

Public Spending on Human Development

Social indicators are improving in many developing countries as public spending on education and health increases. But a greater share of investment in human capital should be channeled toward primary education and preventive health care.

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PUBLIC spending on education and health, because of its positive effects on the formation of human capital, can boost economic growth while promoting equity and reducing poverty. How productive and beneficial spending on education and health is, however, depends on how funds are allocated within these sectors.

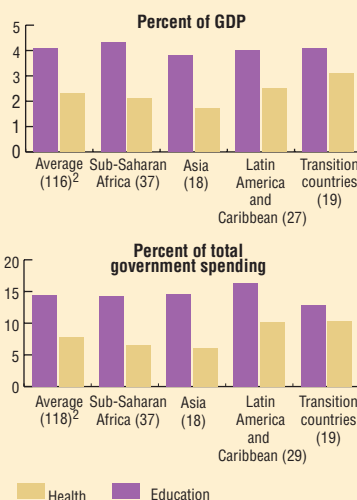
Data from a sample of 118 developing and transition countries (see box) show that, since the mid-1980s, real per capita spending on education and health has increased, on average, in developing countries, but decreased in the transition economies. Comparable increases can be observed for countries that had IMF-supported adjustment programs during the same period. However, a relatively high percentage of public spending is allocated to tertiary education (post-secondary and university level) and curative health care. Thus, there is scope for improving social outcomes by changing the composition of public expenditures.

General patterns

In the latest year for which data are available for our sample (1996 in most cases), public expenditures on education averaged about 4 percent of GDP and 14 percent of total government spending (Chart 1). While there was little variation across regions, there was considerable variation from country to country: the standard deviation from the mean was about 2 percent of GDP. Health expenditures were lower than education expenditures (about 2 percent of GDP), with greater variation from region to region and somewhat higher fluctuations from country to country (the standard deviation was 1.6 percent of GDP) relative to the mean.

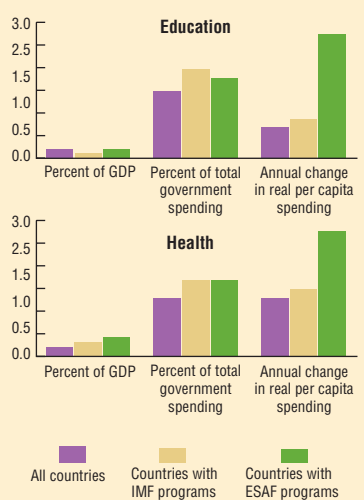
On average, education and health spending has been increasing in the 118 countries as a group, as a share both of GDP and of total government spending (Chart 2). Real per capita spending on education and health rose by 0.7 percent and 1.3 percent a year, respectively. These real spending figures, which are calculated on the basis of each country's

Chart 1
Recent government social spending in developing and transition countries¹



Sources: Country authorities and IMF staff estimates.
¹ Data are from 1996 for 79 countries, from 1995 for 26 countries, and from earlier years for the remainder.
² The number of countries for which data are available is indicated in parentheses. The total is larger than the sum of the regions because of the exclusion of regions with a small number of observations.

Chart 2
Mean changes in government social spending, 1986-96¹



Sources: Country authorities and IMF staff estimates.
¹ For all countries, mean changes are between the earliest and latest years for which data are available. For countries with IMF programs, including programs under the Enhanced Structural Adjustment Facility (ESAF), mean changes are between the preprogram year and the latest year for which data are available.

Compiling the data

The analysis of trends in public spending on education and health in developing and transition countries, and of the effectiveness of such spending in fostering human development, has been hampered by the lack of comprehensive data covering a large number of countries. For its internal use, the IMF has compiled consistent cross-country data on education and health spending for a sample of 118 developing and transition countries, 66 of which are implementing or have implemented IMF-supported structural adjustment programs. Of the 66, 32 are low-income countries with programs under the IMF's Enhanced Structural Adjustment Facility (ESAF).

Cross-country comparisons of government spending on education and health must be made with caution. What is covered by the data may vary from country to country, and data on local government spending are rarely available. Much of the available information on the sectoral composition of expenditures is not consistent with the best available estimates of total spending on education and health. In addition, the fact that data on social spending exclude private sector outlays—which are substantial in many countries—needs to be kept in view when interpreting the relationship between government social spending and social indicators.

GDP deflator, provide proxies for the volume of education and health services. (Specific deflators for the education and health sectors, based on a breakdown of social spending into wage and nonwage components, are not available.)

Spending on education and health as a share of GDP increased in most regions but declined in the transition countries. There were large increases in real per capita social outlays in Asia and Latin America and the Caribbean, while sub-Saharan Africa and the transition countries experienced either moderate increases or decreases (Chart 3). However, social spending as a share of total government expenditures rose in all regions.

Countries with IMF-supported programs

In our sample, countries with IMF-supported programs experienced comparable and, by some measures, sharper increases in public spending on education and health. Increases in spending in low-income countries with programs supported by the IMF's Enhanced Structural Adjustment Facility (ESAF) cannot be attributed solely to foreign loans and grants, which have remained constant, as a share of GDP, since the onset of IMF-supported programs.

Education. Comparing the latest year for which data are available and the year immediately preceding the adoption of an IMF program (a period averaging 8 years), education spending rose as a share of GDP on average in the 66 countries with IMF-supported programs. Though modest, spending increases in these countries were comparable to the average increases for the 118 developing and transition economies as a group. And, because they occurred during the implementation of adjustment programs, which often require fiscal consolidation to restore internal and external balance, these small changes represented proportionally larger increases in education spending as a share of total spending (Chart 4). Real per capita spending has also increased, on average, in the 66 countries.

Changes in education spending in the 66 countries with programs varied substantially from region to region: real per capita outlays increased in Asia and Latin America and the Caribbean but fell in sub-Saharan Africa and the transition countries. The drop in real per capita outlays in sub-Saharan Africa reflects reduced education spending in some CFA franc zone countries following the 1994 devaluation of the CFA franc; however, these spending cuts were due to a drop in real wages for teachers and the departure of expatriate teachers, and do not necessarily indicate a decline in the provision of education services.

Chart 3
Annual change in real per capita spending, 1986-96

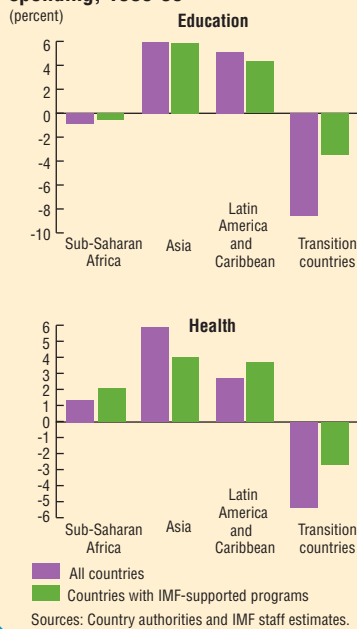


Chart 4
Government social spending in 66 countries with IMF programs, 1986-96

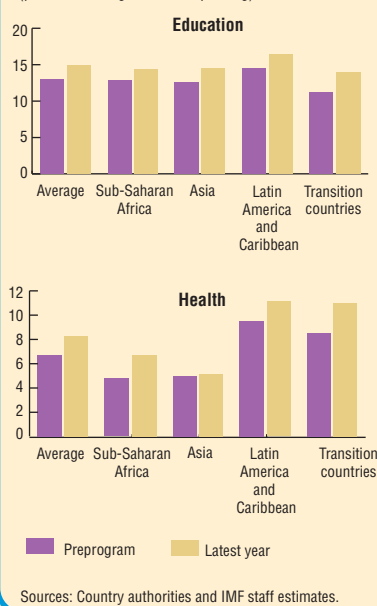
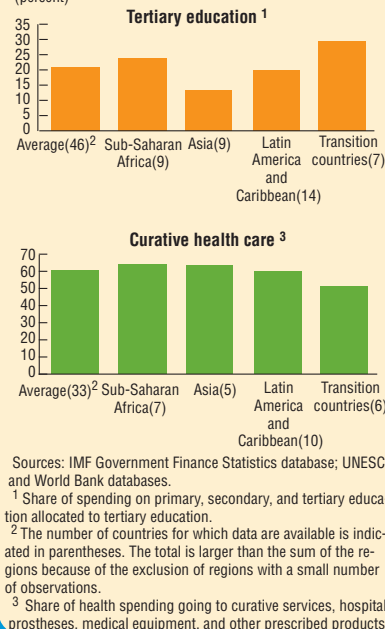


Chart 5
Intrasectoral shares of spending, 1994



Selected social indicators in countries with IMF-supported programs, 1986–96 ¹

(Annual percent improvement; number of countries in parentheses)

	All program countries	Countries with ESAF programs	Sub-Saharan Africa	Asia	Latin America and the Caribbean	Transition countries
Education						
Illiteracy rate	2.4 (40)	2.4 (19)	2.6 (16)	5.4 (7)	2.1 (13)	... (0)
Female	3.0 (39)	2.4 (20)	1.9 (15)	5.0 (8)	3.3 (12)	... (0)
Gross primary school enrollment rate	0.9 (44)	1.7 (17)	1.0 (14)	1.7 (9)	0.6 (12)	0.2 (6)
Female	0.4 (46)	1.2 (19)	0.3 (17)	2.6 (9)	-0.2 (12)	-1.4 (6)
Male	0.4 (40)	1.0 (18)	0.5 (14)	1.2 (8)	0.9 (10)	-1.3 (6)
Gross secondary school enrollment rate	0.4 (43)	1.1 (18)	0.8 (14)	1.0 (8)	1.1 (12)	-2.2 (6)
Female	1.8 (39)	2.9 (19)	3.4 (15)	2.6 (6)	1.8 (9)	-2.1 (6)
Male	0.6 (38)	0.7 (18)	0.8 (15)	1.3 (7)	1.6 (9)	-2.8 (5)
Net primary school enrollment rate	0.8 (25)	2.0 (11)	1.1 (8)	1.9 (3)	0.7 (11)	-0.6 (1)
Persistence to Grade 4	0.8 (30)	0.8 (12)	0.5 (11)	1.2 (6)	1.2 (8)	-1.8 (2)
Repeater rate ²						
Primary school	1.7 (35)	0.7 (18)	1.2 (12)	0.6 (4)	2.3 (13)	-1.7 (4)
Secondary school	-0.1 (25)	0.9 (10)	1.8 (10)	-4.7 (2)	-3.7 (7)	1.3 (5)
Health Care						
Life expectancy	0.3 (61)	0.2 (30)	0.1 (20)	0.7 (9)	0.5 (15)	0.1 (13)
Infant mortality rate	1.8 (61)	1.7 (30)	1.2 (20)	2.9 (9)	3.4 (15)	0.2 (13)
Maternal mortality	1.0 (23)	1.1 (11)	-5.8 (5)	7.1 (4)	-1.2 (7)	4.5 (7)
Births attended by trained health personnel	-2.8 (25)	-2.6 (14)	-1.6 (10)	-4.8 (5)	-4.1 (8)	... (0)
Contraceptive prevalence	6.5 (18)	13.5 (5)	15.5 (4)	4.4 (7)	2.9 (5)	... (0)
Access to health care	4.6 (17)	8.7 (10)	9.1 (7)	2.9 (4)	0.5 (3)	... (0)
Percent under 12 months immunized						
Diphtheria, pertussis, and tetanus	5.9 (51)	7.2 (28)	6.0 (19)	11.0 (9)	4.9 (15)	0.6 (4)
Measles	6.3 (51)	7.7 (29)	5.2 (20)	14.2 (9)	5.3 (15)	0.8 (4)
Other basic services						
Access to safe water	3.9 (36)	4.9 (18)	5.5 (15)	5.2 (6)	1.7 (13)	... (0)
Access to sanitation	3.9 (32)	6.1 (17)	4.1 (12)	4.4 (7)	3.3 (12)	... (0)

Sources: UNESCO and World Bank databases.

Note: The total number of countries is larger than the sum of the regions because of the exclusion of regions with small samples. Differences in the rates of improvement across indicators may reflect rounding errors, differences in sample sizes, or differences in the methodologies used (for example, survey methods versus models).

¹ Based on program countries for which spending and social indicators data are available. For some indicators, countries with internal strife were excluded.

² Some countries were excluded because large changes relative to a small preprogram base would have yielded unrepresentatively large percentage changes over a short period.

The decline in spending in the transition countries may reflect not only falling government revenues but also some convergence toward other regions' levels of spending on education, since the transition countries generally had much higher preprogram spending averages to begin with.

Health. A similar analysis of health spending indicates that outlays rose in the sample as a whole, both as a share of GDP and as a share of total government expenditures. Health spending as a share of GDP rose everywhere except Asia and the transition countries. The decline in Asia owes more to rapid economic growth in the region than to a reduction in real spending. The sharp decline in health spending in transition countries, however, mirrored the decline in total government spending in these countries and has evoked concern about the impact of cutbacks on the poor's access to health care and the health status of the population in general. Not surprisingly, real per capita outlays on health increased everywhere (with especially sharp increases in Asia) except the transition countries.

Social indicators in program countries

There is a growing consensus that human development and the well-being of the poor should be measured through the monitoring of selected social indicators. Toward this end, the Organization for Economic Cooperation and Development,

the United Nations, and the World Bank, together with developing countries, have identified a core set of indicators, including some in the areas of education and health. Caution must be exercised in analyzing changes in these and other indicators, because of limited data and of changes over time in the methodologies used. Furthermore, social indicators are influenced by a host of factors other than government expenditures, including household income, general economic conditions, improvements in health technology, and the activities of nongovernmental organizations and other private sector service providers. In addition, the efficiency of spending and the degree to which spending is targeted to needy groups also have an impact on social indicators. Notwithstanding these caveats, it appears that increases in public spending on education and health in countries with IMF-supported programs have coincided with sizable improvements in education and health indicators (see table).

The illiteracy rate, for example, fell 2.4 percent a year, on average, in the 66 countries with IMF-supported programs. Gross enrollment rates in primary and secondary schools rose in the 66 countries as a group and increased even more rapidly in ESAF countries. Increases in female enrollment rates in secondary schools were particularly sharp. Net enrollment rates also increased, on average. The repeater rate at the primary level and the percentage of students who stayed in

school through the fourth grade (proxies for the quality of education and educational attainment) improved, although the repeater rate at the secondary level showed less improvement.

A number of health indicators, including life expectancy and infant mortality rates, also improved. Access to health care and immunization rates in the 66 countries with IMF-supported programs increased by more than 4.5 percent and 6 percent a year, respectively; improvements in these indicators were even more impressive in the ESAF countries. However, the percentage of births attended by trained health personnel declined, and progress in reducing maternal mortality rates varied considerably across countries and regions.

The ESAF countries enjoyed higher rates of improvement on many social indicators than the 66 program countries as a group; this may reflect some catch-up by lower-income countries. Likewise, regional variations in performance may also be partially attributable to preprogram differences. The transition countries, for example, had high rates of school enrollment and low repeater rates before they embarked on IMF-supported reform programs. Other regional differences do not appear to have a simple link to preprogram conditions, however; for example, sub-Saharan Africa has experienced more modest improvements in life expectancy and infant mortality than other regions, while Asia has achieved above-average improvements in education and health indicators.

In the transition countries with IMF-supported programs, falling public spending appears to have had a negative impact on most education indicators. Key health indicators also declined in some of these countries, but improved, on average, in the group as a whole. This may reflect improvements in the efficiency of public spending and/or increased spending by the private sector.

Intrasectoral spending patterns

An analysis of data shows that, while spending on education and health has increased and social indicators have improved, a substantial share of such spending is still allocated to tertiary education and curative health, subsectors with relatively lower rates of social return that disproportionately benefit higher-income groups.

Education. The social rates of return on investment in education are measured by the full cost and benefit (both public and private) to a society of providing education. Studies have consistently confirmed that, in general, the social rates of return are highest for primary education, followed by secondary and tertiary education.

In the latest year for which data were available, the average share of education spending allocated to tertiary education in 46 countries in our sample was 21.2 percent (Chart 5, top panel). The transition economies, followed by sub-Saharan Africa, allocated the largest share of education spending to tertiary education. While it is difficult to establish appropriate spending levels for different types of education, the Asian countries in our sample devoted a relatively lower share of

their education budgets to tertiary education. This may be one reason why Asian countries with IMF-supported programs have experienced some of the sharpest improvements in education indicators.

Health. Preventive care is often the most cost-effective type of health intervention for improving the health status of the poor. Government spending on health, however, goes disproportionately to the nonpoor in the form of high-cost public hospital care and not to preventive care. Our sample of 33 countries (Chart 5, bottom panel) reveals that almost two-thirds of health spending is absorbed by curative care. (Since figures on curative spending as a share of health outlays are hard to come by, expenditures on hospitals and medical equipment served as a proxy.) Countries in sub-Saharan Africa, on average, allocated the largest share of their health spending to curative health. This may partly explain why the sub-Saharan African countries with IMF-supported programs have experienced more modest improvements in life expectancy and infant mortality than other program countries.

Conclusion

Recent data on public spending on education and health suggest that real per capita expenditures for education and health have been increasing in developing countries, on average, but declining in transition economies. Increases in public spending on education and health in countries with IMF-supported programs have been comparable and sometimes larger than in other countries, despite the fiscal consolidation often required by adjustment programs. These increases have been accompanied by tangible improvements in social indicators. But a sizable portion of public spending on education and health is devoted to higher education and curative health services. Thus, in a number of countries, increases in spending for primary education and preventive health can ensure that the benefits of social spending are distributed more equitably while accelerating human development. **F&D**



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