III THE ROLE OF PUBLIC EXPENDITURE IN THE PROVISION OF EDUCATION AND HEALTH

INTRODUCTION AND OVERVIEW

Positive impacts of education and health are enormous

Improving the education and health of people is not only a goal in itself for a better quality of life but also its positive impact on the economic development of a country is far-reaching. The provision of education and health is a key element of a policy to promote broad-based economic growth. The main asset of the poor is clearly their labour and both education and health services improve the productivity and earnings of workers. Education is considered a major remedy for many problems faced by developing countries. For example, high fertility rates are adding to population pressures in several countries. It is widely accepted that female education helps to lower fertility rates. Moreover, educated parents are in a better position to look after the education and health needs of their children. Similarly, the linkages of health to poverty eradication and long-term economic growth are strong. The burden of diseases such as HIV/AIDS can slow the economic growth of developing countries. Education and health are important tools to empower poor people and overcome exclusion based on gender, location and other correlates of poverty.

Achievement of most millennium development goals is linked to education and health

A number of millennium development goals are directly related to education and health. These are to (a) achieve universal primary education, (b) reduce child mortality, (c) improve maternal health and (d) combat HIV/AIDS, malaria and other diseases. Most other millennium development goals have strong linkages to education and health. The overarching goal is the eradication of extreme poverty, for which the development of human resources through education and health is key. By endorsing the goals, countries essentially recognize education and health as priority areas for action.

The public sector is still a major provider of education and health in developing countries of the ESCAP region. The objective of the present chapter is to evaluate the role of public expenditure in the provision of education and health in these countries. Not only are additional resources needed for education and health but also their effective utilization to maximize their positive impact, particularly on marginalized groups, is important. Therefore, key policy issues relevant to expanding resources

for education and health and improving their effectiveness and efficiency are discussed. The main policy-oriented messages of the chapter are highlighted below.

The State should continue to be the lead actor in financing basic education and primary health care

- The public provision of education and health care may be considered using rights-based and needs-based approaches. Owing to the limited resources of Governments in developing countries, the universal provision of education and health care is almost impossible. However, basic education and primary health care command general support under a rights-based approach. The public provision (free or subsidized) of other education and health services should respond to the needs of marginalized and disadvantaged groups.

Multiple channels of financing for education and health are needed

- Huge financial resources are needed in most countries of the region to expand education and health services and improve their quality. Shifting resources from low-productivity sectors, such as defence and general administration, to education and health can go some way towards meeting the need. Multiple channels of financing will also be required to raise sufficient resources, including both public and private sources, communities, non-governmental organizations, bilateral donors and multilateral organizations. An integrative approach using multiple sources is recommended for the provision of education and health services.[1]
- The most reliable and sustainable public source is tax revenue. Countries in the region have been reforming their tax systems and many of them have introduced VAT. Improving tax administration and expanding the tax base will generate more revenue.
- Generally, the education and health services provided by the public sector are either free of charge or carry a nominal fee. Modest user charges for improved quality of services can be introduced. For reasons of equity, however, mechanisms are needed to ensure that the poor are not barred from using the services for lack of income.
- The active involvement of communities and non-governmental organizations can augment resources for education and health. Communities can make contributions in kind and/or cash. Non-governmental organizations have long been active in both the education and health sectors. They can mobilize internal and external resources and also provide leadership for advocacy.
- Private sector participation raises the quality, efficiency and supply of services, which allows the enhanced allocation of public resources to rural and remote areas as well as slums in urban areas

[1] "Introduction: context and scope", in G. Mwabu, C. Ugaz and G. White, eds., *Social Provision in Low-income Countries: New Patterns and Emerging Trends* (Oxford, Oxford University Press, 2001).

where they are most needed. Therefore, the participation of the private sector should be encouraged. At the same time, Governments should have proper regulatory regimes in place to maintain education and health service standards.

- Governments of many developing countries have borrowed heavily in the past and a major part of their revenue is spent on debt-servicing, including foreign debt. Rich countries can therefore assist developing countries in the provision of education and health services through debt reduction and enhanced development aid. At the same time, the effective utilization of aid in developing countries will encourage people and Governments in donor countries to be more supportive of increased funding.

Effective utilization of resources to achieve better results

- Utilizing resources more effectively and efficiently will enhance the achievements of education and health sector programmes. Improving the quality of services, increasing marginalized groups' access to services, prioritizing expenditure within sectors and achieving better governance merit special consideration.

People living in rural and remote areas, the poor and women need to be targeted

- Despite the improved coverage of education and health services in most countries, certain groups of the population have been left behind and opportunities remain unevenly distributed. Three main groups, people living in rural and remote areas, poor people and women, need to be targeted in order to achieve better results.
- More public resources should be devoted to rural and remote areas where they are most needed. Balanced development of rural areas will help to manage rural-to-urban migration. Within urban areas, slums and localities of poor people should be targeted for enhanced public funds for education and health.
- Education and health indicators based on national averages are not satisfactory in many countries. The situation of the poor is likely to be much worse in those countries, since the poor tend to have limited access to education and health services. This, in turn, keeps them poor so that the vicious cycle of poverty continues. Poor children should therefore be given scholarships, free textbooks and uniforms, and the access of the poor to public health facilities should be enhanced.
- Gender inequalities continue to be serious in many countries. Certain affirmative measures can help to enhance female access to education. There is a need to make parents, particularly in rural areas, aware of the importance of girls' education through publicity campaigns. Scholarship schemes, free textbooks and other supplies for girls can also attract them to schools. Enhancing the representation of women in management positions in the education and health sectors should help to take better account of the concerns and needs of women.

Reprioritization of expenditure within the education and health sectors can improve achievements

- Even with a fixed amount of resources, better outcomes could be achieved through reprioritizing expenditure within sectors according to need and importance. Developing countries need quality education at all levels, including tertiary education to grasp new technologies. ICT should be promoted in education at all levels. However, for countries with currently low enrolment ratios, the highest priority should be given to universal primary education, followed by improvements in secondary and higher education.
- Within the health sector, more emphasis is usually given to curative rather than preventive services. However, preventive measures for improving health, such as access to safe drinking water, adequate sanitation and mass vaccination against communicable diseases, are also very important and can reduce the need for curative services. Priority should be given to providing primary health care for all, particularly in rural and remote areas and for disadvantaged groups.
- In many countries, the education and health sectors are under enormous stress owing to population pressures. One of the most important health interventions is giving greater attention to reproductive health, not only to control the spread of sexually transmitted diseases such as HIV/AIDS but also to limit fertility through family planning, including access to contraception.

Good governance to improve access and quality

- By improving governance, resources can be saved and utilized to improve access to and the quality of education and health services. More effective implementation of checks and balances and greater decentralization in the provision of education and health services can help to check the wastage and leakage of resources.
- While better education and health outcomes contribute to economic growth, the causality also runs in the reverse direction. Financial resources for education and health can be made available more easily in a growing economy. Therefore, policies aimed at broad-based growth should be vigorously pursued.

TRENDS IN PUBLIC EXPENDITURE ON EDUCATION AND HEALTH

The main source of comparable time-series data on public expenditure in countries of the region is IMF.[2] Generally, the reported data cover only central government expenditure on various components of social services, including education and health. Social services are also provided by state or provincial and local governments and, for some

[2] The data are reported in the *Government Finance Statistics Yearbook* of IMF.

countries, these lower-level governments have the major responsibility for providing such services. IMF also provides data on lower-level government expenditure on social services for some countries.[3] For other countries with no such reported data, the actual expenditure on social services will be understated. The public expenditure data reported in table III.1 are mainly from IMF, supplemented by national and other sources.

Rising trend of public expenditure on social services

Before examining public expenditure on education and health, a brief look at public expenditure on all social services combined may help to discern the evolution of government policy towards the social sector in different countries. Over the last two decades, there has been a generally rising trend in public expenditure on social services as a percentage of GDP, which increased in most developing countries of the region between 1980 and 2000 (table III.1). The share of social services in total public expenditure exhibits a similar trend. This suggests that social services have been gaining importance in public policy in developing countries. However, there are linkages between economic growth and public expenditure. A sudden drop in the economic growth of a country can adversely affect public expenditure on social services. For example, in the wake of the economic crisis of 1997, public expenditure on social services as a percentage of total government expenditure decreased in Indonesia and Thailand.[4] Rapidly growing public debt can also reduce the share of social services in total public expenditure.

Data limitations make cross country comparisons difficult

Because of data limitations, strict comparisons across countries may not be possible. However, there is no clear indication that countries with higher GDP per capita devote a larger share of their public expenditure budget to social services. For example, countries devoting more than 40 per cent of the public budget to social services in 2000 were a very diverse group, including Maldives, Mongolia and Samoa, as well as Malaysia, Singapore and Thailand.

Public expenditure on education

Share of education in the government budget increased in many countries

Generally, the education sector claims the largest share of public expenditure devoted to social services in developing countries of the region. Out of 32 economies listed in table III.1, 15 devoted more than 15 per cent of total public expenditure to education in 2000. Kyrgyzstan, Malaysia, Papua New Guinea, the Republic of Korea, Samoa, Singapore and Thailand achieved the highest share of around 20 per cent. In terms

[3] The countries have been identified in tables III.1 and III.2.

[4] The countries most severely affected by the economic crisis were Indonesia, the Republic of Korea and Thailand. Time-series data from 1997 onwards on social services are available for Indonesia and Thailand only.

Table III.1. Public expenditure on education, health and combined social services in selected economies of the ESCAP region in 1980 and 2000

	Percentage of GDP						*Percentage of total public expenditure*					
	Education		*Health*		*Social services*		*Education*		*Health*		*Social services*	
	1980	*2000*	*1980*	*2000*	*1980*	*2000*	*1980*	*2000*	*1980*	*2000*	*1980*	*2000*
South and South-West Asia												
Bangladesh	1.2	..	0.6	..	1.8	..	11.5	..	6.4	..	18.2	..
Bhutan	..	5.2	..	3.5	..	10.3	..	13.4	..	9.2	..	26.8
India[a]	2.9	3.1	0.9	1.3	5.6	6.3	11.6	11.2	3.5	4.8	22.0	22.4
Iran (Islamic Republic of)	8.2	4.1	2.4	1.4	14.4	11.1	21.3	18.6	6.4	6.5	37.5	50.4
Maldives	1.5	6.8	1.1	3.9	6.9	15.4	4.7	17.8	3.5	10.2	21.6	40.5
Nepal	1.4	2.5	0.6	0.9	2.3	4.7	9.9	15.3	3.9	5.7	16.1	29.5
Pakistan[a]	1.4	1.7	0.7	0.7	2.6	2.6	7.7	7.2	3.2	3.0	11.4	10.8
Sri Lanka	2.8	2.5	2.0	1.6	10.3	7.4	6.7	9.6	4.9	6.4	25.0	29.1
Turkey	3.1	3.8	0.8	1.3	5.2	9.3	14.2	9.6	3.6	3.4	24.0	23.6
South-East Asia												
Cambodia	..	1.5	..	1.0	..	2.8	..	16.2	..	10.7	..	29.3
Indonesia[a]	2.9	1.3[b]	0.7	0.5[b]	4.5	6.2[b]	11.0	6.4[b]	2.6	2.3[b]	16.8	30.7[b]
Malaysia[a]	5.2	4.5[c]	1.5	1.2[c]	8.9	8.6[c]	18.3	21.6[c]	5.1	5.9[c]	31.1	41.4[c]
Myanmar	1.7	0.8[b]	0.8	0.3[b]	4.3	1.3[b]	10.6	7.9[b]	5.3	2.7[b]	27.2	13.6[b]
Philippines	1.7	3.7	0.6	0.4	3.3	5.2	13.0	18.6	4.5	2.3	24.9	26.2
Singapore	2.9	4.0	1.4	1.0	6.1	7.6	14.6	21.0	7.0	5.1	30.6	40.5
Thailand[a]	3.7	4.0[d]	0.8	1.5[d]	5.5	7.6[d]	16.7	22.4[d]	3.4	8.4[d]	24.8	42.1[d]
Viet Nam	..	2.9	..	0.8	..	6.3	..	13.9	..	4.0	..	30.4
East and North-East Asia												
China[a]	..	2.1[b]	..	0.7[b]	..	7.5[b]	..	8.6[b]	..	2.7[b]	..	30.1[b]
Hong Kong, China	2.4	4.1	1.2	2.6	7.7	14.5	15.3	18.6	7.5	11.6	49.8	65.9
Mongolia	..	2.7	..	1.7	..	13.0	..	8.7	..	5.5	..	42.4
Republic of Korea	3.0	3.6[c]	..	2.1[c]	4.6	6.1[c]	17.1	20.5[c]	..	9.4[c]	26.6	35.2[c]
Pacific island economies												
Cook Islands	..	3.6	..	2.9	..	10.4	..	10.5	..	8.6	..	30.4
Fiji	5.3	5.4[e]	2.1	2.6[e]	9.0	10.3[e]	20.4	18.2[e]	8.1	8.7[e]	34.7	34.7[e]
Papua New Guinea	5.2	6.2[b]	2.7	1.9[b]	9.6	9.7[b]	16.5	22.1[b]	8.6	6.9[b]	30.2	34.6[b]
Samoa	4.2	4.8	3.4	3.9	7.8	9.7	11.0	21.9	9.0	17.8	20.4	44.4
Solomon Islands	4.1	..	3.2	..	9.6	..	13.5	..	10.7	..	31.7	..

(Continued on next page)

Table III.1 *(continued)*

	Percentage of GDP						Percentage of total public expenditure					
	Education		Health		Social services		Education		Health		Social services	
	1980	2000	1980	2000	1980	2000	1980	2000	1980	2000	1980	2000
North and Central Asia												
Azerbaijan[a]	..	4.5[b]	..	1.2[b]	..	14.3[b]	..	15.8[b]	..	4.0[b]	..	49.6[b]
Georgia[a]	..	1.4	..	0.4	..	5.6	..	12.3	..	3.6	..	49.3
Kazakhstan[a]	..	3.1	..	2.0	..	12.9	..	12.6	..	8.1	..	51.9
Kyrgyzstan	..	3.7	..	2.1	..	9.2	..	19.5	..	11.0	..	48.5
Russian Federation[a]	..	2.9	..	2.0	..	16.6	..	8.0	..	5.5	..	45.4
Tajikistan[a]	..	2.3	..	0.9	..	7.0	..	14.2	..	5.8	..	43.1

Sources: IMF, *Government Finance Statistics Yearbook*, various issues and *International Financial Statistics Yearbook 2001;* ESCAP, *Statistical Yearbook for Asia and the Pacific*, various issues; Inter-State Statistical Committee of the Commonwealth of Independent States, *Statistical Abstract 1998* (Moscow, 1999); and national sources.

Notes: Social services include education, health, social security and welfare, housing and community amenities, recreation, culture and religious affairs.

Strict comparisons across countries may not be possible owing to possible differences in the classification of public expenditure.

[a] Including central, state or local government expenditure.
[b] 1999.
[c] 1997.
[d] Not including state or local level expenditure and thus not comparable with 1980 data.
[e] 1996.

of GDP, most of these economies were spending 4 per cent or more (mostly 4-5 per cent) on education. Other economies with public expenditure on education of over 4 per cent of GDP were Azerbaijan; Bhutan; Fiji; Hong Kong, China; the Islamic Republic of Iran; and Maldives. Most economies in the region were able to raise the share of public expenditure going to education between 1980 and 2000. Out of 18 developing economies (with data for both 1980 and 2000) in table III.1, 11 recorded an increase.

Some limited information is available on the distribution of public expenditure on various levels of education (table III.2). In more than half of the countries with data on all levels of education, primary education accounts for the highest share, followed by secondary and tertiary education. However, there are a good number of countries (mostly transitional economies) with higher expenditure on secondary than primary education. Between 1980 and 1996, the budget shares of secondary and tertiary education increased in several countries, reflecting demographic changes and a growing emphasis on education, including higher education, where unit costs are relatively high.

Table III.2. Shares of primary, secondary and tertiary education in total public expenditure on education in selected countries of the ESCAP region, 1980 and 1996

	Percentage distribution of current expenditure on education by level							
	1980				*1996*			
	Primary	*Secondary*	*Tertiary*	*Others*	*Primary*	*Secondary*	*Tertiary*	*Others*
Armenia	..	..	..	..	15.8	63.0	13.2	8.0
Azerbaijan	..	..	..	..	14.6	63.9	7.5	13.9
Bangladesh	45.3	39.2	12.9	2.6	44.8	43.8	7.9	3.5
Bhutan	..	..	..	..	44.0[a]	35.6[a]	20.4[a]	0.0
China	27.6	34.3	20.0	18.1	37.4	32.2	15.6	14.8
India	38.2	25.8	15.4	20.6	39.4	40.5	20.1	0.0
Indonesia	..	..	..	..	..	73.5[b]	24.4	2.1
Iran (Islamic Republic of)	43.7	38.1	7.1	11.2	36.5	46.5	2.1	14.9
Kazakhstan	..	..	..	..	10.4	61.1	13.4	15.1
Kyrgyzstan	..	..	..	..	6.6	68.0	14.1	11.2
Lao People's Democratic Republic	..	..	..	..	54.9	26.4	7.9	10.8
Malaysia	35.0	34.0	12.4	18.5	37.3	35.5	20.2	7.0
Mongolia	10.4	52.6	16.6	20.5	19.9	56.0	14.3	9.8
Nepal	..	58.7[b]	35.0	6.3	49.3	20.9	17.9	11.9
Pakistan	39.4	31.0	18.8	10.7	47.7	29.6	13.2	9.5
Philippines	61.4	15.7	22.1	0.8	54.7	23.5	17.8	3.9
Republic of Korea	49.9	33.2	8.7	8.2	45.3[c]	36.6[c]	8.0[c]	10.0[c]
Russian Federation	..	..	..	..	23.2[c]	57.4[c]	19.3[c]	0.0
Singapore	35.8	41.1	17.1	6.1	25.7[c]	34.6[c]	34.8[c]	4.9[c]
Sri Lanka	..	91.1[b]	8.9	..	0.0	74.8[b]	9.3	16.0
Tajikistan	8.1	51.4	8.1	27.0	14.9	71.2	7.1	6.8
Thailand	58.5	16.7	19.3	5.5	50.4	20.0	16.4	13.3
Turkey	43.7	22.9	28.3	5.1	43.3[c]	22.0[c]	34.7[c]	0.0
Viet Nam	..	..	..	..	43.0	26.0	22.0	9.0

Source: UNESCO, Institute for Statistics, <http://www.uis.unesco.org>, 30 October 2002.

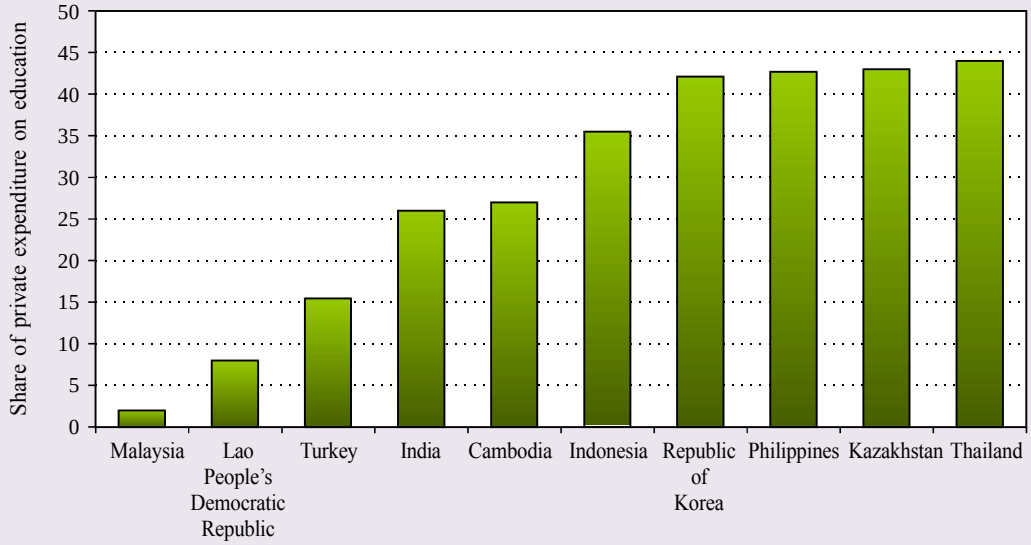
Note: Expenditure on primary education includes pre-primary education.

[a] 1997.
[b] Including primary education.
[c] 1995.

Public expenditure plays a major role in the provision of education

Data on the mix between private and public expenditure on education are available only for a small number of countries (figure III.1). The share of private expenditure in total expenditure on education was 41 to 44 per cent in Kazakhstan, the Philippines, the Republic of Korea and Thailand. Malaysia had the lowest share, at 2 per cent, reflecting heavy investment by the public sector. In Cambodia and India, around 25 per cent of education expenditure came from private sources. On the basis of this limited empirical evidence, it can be concluded that the role of public expenditure in the provision of education is clearly dominant.

Figure III.1. Share of private expenditure in total expenditure on education in selected countries, 1998



Sources: World Bank, *Education Statistics Database (EdStats),* <http://www.worldbank.org/education/edstats>, 11 October 2002; and OECD, *Education at a Glance: OECD Indicators,* 2001 edition.

Note: Data are for 1998 or the most recent year beginning from 1994.

Public expenditure on health

The share of health in total public expenditure increased in most countries

As in the case of education, there is diversity in the levels and trends of public expenditure on health. Among developing economies, 5 spent more than 10 per cent of their total budget on health in 2000, 10 spent less than 5 per cent and the rest fell in between (table III.1). With respect to GDP, less than 2 per cent was being spent on health in 2000 in a large number of economies. Pacific island countries generally had a higher share, mainly funded through foreign assistance. Some countries with smaller populations, such as Bhutan, Cook Islands, Fiji, Maldives and Samoa, were spending more than 2 per cent of GDP on health. A comparison of shares of expenditure on health in total public expenditure between 1980 and 2000 presents mixed results. Out of 18 economies, 10 witnessed an increase and the remainder a decrease.

The public sector is the major provider of health-care services

Individuals and families spend a significant share of their income on health-care services, including traditional medicines. Therefore, in order to have a better picture of spending on health, it is important to know the amount of private expenditure on health. WHO, in its *World Health*

Reports for 2000, 2001 and 2002, started providing data for the first time on the distribution of total health expenditure by private and public sources.[5] In 2000, out of 43 developing economies in the region for which data are available, 19 reported more than 50 per cent expenditure from private sources (annex table III.1). This shows that the public sector is still the main provider of health services in the majority of countries in the region. Since the annual data available are for six years (1995-2000) only, not much can be said about emerging trends. However, China is the only country in which the share of private expenditure rose consistently over the five-year period.[6]

OUTPUTS AND OUTCOMES OF THE EDUCATION AND HEALTH SECTORS

In the previous section, public expenditure was discussed as a source of finance for education and health. It was further pointed out that private expenditure had also been making a major contribution to these sectors. However, private sector providers' principal objective is profit maximization and therefore they are usually concentrated in urban areas. Non-governmental organizations and local communities are also involved in the provision of education and health services. Therefore, the outputs and outcomes of the two sectors cannot be attributed entirely to the efforts of the public sector alone.

Not only supply but actual utilization of services is important

Public expenditure mainly contributes to the supply side by making education and health facilities available. The actual utilization of these services by people can produce only positive results. It is possible that the services may remain underutilized even when they are free. For example, poor people may not be able to send their children to school because of the high opportunity cost involved, since children of the poor start working at a younger age and help their parents to earn a livelihood. Demand for education and health is also dependent on the overall development of a country.[7] For example, education and health facilities in rural areas can be utilized only if they are accessible by road and transport is available.

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[5] *The World Health Report 2002: Reducing Risks, Promoting Healthy Life* contains data for 1995-2000.

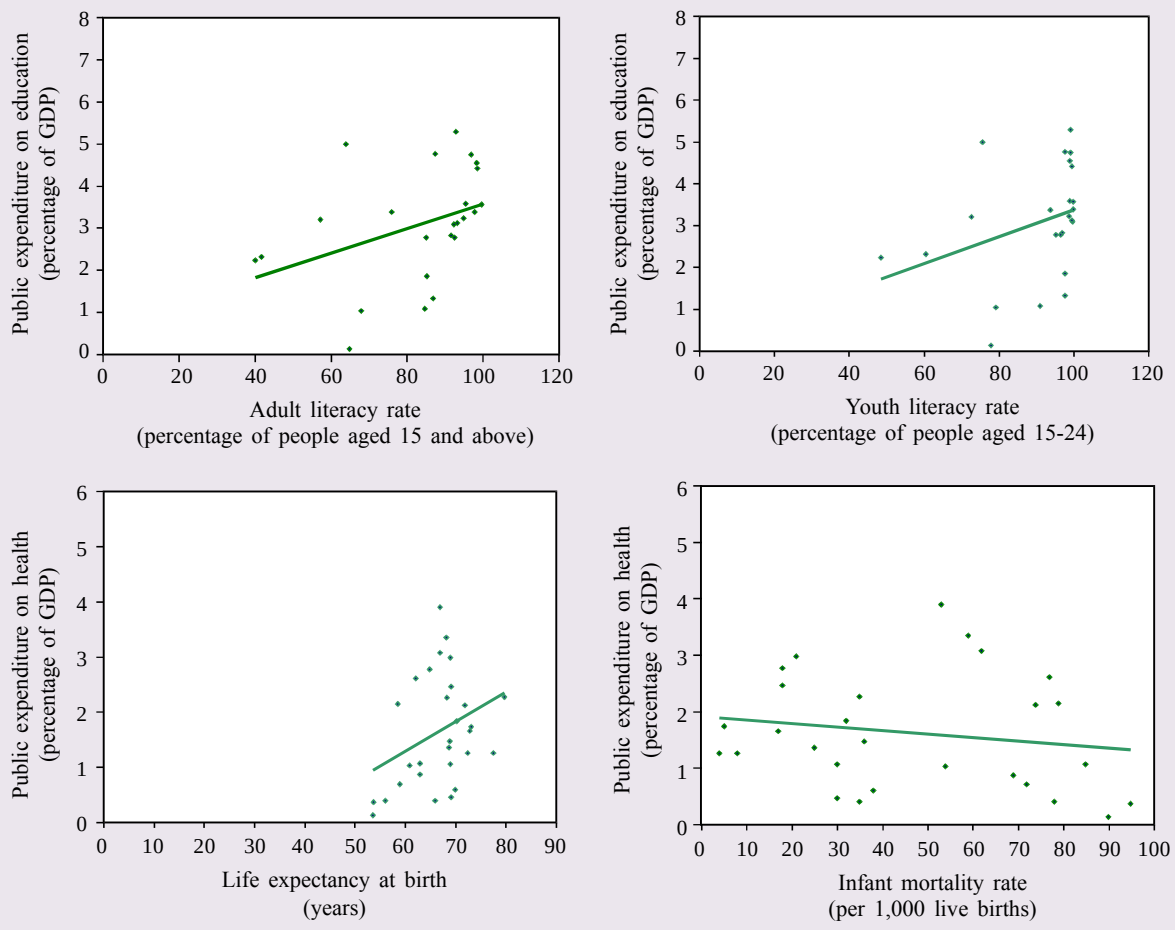
[6] A recent study reveals that this trend began much earlier; the share of private expenditure in total health expenditure rose from 23 per cent in 1980 to more than 50 per cent in 1995. For further details, see Dezhi Yu, "Market-based reforms and changes in China's health care system", in Mwabu, Ugaz and White, eds., op. cit.

[7] ESCAP, *Survey 1996,* chapter V, "The role of public expenditure in the provision of social services".

Achievements of the education and health sectors are linked to public expenditure

It needs to be emphasized that the public sector still plays a major role in the provision of education and health services in most countries of the region. The achievements of the education and health sectors are also linked to the public expenditure devoted to them. A simple look at the cross-country data on public expenditure and achievement indicators suggests some intuitively appealing relationships (figure III.2). The relationships between public education expenditure as a percentage of GDP and the adult literacy rate as well as the youth literacy rate appear positive, that is, countries with higher public expenditure on education have achieved better outcomes. The relationship between

Figure III.2. Relationship between public expenditure and achievement indicators of education and health of selected countries



Note: Public expenditure on education and health relates to 1995 and achievement indicators relate to 2000.

public health expenditure and life expectancy also looks positive, whereas the relationship with the infant mortality rate appears negative, as can be expected. Since the impact of public expenditure on achievement indicators is likely to be felt with some time lag, the data on public expenditure in the figure are for 1995, as against achievement indicators for 2000. The pattern of results remains similar if public expenditure data for 1990 are tried instead of 1995. The results also do not change much even when both public expenditure and achievement indicators relate to 2000.[8]

A more rigorous study using multiple regression analysis and data from over 60 developing countries of the world brings out the statistically significant impact of public health expenditure on child mortality.[9] The study also shows that in addition to public expenditure on health, access to electricity and child vaccination reduces child mortality significantly. A recent study by ESCAP also points out the positive impact of public expenditure on achievement indicators of the education and health sectors as well as the economic growth of countries in the region.[10]

With these few observations, the outputs and outcomes of the education and health sectors are discussed in terms of various indicators.

Education

Primary education is becoming universal

Primary education is becoming universal in most countries of the region. Gross primary enrolment rates are around 100 per cent (or even higher) in a large number of countries and areas (table III.3).[11] By 1980, most countries in South-East Asia, East and North-East Asia and North

[8] The results in all the experiments remain similar even when public expenditure on education/health as a percentage of total public expenditure rather than GDP is used.

[9] L. Wang, "Health outcomes in poor countries and policy options: empirical findings from demographic and health surveys", World Bank Working Paper 2831, April 2002.

[10] M. Aynul Hasan, "Role of human capital in economic development: some myths and realities", in ESCAP, *Development Planning in a Market Economy* (United Nations publication, Sales No. E.02.II.F.24).

[11] Gross enrolment ratio is defined as the number of students enrolled in a level of education, regardless of age, as a percentage of the population of official school age for that level. The gross enrolment rate can be more than 100, implying that there are substantial numbers of over-aged students and grade repeaters. By contrast, the net enrolment ratio represents the number of enrolled students of a particular age (as defined by the education system concerned) over the total population in the corresponding age bracket. Net enrolment ratio data are available only for a smaller number of countries, particularly at the secondary and higher education levels as well as for earlier years. Therefore, long-term analysis is carried out here with gross enrolment ratios.

Table III.3. Gross enrolment ratios by education levels in selected economies of the ESCAP region, 1980 and 1998

	Enrolment ratio (1980)			*Enrolment ratio (1998)*[a]			*Combined primary, secondary and tertiary enrolment ratio (1999)*	
	Primary	*Secondary*	*Tertiary*	*Primary*	*Secondary*	*Tertiary*	*Male*	*Female*
South and South-West Asia								
Bangladesh	61	18	3	122	47	5	41	33
Bhutan	15	..	..	73	..	..	..	..
India	83	30	5	100	49	7	62	49
Iran (Islamic Republic of)	87	42	..	98	77	18	76	69
Maldives	146	4	..	128	69	..	77	77
Nepal	86	22	3	114	48	5	67	52
Pakistan	40	14	..	86	37	3	51	28
Sri Lanka	103	55	3	111	75	5	68	71
Turkey	96	35	5	107	70	21	68	55
South-East Asia								
Brunei Darussalam	109	61	1	106	77	7	76	77
Cambodia	139	..	..	119	24	1	71	54
Indonesia	107	29	4	113	56	11	68	61
Lao People's Democratic Republic	114	21	..	112	33	3	65	52
Malaysia	93	48	4	101	98	12	64	67
Myanmar	91	22	5	121	36	5	55	55
Philippines	112	64	24	117	78	29	80	84
Singapore	108	60	8	94	74	39	76	75
Thailand	99	29	15	94	88	30	60	61
Viet Nam	109	42	2	114	61	11	69	64
East and North-East Asia								
China	113	46	2	123	70	6	73	73
Hong Kong, China	107	64	10	94	73	22	61	66
Mongolia	107	92	22	94	56	25	51	64
Republic of Korea	110	78	15	94	102	68	95	85
Pacific island economies								
Fiji	119	55	3	128	64	12	84	83
Papua New Guinea	59	12	2	85	22	3	42	35
Samoa	..	..	..	100	62	5	63	67
Solomon Islands	76	16	..	97	17	..	..	..
North and Central Asia								
Armenia	..	..	..	87	90	12	82	77
Azerbaijan	115	95	24	106	84	22	70	72
Georgia	93	109	30	95	79	42	69	71
Kazakhstan	85	93	34	98	87	33	73	81
Kyrgyzstan	116	110	16	104	86	30	65	70
Russian Federation	102	96	46	107	87	43	75	82
Tajikistan	..	..	24	95	78	20	72	63
Turkmenistan	..	..	23	..	..	22	81	81
Uzbekistan	81	106	29	78	94	32	79	74

Sources: UNESCO, Institute for Statistics web site <http://www.uis.unesco.org/en/stats/stats0.htm>, 19 July 2002; UNDP, *Human Development Report 2002* (New York, Oxford University Press, 2002); and World Bank, *World Development Indicators,* 2001 and 2002 (Washington, 2001 and 2002).

[a] 1998 or the most recent year for which data are available. In most cases data relate to 1998 or 1997.

and Central Asia had already achieved universal primary education. Countries in South Asia made considerable progress over the last two decades in raising primary enrolment rates. However, the enrolment ratios in Bhutan (73 per cent) and Pakistan (86 per cent) in 1998 require improvement. Similarly, Papua New Guinea (85 per cent), Armenia (87 per cent) and Uzbekistan (78 per cent) need to enhance their efforts. Since for most countries, overall gross primary enrolment ratios are around 100, male and female gaps in enrolment ratios cannot be pronounced. In fact, male-female gaps are only visible in some countries in South Asia and they are also closing over time.

Diversity of success at the secondary level of education

Success at the secondary level of education is more diversified (table III.3). In 1998, gross enrolment ratios were more than 75 per cent in all countries in North and Central Asia. Although the performance of these transitional economies is better than that of many other countries, some deterioration over time is visible as their enrolment ratios were even better prior to their transition. The performance of countries in South-East Asia and East and North-East Asia is also comparatively better. Malaysia (98 per cent), Thailand (88 per cent) and the Republic of Korea (102 per cent) showed the highest enrolment ratios. The ratios ranged from 70 to 78 per cent for Brunei Darussalam; China; Hong Kong, China; the Philippines; and Singapore, but were very low for Cambodia (24 per cent), the Lao People's Democratic Republic (33 per cent) and Myanmar (36 per cent), all of which happen to be least developed countries. Indonesia, Mongolia and Viet Nam had enrolment ratios ranging from 56 to 61 per cent. It is obvious that many countries in South-East Asia and East and North-East Asia have to accelerate their efforts to raise enrolment ratios to more satisfactory levels.

The enrolment ratios were generally low in South Asia, ranging from 37 per cent in Pakistan to 77 per cent in Sri Lanka. However, there has been a major improvement over the last two decades. For example, in the case of Pakistan, the enrolment ratio of only 14 per cent in 1980 rose to 37 per cent in 1998. Some Pacific island countries also need to intensify their efforts to improve their low enrolment ratios.

Male-female gaps in enrolment ratios at the secondary level are much more pronounced, particularly for most countries in South Asia plus other countries with lower enrolment ratios, with the exception of Mongolia, which had a higher ratio for females than for males.

Low enrolment ratio at the tertiary level

At the tertiary level, the enrolment ratios were generally low in 1998, ranging from 1 per cent (for Cambodia) to 68 per cent (for the Republic of Korea). Out of 33 countries given in the table for which

data were available, only 17 had enrolment ratios 20 per cent or more. Male-female gaps existed here also but, interestingly, many countries reported higher enrolment ratios for females. Most of these are transitional economies of North and Central Asia.

Dropouts and grade repetition are problems

Enrolment ratios reveal neither the quality of education nor how many students actually completed their particular levels of education. Dropouts and grade repetitions are serious problems in many developing countries. Poor children are sometimes forced to withdraw from school to help their parents because of financial constraints. Additionally, a lack of facilities in schools and an uninteresting curriculum discourage students from continuing their education. Data on children starting primary school who eventually reach grade 5 are available for only a small number of countries. While in most countries the rate was over 90 per cent, countries in South Asia and least developed countries did not fare well in general.[12]

With the expansion of enrolments, one would expect greater pressure on school facilities and rising pupil-teacher ratios. However, those ratios at the primary and secondary levels fell between 1980 and 2000 in a large number of countries, as shown in annex table III.2, reflecting enhanced investment by countries to improve the quality of education. Some countries showed an upward trend in pupil-teacher ratios, particularly at the secondary level.

Adult and youth literacy rates are linked to enrolment ratios at the primary level

The previous discussion was in terms of output indicators. The outcome of the education sector is usually measured through literacy indicators. A person is considered literate who can with understanding both read and write a short, simple statement about everyday life. Adult literacy measures the percentage of literate people in the age group 15 and above. Adult literacy rates are generally high in those countries with high enrolment ratios at the primary level (table III.4). Some countries in South Asia, as well as Cambodia, the Lao People's Democratic Republic and Papua New Guinea had low literacy rates in 2000. Efforts by countries in the education sector during the last decade are better reflected in youth literacy rates (15-24 age group). Youth literacy was nearly universal in a large number of countries (table III.4). Countries with low rates need to intensify their efforts to raise enrolment ratios, particularly of females, in primary education and to ensure that students complete their primary education.

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[12] For details, see *Survey 2002*, pp. 203-205.

Table III.4. Adult and youth literacy rates in selected economies of the ESCAP region

	Adult literacy (percentage of people aged 15 and above)		*Youth literacy (percentage of people aged 15-24)*	
	1980	*2000*	*1980*	*2000*
South and South-West Asia				
Afghanistan	18	..	30	..
Bangladesh	29	40	36	51
India	41	57	55	73
Iran (Islamic Republic of)	50	76	73	94
Maldives	92	97	97	99
Nepal	22	42	33	60
Pakistan	28	43	37	57
Sri Lanka	85	92	93	97
Turkey	68	85	88	97
South-East Asia				
Brunei Darussalam	77	92	94	99
Cambodia	55	68	67	79
Indonesia	69	87	89	98
Lao People's Democratic Republic	48	65	63	71
Malaysia	71	87	90	98
Myanmar	76	85	85	91
Philippines	88	95	95	99
Singapore	83	92	97	100
Thailand	88	96	97	99
Viet Nam	87	93	95	97
East and North-East Asia				
China	67	85	91	98
Hong Kong, China	85	93	96	99
Mongolia	97	98	99	99
Republic of Korea	93	98	100	100
Pacific island economies				
Fiji	82	93	95	99
Papua New Guinea	48	64	61	76
Samoa	97	99	99	99
North and Central Asia				
Armenia	96	98	99	100
Kazakhstan	98	99	100	100
Russian Federation	99	100	100	100
Tajikistan	96	99	100	100
Uzbekistan	98	99	100	100

Sources: World Bank, *World Development Indicators 2001* (CD-ROM); and UNESCO, Institute for Statistics, Estimates and projections, July 2002 assessment, <http://www.uis.unesco.org>, 17 September 2002.

Health

Outputs of the health sector are discussed in terms of coverage of people by health services in various forms, including access to health services in general, the doctor-patient ratio, the number of births attended by skilled health personnel and the immunization of children against diphtheria, pertussis and tetanus (DPT).

Access to health services does not mean their utilization

Data on access to health services are available for a small group of countries (table III.5), and the latest data only cover the period 1990-1995. In many countries in the group, more than 80 per cent of the population had access to some health services. This access was universal in the Republic of Korea and Singapore. It is important to note that there is no one-to-one correspondence between access to health services and utilization of health services. Poor people usually do not have enough resources to pay for health services. At public hospitals where medical services are subsidized or free, there are discouraging factors such as long queues and poor quality.

Doctor-patient ratios improved over time

The doctor-patient ratio improved considerably in most countries between the 1980s and 1990s (table III.5). However, vast differences exist among countries. Despite improving doctor-patient ratios over time in most countries, rural and remote areas continue to face serious shortages of doctors and other trained medical staff. Doctors are reluctant to go to these areas owing to the poor living conditions there and the lack of proper facilities in the hospitals.

The coverage of health services is also measured by the proportion of births attended by skilled health personnel, such as physicians, nurses, midwives and primary health-care workers trained in midwifery skills. In some countries of the region, births attended by skilled health personnel were below 50 per cent in recent years (table III.5). The rates were particularly low in countries with high maternal mortality ratios, some of which are in South Asia.

Huge success in immunization of children

All countries achieved huge success in terms of immunization of children against DPT. This was the result of the national immunization campaigns launched in most countries. However, there are still many countries that need to improve the coverage further. Out of 35 countries in the table with data on the immunization of children against DPT, 13 had less than 80 per cent coverage. Interestingly, some countries have seen a deterioration in the coverage in 1999 compared with 1990. Therefore, sustained efforts are required to keep the immunization rates at high levels, particularly in those countries where child mortality rates are still high.

Table III.5. Some health coverage indicators in selected economies of the ESCAP region

	Population with access to health services (percentage)		*Physicians (per 100,000 people)*		*Births attended by skilled health staff (percentage of total)*		*DPT3 immunization coverage (percentage)*	
	1985-1987	*1990-1995*	*1984*	*1990-1999*	*1983-1988*	*1995-2000*	*1980*	*1999*
South and South-West Asia								
Afghanistan	29	..	..	..	8	..	4	35
Bangladesh	45	45	7	20	5	13	1[a]	72
Bhutan	65	..	2	16	7	..	6	88
India	..	85	18	48	33	42	6	55
Iran (Islamic Republic of)	78	88	17	85	82	..	..	99
Maldives	..	..	..	40	..	..	4	92
Nepal	..	..	1	4	6	12	8	76
Pakistan	55	55	16	57	24	20	2	56
Sri Lanka	93	93	8	36	87	..	46	99
Turkey	..	..	33	121	78	81	42	79
South-East Asia								
Brunei Darussalam	..	..	..	85	..	99	..	92
Cambodia	53	53	..	30	47	34	17[b]	49
Indonesia	80	93	5	16	31	56	1[a]	72
Lao People's Democratic Republic	67	67	34	24	..	21	7	56
Malaysia	..	..	24	66	82	96	67	93
Myanmar	33	60	12	30	57	..	4	83
Philippines	..	71	7	123	57	56	47	79
Singapore	100	100	35	163	100	100	85	94
Thailand	70	90	7	24	40	85	49	97
Viet Nam	80	90	46	48	99	70	4	93
East and North-East Asia								
China	..	88	46	162	..	70	58[c]	90
Democratic People's Republic of Korea	..	..	..	..	65	..	..	37
Hong Kong, China	..	..	43	..	92	100	..	..
Mongolia	..	95	..	243	99	94	76	94
Republic of Korea	93	100	39	136	70	76	61[a]	74
Pacific island economies								
Fiji	..	..	..	48	..	100	68	86
Papua New Guinea	..	96	7	7	34	53	32	56
Samoa	..	..	..	34	..	100	..	..
Solomon Islands	..	..	..	14	..	85	..	..
Vanuatu	..	..	..	12	..	89	..	..

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Table III.5 *(continued)*

	Population with access to health services (percentage)		Physicians (per 100,000 people)		Births attended by skilled health staff (percentage of total)		DPT3 immunization coverage (percentage)	
	1985-1987	1990-1995	1984	1990-1999	1983-1988	1995-2000	1980	1999
North and Central Asia								
Armenia	..	..	..	316	..	97	..	91
Azerbaijan	..	..	..	360	..	88	..	99
Georgia	..	..	..	436	..	96	..	90
Kazakhstan	..	..	..	353	..	99	..	98
Kyrgyzstan	..	..	..	301	..	98	..	98
Russian Federation	..	..	..	421	98	99	..	95
Tajikistan	..	..	..	201	..	71	82[d]	82
Turkmenistan	..	..	..	300	..	97	..	98
Uzbekistan	..	..	..	309	..	96	98[a]	99

Sources: UNDP, *Human Development Report,* 1990, 1998 and 2002; and WHO/UNICEF, *Review of National Immunization Coverage,* various issues; and WHO/UNICEF database <http://www.childinfo.org/eddb/immuni/database.htm>.

[a] 1981.
[b] 1984.
[c] 1983.
[d] 1985.

Life expectancy increased and infant mortality rates fell

Outcomes of the health sector are discussed in terms of two selected indicators: life expectancy at birth and infant mortality rate. Most countries have shown a considerable achievement in raising life expectancy over the last two decades. In a number of countries, the increase in life expectancy was around 10 years. For example, a child born in Indonesia today can expect to live 66 years, 11 years longer than one born in 1980 (table III.6). Life expectancy at birth in India improved from 54 to 63 years over the period 1980-2000. The increase was more marked in the case of countries with initially low rates. Despite this closing gap, large differences among developing countries still exist. At present, life expectancy varies from 78 years in Singapore to 43 years in Afghanistan. The significant increase in life expectancy over time has been achieved particularly as a result of a sharp drop in infant mortality rates.[13] Bhutan's rate of 135 in 1980 was one of the highest; it came down to 77 in 2000. In Nepal it fell from 133 to 72 over the same period. Infant mortality virtually disappeared (the rate being 5 or less) in the Republic of Korea and Singapore.

[13] The infant mortality rate is the number of babies out of every 1,000 live births who die before their first birthday.

Table III.6. Life expectancy and infant mortality rates in selected economies of the ESCAP region

	Life expectancy at birth (years)		*Infant mortality rate (per 1,000 live births)*	
	1980	*2000*	*1980*	*2000*
South and South-West Asia				
Afghanistan	40	43	183	165
Bangladesh	49	61	129	54
Bhutan	..	62	135	77
India	54	63	113	69
Iran (Islamic Republic of)	58	69	92	36
Maldives	56	68	115	59
Nepal	48	59	133	72
Pakistan	55	63	105	85
Sri Lanka	68	73	35	17
Turkey	61	70	103	38
South-East Asia				
Brunei Darussalam	71	76	19	6
Cambodia	40	54	110	95
Indonesia	55	66	79	35
Lao People's Democratic Republic	45	54	135	90
Malaysia	67	73	31	8
Myanmar	51	56	94	78
Philippines	61	69	55	30
Singapore	71	78	11	4
Thailand	64	69	45	25
Viet Nam	60	69	50	30
East and North-East Asia				
China	67	70	49	32
Democratic People's Republic of Korea	67	61	32	23
Hong Kong, China	74	80	..	..
Mongolia	58	67	97	62
Republic of Korea	67	73	16	5
Pacific island economies				
Fiji	64	69	34	18
Kiribati	..	62	..	52
New Caledonia	67	73	..	..
Papua New Guinea	51	59	79	79
Samoa	63	69	70	21
Solomon Islands	60	69	43	21
Vanuatu	..	68	77	35

(Continued on next page)

Table III.6 *(continued)*

	Life expectancy at birth (years)		*Infant mortality rate (per 1,000 live births)*	
	1980	*2000*	*1980*	*2000*
North and Central Asia				
Armenia	73	74	22	25
Azerbaijan	69	72	76	74
Georgia	71	73	34	24
Kazakhstan	67	65	50	60
Kyrgyzstan	65	67	90	53
Russian Federation	67	65	28	18
Tajikistan	66	69	67	54
Turkmenistan	64	66	67	52
Uzbekistan	67	70	47	51

Sources: World Bank, *World Development Indicators 2002* (CD-ROM); and UNICEF Statistics web site <http://www.childinfo.org/cmr/revis/db1.htm>.

ISSUES CONCERNING THE MOBILIZATION OF RESOURCES AND IMPROVING THEIR EFFECTIVENESS IN PROVIDING EDUCATION AND HEALTH

As discussed in the previous section, there appear to be strong linkages between resources devoted to education and health and the achievements of these sectors. Generally, countries with higher public expenditure show better outputs and outcomes. The results also depend on the effective and efficient utilization of resources. Therefore, the remaining part of this chapter addresses the following two questions:

1. How should additional resources for education and health be mobilized?
2. How can the effectiveness and efficiency of resources devoted to education and health be enhanced?

Generating additional resources for education and health

Huge financial resources are needed for the expansion and upgrading of education and health services in most countries of the region. As discussed in the previous section, the sectoral allocation of public funds varies greatly across countries. In many countries, the education and

health sectors have lower shares compared with other sectors, including defence and general administration. Shifting them from other sectors with low productivity would increase resources for education and health. Moreover, multiple channels of financing are required to raise sufficient resources. These include both the public and private sectors, communities and non-governmental organizations, donors and multilateral organizations. A brief discussion on each of these follows.

Tax revenues

Tax reforms to raise more revenue

As discussed earlier, the public sector continues to play a major role in the provision of education and health in countries of the region. Education and health are in the nature of public goods and their economic and social benefits extend beyond the persons directly benefiting from them. The role of the public sector will remain important and therefore more public resources are needed to expand access to and improve the quality of education and health. The most obvious public source of finance is tax revenues, which are reliable and sustainable. Countries have been reforming their tax systems and many have introduced VAT. Tax revenues should be enhanced by expanding the tax base and improving tax administration.

User charges

Some user charges should be introduced to improve the quality of services

Generally, the education and health services provided by the public sector are free of charge or are available at nominal charge. It is possible that people may be willing to pay some user charges for services of improved quality because the alternative to better-quality public services is the private sector with much higher fees and user charges. Owing to the lack of resources, public schools are starved of funds. They demand payments under different guises other than fees, and parents make these payments to save their children from punishment and humiliation.[14] Moreover, resource constraints lead to deterioration in the quality of education. Some parents shift their children to private schools, where the fees are much higher. Therefore, parents may be willing to pay some fees for better-quality education. A similar argument applies to the health sector. Equity considerations require that mechanisms be devised so that the poor are not barred from using these services because of lack of income.

Primary education should be free

One of the millennium development goals is universal primary education and this can be achieved only when children from all income groups, particularly the poor, have access to primary education. Unit costs at the primary level are low. A strong case can therefore be made for free primary education. Charging fees at the secondary and tertiary levels

[14] N.N. Nguyen, "Trends in the education sector from 1993-98", World Bank Policy Research Working Paper 2891, September 2002.

is generally recommended, especially for tertiary education. Students from rich families usually benefit more from tertiary education. On equity grounds, it makes no sense to subsidize the rich.[15] There is also scope for greater resort to user charges for hospital-based curative health. Resources generated through partial cost recovery can be used to provide social services to the poor in the form of scholarships, grants, loans for higher education and free/subsidized medical services.

Disease and illness can bring severe hardships even to those with good incomes. Private medical insurance is one way to spread the risk. Some subsidy element can be introduced by the Government for lower-income groups. However, the poor cannot join such a scheme because of their extremely low incomes. Therefore, public provision of health services is needed for the poor.

Involvement of the community and non-governmental organizations

Communities should be encouraged to contribute to the provision of education and health

The active involvement of communities can augment resources for education and health. Communities can make contributions in kind and/or cash, including land and labour for building schools and hospitals. Communities can provide furniture, textbooks, equipment and teaching aids for schools. Community involvement has been utilized effectively in some countries to achieve the desired objectives in the education sector. For example, in Pakistan, where female literacy is low, some pilot projects were initiated targeting girls' enrolment in Balochistan, the largest province in terms of area but the most sparsely populated.[16] In one project in a rural area, the Government pays for locally recruited female teachers, training and supplies, while the village provides school premises and monitors teacher and student attendance. The establishment of such schools has helped to increase the enrolment of girls.

Local communities can be encouraged through incentive schemes in which each dollar that the community raises for social services would be augmented through co-financing by the national Government. The resources generated in this way, for example, can be used for the provision of health services.[17] This method offers a way of risk spreading especially for low-income groups, which can face financial catastrophe in

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[15] ESCAP, *Human Resources Development in the Asian and Pacific Region: Health, Education and Employment Attainments* (United Nations publication, Sales No. E.01.II.F.35).

[16] J. Kim, H. Alderman and P.F. Orazem, "Evaluation of the Balochistan rural girls' fellowship program: will rural families pay to send girls to school?", World Bank Departmental Working Paper 22983 (Washington, 1999).

[17] For further details, see WHO, *Macroeconomics and Health: Investing in Health for Economic Development*, report of the Commission on Macroeconomics and Health (Geneva, December 2001).

case of illness. The only problem with this type of scheme is that rich communities are usually in a better position to raise funds and so benefit from co-financing. Poor communities can be left behind under such schemes. Therefore, it is important that national Governments make extra resources available for the general development of poor communities.

Non-governmental organizations can mobilize resources and provide leadership for advocacy

Non-governmental organizations have been active in the education and health sectors in most countries. They can mobilize resources from within and outside a country. They can provide leadership for advocacy and in mobilizing the public for good causes. They can come up with innovative schemes. An interesting example in this regard is that of a non-governmental organization providing health services in Bangladesh. Gonoshasthya Kendra, translated as the People's Health Centre, has been operating at Savar, Bangladesh, since 1972.[18] It provides health care with minimum expenditure. Common diseases are treated through the use of trained paramedics; young rural boys and girls, usually with secondary school education, sometimes less, are trained by qualified doctors to undertake the task of delivering health services to the doorsteps of the people. The recurring costs of the health services are recovered from the participants in the programme. Initially, a health insurance scheme was introduced which consisted of a small admission fee and a nominal monthly premium charge to be paid per family for the services received. The insurance scheme did not receive an enthusiastic response because residents were generally landless and extremely poor and it was revised as a result. Under the revised scheme, the residents in the project area are divided into three groups, namely, the poor, middle-income and rich. The rich and the middle-income classes are charged a renewable admission fee and a nominal charge per visit plus any treatment costs. The visit charge for those belonging to the middle-income group is lower than that for the rich. The poor do not have to pay any admission fee or treatment costs and only a token visit charge is levied on them. The involvement of such non-governmental organizations should be encouraged to enhance the provision of education and health services.

Private sector participation

Private sector participation raises the quality, efficiency and supply of services

The rapid growth of the private sector in education and health reflects the growing demand for the services provided by the sector. Better quality and efficiency are the main reasons for the greater attraction of the private sector. Most Governments have encouraged private sector participation by loosening restrictions and allowing market forces to operate. In some countries, private-public partnerships are being promoted (see box III.1). The main motive of private sector providers is profit maximization and therefore their services are usually concentrated in urban

[18] ESCAP, *Regional Information Base on Poverty Issues: A Review of the Incidence of Poverty and Target Oriented Poverty Alleviation Programmes* (ST/ESCAP/1568).

Box III.1. Public-private partnership in the education sector: afternoon school project in Pakistan

Recent education sector reforms in Pakistan aim to promote a public-private partnership to complement the existing national efforts to expand and improve educational facilities in the country. Under the planned public-private partnership, three key initiatives have been envisaged. The first covers a range of new incentives, such as free land, liberal loans and concessions on electricity tariffs, to encourage the private sector to operate educational institutions. The second is known as the Adopt a School Programme, under which non-governmental organizations and educated individuals can enter into an agreement with the public sector to improve existing schools and the quality of education. The third initiative is the Afternoon School System under the Community Participation Project, under which the Government allows interested organizations and persons to establish afternoon schools in existing government school buildings and facilities.

Salient features of an afternoon school

An afternoon school, called a Community Model School, is an independent entity which can be initiated, planned and launched under the Community Participation Project by any organization or individual from the community. An organization or individual interested in running an afternoon school has to sign an agreement with the Government and is called the licensee.

Considering the needs of the community, the afternoon schools usually offer a higher level of education than can be obtained in the regular morning session. For example, a primary school in the morning becomes a secondary school in the afternoon. This upgrading of the standard helps to meet the community's need for a higher level of education.

The licensees of the afternoon school can avail themselves of the following on-campus facilities available at the regular morning school:

1. School building; classrooms and office furniture and fixtures; school library; school science laboratory, with access to the equipment and non-consumable items; and main hall.
2. Free affiliation with the boards of intermediate and secondary education; regular status of afternoon school students; funds for deserving students from provincial education foundations; and teacher training programmes for afternoon school teachers.
3. The education department will permit licensees to hire the services of employees of the morning school as and when required with mutual understanding and consent.

The licensee setting up the Community Model School will have the discretion to hire and fire teachers, negotiate and pay salaries and receive fees and funds (remaining within the upper limit as fixed by the Government). Problems and difficulties arising in the afternoon school will be handled through discussion with the headmaster/ headmistress of the morning school. The licensee will pay 100 per cent of the electricity, gas and water bills for both the morning and afternoon schools; this will be considered a contribution by the community. In fact, an afternoon school is an improved form of private school with the cooperation of the Government. A separate name has been proposed for the afternoon school, namely, the Community Model Elementary/Secondary/Higher Secondary School, depending on its specific teaching level.

Assessment of the afternoon school system and future prospects

The afternoon school system was started as a pilot project in part of the province of Punjab in February 2001. Following its success, the system was launched in the whole province in May 2001 and other provinces followed suit. By August 2002, about 7,000 schools had been upgraded and improved through afternoon shifts and Adopt a School Programmes in the country. In the beginning, there was great enthusiasm in the non-governmental organization sector for this scheme but subsequently the tempo slowed. Generally, the private sector is interested in afternoon schools for boys in urban areas and for girls to a limited extent in rural areas where there are no girls' schools. The scheme is a novel one but after an initial excellent spurt its pace subsequently slackened. It needs more vigorous publicity and the local community has to be motivated if the scheme is to realize its full potential.

areas. Private sector participation raises quality, efficiency and the supply of services, which allows the enhanced allocation of public resources in rural and remote areas as well as slums in urban areas, where they are most needed. Moreover, Governments should have proper regulatory regimes in place to maintain education and health service standards.

Foreign aid and debt relief

Governments of developing countries face severe resource constraints

The lack of education and health services in developing countries is partly due to the low incomes of individuals and families. Governments want to provide such services to all but are unable to do so as there are limited funds available to meet so many competing demands. Many Governments have borrowed heavily in the past and a major part of their revenue is spent on debt-servicing, including foreign debt. Therefore, rich countries can assist poor countries in the provision of education and health services, which are in the nature of global public goods whose benefits extend beyond national boundaries. For example, lack of education and the wide spread of diseases breed instability in poor countries, which can rebound on rich countries as well. Communicable diseases in one country can spread rapidly across international boundaries. Therefore, it is in the interests of rich countries to help poor countries to improve access to education and health.

Huge amounts of financial resources are needed for education and health in developing countries. A recent study estimates minimum financing needs to be around $30 to $40 per person annually to cover essential medical interventions, including those needed to fight the AIDS pandemic.[19] However, actual health spending is considerably lower; the least developed countries average approximately $13 per person annually in total health expenditure, of which budgetary outlays are just $7, and the other low-income countries average approximately $24 per capita annually, of which budgetary outlays are $13. Therefore, the study recommends that developing countries enhance their efforts to mobilize domestic resources. In addition, the efficiency of domestic resource spending should be increased, including through better prioritization of health services and the encouragement of community-financing schemes to ensure improved risk pooling for poor households. The study proposes a financing strategy under which an increase in domestic budgetary resources for health of 1 per cent of GDP by 2007 and up to 2 per cent of GDP by 2015 is envisaged. For education, the initial target should be to raise public expenditure to 3 per cent of GDP, which has already been achieved by several countries in South-East Asia.[20] The advantages of education are so great that public expenditure should be raised gradually to 5 per cent of GDP.

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[19] WHO, op. cit.

[20] ADB, *Education and National Development in Asia: Trends, Issues, Policies and Strategies,* Manila, 2001.

More foreign aid and debt relief for the provision of education and health services are needed

The health study referred to earlier notes that even with more efficient allocation and greater resource mobilization, the levels of funding necessary to cover essential health services are far beyond the financial means of many developing countries. Donor finance will be needed to close the financing gap. The study estimates that a worldwide scaling-up of health investments for low-income countries to provide the essential interventions of $30 to $40 per person will require approximately $27 billion a year in donor grants by 2007, compared with the amount of around $6 billion a year that is currently provided.

The Governments of many developing countries in the region have borrowed heavily in the past. Foreign debt-servicing is increasingly becoming a major expenditure item in the budgets of such countries. Therefore, debt relief for heavily indebted countries linked to increased spending of the resulting savings on social services can generate the needed resources. The World Bank's heavily indebted poor countries (HIPC) initiative aimed at reducing the debt-servicing of these countries should be expanded by increasing the number of countries and deepening the amount of debt reduction on offer. Moreover, this debt reduction strategy for the development of the social sector and poverty reduction should constitute only a small part of the needed increment in donor assistance.[21]

Effective utilization of foreign aid is very important

The effective utilization of aid in developing countries is very important since this will encourage people and their Governments in donor countries to be more supportive of increases in funding. For this, developing countries should set clear and quantifiable targets for coverage and outcomes in the education and health sectors. Moreover, the projects should be designed, implemented and evaluated in a transparent manner.

Improving the effectiveness of resources

In addition to mobilizing more resources, the achievements of the education and health sectors can be enhanced through more effective and efficient use of resources. Improving the quality of services, enhancing access to the services by the targeted groups, prioritizing expenditure within sectors and ensuring good governance merit special consideration to achieve this objective.

Improving quality

Problem of poor quality is widespread

While all developing countries agree on the need to improve the quality of education and health services, the real challenge is how to translate their resolve into viable policies. In addition, most Governments

[21] WHO, op. cit.

face resource shortages and there is a question of a trade-off between expanding access to, and the quality of, services. Usually expansion of access wins because it is more sellable politically.[22]

More resources and their better management to improve quality are needed

Quality is a broad concept since it can be viewed in terms of inputs, outputs and outcomes. The poor quality of education and health services is visible in poor physical facilities in general, poorly maintained buildings, lack of teaching materials in schools, poor teacher training, lack of motivated teachers, uninteresting curriculum, shortage of medicines in hospitals, lack of diagnostic equipment and shortages of trained medical personnel.[23] There is a need to improve the inputs going to the education and health sectors. Better management of resources and the use of more modern technologies can add to the quality of services.

It is not easy to ascertain changes in quality in terms of outputs and outcomes. One way in which poor quality in education can manifest itself is through high dropout and grade repetition rates. As discussed earlier, there has been a reduction in the number of dropouts in the last decade and as a result the number of students completing four years of primary education has increased. However, some countries, mostly in South Asia, are still facing serious problems. Dropout rates are influenced by factors internal and external to the education system.[24] External factors deal with general poverty and parents' perceptions of the role of schooling in improving the quality of life. Internal factors include inappropriate and irrelevant curricula, poorly trained teachers, lack of textbooks and other education materials, and poor physical facilities in schools. The greater involvement of parents and communities is needed to reduce dropout numbers and repetition rates. Reform in the curricula in a manner that relates to local needs, and flexible school hours, particularly in rural areas, which take into account family work schedules, can also be helpful.

Falling population growth rates should help to improve the quality of services

Demographic dynamics also play an important role in influencing the quality and quantity of schooling. Countries in which fertility rates have already slowed considerably will face less pressure on education systems as the demand for primary education will decrease and more resources can be devoted to improving the quality of education. Projections show that between 2000 and 2010 the share of the primary school-age population (6-11) in the total population will fall in most countries in the region.[25] In fact, the absolute numbers of this age group

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[22] ADB, op. cit.

[23] ESCAP, *Public Expenditure in the Provision of Social Services in Bangladesh and Nepal* (ST/ESCAP/1607).

[24] ESCAP, *Survey 1993,* p. 115.

[25] Ibid., 2001.

will decline in 2010 as compared with 2000 in a large number of countries. In the following countries, the average annual rate of reduction will be over 1 per cent: Armenia, Azerbaijan, China, Georgia, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Mongolia, Russian Federation, Singapore, Tajikistan, Uzbekistan and Viet Nam. Beyond 2010, it appears that the primary and secondary school-age population will become relatively more stable. Population growth rates have been coming down in all the countries and this will make it easier to provide better-quality education and health services.

Poor quality can lead to the underutilization of services

Poor quality can lead to the underutilization of services and wastage of resources.[26] This is true in the case of medical services in rural areas in many developing countries. Governments have set up primary health-care centres in rural areas. However, people in rural areas are reluctant to visit these centres even though their services are available free of charge because of a lack of medicines and medical staff. They prefer to go to cities to deal with health problems, putting more pressure on already overcrowded public hospitals. It is important to improve the quality of medical facilities in rural areas so as to increase their utilization and check the wastage of resources.

Equity in access

The coverage of education and health services expanded in most countries of the region. However, certain groups of the population did not benefit enough and opportunities remained unevenly distributed. Three main groups, people living in rural and remote areas, poor people and women, have been identified for discussion.

Access by rural and remote areas

Rural and remote areas tend to lag behind

Over the years, all the countries in the region have made progress in terms of economic and social development. However, significant disparities remain between rural and urban areas and among regions within countries.[27] The incidence of absolute poverty is much higher in rural than in urban areas in most countries. For example, in Bangladesh in 1996, only 14 per cent of the urban population was poor as against around 40 per cent of the rural population. In the Philippines in 2000, the corresponding figures were 24 and 54 per cent. The rate of reduction in urban poverty

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[26] G. Mwabu, "User charges for health care: a review of the underlying theory and assumptions", in Mwabu, Ugaz and White, eds., op. cit.

[27] For details, see ESCAP, *Reducing Disparities: Balanced Development of Urban and Rural Areas and Regions within the Countries of Asia and the Pacific* (United Nations publication, Sales No. E.01.II.F.24).

Table III.7. Child mortality rates in rural and urban areas in selected countries

		Infant mortality rate		*Under-5 mortality rate*	
	Year	*Rural*	*Urban*	*Rural*	*Urban*
Bangladesh	1994	103	81	153	114
	1997	91	73	131	96
Indonesia	1991	81	57	117	84
	1997	58	36	79	48
Philippines	1993	44	32	73	53
	1998	40	31	63	46

Source: L. Wang, "Health outcomes in poor countries and policy options: empirical findings from demographic and health surveys", World Bank Working Paper 2831, April 2002.

has been relatively faster in a majority of countries. The performance of rural areas in terms of social indicators has also been worse than that in urban areas. The rural-urban breakdown of mortality rates for infants and children under five years of age for a few countries is given in table III.7. Not only are the rates higher in rural areas but they have also declined more slowly over time as compared with urban areas.

Rapid rural-to-urban migration owing to lack of opportunities and social services in rural areas

Partly because of better opportunities and social services in urban areas, people are migrating from rural to urban areas. This, coupled with the reclassification of some rural areas as urban areas over time, is adding to rapid urbanization in the region. In 1980, one in four people in the developing countries of the region lived in urban areas. The situation changed to one in three in 2000. By 2025, roughly half of the population will be living in urban areas. This will put more pressure on the social services in these areas; within big cities, the size and number of slums will increase in the absence of appropriate policies to absorb the growing influx of rural migrants.

In addition to rural-urban differences, remote areas and regions of particularly large countries tend to lag behind. In Thailand, there is a strong regional dimension to absolute poverty. Historically, the North-East has been the poorest region in the country, followed by the South, North and Central regions; Bangkok has the lowest incidence of poverty. Similarly, there are major differences in the development of various regions within China, India and Indonesia. Remote areas experience deficiencies in all forms of infrastructure, including transport links. Frequently, outmigration has resulted in a brain drain and left a population with depleted human capital. This has added to the urgent need for more public investment in human capital in remote areas.

Enhanced public resources for rural and remote areas

More public resources should be devoted to rural and remote areas where they are most needed. Balanced development of the rural areas will help to manage rural-to-urban migration. Within urban areas, the slums and localities of poor people should be targeted for enhanced public funds for education and health. If it is not possible to build schools and hospitals within slums, these should be built near them so that access by slum-dwellers is convenient. One serious problem in rural and remote areas is the shortage of qualified staff in schools and hospitals. Owing to the lack of facilities, teachers, and particularly doctors, do not want to go to these areas. Teachers and doctors from their own areas should be appointed and be given some added incentives to encourage them to stay. Moreover, local communities should be involved in order to improve the relevance of education and health services to local needs.

Access by the poor

Incidence of poverty is quite high in many countries

Around two thirds of the world's poor live in Asia and the Pacific. Absolute poverty is a major problem faced by most developing countries in the region. In many countries, more than one third of the population lives on less than a dollar a day.[28] Education and health indicators, as discussed earlier, are not satisfactory in many countries. Those indicators are national averages; the situation of the poor is expected to be much worse in these countries. The poor tend to have much less access to education and health services, which in turn keeps them poor and the vicious cycle of poverty continues.

School enrolment ratios demonstrate large gaps between the children of the rich and the poor

There are often large gaps in the school enrolment of children of the rich and the poor within countries. In Bangladesh in 1996-1997, 67 per cent of poor 6-14-year-olds were in school, compared with 83 per cent of rich children of the same age group.[29] In Turkey, in 1998, the gap between rich and poor was also quite pronounced: 60 per cent enrolment for poor children as against 85 per cent for rich children. In Viet Nam, enrolment in primary education became more equitable in the 1990s.[30] However, gaps in enrolment in secondary and post-secondary education between the rich and the poor are still large. At the lower secondary level, for example, the net enrolment rate for the poorest quintile in 1998 was only about one third of that for the richest quintile. For higher education, the enrolment rates of the rich have risen much faster than those of the poor in recent years, adding to existing inequities.

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[28] The poverty line is defined in terms of purchasing power parity. For details see, World Bank, *World Development Report 2000/2001: Attacking Poverty* (New York, Oxford University Press, 2000).

[29] World Bank, *Poverty Trends and Voices of the Poor,* fourth edition (Washington, May 2001).

[30] Nguyen, op. cit.

Box III.2. Thailand's new universal coverage health-care scheme

Along with strong economic growth in Thailand, its heath services have expanded dramatically in coverage and quality over the last few decades. The Government provides health services to all its employees and those of State enterprises. Health insurance has become a standard job benefit offered by private companies to their employees. For poor and other disadvantaged groups, including disabled persons, the aged and Buddhist monks, a health welfare programme providing free health care was started in 1975.[a] These people were issued cards to enable them to benefit from medical facilities at government hospitals and health clinics. In 2000, the actual number of cardholders was approximately 20 million (33 per cent of the population); the annual budget for the programme had increased substantially from 300 million baht in 1979 to 8,833 million baht in 2000. While many poor people benefited from the programme, it suffered from a problem of appropriate targeting. Some studies found that while the low-income cards were overissued in many provinces, less than one fifth of the poor received the cards and only one third of the cardholders actually belonged to the low-income group.[b] One of the main reasons for having a universal health coverage programme is so that all citizens can enjoy quality health services at nominal cost and health-care expenditure is not a constraint on obtaining the health services.

In April 2001, the Government launched a new health-care scheme to cover every Thai citizen who was not currently under any other public insurance scheme. Under this priority programme of the current administration, the insured receives medical treatment from participating government and private hospitals for only 30 baht (approximately $0.75) a visit. The bulk of the cost of the service is covered by a central government subsidy. Under the system, health-care providers are compensated according to the number of registered patients they have. In addition to an annual allowance of 1,252 baht (approximately $30) per patient, resource-strapped hospitals can draw on a 3 billion baht contingency fund and claim fees for referral patients.

To participate in the scheme, the prospective beneficiaries must register with their local medical authority to obtain a universal health card or "gold card". This card must be shown together with the individual's national identification card when that person applies for health services through government or private sector health service providers registered under this scheme. There is a referral system for more complicated ailments, under which the primary health centre or local hospital can refer the patient to another hospital. The insured can access any government health services in case of emergency or accident. At present, the service package includes most health services except cosmetic care, obstetric delivery beyond two pregnancies, drug addiction treatment, organ transplants, infertility treatment and other high-cost interventions. However, with additional resources and the inclusion of more diseases, the coverage could expand over time.[c]

The new universal health scheme has resulted in an overhaul of the health-care system in Thailand, putting medical services within the reach of all citizens, rich and poor, young and old. For millions of rural poor people, the 30 baht health-care scheme is a blessing, ensuring their access to basic health services.

Providing universal health care requires a huge financial outlay. The fiscal budget allocation for this scheme for 2002 was 52 billion baht and in January 2003 the Government allocated an additional 5.7 billion baht to meet the expenses of the scheme.[d] The original budget estimate for full implementation of the project was much higher, at 90 billion baht.[e] Financing the programme will increase Thailand's total health expenditure dramatically in the coming years and could worsen the country's budget deficit. The Government has reassured the public that the bulk of the funds will come from budget reallocations, the reduction of administrative costs through the use of modern technology and the rationalization of the Government's current annual spending on health-care initiatives.

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[a] Viroj NaRanong and Anchana NaRanong, *Social Protection in Health for the Poor in Thailand: From Welfare to Universal Coverage* (executive summary) (http://www.info.tdri.or.th/poverty/abstract/vn.htm, 20 December 2002).

[b] Ibid.

[c] Nutta Sreshthaputra and Kaemthong Indaratna, "The universal coverage policy of Thailand: an introduction", paper prepared for the Asia-Pacific Health Economics Network, 19 July 2001, (<http://www.unescap.org/aphen/thailand_universal_coverage.htm>, 30 December 2002).

[d] *Bangkok Post,* 14 January 2003.

[e] Government Public Relations Department of Thailand, "A new low-cost medical welfare scheme in Thailand" (<http://www.thaimain.org>, 3 March 2001).

The implementation of the 30 baht health-care scheme is facing difficult and challenging problems, especially among health service providers. The subsidy provided by the Government is insufficient to cover the cost of providing services under the scheme to patients, particularly those with serious health conditions. Some hospitals could face severe financial hardships and consequently some of them are reluctant to offer their services to beneficiaries of the scheme. There is also the problem of proper targeting of beneficiaries. Owing to loose registration procedures, many holders of other insurance schemes are also benefiting from the scheme.

The quality of health services in urban areas is relatively better than in rural areas. This can attract patients from rural areas and lead to the overcrowding of health facilities in urban areas. Therefore, it is important to maintain quality health services across the country. Moreover, without quality health services, people will be reluctant to use the services, which could result in the initiative becoming a low-quality health scheme for the poor. Adequate resources will be needed to maintain the quality of the health service and public resources could be shifted to this priority area. Since coverage under the scheme is universal, people from all income groups can benefit equally from the scheme. As people from higher income groups are able to afford higher charges for health services, the hospital charges could be raised above 30 baht per visit for such people. This would generate additional resources for the scheme. Progressive taxation could also be used to mobilize more public resources for this important initiative. The Government is aware of the problems and weaknesses of the scheme and is determined to address them.

Thailand's health experiment with universal health coverage could prove a model for other developing countries. Therefore, it is important for the scheme to succeed in providing sustained quality health care. Appropriate financing mechanisms will be the key to the sustainability of the scheme in the long run.

The poor are unable to send their children to school even when there are no fees. These children help their parents to earn a livelihood and the opportunity costs of sending children to school are high. Therefore, the children of the poor should be given scholarships as well as free textbooks and uniforms. Moreover, public resources should be spent more on basic education, where the children of the poor are well represented.[31]

The poor suffer more from the burden of disease

Poor people tend to suffer more from the burden of disease because they lack access to clean water and sanitation, safe housing and adequate nutrition. Furthermore, the poor are much less likely to seek medical care, even when it is urgently needed, because of their lack of the out-of-pocket resources needed to cover health outlays. Children born into poor families have a higher probability of dying at a young age than those born into better-off families. For example, the infant mortality rate for the poorest 20 per cent of children is twice as high as for the richest 20 per cent in Nepal and the Philippines. In Indonesia, a medically trained person attended only 21 per cent of births of the rural poor as against 78 per cent of the rural rich in 1997; the comparative figures for urban areas were 78 and 93 per cent. Therefore, the quality of public health facilities should be improved and the access of the poor to such facilities enhanced. Innovative approaches and increased allocation of resources are needed to reach the poor (see box III.2).

[31] A number of highly qualified individuals from developing countries migrate to developed countries. Public financing of tertiary education under these circumstances needs to be re-evaluated.

Access by females

Today there is greater awareness of prevailing gender inequities. International and non-governmental organizations have played a major role in bringing this about. The growing realization by societies and Governments that economic and social development cannot be achieved without the active participation of women has also helped the cause of women.

Gender disparities remain serious

Despite these efforts, gender inequalities remain serious in many countries. Some of these inequalities were pointed out earlier in the chapter. In addition, adult literacy rates in 2000 were generally lower for females than for males in most countries. In some countries the differences were very pronounced. For example, in Nepal, the adult literacy rate for females was only 24 per cent as against 60 per cent for males (table III.8). The performance of some other South Asian countries

Table III.8. Adult literacy and life expectancy by gender in selected countries of the ESCAP region, 2000

	Adult literacy rate (percentage aged 15 and above) 2000		*Life expectancy at birth (years) 2000*	
	Male	*Female*	*Male*	*Female*
Bangladesh	52	30	59	60
Cambodia	80	57	54	59
China	92	76	69	73
Fiji	95	91	67	71
India	68	45	63	64
Indonesia	92	82	64	68
Lao People's Democratic Republic	64	33	52	55
Malaysia	91	83	70	75
Nepal	60	24	59	58
Pakistan	58	28	60	60
Papua New Guinea	71	57	56	58
Philippines	96	95	67	71
Republic of Korea	99	96	71	79
Russian Federation	100	99	60	73
Samoa	81	79	66	73
Singapore	96	88	75	80
Sri Lanka	94	89	70	75
Tajikistan	100	99	65	71
Thailand	97	94	67	73
Uzbekistan	100	99	66	72
Viet Nam	96	91	66	71

Source: UNDP, *Human Development Report 2002* (New York, Oxford University Press, 2002).

was also dismal. Gender differences in adult literacy were quite visible in Cambodia, the Lao People's Democratic Republic and Papua New Guinea. In terms of life expectancy, females fared better than males in almost all countries. However, countries with relatively low female adult literacy rates tend to have comparable life expectancy of females and males.

Affirmative measures are needed to close gender gaps

Certain measures can help to enhance female access to education. Generally, girls from poor families and those living in rural areas tend to have lower enrolment ratios. There is a need to make parents aware of the importance of girls' education through publicity campaigns. Local communities and Governments, as well as non-governmental organizations, should be closely involved in this endeavour.

Scholarship schemes, free textbooks and other supplies for girls can also attract them to schools and encourage them to complete their education. In Bangladesh, a scholarship scheme for girls in secondary school was started in 1982, which helped to raise the enrolment ratio of girls in the project area. In the early 1990s, the scholarship scheme was extended to all rural areas in the country. This not only raised girls' enrolment ratios at the secondary level but also subsequently pushed up the number of girls entering intermediate colleges.

Schooling should respond to the cultural and practical concerns of girls. Schools in the neighbourhood with female teachers and appropriate sanitation facilities should encourage parents to send their daughters to school. In rural areas, girls usually help their parents with household chores. Therefore, flexibility in school hours can facilitate girls' attendance at the school. The close involvement of parents in setting school hours, particularly for girls, is important for enhancing school enrolment ratios.

More women in management positions in the education and health sectors should help in responding to the needs of women

Access to reproductive health services is very important for women. Such services are lacking in many countries. As discussed earlier, less than 50 per cent of births are attended by skilled health personnel in a number of countries in the region. Therefore, more resources should be devoted to the health-care needs of women. Enhancing the share of women in management positions in the education and health sectors should help to take better account of the concerns and needs of women.

Intrasectoral prioritization

Even with a fixed amount of resources, better outcomes can be achieved through reprioritizing expenditure within sectors according to needs and importance. It is important to assess the existing needs of countries and how they are being met by existing education and health systems, as priorities can vary across countries and within countries over time.

Need for reprioritization of the allocation of resources within the education sector

For most countries, there is a need to have arrangements for education at all levels. "The emphasis on primary and secondary education should not lead to the neglect of tertiary education, as it was important that the economy of a country should be able to benefit from modern technology."[32] Moreover, different levels of education are interdependent. Higher-level quality education is needed to carry out teaching at lower levels. ICT should be promoted in education at all levels, as future jobs will increasingly require this knowledge.[33]

The allocation of resources for different levels of education can be prioritized. For countries with low enrolment ratios, the highest priority should be given to universal primary education, followed by improvements in secondary and higher education. Some countries already have free compulsory education at lower levels (see box III.3). The more developed countries in East Asia and South-East Asia have to focus on improving both the access to and the quality of higher or tertiary education, including placing more emphasis on grasping new technologies and scientific research.

Technical and vocational education may help to deal with the problem of unemployment

Many countries in the region are facing serious problems of unemployment and underemployment. Therefore, technical and vocational training at the upper secondary level can help. In the past, some countries achieved limited success; technical and vocational schools accounted for less than 10 per cent of all upper secondary enrolments in Bangladesh and Pakistan by around the mid-1990s. Economies showing a high proportion of technical and vocational enrolments were China (60 per cent), Hong Kong, China (58 per cent), Thailand (48 per cent), Republic of Korea (41 per cent) and Singapore (38 per cent).[34] Since the costs of technical and vocational education are usually higher than those of general education, it is important for the former to respond to the needs of the country. To this end, the private sector should be closely involved in designing technical and vocational education curricula.

Preventive measures are equally important for improving health

Within the health sector more emphasis is usually given to curative rather than preventive health services. However, preventive measures for health improvement, such as access to safe drinking water, adequate sanitation and mass vaccination against communicable diseases are also very important and can reduce the need for curative services. The priority for public health expenditure should be to provide primary health care to

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[32] ESCAP, *Growth with Equity: Policy Lessons from the Experiences of Selected Asian Countries* (United Nations publication, Sales No. E.00.II.F.14), p. 6.

[33] This is also needed to contain the widening digital divide among and within countries.

[34] Keith M. Lewin, "Educational development in Asia: issues in planning, policy and finance", *Asian Development Review,* vol. 15, No. 2, 1997.

Box III.3. Universal 11-year compulsory education in the Democratic People's Republic of Korea

The Democratic People's Republic of Korea is among the countries providing compulsory education for children. The universal compulsory primary education system in the country took effect from August 1956, with the ensuing disappearance of school fees in primary schools. From November 1958, the universal compulsory secondary education system was put into effect and the school fee system in secondary schools was abolished. Universal free education was introduced at all levels in April 1959. In April 1967, universal compulsory 9-year technical education was introduced and universal 11-year compulsory education was successfully enforced in September 1975, enabling the younger generation to have access to secondary education and learn the basics of modern science and technology.

Universal 11-year compulsory education, which is now in force in the country, consists of compulsory 1-year pre-school education and compulsory 10-year school education (4-year primary and 6-year senior middle school). The education system provides free pre-school, primary and secondary education to all children ranging from 5 to 16 years of age. Thus, not only is 100 per cent enrolment firmly secured for school-age children but usually there are no dropouts.

During those years the students theoretically acquire valuable scientific and technical knowledge, consolidate the knowledge acquired in the classroom and cultivate its application through observation and practical training such as experiments, practice, field trips and tours.

Whether they live in towns or in the countryside, and are male or female, all the students are given education without discrimination and use identical textbooks under the same free compulsory education system. Moreover, urban and rural students receive education in IT. Especially in urban schools, students learn how to drive a car and operate computers and machine tools, while in rural schools pupils learn how to drive a tractor and handle farm machines in keeping with rural conditions. Male students learn how to use machine tools, while female students learn sewing and cooking. After the years of compulsory education, students can go to various higher schools up to university level if they so wish.

While the national education goals and policies are in place (11-year compulsory schooling) and the commitment to "Education for All" is strong, their achievement has begun to suffer recently owing to financial constraints.

Economic difficulties since the early 1990s, resulting from the disintegration of the socialist market and a series of natural disasters, have gradually reduced the State's ability to provide quality basic education services for a large number of school-age children and the quality of education has been increasingly compromised. The curricula need to be updated. The lack of a budget for school maintenance has resulted in general deterioration of the education infrastructure.

Under these circumstances, the Government has given priority to the rehabilitation of educational facilities and has set as its general objective improving the quality of child care and 11-year compulsory and free education.

To this end, the Government has drawn up the following sustainable strategy for the development of basic education: to create better conditions for child care and education by increasing State investment and social support; to improve the content of education steadily in keeping with realistic requirements so that teachers can train children to develop with rich knowledge, sound morality and a strong physique; to improve the methods of education; and to improve the qualifications of teachers steadily by putting emphasis on the training of kindergarten and school teachers and in-service teacher training.

all, particularly to rural and remote areas and disadvantaged groups.[35] Public expenditure with a heavy bias towards high-tech curative services for the urban elite in big cities and not enough for essential interventions to control communicable diseases for the rural poor or to respond to the basic needs for the curative and maternal and child health services of the poor more generally, is misdirected.

Planning for the medical needs of an ageing population

The share of older persons in the general population is on the rise in many countries as a result of improvements in life expectancy. Therefore, countries have to take into account the medical needs of this group, which should be factored into the future planning for the sector. Usually, the health-care cost per person for older persons is much higher than that for younger ones.

Many countries are suffering from population pressures and their education and health sectors are under enormous stress. One of the most important health interventions is giving greater attention to reproductive health, not only to control the spread of sexually transmitted diseases such as HIV/AIDS but also to limit fertility through family planning, including access to contraception.

Governance issues

Good governance is the key to solving many problems

Lack of good governance is as pervasive in the education and health sectors as in other public sectors in many developing countries. In fact, the poor quality of the services is partly due to leakages and mismanagement of resources. By improving governance, considerable resources can be saved and utilized for improving access to and the quality of services. One way to improve governance, which is already being increasingly accepted by developing countries, is the movement towards decentralization in the provision of education and health services. Decentralization not only relieves some of the burden on central bureaucracies but can increase the resource base through enhanced participation by the community and the private sector.[36] Moreover, allowing the direct involvement of community members will improve the relevance of education and health services to local needs. Along with decentralization, it is important that the capacity of institutions at the local level be strengthened so that they can fulfil their enhanced responsibilities more effectively.

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[35] Most countries already have primary health-care centres to provide basic health services. The report of the Commission on Macroeconomics and Health by WHO (see note 11 above) calls these centres collectively the close-to-client system, which consists of relatively simple hospitals, where a great deal of work can be carried out by nurses and paramedical staff with varying degrees of training, including midwives. Patients with complicated diseases can be referred to medical doctors within the system.

[36] For a detailed discussion on relevant issues of decentralization, see C. Ugaz, "The role of the state in the provision of social services: decentralization and regulation", in Mwabu, Ugaz and White, eds., op. cit.

Annex table III.1. Private expenditure on health as a percentage of total health expenditure in selected economies of the ESCAP region, 1995-2000

	Private expenditure on health as percentage of total health expenditure					
	1995	*1996*	*1997*	*1998*	*1999*	*2000*
South and South-West Asia						
Afghanistan	50.0	50.0	47.4	42.3	43.1	36.5
Bangladesh	66.1	64.2	63.9	63.5	63.3	63.6
Bhutan	9.7	11.7	9.6	9.7	10.4	9.4
India	83.8	84.4	84.3	81.6	82.1	82.2
Iran (Islamic Republic of)	54.4	51.8	54.0	54.5	53.8	53.7
Maldives	16.2	15.5	18.1	18.2	17.5	16.6
Nepal	73.6	74.0	69.4	67.4	71.1	70.7
Pakistan	75.2	77.0	77.1	76.4	78.1	77.1
Sri Lanka	51.9	50.4	50.8	49.0	51.3	51.0
Turkey	29.7	30.8	28.4	28.1	28.9	28.9
South-East Asia						
Brunei Darussalam	20.0	19.4	20.6	18.7	20.6	20.0
Cambodia	79.0	76.7	77.0	76.5	76.2	75.5
Indonesia	62.7	72.1	76.3	72.8	72.0	76.3
Lao People's Democratic Republic	52.9	58.0	61.5	64.0	63.0	62.0
Malaysia	43.9	41.7	42.4	42.3	40.2	41.2
Myanmar	81.0	82.7	85.7	89.4	88.3	82.9
Philippines	60.1	58.6	56.6	57.6	53.5	54.3
Singapore	58.2	59.8	60.5	58.0	61.2	64.3
Thailand	51.1	48.9	42.8	38.6	41.7	42.6
Viet Nam	59.6	65.2	68.8	70.9	75.6	74.2
East and North-East Asia						
China	53.3	57.8	60.0	61.0	62.0	63.4
Democratic People's Republic of Korea	20.1	19.5	16.5	16.5	17.6	22.7
Mongolia	31.0	36.9	37.3	34.6	33.5	29.7
Republic of Korea	63.5	61.2	59.0	53.8	56.9	55.9
Pacific island economies						
Cook Islands	21.1	33.3	32.9	31.7	36.6	37.2
Fiji	35.0	33.8	33.3	34.6	34.8	34.8
Marshall Islands	38.8	38.3	38.1	38.4	38.9	38.6
Micronesia (Federated States of)	42.9	44.0	43.3	44.7	45.4	46.3
Nauru	1.1	1.1	1.1	1.1	1.1	1.1
Niue	3.2	2.6	2.7	3.3	2.9	3.8
Palau	11.4	12.3	12.5	12.0	11.8	11.5
Papua New Guinea	8.4	10.1	10.6	9.1	10.1	11.4
Samoa	24.8	24.5	24.1	24.3	23.6	23.8
Tonga	56.7	56.7	53.2	53.9	54.1	53.2
Tuvalu	29.1	31.3	30.2	29.3	29.3	28.6
Vanuatu	33.9	42.4	35.8	34.6	39.7	39.1

(Continued on next page)

Annex table III.1 *(continued)*

	Private expenditure on health as percentage of total health expenditure					
	1995	*1996*	*1997*	*1998*	*1999*	*2000*
North and Central Asia						
Armenia	60.3	56.6	58.5	57.1	58.7	57.7
Azerbaijan	22.3	28.0	26.6	26.9	51.1	55.8
Georgia	87.1	86.1	85.3	86.7	89.8	89.5
Kazakhstan	18.2	23.7	23.6	29.4	29.1	26.8
Russian Federation	18.5	21.9	27.1	31.1	35.3	27.5
Tajikistan	39.5	36.9	34.0	35.0	15.4	19.2
Uzbekistan	22.7	17.5	17.9	15.3	21.2	22.5

Source: WHO, *World Health Report 2002* (Geneva, 2002).

Annex table III.2. Pupil-teacher ratio at the primary and secondary levels of education in selected economies of the ESCAP region

	Pupil-teacher ratio			
	Primary		Secondary	
	1980	2000	1980	2000
South and South-West Asia				
Bangladesh	54	59[a]	24	22
India	45	43	22	32[b]
Nepal	38	38	31	61[a]
Pakistan	37	55	17	25
Sri Lanka	32[c]	28[b]	..	22[b]
South-East Asia				
Brunei Darussalam	18	13	12	10[b]
Cambodia	44	50	23[c]	18
Indonesia	32	22	15	16
Lao People's Democratic Republic	30	30	19	21
Malaysia	27	20	23	19[a]
Myanmar	52	33	34	30[a]
Philippines	31	35[a]	34	34[a]
Singapore	31	25	19	22
Thailand	21[d]	21	19	22
Viet Nam	39	30	25	28
East and North-East Asia				
China	27	20	18	17
Mongolia	32	33	23	21
Republic of Korea	48	32	39	22
Pacific island economies				
Fiji	28	23[a]	19	..
Papua New Guinea	31	36[a]	21	22[a]
Samoa	29	24	24	20
Solomon Islands	25	24[b]	16	..
Tonga	24	21	23[c]	10[a]
Vanuatu	24	24	13	26
North and Central Asia				
Georgia	19	17	10	7
Kyrgyzstan	28	24	18	13[b]
Russian Federation	28	19	16	12
Uzbekistan	24	21[b]	15	9[b]

Sources: UNESCO, Institute for Statistics database, <http://www.uis.unesco.org>, 11 October 2002 and *World Education Report 2000* (UNESCO Publishing, 2000).

[a] 1999.
[b] 1996.
[c] 1981.
[d] 1982.