaged higher scores on intellectual aptitude tests than did nonparticipants. Evidence from other studies, however, suggests that these effects dissipate over time.

Sources: Chaturvedi and others (1987), Myers (1995), Young (2002).

for all children, with cost-benefit analyses showing returns of \$2–5 for every \$1 invested. For example, preliminary results for experimental nutritional interventions at 6 to 24 months of age in rural Guatemala show that consuming a nutritional supplement increased the probability of attend-

ing school by 5.6 percentage points and led to higher completed schooling attainment and higher adult cognitive achievement test scores.

Evidence is also mounting that interventions in early childhood particularly benefit poor and disadvantaged children and families.<sup>10</sup> In Jamaica, nutritional supplementation and stimulation administered to undernourished children between the ages of 9 to 24 months—who are most likely to come from disadvantaged families—improved their mental development.<sup>11</sup> Malnourished children who received a milk supplement developed more than those who did not (figure 7.3). Children who benefited from stimulation did even better, while the benefits of supplements and stimulation were additive and allowed disadvantaged children exposed to them to almost catch up with the development trajectory of "normal" children over a period of 18 months. The results suggest that ECD programs may be one of the most cost-effective avenues for reaching the Millennium Development Goals for universal education and an important contributor to the attainment of gender parity in primary completion (box 7.1). They also help mothers participate in the labor force—poor women who had access to free child care in the *favelas* of Rio de Janeiro increased their income by as much as 20 percent—and improve the academic performance of older children, as documented for a community nursery program in rural Colombia.<sup>12</sup>

### Designing ECD programs

Interventions to improve young children's capacity to develop and learn can focus on improving parents' teaching and child care skills, delivering services directly to children, or improving child care services in a community. Programs may be established in homes, day-care centers, or communities. The evidence suggests that three design features are important for the full realization of benefits from ECD programs: starting early, having strong parental involvement, and focusing on child health (especially nutrition) and cognitive and social stimulation. The focus on health leads to a virtuous cycle, because improved health also helps increase cognitive and

social abilities.<sup>13</sup> Overly formal programs can be too expensive for poor families, culturally irrelevant, and insensitive to families' needs.<sup>14</sup> They thus run the risk of being abandoned even when they demonstrate high returns.

What then are the impediments to the widespread implementation of ECD programs given that they are such good investments? Political economy constraints arise from the difficulty of making a case for spending resources on a program with the promise of (uncertain) benefits to come only years in the future. Such a case is often made by the immediate beneficiaries (parents of school-age children) or intermediate beneficiaries (teachers), who organize themselves into powerful political forces. But the institutional setup for ECD program delivery—with funds in many instances channeled to myriad small NGOs, community centers, or home-based caregivers—and the absence of strong central responsibility inhibit organized political pressure. The same institutional setup generates problems of integration with other government programs and of coordination across several government departments.<sup>15</sup>

Thinking about the politics and the design of ECD from the start is thus important. Getting information to parents, community leaders, and policymakers about the objectives and efficacy of ECD services can build public awareness and strengthen demand. Monitoring systems build support by providing timely feedback on a range of intermediate outputs to policymakers and program managers, while proper evaluations provide more convincing evidence of impact and broader lessons from interventions. Integrating ECD programs into the broader development frameworks and involving parents, families, and community members enhance the sustainability of programs.<sup>16</sup>

There are two possible approaches to scaling up ECD interventions. The first is to expand publicly funded preschool programs to all children by making it a statutory right, as in several European countries. This would have significant funding implications, but the benefit is potentially widespread support from middle-class and poor families with children.

The second approach would target disadvantaged families. This may be more cost-effective in view of the evidence presented earlier on larger gains from interventions for disadvantaged children. To bolster participation, the program could be supplemented by a cash-transfer scheme, with transfers conditioned on various desirable behaviors, including changes in the homecare environment, as well as regular health center visits for growth monitoring, immunizations, and nutrition interventions.<sup>17</sup> This would concentrate even more resources on the poor, but the political economy implications are less clear. While targeted programs have a smaller constituency and thus would not benefit from a broad coalition of support, a national program, with transparent criteria for eligibility and good monitoring of “conditionality,” could mobilize support not only from the direct beneficiaries but also from other stakeholders in society.

It is possible to combine a universal preschool approach with a conditional cash transfer (CCT) program. This would yield the highest benefits in the participation of the poor and the productivity gains for all, but it would also be more costly. The approach adopted in any country setting will have to emerge from considerations of costs, benefits, and fiscal capacity—and reflect the political economy.

### Basic education: expanding opportunities to learn

Prominent in the Millennium Development Goals, education is a great equalizer of opportunities between rich and poor and between men and women. But the equalizing promise of education can be realized only if children from different backgrounds have equal opportunities to benefit from quality education. In the previous section, we argued that children's ability to benefit from school is strongly influenced by the cognitive and social skills they acquire in their early years. Evidence suggests that the gains from early interventions can dissipate if disadvantaged children go on to low-quality primary schools.<sup>18</sup>

Chapter 2 documented the large inequalities in educational attainment within countries by income, region, gender, and ethnicity.



Chapter 5 presented the economic reasons why credit-constrained households underinvest in education, making the efficiency case for subsidizing education for the poor. There are other reasons for parents to choose a level of education for their children that may be lower than what is optimal for the child and for society. Educational attainment has various societal benefits that are not fully captured by the individual. For example, it is generally associated with enhanced democracy and lower crime, while girls' schooling in particular has been shown to reduce fertility, empower women, and thereby contribute to the welfare of children in the family. In addition, education has intrinsic value, enabling people to lead fuller lives as informed and active participants in society.

The case for moving to equalizing access to education is therefore strong on both equity and efficiency grounds, especially for basic education. Beyond basic education, there is an important efficiency rationale for ensuring that the most talented and productive people in society have access to higher education. In today's globalized world, with competition largely on the basis of skills and ideas, countries need to cultivate latent talent, wherever it may reside. Motivated and talented children from poorer households deserve the opportunity to excel as much as their wealthier peers. While we acknowledge the important equity dimension of policies for tertiary education, the discussion here is devoted primarily to policies that expand access to and quality of basic education.

We argue that there is a case for public action to enhance equity in learning so that outcomes reflect not merely circumstances of luck—parental endowments, sociocultural environment, birth place, one dedicated teacher—but genuine differences in preferences, effort, and talent consistent with the notion of equal opportunities. This requires expanding affordable access and upgrading quality, with a particular focus on excluded groups, through various interventions that increase both the demand for schooling and the capacity and incentives of the school system to respond.

There are clear complementarities in this approach: quality improvements help only if children are in school, but they also influence

the probability of their attendance. Even uneducated parents will pull their children out of school if they perceive low quality.<sup>19</sup> There may be tradeoffs, however, if resources devoted to upgrading quality benefit primarily the privileged who are already in school at the expense of reaching excluded groups or areas—or if the rapid expansion of access reduces the quality of instruction. While the long-run objective for school systems around the world is clear, priorities will vary by country, region, or group.

### *Expanding access, particularly for excluded groups*

*Expanding access for all.* More than 100 million children of primary school age are out of school, either because they never entered the system or because they dropped out before finishing.<sup>20</sup> As a result, some 52 countries risk not reaching the goal of universal primary completion.<sup>21</sup> In most countries, improving opportunities in education means ensuring affordable access, especially for poor rural children and disadvantaged groups.

Higher public spending on the supply of schools is one way to expand access. Analysis of the determinants of school enrollment in various countries suggests that proximity to schools is a major factor.<sup>22</sup> A careful evaluation of Indonesia's school construction program in the 1970s, the largest such program on record, finds evidence of significant increases in both education and earnings.<sup>23</sup> The program yields large positive returns, but it takes more than 30 years to do so because upfront construction costs are high (more than 2 percent of Indonesia's GDP in 1973), while the benefits are spread over a generation's lifetime.

But for every success story there are many others in which higher spending has not translated into better access to infrastructure, inputs, and instruction for children. In many cases, the resources are not used effectively—too much is spent on teacher salaries or reducing class size and not enough is spent on instructional materials.

Incidence studies suggest that the poor stand to benefit more from expansion when mean levels of access to services are already reasonably high, now the case for primary

schooling, even in many low-income countries. But spending alone is clearly not enough to get the children in school (and even less effective in ensuring that they learn). In many countries, the main problem is not facilities but children dropping out or not attending available schools.<sup>24</sup> Recent efforts to boost access thus focus on demand-side interventions: reducing the cost of schooling or providing incentives, even paying for attendance.

In many countries, parents have to pay a lot, either for school fees or for other inputs, such as uniforms and textbooks. Eliminating these costs can boost participation. Free uniforms and textbooks provided by an NGO program in Kenya (along with better classrooms) reduced dropout rates considerably: after five years, students in the program completed about 15 percent more schooling. In addition many students from nearby schools transferred to program schools to take advantage of the benefits. The result was a 50 percent increase in class size—an increase that does not appear to have deterred parents nor has it led to a measurable negative impact on test scores. This is at least suggestive that a reallocation of the education budget—larger class size with the savings used to pay for the inputs under the program—could raise school participation at no cost to quality.<sup>25</sup>

Eliminating user fees for basic schools has also been shown to boost student enrollment, but quality may be compromised if reliable alternative sources of financing are not available to schools (box 7.2). In both Tanzania and Uganda, eliminating school fees became an important political issue when the population could voice its discontent, helped by the democratic process, an active civil society, and (in Tanzania) the Poverty Reduction Strategy Paper process.

In some cases, there may be a need to go beyond removing the direct financial costs of schooling to induce poor parents to enroll their children. This could be accomplished by providing CCTs and free meals. CCT programs make payments to poor families, typically mothers, on the condition that children attend school regularly. The programs can be seen as compensating for the oppor-

### BOX 7.2 *School fees—an instrument of exclusion or accountability?*

There are two schools of thought about school fees. Some claim that school fees deter poor families from sending their kids to school. Even nominally small amounts can be a large share of poor households' income, and these come on top of the forgone benefits of children contributing to family business or household chores. Schooling costs often figure in parents' responses about constraint to enrollment, and eliminating school fees appears to have spurred a large increase in enrollments in a number of countries, including Kenya, Tanzania, Uganda, and Vietnam. Others see user fees as an important accountability tool, a mechanism for empowering parents to demand

quality services from the schools, and point to studies that show even poor households' willingness to pay for good quality services.

Sympathetic to the arguments in favor of greater accountability, we argue for eliminating user fees when the fiscal impact of forgone revenues can be managed without large efficiency costs or harmful spending cuts. The desirable voice and accountability aspects of school fees can be harnessed equally or better through contributing labor for school improvements or working on parent-teacher advisory committees. Such in-kind fees are cheaper to the parent and engage the parent more fully in school decision making.

tunity cost of schooling for poor families and represent one approach to addressing failures in credit markets and the imperfect agency of parents. Many of the cash-for-school-attendance programs are large, representing significant commitments of public resources. The biggest are Oportunidades (previously PROGRESA) in Mexico, the Bolsa Escola in Brazil, and the Food for Education Program in Bangladesh.<sup>26</sup>

The budgets allocated to these programs are between just under 1 percent of total government current expenditure in Brazil and more than 5 percent in Bangladesh. These significant, but not prohibitive, sums could be generated from savings on other expenditures, such as regressive subsidies for public services, including tertiary education. A question remains about how cost-effective the programs are in expanding education: the answer depends on how successful they are in reaching households that would not have participated in the school system without the transfers.

A careful evaluation of PROGRESA found an average increase in enrollment of 3.4 percent for all students in grades one through eight, with the largest increase (14.8 percent) for girls who had completed grade six.<sup>27</sup> Morley and Coady (2003) estimate an internal rate of return (taking into account the cost of grants) for the program of 8 percent a year and report that the transfers are 10 times more cost-effective



than building schools. But De Janvry and Sadoulet (2004) find that most program benefits are received by those who would have gone to school anyway. They suggest calibrating transfers to increase program efficiency—for example, through larger transfers to the eldest child, to children with an indigenous father, or to children, especially girls, living in villages without a secondary school.

**Reaching excluded groups.** Schools with adequate supplies and well-trained and motivated teachers, who are accountable for the learning they produce, are good for everyone. But additional support may be necessary to improve access for excluded groups, such as disabled children, girls, and indigenous groups.

Including disabled children is possible at relatively modest costs. In Uruguay, grants of up to \$3,000 are awarded for schools that

put forward proposals for reaching disabled children. In the two years since the fund was set up, 6 percent of all schools in Uruguay have been awarded grants to cover expenses to adapt school materials, equipment, and infrastructure and to train teachers in appropriate pedagogical approaches.

Improving gender equity in access to schooling often requires making special provisions for girls, especially older girls.<sup>28</sup> Specific grants for girls have been effective in Bangladesh and Mexico. Private latrines for girls are essential. Other structural improvements including boundary walls, flexible or double sessions when sharing a facility with boys, and perhaps even gender-specific schools may allay parents' concerns about girls' privacy and safety. It is important for schools to undermine, not underscore, stereotypes and unequal treatment of women—and to be wary of giving boys more resources, leadership, and attention. Female teachers are good role models for boys and girls, and even young women can be effective teachers with training, support, and a programmed curriculum. Governments might consider setting national goals for hiring women and being flexible with age and education requirements for female teachers (while still providing adequate in-service training).<sup>29</sup>

To expand access for ethnic groups, teachers or teacher aides from the target ethnic group are particularly helpful in their ability to connect with the students as powerful role models. Bilingual schools have also been effective. In Mali, bilingual programs were associated with large declines in dropout and repetition, and rural students outscored urban children. In Mexico, geographic targeting under PROGRESA (now Oportunidades) led to the relatively high participation of indigenous people (but not those in the most remote areas without schools).<sup>30</sup> An innovative approach to encourage the attendance of Roma children in Vidin, Bulgaria, appears to have paid off (box 7.3).

### Upgrading quality

**Better quality for all.** Expanding access to basic education is necessary but not enough; the quality of education matters for opportunities. But even children in middle-

#### BOX 7.3 *Desegregating Roma schools in Bulgaria: the Vidin model*

In Vidin, the Open Society Institute and the Roma NGO known by the initials DROM have been collaborating to integrate Roma students into the mainstream school system. Vidin is a town of 85,000 in north-west Bulgaria, and 6 percent of its population was identified as Roma in the 1992 census. In the 2000–01 school year, 460 Roma students, or half the school-age students, were enrolled in the mainstream school system. Students are bused from the settlement to school and back. And Roma monitors interact with parents and the school to encourage attendance. Low-income students also receive shoes and school lunches, with lunches given on the bus to reduce the stigma of receiving it at school.

While preparing the program, DROM went door-to-door in the Roma settlement and sought the support of the schools, the mayor, and the media. The project eventually gained the support of all the stakeholders except the mayor, who nevertheless agreed not to block it. DROM invited the six mainstream schools in Vidin to present the program, philosophy, and teachers on television. Roma parents then selected a school for their children. This marked the first time that their views had been solicited by the authorities.

At the end of the first semester, attendance was 100 percent, and first-term final-grade averages were identical to those of non-Roma pupils. Parents and teachers were satisfied, especially with the absence of reported incidents of anti-Roma prejudice. Education authorities were encouraged to scale up in other cities. In addition, 35 Roma parents of the bused children returned to school in adult education programs, and three teenagers who had dropped out in the third grade asked to join the program, prompting teachers to work extra hours with them. On the negative side, 24 pupils received failing grades in one or more subjects, and three left the program.

The success is attributable to three major factors. First, parents feel that their children are protected from prejudice because they are bused and monitored throughout the day by adult Roma. Second, Roma monitors in the schools assure that the children are not mistreated, encourage parental engagement and student participation in extracurricular activities, and help the teachers ease cultural differences. Third, the children are happy to be in schools where real learning takes place.

Source: Ringold, Orenstein, and Wilkens (2005).



income countries do a lot worse than the average OECD kid on international tests of learning achievement, suggesting that much of the learning in schools does not prepare children to be productive adults, let alone for the rigors of competition they will face in the global labor market.<sup>31</sup> The quality deficit is undoubtedly greater for children from poorer families, because the better-off children can go to better public schools or leave the public system and opt for private schooling.

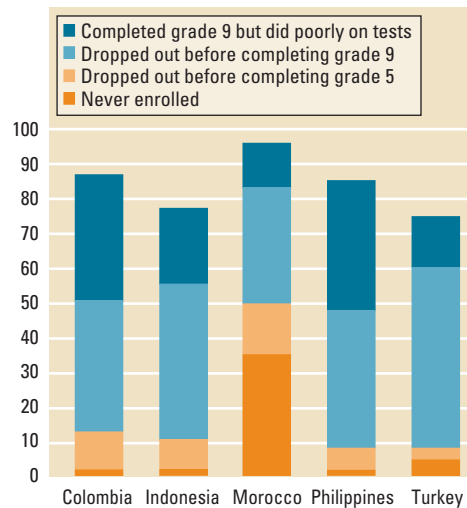
Based on the results of a standardized international achievement test—the Third International Mathematics and Science Study (TIMSS)—Pritchett (2004a) estimates that the overwhelming majority of children ages 15 to 19 lacks education (not completing grade nine or performing poorly in the TIMSS) in five middle-income countries with data (figure 7.4).<sup>32</sup> But the enrollment problem remains large only in Morocco. Indonesia and Turkey have difficulty retaining kids in secondary school; in Colombia, Morocco, and the Philippines, three of four children who have completed grade nine have failed to learn enough.

How can countries improve basic learning outcomes for all? We know broadly from a large number of studies that have tried to account for the “production” of schooling outcomes that higher public spending does not always translate into better student learning.<sup>33</sup> A recent study analyzing the determinants of student performance on the TIMSS—using data for more than 260,000 students from 6,000 schools in 39 countries—finds that education spending (spending per student, class size, student-teacher ratio) at either the school or country level has no positive impact on student performance. Among factors at the school level, the only ones that have a significant impact on student performance are instructional material and teachers with an adequate formal education.<sup>34</sup>

These results are confirmed by several careful microlevel studies. Since 1996, a group of researchers working with a Dutch NGO, International Christelijk Steunfonds Africa, has been involved in the design and evaluation of a series of randomized experiments to improve learning outcomes in the Busia district in rural Kenya. The results

**Figure 7.4 Boosting enrollments is not enough to overcome the learning gap**

As a fraction of cohort



Source: Reproduced from Pritchett (2004a).

a. Based on TIMSS-R scores for eighth graders on mathematics in 1999. To calculate the fraction of students with scores below 400—one standard deviation (100 points) below the OECD median of 500)—Pritchett uses the country mean and standard deviation and assumes a normal distribution. This assumes that scores are roughly constant over time so the 1999 test represents the cohort ages 15–19 in the survey year, and that eighth- and ninth-grade competencies would be roughly similar.

indicate that increased availability of textbooks helps improve test scores, but only among the better-performing students, and that performance-based prizes for teachers increased test scores initially, but the gains dissipated later. What did work in raising test scores were merit scholarships for 13- to 15-year-old girls—with positive effects also on learning for boys, who were ineligible, and girls with low pretest scores, who were unlikely to win the scholarships. The scholarships were the most cost-effective of all the interventions tested, achieving the same learning results at less than 20 percent of the cost of textbook provision.<sup>35</sup>

The results underscore the importance of combining additional spending (of the right kind) with interventions that strengthen incentives to teach and to learn. As the teacher incentive program shows, project design—in this case, the behavior rewarded—matters.<sup>36</sup>

#### ***Better quality for the most disadvantaged.***

Many of the programs just discussed focus on improving performance at the school



### BOX 7.4 *Remediating education: the Balsakhi program in India*

The Balsakhi program is a large remedial education program now implemented in 20 Indian cities by an NGO—Pratham—in collaboration with the government. Pratham hires young women from the community to teach basic literacy and numeracy skills to children who reach the third or fourth grade without having mastered them. Students are pulled out of regular classes for two hours of the school day for the remedial education. The program is inexpensive: \$5 per child per year. Easily replicable, it has been scaled up rapidly since its inception in Mumbai in 1994, now reaching tens of thousands of students in the 20 cities.

A recent two-year randomized evaluation in Mumbai and Vadodara finds that the

program has highly significant positive results on student learning. On average, the program increased learning by 0.15 standard deviations in the first year and 0.25 in the second year. The gains were largest for children at the bottom of the distribution, with those in the bottom third gaining 0.20 deviations in the first year, and 0.32 in the second year (0.51 for math alone). The results were similar in the two grade levels and in the two cities. At the margin, extending this program would be 12 to 16 times more effective than hiring new teachers.

Source: Banerjee and others (2004).

level. What about improving learning outcomes for disadvantaged or poorly performing students? The merit scholarship program for 13- to 15-year-old girls in rural Kenya mentioned earlier is one such example. The Balsakhi program in India—a large remedial education program—represents another highly successful and cost-effective approach to giving poorly performing students a leg up (box 7.4). Because children with the lowest ability registered the largest gains in test scores, the program had an equalizing effect on student achievement.

Many countries group students together by similar abilities on efficiency grounds. However, recent findings in 18 to 26 countries show that such tracking increases education inequality, possibly by reinforcing the effects of family background, but it does not contribute to higher mean levels of performance.<sup>37</sup>

Another option to improve learning outcomes for disadvantaged children is to provide school vouchers. There is significant controversy around the equity and efficiency impacts of generalized voucher schemes (box 7.5). Targeted means-tested voucher programs may be more promising.<sup>38</sup> Results from one such scheme in Colombia are encouraging. The PACES program provided more than 125,000 students from poor neighborhoods with vouchers that covered

about half the cost of private secondary schools; vouchers could be renewed as long as students maintained satisfactory academic performance. An evaluation of this randomized natural experiment (vouchers were awarded by lottery) found lower repetition rates and higher test results among voucher winners.<sup>39</sup> But targeted voucher schemes may be politically difficult to implement—and the Colombia program was discontinued.

### *Strengthening accountability*

Dismal learning outcomes in many countries are due to the combination of inadequate resources and the low responsiveness and accountability of school systems. Efforts to improve school performance will therefore need to focus on strengthening accountability processes: achieving societal consensus on expanding education, dealing with capture by vested interests, and tackling the weak incentives for service providers to raise the quality of learning.

Achieving societal consensus on expanding education helps tackle the pathology of elite capture, whereby the wealthy oppose increased spending in public education. Historically, expansion of voice in a country has led to wider access and quality improvements in basic education, notably in Europe and North America.<sup>43</sup> Democratic transitions have spurred recent expansions in basic education also in Brazil, Guatemala, and Uganda.<sup>44</sup> But these are long-term processes, and it is essential to make progress now toward meeting the urgent needs of millions of children around the world.

Some progress can be made by countering the stranglehold of interest groups on equity-enhancing reforms, such as when teachers unions block reforms that would strengthen the link between performance and accountability.<sup>45</sup> Significant payoffs can come from systemic reforms that strengthen accountability from clients directly to frontline providers.<sup>46</sup> The most crucial steps in any such reform are to increase the schools' accountability for performance and to ensure the availability of relevant information to monitor their performance. Accountability for performance also requires autonomy to manage results. This means delegating responsibility and

### BOX 7.5 *School vouchers: efficient and equitable?*

School voucher programs increase the power of parents to choose schools for their children. Parents are given a voucher by the government, which (at least in theory) can be applied to the school of their choice, public or private. The expectation is that competition among schools and the availability of public resources to access private schools would improve the overall efficiency of the school system and student achievement. But research into the impacts of vouchers has not produced definitive or generalizable results—in large part because of methodological challenges and the differences in the specific design and institutional context of various reforms. Design can vary according to the size of the voucher, the pool of eligible students, whether schools can charge more than the value of the voucher, and regulations governing school choice (such as whether or not religious schools are eligible). Institutional management, bureaucratic control, governance of public schools, and oversight of eligible private schools also vary and influence the results of programs.<sup>40</sup>

Chile has more than 20 years of experience with large voucher programs. Yet detailed analysis on the effects of competition on school quality in Chile has not led to a consensus on impact. In the United States, one study found that competition improved achievement in the city of Milwaukee, while another found no impact. Similar variance is found in the related literature on the impact of school choice.<sup>41</sup> Competition between schools and school

choice imply that weak public schools will lose students and could be forced to close. Successful schools would have to be enlarged, or new—and presumably more effective—schools would have to be built. Such institutional change presents significant political, technical, and administrative hurdles. The hurdles are particularly acute under a universal voucher program that enables large student migration.

Solid evidence on productivity differences between public and private schools is also lacking. Again consider Chile, whose voucher program generated a large number of new secular private schools that operated alongside more established Catholic schools. An analysis of Chilean fourth-grade achievement data showed that Catholic schools had higher achievement than public schools in math and Spanish, while secular private schools had lower achievement. Another study found that unrestricted nationwide school choice in Chile resulted in middle-class flight into private schools, but without achievement gains.<sup>42</sup>

Evidence on peer effects that could influence student achievement is equally inconclusive. It is not clear whether peer effects are linear, meaning that gains for students who move to a higher-quality peer group are offset by losses for either their new or old classmates—or nonlinear, meaning, for instance, that positive peer effects can disproportionately benefit students with low socioeconomic status.

While impacts on efficiency are ambiguous, there are reasons to be cautious about the

equity effects of universal voucher programs. They could lead to increased racial and socioeconomic stratification of schools as parents seek to improve the quality of their children's peers (such as middle-class flight in Chile). Such stratification could occur if all parents were given vouchers but low-income families were in a less favorable position to exercise choice because of lack of information, prohibitive transportation costs, or extra fees. Disadvantaged students would simply be more concentrated in low-quality schools. Echoing similar concerns, a recent study concludes that, in the United States, "a large-scale universal voucher program would not generate substantial gains in overall student achievement and ... it could well be detrimental to many disadvantaged students" (Ladd 2002, 4).

There are ways to make voucher programs more beneficial for disadvantaged students, but these may reduce political support for such programs. For instance, vouchers and school choice can be limited to low-income families. Program design can also be enhanced by providing transportation to school, requiring that schools do not charge extra tuition or fees on top of the voucher, and requiring oversubscribed schools to select students randomly. Irrespective of design specifics, a voucher program needs to be embedded in a larger strategy of education reform that improves the overall institutional incentive environment for schools and gives underperforming schools the instruments and resources to improve.

power for decision making to the lowest feasible level consistent with incentives.<sup>47</sup>

Once the responsibilities of the school system are well defined, the resources and decision-making powers of providers are consistent with their responsibilities, and information is available to track performance, various mechanisms become available to pressure schools to deliver better performance. School autonomy, community control, nongovernment providers, voucher programs, and public sector reforms can strengthen the ability of citizens, communities, and public organizations to hold schools accountable for delivering results.<sup>48</sup> El Salvador's experience with rebuilding much of its education system following the destructive civil war of the 1980s is a good example of what can be accomplished through partnership with

local communities. As a result of greater parental involvement, Educo schools had rapid enrollment increases without giving up quality, reduced absenteeism among teachers and students, and increased math and language scores.

### Toward better health for all

The large inequalities in health care use and health outcomes in many developing countries do not just reflect different preferences or needs—they arise from constraints on the ability of individuals to achieve good health (chapter 2). Income is one important constraint, especially given incomplete financial markets. Low-income people around the world have worse health and use fewer health services (chapter 2). Ethnicity, race, and location also influence

outcomes. Infant mortality rates among blacks in South Africa are 5.5 times higher than those among whites; life expectancy among the rural Chinese is almost 6 years lower than among urban dwellers, while the life expectancy gap between China's richest and poorest provinces (Beijing and Guizhou) is 10 years.<sup>49</sup>

These stark differences in outcomes and use reflect large group-based inequalities in access to information, facilities with reasonable standards of care and financial protection from health risk. A lack of knowledge about hygiene, nutrition, available services, and treatment options, particularly among the uneducated, lowers demand for health services. Within the household, some family members have less voice (women and children) and this can affect the level of resources used in their interest. Health clinics, especially in poor and remote areas, are often inaccessible, have high rates of absenteeism and low quality and responsiveness to clients. Finally, illness is certainly a burden on poor people, but catastrophic health shocks can also have disastrous consequences for the not so poor, mainly through loss of income but also through high out-of-pocket payments for health care.

These large group disparities in health outcomes are inequitable, because they imply vastly different opportunities to lead productive lives. And because they often arise from failures in markets and agency, reducing these disparities would have large payoffs in efficiency and productivity. We focus here on ways to level the playing field for attaining good health by boosting people's knowledge about basic health practices and services, expanding their access to

affordable care, and enhancing the accountability of providers.

### *Expanding knowledge*

Underinvestments in health by patients may reflect a lack of knowledge and agency and incentive issues within the household, as well as a lack of these resources. Lack of knowledge can keep people from seeking care when they need it, even when price is not an issue. As chapter 5 showed, when deworming medicine was offered free to children in Kenya, the take-up rate was only 57 percent. Similarly, in Bolivia, many poor babies are not delivered by a trained attendant even though mothers are eligible for free care. In India, 60 percent of children have not been fully immunized, although immunization is free; mothers cited ignorance of the benefits of vaccination and not knowing the clinic locations as the major reasons for why their children had not been immunized.

Lack of knowledge can also lead people to pay for inappropriate care. Unqualified or unethical providers can overprescribe treatments for patients who do not know what is in their best interest. For instance, instead of effective and inexpensive oral rehydration therapy, a poor child in Indonesia gets more than four (often useless) drugs per diarrhea attack.<sup>50</sup>

Education is a natural way to address the lack of patient knowledge. Elo and Preston (1996) estimate that one year of extra education nationally reduces mortality rates by about 8 percent—half directly and half through the effects of additional earnings. Female education is particularly powerful. Better-educated mothers are associated with better child-health practices, including hand washing, proper disposal of feces, antenatal care, delivery assistance by trained personnel, immunization, and well-baby clinics.

Community health agents also provide cost-effective instruction in disease prevention and healthy behavior. By employing these nonspecialized personnel, many countries have increased knowledge among the general public at low cost, as with Brazil's Family Health Program and Ethiopia's "mother coordinators," supporting home-based malaria treatment (box 7.6). Com-

#### **BOX 7.6** *Working with mothers to treat malaria*

Malaria kills nearly 1 million children in Africa each year. Empowering mothers to take actions to treat their children in the home can be highly effective in reducing mortality. The Tigray region of Ethiopia trained "mother coordinators," who were selected from among the community to educate other mothers on the symptoms of fever and malaria. Mothers were provided

chloroquine and information on how to administer the drug at a cost of \$0.08 per child treatment dose. By educating mothers, Tigray provided rapid and effective treatment without forcing the child to relocate, which reduced under-five mortality by 40 percent and alleviated the burden of severe malaria cases on hospitals. *Source:* World Bank (2004k).



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munity health workers have also helped increase coverage of poor populations cost-effectively.

Public information campaigns can improve health knowledge by working through existing health clinics or by directly targeting the community. It is also possible to collaborate with the private sector in marketing socially valuable products, such as insecticide-treated mosquito nets, water purification methods, foods rich in vitamin A, and soap—as with the Central American Hand-Washing Initiative in Costa Rica, El Salvador, and Guatemala.<sup>51</sup> Media campaigns can also be effective. For instance, frequent broadcasts of AIDS messages in Thailand, Uganda, and Brazil were a key element in the campaign to reduce the spread of the disease. The Thai media campaign is credited with reducing the incidence of AIDS to a point at which the country is now able to consider a fiscally viable treatment program for AIDS patients.<sup>52</sup>

But neither information nor free services may be enough to boost use among the less empowered or those without voice. Maternal and child health is often viewed as meriting additional intervention. Through conditional transfers, Mexico's PROGRESA (now Oportunidades) program was designed to encourage women to attend pre- and postnatal clinical visits and bring their children for immunization and growth monitoring. The program saw an 8 percent increase in clinic visits by pregnant women in their first trimester, which led to a 25 percent drop in the incidence of illness in newborns and a 16 percent increase in the annual growth rate of children between one and three. An important design feature of the program is transferring funds to women. Although the program puts more demands on mothers' time, participants felt that the benefits were worth it. Women also reported feeling more self-confident and having more control over household resources and their time and travel. Similar schemes are delivering maternal and child care services in Brazil, Colombia, and Nicaragua.<sup>53</sup>

### Expanding access

Access to quality health facilities remains a problem in many areas, often imposing a

greater burden on rural dwellers through additional travel time and hospice costs. City dwellers are within easier reach of health centers. In Burundi, 98 percent of the urban population was within one hour of a health center, but only 65 percent of the rural population was. Even within rural areas, there is large variation. Only half of the poorest rural Nigerians were within an hour of a clinic, but 84 percent of the richest were.

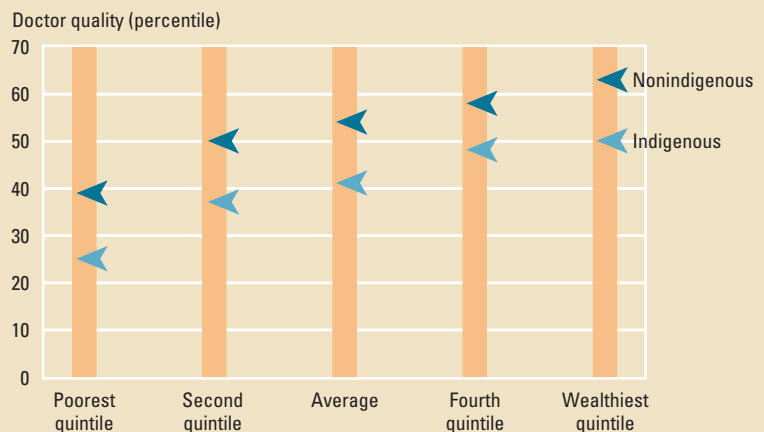
Even when health facilities are accessible, they vary hugely in quality. Some have medicines and drugs in stock, are run by well-trained and motivated staff, and are well maintained. But many are not. They are often dilapidated, rarely have medicines in stock, and are run by poorly trained and rude medical staff, who frequently fail to come to work. It is often precisely the people who are materially disadvantaged who also have to struggle with poor quality and

#### BOX 7.7 Poor people and ethnic minorities receive lower-quality care

New studies from India, Indonesia, Mexico, and Tanzania demonstrate that the poor systematically receive lower-quality care from private and public providers.<sup>54</sup> The situation is often worse for ethnic minorities. Evidence from Mexico suggests that, even in poor rural villages, there is a difference in the quality of care between wealthy and poor and between indigenous and nonindigenous groups. Among the poorest fifth of the population in

Mexico, indigenous women receive prenatal care from doctors who rank only in the twenty-fifth percentile in quality, while equally poor nonindigenous women receive care ranking in the fortieth percentile. The wealthiest fifth fare much better, but even among the wealthy, the indigenous receive worse care than the nonindigenous, suggesting that discriminatory practices or cultural barriers may be at play (see figure below).

##### Indigenous Mexicans receive lower-quality care, regardless of income



Source: Barber, Bertozzi, and Gertler (2005).



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inaccessible health facilities. Ethnic minorities often fare even worse in terms of the quality of health care received (box 7.7).

An important obstacle to the provision of equitable health services everywhere is the difficulty of enticing urban-educated doctors to work in poor areas. Chile, Mexico, and Thailand have used financial and other incentives to encourage qualified staff to work in rural areas.<sup>55</sup> In Indonesia, doctors had to complete compulsory service in health centers before they could obtain a lucrative civil service post. Compulsory service was for five years, with shorter periods allowed for work in remote provinces. This system increased the number of doctors in health centers by an average of 97 percent from 1985 to 1994, with gains of more than 200 percent for the most remote provinces.<sup>56</sup>

Expanding rural health infrastructure and providing incentives to doctors to work

in poor areas may not be affordable for many poor countries. But there are other approaches to reducing the indirect costs (for transport and time spent in transit) and the medical isolation of poor communities. Roving extension clinics visit sparsely populated areas in Afghanistan, Somalia, and Tunisia to provide care locally and offer transportation to better-equipped facilities when required. Bangladesh, Cuba, Gambia, India, and Madagascar have trained community health workers to scale up service delivery for a wide range of services, including malaria prevention, immunizations, family planning, treatment of TB patients, home visits, and neonatal care. The results have often yielded a substantial increase in coverage and measurable improvements in outcomes at much lower unit costs. Through a village health worker program that monitored infants' weight and health for the first month of life, rural infant mortality in Maharashtra, India, was cut in half from 75.5 to 38.8 per 1,000 live births between 1995 and 1998.<sup>57</sup>

Other outreach programs focus on maternal health and safe delivery. By making professional midwives and supervisory nurse-midwives widely available in rural areas, Malaysia and Sri Lanka dramatically reduced maternal mortality rates (box 7.8). In Bolivia, expectant mothers with high obstetric risk are transported to larger clinics a few days before their due date; in Sri Lanka, they are picked up by radio-dispatched four-wheel-drive vehicles.

### *Financing affordable care*

For consumers, health care finance systems have two goals: affordable access to a basic package, and financial protection in the event of catastrophic illness costs. The classic case for government intervention (public subsidies) is when the full benefit of a "treatment" accrues not just to the individual but also spills over to the community more broadly. Interventions to avoid the spread of malaria fall into this category. A bed-net distribution program—involving the Red Cross and national ministries of health—increased use among the poorest quintile from 3 percent to nearly 60 percent in a northern district of Ghana and from 18

#### **BOX 7.8** *Better maternal health in Malaysia and Sri Lanka*

Despite huge improvements in health, survival, and fertility around the world in recent decades, global maternal mortality has not declined significantly. Two exceptions are Sri Lanka and Malaysia. In Sri Lanka the maternal mortality ratio—the number of maternal deaths per 100,000 live births—dropped from 2,136 in 1930 to 24 in 1996. In Malaysia it dropped from 1,085 in 1933 to just 19 in 1997. What can account for this impressive decline? Improving access for rural and disadvantaged communities was an important part of the strategy in both countries.

Sri Lanka and Malaysia made competent, professional midwives and supervisory nurse-midwives widely available in rural areas. Midwives assisted deliveries in homes and small rural hospitals and performed initial treatment in the event of complications. They were given a steady supply of appropriate drugs and equipment and supported by improved communication, transportation, and backup services. Besides reducing financial and geographic barriers, they also helped overcome cultural obstacles and allegiances to traditional practices. Because midwives were available locally and were well respected, they developed links with communities and partnerships with traditional birth attendants.

Malaysia and Sri Lanka pursued other complementary strategies. Transportation

(in Malaysia) and transportation subsidies (in Sri Lanka) were provided for emergency visits to the hospital. In Malaysia, health programs were part of integrated rural development efforts that included investment in clinics, rural roads, and rural schools. Similarly, in Sri Lanka, the government invested in free primary and secondary education, free health care, and food subsidies for all districts. The concept was that basic health care acts in synergy with education and other types of infrastructure. For example, better roads make it easier to get to rural health facilities and facilitate transportation of obstetric emergencies. By addressing the multidimensionality of equity, these countries made significant health gains.

Dramatic improvements in maternal mortality are thus possible. Just as important, the experiences of Malaysia and Sri Lanka show that these can be attained with only modest expenditures. Since the 1950s, public expenditures on health services have hovered between 1.4 and 1.8 percent of GDP in Malaysia and averaged 1.8 percent in Sri Lanka, with spending on maternal and child health (MCH) services amounting to less than 0.4 percent of GDP in both countries. Countries with similar income levels have significantly higher health expenditures and similar, if not higher, maternal mortality ratios.

Source: Pathmanathan and others (2003).



percent to 82 percent in five rural Zambian districts.<sup>58</sup> Immunizations, vector control, and interventions for tuberculosis, HIV/AIDS, and other communicable diseases are similarly deserving.

But the case for government intervention goes beyond these well-accepted public health reasons: inequality in access to financial protection from health risk based on wealth, ethnicity, and location provides another important rationale. Out-of-pocket payments are the dominant form of health care finance in lower-income countries. But liquidity constraints and imperfect credit markets often make out-of-pocket payments more difficult for the poor, reducing their use rates, and health and productivity.

In Vietnam in 1998, before the establishment of health insurance, 30 percent of poor households' nonfood budget went to medical costs, while only 15 percent of spending for the richest fifth of the population was health related. In Cambodia, a single hospital stay absorbed 88 percent of an average household's nonfood consumption in 1997 and, for the poorest among them, the cost was higher than the entire nonfood budget. In the transition economies of Europe and Central Asia, with the collapse of prepayment in the 1990s, out-of-pocket spending skyrocketed, accounting for as much as 80 percent of health resources in Georgia and Azerbaijan. In Armenia, 91 percent of patients reported having to make some payment for service received.<sup>59</sup> While health care use has plummeted in the region, the collapse of prepayment especially hurts poor people.

The regressive nature of out-of-pocket payments is well understood, but there are no easy answers, especially in low-income countries. Given the small formal sector and limited administrative capacity, these low-income countries have limited capacity to mobilize resources to pay for essential health services and to establish large enough risk pools. So, developing countries face a difficult tradeoff between providing a basic package of health services and extending financial protection.<sup>60</sup> Some evidence suggests that the poor are better able to cover low-cost, high-frequency health shocks than low-frequency, high-cost

events.<sup>61</sup> If so, poor people may be better served by having protection against these low-risk, high-cost events through some type of pooling mechanism. It is no easy task, however, to cover catastrophic health risks in ways that reach the poor.

Reducing out-of-pocket costs involves a combination of pooling health risks and prepayment—through contributory insurance schemes, national health services that are funded out of general revenues, or a mix of the two. In all instances, reaching the poor requires some means of subsidizing their health care costs, so fiscal room and political commitment are crucial. In very low-income countries, community insurance schemes, sometimes supplemented through NGO or donor funding, can provide some protection to some people, but generally these services do not reach the poorest.

Contributory schemes—private or social—operate best where the share of the formal labor market is high and administrative capacity is strong. And because premiums and copayments can be unaffordably high, purely contributory schemes generally bypass the poor. Private insurance is a significant part of health finance systems in Brazil, Chile, Namibia, South Africa, the United States, Uruguay, and Zimbabwe. But in all seven countries, private insurance is used by formal sector workers, leaving the ministries of health to provide public funds for programs for the poor and underserved.<sup>62</sup>

Social insurance is characterized by compulsory coverage financed by employment taxes. Benefits are often limited to contributors, and providers are often from the public sector even when private providers are eligible. Social insurance has the appeal of generating a large risk-sharing pool and can, in principle, reach the poor through cross-subsidization. But, when the formal sector is small this potential is limited, because of the difficulties of enrolling a large enough share of the population. This can turn the system into a ticket to privileged access to health services for some, while leaving the bulk of the population underserved. For example, in Mexico, social security health spending per person is five times higher than what the Ministry of Health spends per person.<sup>63</sup> And, the payroll tax

required for social insurance introduces labor market distortions, especially in settings characterized by dual labor markets.

The challenges from both an equity and efficiency perspective are enormous, but a handful of mainly middle-income countries have made important attempts to make social insurance systems work. Colombia, for example, has a cross-subsidization scheme for the poor, topped up by general revenues. The scheme has delivered considerable benefits: higher coverage among the poor (48 percent, up from 9 percent, in 10 years); lower out-of-pocket costs for ambulatory care; large increases in physician-assisted delivery (by 66 percent) and prenatal care among rural women (by 48 percent); and lower child mortality rates (from 44 per

1,000 births to 15) among the insured. But there are questions about the program's sustainability in the face of mounting fiscal cost—reflecting the difficulty of systemic reforms that threaten the privileges of established interests, in this case, public hospitals and the prereform social security institution.<sup>64</sup>

Ministries of health in many developing countries operate essentially as national health services, with nationally owned health sector inputs and funding from general tax revenues. The systems they manage are often inefficient and inequitable, reflecting severe resource and institutional capacity constraints but also a bias in favor of the wealthy and influential. Services are meant to cover everyone, but high out-of-pocket payments keep many poor people from participating. Countries have tried various approaches to improve equity in access to health care provided by the national health system, such as eliminating user fees for all, waiving fees, or giving vouchers to poor people.

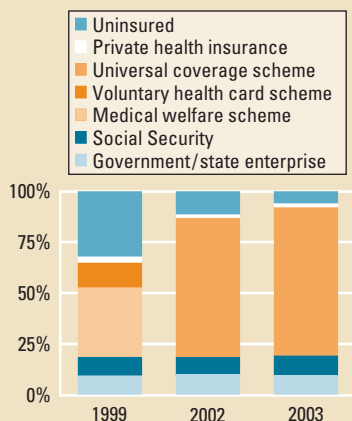
In 2001, Uganda abolished user fees for all. The result was a significant increase in health care use, lower probability of sickness, and better anthropometric measures, particularly for the poor.<sup>65</sup> But the elimination of user fees, if effective, can reduce the resources for the health sector, and thus its quality, unless budgetary funding is topped up to make up for the shortfall. Uganda appears to have avoided a fall in quality, thanks to a large increase in the health budget that more than compensated for the loss in revenues from eliminating user charges.

Introduced in 2002, Thailand's "30 baht" or universal coverage scheme aims to guarantee health care to every Thai citizen. It combines previously existing schemes targeted to the poor and uninsured, and allocates budgetary resources to providers on a capitation basis, with only a small copayment per visit (30 baht). The Ministry of Public Health remains a strategic manager and central financier, but the district offices make the decisions on choice of providers. The scheme has markedly increased use and coverage, with roughly three-quarters of the country benefiting from the scheme and 95 percent of the population insured overall, all at a limited additional budgetary cost (box 7.9).

### BOX 7.9 Mobilizing support for universal coverage in Thailand

With the introduction of the universal coverage scheme in 2002, almost the entire Thai population now has health coverage (box figure 1). This was possible largely because the democratic transition of 1997 ushered in a period of increased voice and openness and raised the political profile of poor people's concerns. Technical preparation—with design details that had been under consideration and subject to experimentation for some time—also helped to garner support for the reform, while prior investments in health care infrastructure, establishing a health center in nearly every rural subdistrict, provided assurance of implementation success.

#### Thailand's increasing coverage



Years of corruption and political inequity in the early 1990s, together with the intervening period of military rule fueling social discontent, prepared the ground for democratic reforms and a liberal constitution in 1997. Two provisions of the new constitution were important for the ensuing health sector reforms: the principle of equity in health care access; and the scope for civil society to propose national legislation affecting citizen rights and the role of the state, if the measure had 50,000 signatures. In March 2000, nearly at the same time that a feasibility study for the scheme was completed, a network of 11 NGOs submitted to parliament a draft bill calling for universal health care coverage. Between 1999 and 2001, the press also captured the general public's interest and kept the issue on the political agenda by highlighting the shortcomings of the current health system.

This political foment attracted the attention of the opposition Thai Rak Thai (TRT) party. TRT adopted the policy because it was broadly supported, administratively and technically feasible, and consistent with the party's ideology. TRT effectively turned the 1997 financial crisis into an opportunity by highlighting the health issues precipitated by the crisis. Following its landslide victory in 2001, TRT introduced its own universal coverage legislation, which passed in November 2002.

Source: Pitayarangarit (2004).



But there is broad agreement that existing capitation rates are too low and that the system is underfunded. This provides limited incentives for private providers to participate and could lead to a financial squeeze on public providers with adverse impacts on quality.<sup>66</sup> Higher use has also put a strain on human resources, with increased workloads (and low pay) accelerating the number of physicians leaving the public system. Clearly supply-side measures need to be considered in tandem with health finance reforms to expand access. Still, the achievements have been considerable, and the scheme has broad popular support. Thailand implemented the reform in large part thanks to the popular support that democratic reforms made possible; previous investments in sound design and health infrastructure also helped.

Other countries reduce costs for the poor through targeted programs funded from general revenues. Armenia's targeted fee-waiver system curbed plummeting use among the poor. But in many instances, simple legislation of free or reduced-price services can be counterproductive without good funding and targeting. Targeted payments, through government vouchers and civil society partnerships with hospitals, can help. Vouchers issued to poor patients, as by the MCH poverty alleviation fund in Yunnan Province in China, give providers a greater assurance of payment. In Cambodia, a promising partnership has emerged between government hospitals, Médecins Sans Frontières (MSF) and a small local NGO, covering the hospital fees of those considered indigent by the local NGO's social workers. Because the hospital is fully compensated, poor patients receive the same care as those who can pay.<sup>67</sup>

Vietnam has introduced health cards for the poor. More than 11 million of 14.3 million eligible people benefited from Vietnam's program in its first year of implementation in 2002. The program has already significantly increased the flow of government health funding to the poor and to predominantly poor areas of the country. The funding per beneficiary, however, is considered inadequate and the cost-sharing arrangements are likely to impose too large a

burden on populations in poorer or ethnic minority regions.<sup>68</sup>

Many developing countries have a mixed system, with ministries of health, private insurance, social insurance, and targeted schemes coexisting to serve different segments of the population. These multitrack systems tend to fragment, increasing administrative costs, limiting pool sizes, and undermining both equity and efficiency objectives. Chile's two-track universal coverage system has caused severe segmentation, with the healthy and wealthy in the private scheme, leaving the public scheme overburdened with the poor and ill. Chile is trying to overcome this by creating a "virtual pool," mandating a common basic benefits package, instituting catastrophic insurance, allowing portability of benefits between schemes, and initiating minimum quality and maximum wait-time standards.

*Community-based health insurance* (CBHI) schemes have developed in some poor communities outside the reach of national health systems. Communities pool health risks through voluntary contributions to a local fund used when any member incurs a health shock. The schemes are reported to reduce out-of-pocket spending and increase use by their members, but they generally do not reach the poorest and socially excluded groups or offer members enough protection from financial risk. Many are limited by their small risk pools, exposing them to low-frequency but high-cost catastrophic events that can outstrip the community fund. Some communities address large health risks by increasing the maximum benefit, as in Cameroon. But they do so by limiting the number of family's claims to one a year and by requiring high premiums (which prohibit the poor from participating).<sup>69</sup>

Insurance alone is not enough for equitable use. Inadequate knowledge of the scheme's benefits and processes and even the paperwork for submitting claims to community insurance schemes can be a deterrent. Hospitals often require payment on or before discharge, but insurance claims are not settled until later, requiring patients to pay up front. India's Self-Employed Women's



Association (SEWA) has been seeking to remedy similar difficulties encountered in its large and well-established CBHI scheme. SEWA is testing door-to-door visits for member education, reimbursement assurance with selected hospitals, and reimbursement to members while still in hospital.<sup>70</sup>

### *Enhancing provider incentives*

Addressing knowledge, access and affordability constraints are important, but they may not be enough to raise health use and outcomes. Hours of operation, waiting time, staff disposition, competence and integrity, and the cultural appropriateness of services are all important. Complaints of unprofessional treatment, abuse, and corruption abound worldwide. Public medical staff who take authorized or unauthorized leave from public clinics undermine the credibility of the public health sector, drive up costs for poor families, and induce the poor to use private providers, including traditional healers. In Bangladesh, such absenteeism rates amount to 40 percent for physicians in larger clinics and 74 percent in smaller sub-centers with a single physician. More generally, poor service delivery has to do with weak management and incentives within the public health system—ineffective technical and structural backup, lack of professional career structures, and inadequate financial incentives all contribute. But the weak demand for service provider accountability and quality is also a problem.<sup>71</sup>

If they are organized, poor citizens and communities can have more voice and greater power to influence health providers. Governments can help support organization by communities and enhance provider accountability. It helps to have well-defined objectives for health service delivery with transparent metrics for monitoring progress. This allows for community oversight of health workers and facilities, and when coupled with sufficient management autonomy for providers to reach the established objectives, can lead to improved provider incentives and accountability.

There is also a need for governments to engage with nonpublic health care providers: in many countries, NGO and private providers make up a large part of the health

network. NGOs are particularly helpful in serving remote areas and hard-to-reach populations: the Bangladesh Rural Advancement Committee (BRAC) trains community workers to seek out the extremely poor in need of urgent medical care. In Jordan, half or more of outpatient visits are to private providers.<sup>72</sup> Many private providers offer excellent services. But some do not—and misdiagnose, misprescribe, or overprescribe treatment. In Mexico, even wealthy women receive worse care from private providers than from public providers (Barber, Bertossi, and Gertler 2005). Without unduly discouraging beneficial private enterprise in health, governments need to ensure accreditation and appropriate regulation for nonpublic providers.

### **Social protection: managing risk and providing social assistance**

Social protection policies typically have been thought of as a form of redistribution. This certainly is important. But more recent theoretical and empirical work also highlights a crucial opportunity-enhancing role for social protection.<sup>73</sup> As chapter 5 showed, pervasive financial market failures in developing countries lead to widespread uninsured risks and credit constraints. Unequal capacity to manage risk means unequal opportunities to engage in risky but high-return activities. Families may deal with crises in ways that narrow future opportunities, such as distress sales and forgoing health care, schooling, or food intake. By helping poor people manage risks, social protection programs expand their opportunities and enhance overall efficiency.

Even purely redistributive programs can have important opportunity-enhancing impacts. Take the example of social pension schemes in Brazil and South Africa. These schemes are pure transfers targeted to the elderly, geared strictly to avoiding destitution, but they have important welfare impacts beyond that. They improve the recipients' access to credit, thanks to the regularity of pension payments, and lead to higher investments in the household's physical capital and in the human capital of its children and elderly.<sup>74</sup>

But social protection systems do more than help individual households avoid des-

titution and expand their opportunities—they can also help societies embark on reforms that would have insurmountable equity and political costs without them. Reforms desirable for their beneficial impacts on efficiency and the government's fiscal position—such as increasing utility prices, eliminating general food subsidies, introducing a defined contribution pension system, liberalizing trade—may not be politically feasible unless policies are in place to compensate losers. Importantly, permanent social protection can help reduce the need for special compensatory programs for each and every reform<sup>75</sup>—all the more important because such programs are difficult to start and stop and are not always very efficient.

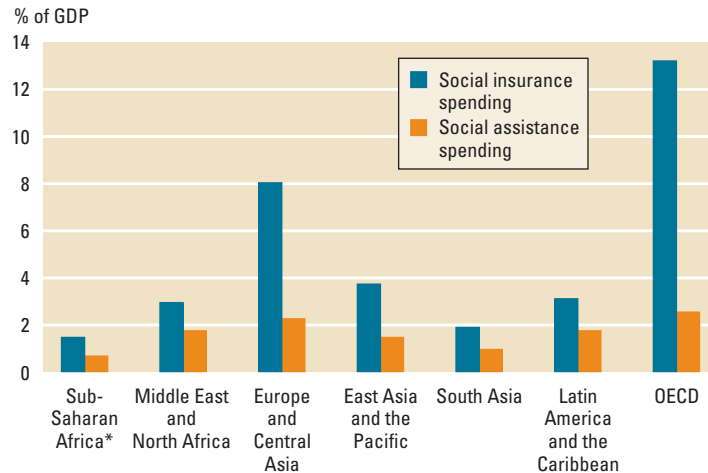
All of this confirms that there is a dynamic efficiency rationale for social protection. But there are also important efficiency arguments against transfer policies. Design issues are of particular concern, because poorly designed programs can have large negative consequences on efficiency. Taxes or contributions have distortionary costs, especially when they are not directly linked to benefits (see focus 5 for a discussion of tax policies), while transfers can dampen work incentives, reduce private savings, and weaken informal insurance mechanisms. Europe's experience in the second half of the 1900s suggests that well-designed social (and tax) policies can indeed be consistent with strong growth thanks to careful attention to productivity impacts.<sup>76</sup>

### *Program choices vary by country*

Social protection generally encompasses two classes of interventions:

- Contributory schemes (social insurance) in which the primary focus is on managing risks through smoothing an individual's income over time and in the face of difficulties. These programs often pool risks across large numbers of individuals and include old-age and disability pensions and health and unemployment insurance.
- General tax funded transfers (social assistance) in which the focus is on redistribution from the better off to the

**Figure 7.5 Almost all countries spend more on social insurance than on social assistance (percent of GDP)**



Source: Data on 74 countries taken from World Bank Public Expenditure reviews or other similar work. OECD data are from the OECD Social Expenditure database.

Note.\* The average for Africa is based on data for only two countries. OECD excludes those OECD members (such as Poland and Mexico) that are already accounted for in the regional averages.

poor. These include a variety of cash or in-kind programs targeted at the poor.

These are complemented by labor market regulations (for example, on hiring and firing of workers) that are discussed in chapter 9. There is large variation in the share of GDP spent on social protection, with more-developed regions devoting considerable sums (figure 7.5). Almost all countries spend more on social insurance than social assistance programs.

There is no consensus on the appropriate balance of interventions—even in countries that have sufficient resources and capacity to implement any combination desired. Some observers argue for the universality of social insurance programs over the targeted nature of social assistance programs that are based on political economy considerations. They argue that targeted programs are exclusionary, by definition, and divisive as a result.<sup>77</sup> But a significant group of OECD countries (notably New Zealand, Australia, the United States, and the United Kingdom) have opted for systems with heavier components of targeted transfers and less generous or less universal programs.<sup>78</sup>

Many developing countries face constraints on the choice of systems because of limited fiscal and administrative capacity. Many poor and even middle-income coun-

Table 7.1 Examples of social protection programs

Group served	Social insurance	Safety net	Complementary Labor Market Regulation
Working poor or unemployed	Unemployment insurance	Transfers Public works programs General subsidies to food, utilities, or housing	Minimum wage laws Job security regulations Severance pay
Nonworking young	Universal child allowances Maternity benefits	Means-tested child allowances Transfers linked to MCH programs School feeding Conditional cash transfers	Child labor laws
Nonworking elderly	Contributory pensions	Transfers Social pensions	Retirement age
Special groups	Disability insurance for disabled	Transfers	Affirmative action for minorities

tries lack the administrative sophistication and levels of urbanization and formal employment needed to administer a social insurance scheme, and high social security taxes have segmented the labor market and encouraged informality.

What then are the options for the many developing countries that are far from able to achieve universal social insurance systems? There is a large range of social assistance programs, each different in groups served, administrative requirements, complementary benefits, incentive effects, and political factors (table 7.1). A judicious blending of these programs can usually result in a social protection system that covers the appropriate groups with feasible instruments. The mix of programs selected and their specific characteristics will depend on context—that is, the risks faced, the level of urbanization, the age structure, the size of the formal sector, the administrative capacity, and the complementary social policies and sociocultural or political factors.

Next, we discuss programs for four key groups:

- The working poor
- The nonworking young
- The nonworking elderly
- Special vulnerable groups

In many cases, the second two groups are part of households that could benefit from programs that target the working poor. So the more comprehensive the programs for the first group, the less the need for programs for the latter two, and the smaller and more focused they might be.

### *Programs for the working poor*

Most people, especially poor people, rely on labor earnings for their livelihoods, many in the informal sector, through subsistence farming, or as agricultural laborers for others. Labor market risk can be reduced significantly by improving the functioning of labor markets and by pursuing sound macroeconomic policies (chapter 9). But even a well-functioning labor market will not fully eliminate the risk of unemployment. Moreover, in years with bad crops or low prices, earnings may not be enough to stave off poverty.

A range of instruments can help address the risk of inadequate incomes—for example, unemployment insurance, needs-based social assistance, or public works. Even food, utility, and housing price subsidies are geared in part to solving the problems of inadequate labor incomes, although with notably poor targeting and sometimes large distortionary costs.

Unemployment insurance, the obvious instrument for mitigating the risk of job loss in the formal sector, will not work well in countries with large informal sectors. Even so, schemes may be able to cover a useful share of workers and take some burden off programs more tailored to those in the informal sector (chapter 9). For example, in 1998 in response to the East Asian financial crisis, Korea expanded its young unemployment insurance program to smaller firms as well as to temporary and daily workers.<sup>79</sup>

Needs-based cash transfers, the classic social assistance instrument, are common in high-income countries. Such programs are potentially very efficient. Nontransfer costs can be low, usually 5 to 10 percent of

total program costs. The programs need not impose significant forgone earnings on participants. And they give cash and, thus full consumer sovereignty, to the recipient.

But these programs face two challenges. First, they require a targeting mechanism. The classic mechanism in high-income countries has been a verified means test. Because income in these settings is mostly formal, it is possible and not too costly to collect accurate information on income and assets. Eastern Europe also has successful experience with means-tested programs, although verifying incomes and assets is more difficult and less accurate there than in high-income countries. Latin America's proxy means tests (relying on easily observable indicators of income) have been shown to be fairly accurate and low cost. Low-income countries with large shares of income from the informal sector experience greater difficulties in setting up targeting mechanism. Although the evidence is less clear-cut, community-based systems have been shown to work well in some countries around the world, especially in fairly homogenous rural communities (Albania, Bangladesh, Ethiopia, Indonesia, Uganda, and Uzbekistan) where elite capture is not a major concern. So the targeting issue could be surmounted.<sup>80</sup>

The second challenge is perhaps bigger—both for technical design and political support. Needs-based transfers inherently present a disincentive to work for those of working age because entry into the program (or the benefit level) depends on income. Traditional mechanisms to partly mitigate the work disincentives include keeping benefits substantially lower than minimum wage, as in Bulgaria or Romania, or lower than the earning of low-skilled agricultural laborers, as in Kyrgyz Republic, or using a sliding withdrawal of benefits as incomes rise, as in much of the industrial world, or an earned-income tax credit as in the United Kingdom and United States.<sup>81</sup>

A newer wave of efforts takes a more active approach to encouraging independence or “graduation” from the need for assistance than under the traditional mechanisms just mentioned. Chile's Puente program uses extensive social work to diagnose each household's barriers to independence and to pre-

pare customized contracts with the household to address the most important of these barriers over a period of two years. Bangladesh's program of income generation for the development of vulnerable groups (IGVGD run by BRAC) gives in-kind assistance to destitute rural women for a period of 18 months. During this time, they are required to save some money and participate in business training. At the end of the cycle, women have the opportunity of “graduating” into the regular microfinance program. A few programs, as in Romania and Bulgaria, add a public service requirement (thus blurring the line between the means-tested social assistance and public works programs).<sup>82</sup> So, whether through traditional or more innovative mechanisms, the disincentive problem can also be mitigated.

Public works programs that support the working or unemployed poor have been used in many countries (box 7.10). By offering employment for low wages, these programs self-select the able-bodied poor, avoiding both the means-testing and work disincentives. In good programs, the work is in high-return activities that create assets and services. The self-targeting aspect is useful because informality is widespread in developing countries and incomes are hard to assess. It is doubly useful as part of a countercyclical measure in fighting poverty during periods of crisis—workers leave the program when their regular source of livelihood picks up again after the crisis. Public works programs for infrastructure are especially welcome in low-income countries, postconflict settings, and sometimes post-natural disaster settings.

Public works programs have some disadvantages too. The administrative capacity to select and run the programs is significant. Indeed the often-cited good programs are a minority of all the public works programs implemented around the world. Many have failed, often over the inability to line up and deliver useful public works, to provide sufficient nonlabor inputs, or to set the wage right.

Even when programs are well run, the net benefits transferred to participants are often a small share of total program costs. First, management, materials, equipment, and skilled labor requirements can run up to 40 to 60 percent of program costs. Second,

### BOX 7.10 *Public works programs: key issues*

Public works programs have been demonstrated to work in some middle-income countries (Chile, Argentina, and South Africa) and low-income countries (Senegal, Kenya, India, and Bangladesh)—and not to work in many others. This international experience offers several lessons in the design and implementation of public works programs.

**Wage rate.** The key to self-targeting is setting the wage rate low enough—no higher than the market wage for unskilled manual labor in agriculture or the informal sector during a normal year. While determining the precise level of the wage rate may not be easy, it is better to start with a wage rate that is too low—if there is no demand at the offered wage rate, it can be raised. Setting a low wage rate level does more than ensure that the workfare scheme will be well self-targeted. It also maintains the incentive to take up regular work when it becomes available, and it helps ensure that the program can reach as many of those in need as possible.

**Conditions of eligibility.** Rationing should be avoided; ideally the only requirement should be the willingness to work at the offered wage. If rationing is unavoidable (for example, if the demand for employment at the wage set exceeds the available budget), explicit secondary criteria should be used—the program may target poor areas, work may be offered only in seasons of greatest need, the length of employment of any individual may be limited, or such addi-

tional options as community-based selection of the neediest or a lottery may be implemented. Least desirable is rationing with entry determined by foremen or political figures. Women's participation can be enhanced through nondiscriminatory wages, the provision of onsite child care, and adequately private latrines.

**Employment guarantee.** A workfare program that guarantees employment can reduce the longer-term risk the poor face. While highly desirable, guarantees have not been a feature of most public workfare schemes. One exception is the Employment Guarantee Scheme in Maharashtra, India, which guarantees unskilled manual work within the district within 15 days of registering for employment with the scheme. While this does not necessarily mean locally accessible employment, the scheme comes closest to offering a guarantee of any kind. India recently announced its intention to extend the guarantee by providing 100 days of employment on rural public works projects at a minimum wage. The scheme is not far enough into implementation to draw lessons. Murgai and Ravallion (2005) simulate some possible outcomes for a range of design parameters: the targeting could be good and impacts of poverty large, but the costs could also be substantial—1 to 2 percent of GDP for the 100-day scheme.

**Labor intensity.** The labor intensity—that is, the share of the wage bill in total costs—should be higher than normal for similar projects in the

same setting. There is a tradeoff between immediate income gains through employment of the poor, and gains to the poor from the quality and durability of the assets created. In a crisis situation, in which current transfers to the poor have high weight, a high labor intensity is desirable. Illustrative average labor intensities range from 0.5 to 0.65 percent in low-income countries and are somewhat lower (0.4) in middle-income countries, although labor intensity often varies significantly by subprojects.

**Administration and implementation.** Administering and implementing an effective scheme is hard—requiring the selection and management of a plethora of small projects over a wide geographic area and many administrative entities. Ideally, public works schemes require a menu of works well-integrated into the local planning process yet elastic in size and timing. This can be difficult in low-capacity settings because of the forward planning and interagency coordination needed. In high-capacity settings, fitting many small labor-intensive projects into the sophisticated and often capital-intensive infrastructure plans of large- and middle-income cities can be difficult. Moreover, ensuring that the workfare program is poverty focused is not easy because of conflicting pressures from alternative target groups, such as the skilled unemployed.

Sources: Subbarao (2003) and Murgai and Ravallion (2005).

workers have to forgo some income to participate: in the absence of the program, they usually would have been able to pick up some part-time work or engage in low-return self-employment activities. In Argentina's *Trabajos*, forgone earnings were half of gross earnings; in Maharashtra's Employment Guarantee scheme, 53 percent; and in Bolivia's ESE, 60 percent.<sup>83</sup> Theoretically, forgone earnings can be minimized by allowing flexible working hours or part-time work, but this can complicate the supervision of the public works and the workers.

#### *Programs for the nonworking young*

Earlier, we focused on interventions geared to overcoming the disadvantaged family circumstances of young children through a variety of services that improve their cognitive and social skills and prepare them for learning in school. Here we focus on ways of augmenting the family's income to alleviate poverty among children and improve their chances in life.

Programs aimed at children can be universal or means-tested, free-standing or linked to the use of health and education services. In both Eastern and Western Europe, the traditional approach to income support for children is through child allowances, independent from but complemented by extensive public education and health care. Most Western European programs are universal, although a few are means-tested (Italy and Spain). A higher fraction of Eastern European programs and those in other middle-income countries are means-tested (Bulgaria, Belarus, the Czech Republic, the Kyrgyz Republic, Poland, Romania, the Russian Federation, Serbia and Montenegro, the Slovak Republic, Argentina, Chile). In Africa, Latin America, and Asia, there is a long and extensive history of school feeding programs and maternal and child health programs that distribute food (or occasionally food stamps). Many of these programs rely on existing

service delivery mechanisms to make their administration feasible or cheaper.

A new wave of CCT recognizes that imperfect markets can lead to underinvestment in human capital (chapter 5) and explicitly seeks to enhance the opportunity-generating potential of income support through links to the use of services. CCT programs are now being implemented in about two dozen countries, mainly in Latin America—but they are being discussed by many other countries and in all regions. These programs transfer income in cash or in kind to poor households with children. They grant benefits only if children comply with standards for attendance in school or participation in a health care program. In the CCT programs with good data, the targeting outcomes have been quite good at generally reasonable administrative costs. All five programs reviewed by Morley and Coady (2003) distribute far more than a proportional share to the bottom quintiles (table 7.2). On average, the share of program benefits going to the bottom 40 percent of the population is an impressive 81 percent. The evidence on poverty impact is more limited, but PROGRESA (now Oportunidades) had a powerful effect: program communities experienced declines of 17.4 percent in the incidence of poverty compared with the control group.<sup>84</sup>

The conditioning of benefits on use of health and education services serves the dual objectives of avoiding severe deprivation and enhancing opportunities for human development. But there is a tension between these goals. A simulation of the results that might be expected from the federal Bolsa Escola program in Brazil shows only a small reduction (1 percentage point) in the poverty index because of the (simulated) loss of labor income of children who drop out of the labor force to attend school. Mexico's PROGRESA (now Oportunidades) had impressive poverty impacts but increased primary enrollment rates by only about 1 percentage point because they were already above 90 percent. Cambodia's program, which focuses on grades seven through nine, may well help with the transition to secondary school, but it misses some of the poorest households because so many have dropped out by then.<sup>85</sup>

**Table 7.2 Targeting performance of conditional transfer schemes<sup>a</sup>**

Quintile	PRAF (Honduras)	RPS (Nicaragua)	PROGRESA (now Oportunidades) (Mexico)	SUF (Chile)	FFE (Bangladesh)
1	43	55	40	67	—
2	80	81	62	89	48
3	94	94	81	97	—
4	98	99	93	100	—
5	100	100	100	100	100

Source: Morley and Coady (2003), table 5-3.

Note: PRAF = Programa de Asignación Familiar; RPS = Red de Protección Social; SUF = Subsidio Unitario Familiar; FFE = Food For Education; — = not available.

a. Cumulative share (percent) of benefit captured, by income quintile.

In settings with low access to health and education services, this tension means that conditional transfer programs may not be appropriate vehicles for social assistance. The conditions would keep the program from serving the poorest. The opposite may be true as well: when the use of services is already satisfactory, it may not be worth using administrative resources to verify compliance with service use conditions.

### Programs for the nonworking elderly

Most countries have public pensions programs for the elderly. Two arguments provide a rationale for governments to mandate a pension system to provide for old-age security: imperfect financial markets limit the scope for redistribution over one's life, and human "failures" to see far enough into the future may lead to undersaving for old age. The need for old-age security will grow. The population of 60 year olds, about 10 percent of the world population today, is projected to reach about 21 percent by 2050. Within this group, the fraction of people over the age of 80, about 12 percent today, is expected to reach 19 percent by 2050.<sup>86</sup>

Contributory pension programs have not solved the problem of old-age security. Coverage is low—only 20 percent of the global workforce. Even in pension systems with extensive coverage, the lifetime poor cannot contribute enough to have a pension at old age that would keep them out of poverty. Elderly women who have not worked outside the home are particularly vulnerable. Moreover, in some countries, such as in Kenya, Uganda, Sri Lanka, and Zambia, poorly governed schemes gave

lower-income workers returns less than bank deposits and the alternatives of investing in land, tools, or a vehicle.<sup>87</sup>

Options for assisting the elderly poor include the following: broadening pension systems to include more people, adding a redistributive element as part of an existing contributory pension scheme, or covering them through a separate “social pension” financed by general revenue. A fourth option is a general needs-based social assistance program.

Broadening the coverage of contributory pensions has been attempted, generally with little success. In the Republic of Korea, mandating the expansion of coverage to farmers, fishermen, and self-employed was met with massive protests; in the end, the government had to subsidize in full or in part the contributions of almost two-thirds of the target population. Adding a redistributive element is common, but as pension reforms strengthen the link between contributions and benefits for efficiency reasons, that redistributive element is becoming smaller.

Social pensions provide transfers to the elderly without requiring prior contributions or withdrawing from the labor force.<sup>88</sup> They can be universal, as in Botswana, Mauritius, Namibia, or Bolivia. Or they can be means-tested, as in South Africa, Senegal, India, Bangladesh, a number of Latin American countries, Australia, Italy, and New Zealand. Many of them complement contributory systems that cover higher-income groups. When the transfers are means-tested, the programs are really a special case of needs-based cash transfers limited to the elderly. The targeting challenges discussed earlier and the potential solutions are similar. Labor disincentives are lessened, however, because societies expect lower work efforts from the elderly.<sup>89</sup>

Evidence from various countries implementing large social pension schemes indicates that the costs are 1 to 2 percent of GDP, not negligible for low-income developing countries. Schwartz (2003) simulates the costs in six African countries of providing social pensions, limiting the benefit to 40 percent of GDP per capita and eligibility to those age 75 and above. The costs would range from 0.2 percent of GDP in Kenya to 0.7 percent of GDP in Ghana, still not insub-

stantial. Kakwani and Subbarao (2005) simulate various options for 15 African countries, and conclude that the best—taking into account poverty impact, fiscal cost, and incentive effects—is to keep the benefit low (about one-third of the poverty threshold), the eligible age limit at 65 or older, and to target only the elderly poor, thus sacrificing the administrative simplicity and political advantage of universalism. There is enough variation across countries to warrant country-specific efforts to determine benefit and eligibility levels and targeting methods rather than relying on rules of thumb.

How should we think about the balance between social pensions for the elderly and other programs, such as those targeting families with children? Are the elderly poor more deserving than other poor? Brazil spends 1 percent of GDP to transfer \$70 a month to 5.3 million elderly poor and only 0.15 percent of GDP to transfer \$6 to \$19 per month to 5 million families to support school attendance through the Bolsa Escola program.<sup>90</sup> When considering whether this the right balance, one can argue generally that young families with children, who have their entire lives ahead of them, should have higher priority. Indeed some argue for shifting public spending away from pensions and toward families with children in Brazil and others suggest that a focus on unemployment may be more appropriate to reduce poverty in South Africa.<sup>91</sup>

There may be important political economy reasons why programs for the elderly garner such political support. There is direct evidence from attitude surveys, across societies and age groups, that concerns about old age poverty are strong and widely shared—perhaps because most people expect to be old one day (but not necessarily unemployed, or a single parent, or disabled) and also because old age is more easily verifiable and less subject to moral hazard, for example, when compared with unemployment insurance.<sup>92</sup>

### *Programs for special vulnerable groups*

Some groups are vulnerable regardless of age—the disabled, HIV infected, ethnic minorities, certain castes, internally displaced households, refugees, and orphans

(box 7.11).<sup>93</sup> One of the key issues in providing transfers for these groups is whether to set up specific programs or to include them in a more general program. There is no universal answer to this, and a complex set of issues must be diagnosed in each case. One is targeting. Not all orphans, widows, or disabled are poor, so universal programs will include some non-poor. A second issue relates to the special needs of the groups. Will income support alone be sufficient, and if not (as is usually the case) does it make sense to link the income support to other programs for the group? For example, when large groups of internally displaced people or refugees emerge suddenly, their needs for housing, food, and health care may strain local availability. In such cases in-kind provision to the group is usually the first response. Only after the groups become long-standing or somewhat smaller does the question of whether to switch to a needs-based cash assistance or workfare program arise. Special programs for groups viewed positively or as deserving, such as veterans or the disabled, may have adequate political support, but if the group is excluded, as ethnic minorities or the HIV positive are in many cases, such programs may not garner sufficient support.

While standard transfers may protect these groups, a broader set of policies can help expand their opportunities and facilitate their integration into society. Some countries have used affirmative action (see chapter 8). Others have used regulations and awareness campaigns that sanction harmful local practices to help prevent discrimination. Policy responses include creating a framework to hear advocacy groups and mainstreaming such concerns into government practice, often building on informal or private arrangements, such as those of faith-based organizations.

## Summary

Equity in the acquisition of human capacities—through early childhood development, formal education, health services, and social protection—is at the core of a strategy to equalize the opportunities for people to lead productive, fulfilling lives. Broad provisioning of these services is also good for development and poverty reduc-

### BOX 7.11 Africa's orphans and public action

Conflict and the HIV/AIDS pandemic are generating a major humanitarian crisis for families in Sub-Saharan Africa. There are as many as 43 million orphaned children in the region today, 10 percent of whom have lost both parents. Orphans make up more than 15 percent of all children in 11 countries, and the numbers are rising.

The death of an earning family member is most likely to drive a family into penury because of the costs of funeral, the loss of regular income, and the risk of losing one's property. Erosion of human capital is another major risk: microstudies and analysis of household surveys suggest that, relative to other children in the household, fostered children are underenrolled in schools, work longer hours doing household chores, and have lower immunization coverage—and the disadvantage is stronger for fostered girls than for fostered boys. Psychological risks are also high because the death of a parent often leaves the child in a state of trauma, lacking nurturance and guidance, and impeding socialization.

The main coping strategy in Africa is fostering by the extended family. When possible,

interventions should first try to strengthen grassroots responses to orphan care, and turn to supplementary interventions only when the extended family is no longer sufficient or capable. When no other living arrangement is possible, experience and research show that orphanages must be the "last resort." Recognizing the scope for exploitation of vulnerable children under all arrangements, appropriate checks and balances must be in place, including oversight by NGOs or community-based organizations.

When access to basic education and health services is generally low, waiving school fees and uniform obligations would help increase enrollment rates of all children including orphans, as in Uganda. When average access to services is high, but the difference in access between the poor and the non-poor, and between orphans and non-orphan children, is large, cash transfers conditional on children attending school seem appropriate. Innovative programs along these lines are just beginning (as in Swaziland).

Sources: Subbarao and Coury (2004); USAID, UNAIDS, and UNICEF (2004).

tion through impacts on innovation, productivity, and social cohesion. But there are big challenges to equitable provisioning—getting the relevant issues on the policy agenda, fighting political capture of institutions so that they do not only serve the powerful and the influential, and managing efficiency-equity tradeoffs, especially in the short term. There are also good prospects for incremental change through advocacy to point out long-run benefits even when there are short-run costs, through sound program and tax design to minimize efficiency costs and build accountability structures, and through political coalitions that can thwart elite holdups.

The power of greater equity in human capacities to unhinge inequality traps is tremendous—through directly contributing to leveling the economic, political, and sociocultural playing fields. But achieving greater equity in human capacity is not enough to break the inequality trap. It needs to be complemented with fairness in the returns to those capacities and in the access to complementary assets, topics discussed in the next chapter.

