

# Population and Poverty: Challenges for Asia and the Pacific

*To confront the challenges of the twenty-first century successfully, we must strive to promote, respect and protect all human rights: economic, social, civil and political. Asia has made excellent progress over the past 30 years and we must maintain the momentum.*

By Thoraya Ahmed Obaid\*

Over the past decade, East Asia has halved the proportion of people living in extreme poverty on a dollar or less per day, from 28 to 14 per cent. During the same period, South Asia, where nearly half the world's poor live, has seen a more modest drop: from 44 to 40 per cent. While part of East Asia's success can be attributed to good economic policies, economic growth is by no means a magic potion. In fact, growth can actually increase income inequality and widen the gap between rich and poor. To reduce extreme poverty, social investment is needed to expand opportunities, capabilities and participation so that people can climb out of poverty.

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\* Executive Director, United Nations Population Fund, UNFPA.

To achieve the millennium development goals, poor people must be empowered to take steps to improve their lives, and Governments must assist them by ensuring that they can obtain the services they need. These services include universal access to reproductive health and primary education, as world leaders agreed in 1994 at the International Conference on Population and Development held at Cairo.

While great progress has been achieved in the Asian and Pacific region over the past few decades, we must now actively maintain the momentum. Combating widespread poverty and illiteracy, gender discrimination, growing demands in urban areas, environmental degradation and the spread of HIV/AIDS require greater political commitment and financial support. Unless these issues, and the challenges presented by a large youth population and growing numbers of older persons, are tackled with leadership and vision, there is a danger that the gains achieved so far may be reversed.

Although five years have passed since the economic crisis of 1997, most East and South-East Asian countries are still recovering and the social sector needs to be further strengthened.

Since 1969, the United Nations Population Fund, in close collaboration with ESCAP and other partners, has helped countries to plan and expand their population and family planning activities and operationalize their reproductive health services, with an emphasis on national capacity-building. As a result, the region now has considerable institutional capacity and expertise to undertake research on important population and policy issues. UNFPA has also been extensively supporting projects that improve the status of women by promoting programmes that improve their education, income and employment opportunities and address gender discrimination and violence.

Although wide variations exist in the Asian and Pacific region, significant progress has been achieved in the social sector, particularly in reproductive health, over the last decade. Better medical facilities and improvements in health and nutrition have resulted in declines in fertility and mortality rates. In the past two decades, the Asian economies have shown a rapid decline in average population growth rates. Yet, Asia still accounts for almost half the world's annual population increase because of the large existing population base and there is still a large unmet need for family planning in most countries.

As a human rights and development priority, everyone should have voluntary access to reproductive health information and services, including family planning.

## **Population and poverty**

We now have solid evidence, based on new research, that work towards population goals helps to reduce poverty at both household and national levels.

At the national level, it is becoming increasingly clear that slower population growth encourages overall economic growth. Evidence also suggests that successful emerging economies almost always have favourable demographics.

Since 1970, developing countries with lower fertility and slower population growth have seen higher productivity, more savings and more productive investment. They have registered faster economic growth. Investments in health and education, and gender equality are vital to this effect. Family planning programmes and population assistance were responsible for almost one third of the global decline in fertility from 1972 to 1994. These social investments attack poverty directly and empower individuals, especially women. They enable choice.

Given a real choice, poor people in developing countries have smaller families than their parents did. This downturn in fertility at the micro level translates within a generation into potential economic growth at the macro level, in the form of a large group of working-age people supporting relatively fewer older and younger dependants.

## **Demographic opportunity**

This “demographic window” opens only once and will close as populations age and older dependants increase in number. When other policies are supportive, the opportunity can allow dramatic progress as was seen in the “Asian tigers” of the 1980s and 1990s. While the proportion of their working-age populations started to increase as late as the mid-1970s, the pace of change was extremely rapid up to the early 1990s. The relative growth of the working-age populations in these countries will continue for another decade. These countries made the supporting investments in health and education early in the development process, and created a framework for more open markets and social participation.

South Asia will reach its peak ratio of working-age to dependant-age between 2015 and 2025 and therefore social investments are needed now to lay the groundwork for transformation.

While investments in health and education help to boost individual and family well-being and economic growth, lack of investment and access to these

vital social services has the opposite effect. Poor health diminishes personal capacity, lowers productivity and reduces earnings. Furthermore, a high prevalence of disease and poor health in a country harms its economic performance, while higher life expectancy, a key indicator of health status, stimulates economic growth. Therefore, it is essential to improve poor reproductive health, which remains a leading cause of death and disability for women in Asia and to reduce unsafe sex, which is the second leading cause of death worldwide.

### **Maternal mortality**

Today, some 220,000 women in Asia die each year from complications of pregnancy and childbirth, even though we know what needs to be done to reduce maternal deaths. We know that women need access to family planning so that they can better plan and space their births. We know that all women need prenatal care during pregnancy, and skilled attendants at birth. And we know, and this was a hard lesson to learn, that pregnant women need access to emergency obstetric care if complications arise. Yet today, only 48 per cent of women in Asia go through delivery with a trained attendant and the consequences are tragic.

The lifetime risk of maternal death in Asia is 18 times greater than in Europe. Fortunately, we know that progress can be achieved. Sri Lanka reduced its maternal mortality rate from more than 1,500 per 100,000 live births to 60 by making safe motherhood a priority and achieving near-universal use of skilled attendants at birth. Greater efforts are needed to reduce high maternal, infant and child mortality ratios in several countries in the region, including Afghanistan, Bhutan, Cambodia, India, the Lao People's Democratic Republic, Nepal and Timor Leste. It is estimated that 22 per cent of child deaths are due to perinatal causes.

### **HIV/AIDS**

Although HIV/AIDS came later to Asia, its spread has been swift. The most populous countries of the world particularly China and recently Indonesia, are seeing signs of rapid increases, and India has the second highest number of HIV-infected adults in the world. Unless serious measures are taken to stem the epidemic in its early stages, the consequences could be ravaging.

With no cure in sight in the near future to stop AIDS, our first line of defence remains prevention. Large-scale prevention efforts have halted or

reversed the spread of the epidemic in a growing number of countries, including Cambodia and Thailand. We must build on these successes and expand effective interventions. Efforts must be scaled up nationwide so that information, education, counselling, as well as care and treatment, spread faster than the virus itself. This is the only way to stem the tide of infection.

Like all matters in reproductive health, AIDS requires a multisectoral response that reaches beyond the health system to the community. Effective strategies for behaviour change, condom programming, and targeting and involving specific sectors of society, including those living with HIV/AIDS, have been developed and need to be brought to scale to reach every citizen in the Asian and Pacific region, particularly in countries where HIV/AIDS is currently spreading.

At the United Nations Population Fund, we are focusing on three strategic interventions: ensuring that information and services reach and involve young people, especially adolescent girls; ensuring that pregnant women and their children can remain HIV-free, and ensuring that condoms are accessible, and used correctly and consistently. At the Special Session on HIV/AIDS held in 2001, the General Assembly adopted the ABC approach: abstinence, be faithful, and use condoms. In line with the consensus reached, UNFPA advocates these three methods of HIV/AIDS prevention.

### **Changing demographics**

Today, the population of Asia and the Pacific is ageing rapidly, with most of the world's elderly living in China, India and Japan. At the same time, half of the population is under the age of 25. We need to develop policy frameworks and strengthen national capacity to address the needs of adolescents and the elderly.

Adolescents comprise more than 20 per cent of the total Asian population and are the most at risk of unwanted pregnancies, sexually transmitted infections and AIDS. The reproductive health of adolescents is increasingly being recognized as a key area for UNFPA support. It is vital that they receive factual and culturally sensitive reproductive health information and services.

Asia is also home to the majority of the world's older people, the majority of whom are women, often widows living in poverty. This new emerging issue has major ramifications for the countries of the Asian and Pacific region, which still do not have systems of social protection in place.

To confront the challenges of the twenty-first century successfully, we must strive to promote, respect and protect all human rights: economic, social, civil and political. Asia has made excellent progress over the past 30 years and we must maintain the momentum. The Programme of Action of the International Conference on Population and Development and the key actions adopted at the review and appraisal of the Conference, in 1999, remain feasible, affordable and effective. We must now increase our efforts. By giving greater policy attention and generating greater resources to population and reproductive health issues, we will actually make greater progress in reducing poverty, maternal and child mortality, halting the spread of HIV/AIDS, increasing gender equality and equity and ensuring sustainable development, as world leaders agreed at the Millennium Summit.

# Half a Century of Unparalleled Demographic Change: the Asia-Pacific Experience

*Not only will ageing occur at a rapid pace in the countries of Asia and the Pacific but the number of older persons in the region will also be the highest. With the number of children per woman dropping to levels of or below replacement together with rapid urbanization, internal and international migration and family nuclearization, the challenge posed by the region will be at a scale and magnitude never before experienced*

By K.S. Seetharam \*

The past 50 years of demographic change in Asia and the Pacific is without historic parallel, altering the region's demographic landscape forever. What makes the change so striking is the rapid and unparalleled pace at which

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\* Specialist on Population and Development at ESCAP, and a member of the United Nations Population Fund Technical Advisory Programme.

it has occurred. The change has been accompanied by significant developments in the economic, social, cultural and political fabric of the countries in the region. The process that began half a century ago continues to grip more countries and population groups of Asia and the Pacific and brings with it inevitable and significant development challenges for the future.

During the past 50 years, the Asia and Pacific region has witnessed the following developments:

- Addition of 2.2 billion persons to the 1950 population of 1.4 billion, representing 60 per cent of the total increase in world population
- Decrease of 0.6 percentage point in the population growth rate
- Reduction in infant mortality rate by almost two thirds, from 184 infant deaths to 68 per 1,000 live births
- Increase in life expectancy at birth of 24 years
- Decline in the total fertility rate by more than half, from around 6 children per woman to 2.7
- Rising female age at marriage to over 20 years
- Deepening concentration of population within urban areas, often in one primate city

The populations of most countries have registered significant gains in real and disposable income, experienced massive reductions in poverty, improved their literacy and educational levels and reduced gender disparities. During this period, access to information has notably improved, and major changes have occurred in the political and planning contexts of most countries.

However, these developments have not been uniform across all countries and within countries. Consequently, at the beginning of the twenty-first century, the Asian and Pacific region has become highly heterogeneous with regard to demographic, economic, sociocultural and political conditions. For example, although mortality and fertility have declined in many parts of Asia and the Pacific, they remain high in some others. Even as income levels have risen in many countries, about a billion people in the region are estimated to live in poverty. While more and more people are able to read and write and pursue higher education, the rate of illiteracy is still considerable.

This paper highlights the significant demographic changes that have occurred in Asia and the Pacific and discusses their underlying determinants. It also looks at the future prospects and underscores some of the challenges that lie ahead.



## Dynamics of growth and age structure

The population of the Asian and Pacific region, that had stood at 1.4 billion in 1950, reached 3.5 billion by 2000, resulting in an increase in the region's share of the world population from 54-58 per cent. The annual rate of population growth, that had averaged around 1.8 per cent during the period 1950-1955 declined to 1.3 per cent by 1995-2000. However, this regional average masks the significant trends as well as the differences among subregions and among countries.

In the mid-twentieth century, many Asian and Pacific countries had high levels of fertility, with a total fertility rate (TFR) averaging around 6.0 children per woman and relatively high levels of mortality with life expectancy at birth of around 40 years. During this time, many of the region's countries gained independence from colonial rule and initiated planned development. It was also a period when countries began to follow either the philosophy of central planning or the market economy and associated themselves politically with the major powers of the cold war era that spanned much of the second half of the twentieth century.

There is evidence that mortality, which had been declining in the region since the beginning of the twentieth century, gained momentum in the 1930s, only to be interrupted by the effects of the Second World War (Caldwell, 1999). With the end of the Second World War and the increased emphasis placed by Governments on controlling mortality, particularly those associated with infectious and parasitic diseases, mortality began to fall rapidly, at a pace unprecedented in human history. As a result, the annual rate of population growth began to accelerate from about 1.9 per cent in the early 1950s, peaking at about 2.3 per cent during the early 1970s (Leete and Alam, 1999).

Since the late 1960s and the early 1970s, fertility began to decline in response to government interventions and by the sustained progress in other aspects of development, including improvements in health and child survival, in incomes and in female education, as well as the rising age at marriage. Hence, the annual population growth rate dropped to about 1.3 per cent by the start of the current century as shown in table 1.

The above pattern of population growth is reflected in the different subregions (Leete and Alam, 1999). At the beginning of this century, the rate was highest (1.76 per cent) in South and South-West Asia and lowest (0.75) in East and North-East Asia, as shown in table 1. Thus, in general, the Asian and Pacific region has become highly diverse during the past 50 years, with the subregional rate for South and South-West Asia being more than twice that of East and North-East Asia. The variation in growth is even more pronounced between countries, with some approaching zero growth (Japan: 0.20 per cent)

**Table 1. Population size and growth, Asia and the Pacific: 1950-2000**

Region/year, major area, region, country or area	Population (millions)		Growth rate		
	1950	2000	1950-1955	1995-2000	2000
World	2,519.5	6,056.7	1.79	1.35	1.29
Asia and the Pacific	1,364.2	3,523.1	1.90	1.37	1.29
East and North-East Asia	672.5	1,481.1	1.75	0.84	0.75
China	534.7	1,275.1	1.87	0.90	0.80
Japan	83.6	127.1	1.42	0.14	0.20
South-East Asia	177.6	521.4	2.08	1.57	1.48
Indonesia	79.5	212.1	1.31	1.41	1.31
South and South-West Asia	501.7	1,490.7	2.03	1.83	1.76
Bangladesh	41.8	137.4	1.97	2.12	2.10
India	357.5	1,008.9	1.59	2.60	2.61
Pakistan	39.7	141.3	1.96	2.66	2.60
Pacific	12.4	29.9	2.17	1.36	1.29
Australia	8.2	21.8	2.26	1.15	1.07
Papua New Guinea	1.6	4.8	1.46	2.34	2.29

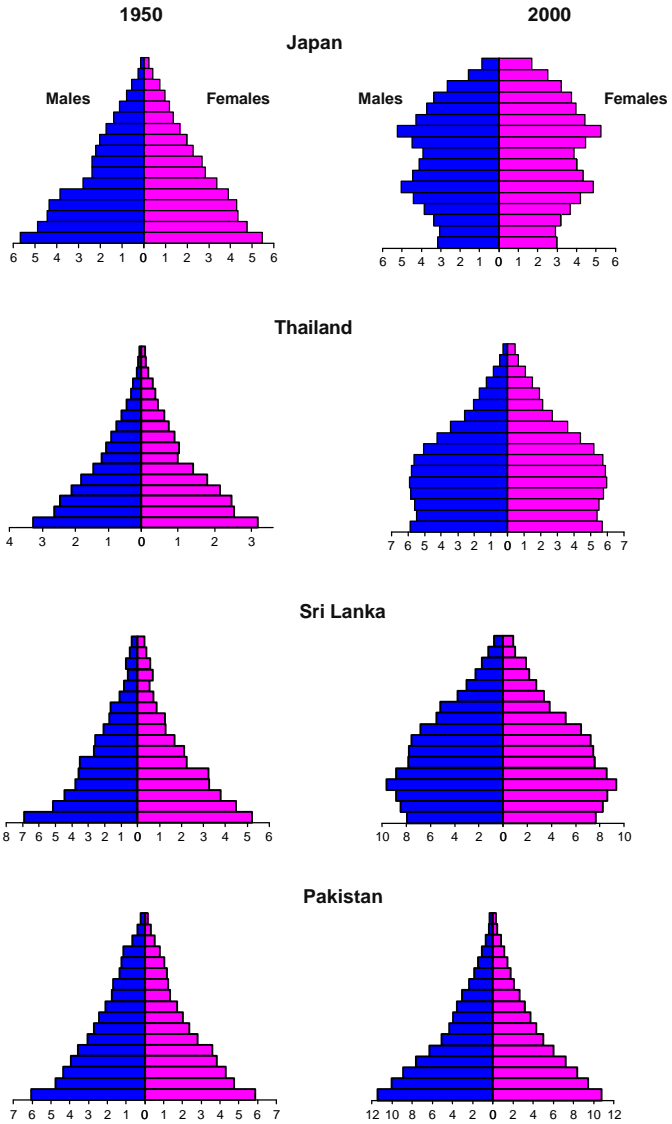
*Source:* United Nations (2001). *World Population Prospects: The 2000 Revision*, vol. 1, *Comprehensive Tables* (New York, United Nations).

*Note:* Countries and areas included in the subregions are:  
 East and North-East Asia: China; the Democratic People's Republic of Korea; Hong Kong, China; Japan; Macao, China; Mongolia; Republic of Korea.  
 South-East Asia: Brunei Darussalam; Cambodia; East Timor;  
 Indonesia; the Lao People's Democratic Republic; Malaysia; Myanmar; Philippines; Singapore; Thailand; Viet Nam.  
 South and South-West Asia: Afghanistan; Bangladesh; Bhutan; India; Iran (Islamic Republic of); the Maldives; Nepal; Pakistan; Sri Lanka, Turkey.  
 Pacific: Australia; Fiji; French Polynesia; Guam; New Caledonia; New Zealand; Papua New Guinea; Samoa; Solomon Islands; Vanuatu.

and others are depicting a very high potential for continued growth in the coming decades as a result of high fertility and population momentum combined (for example, Pakistan: 2.6 per cent).

These developments have led to a dramatic change in the population age structure. The extremes are captured in figure 1 by the age structures for Japan, on the one hand, and Pakistan, on the other. The transition from high to low fertility in Japan was completed in the 1960s. With no migration, Japan attained an age structure in which the number and proportion of people at older ages have risen dramatically over the past few decades, a trend that is projected to continue. In Pakistan, the age structure remains young, owing to significant reductions in mortality but only moderate fertility declines. As the transition to low fertility proceeds, those in the young adult and working ages will rise significantly. In Sri Lanka and Thailand, where fertility has reached the replacement level relatively recently, the age structure reflects an increase in the share of those in the young adult and working ages.

**Figure 1. Age-sex pyramids of selected countries: 1950-2000**



Source: Based on data provided in United Nations (2001). *World Population Prospects: The 2000 Revision*, vol. 1, *Comprehensive Tables* (New York, United Nations).

These changes have altered the relative importance of working and dependent populations over time and have had considerable consequences for savings and investment and thus on the people's employment and welfare. However, the differential development of countries was dependent on their economic and social policies, including human resource development policies, and on how such policies interacted with demographic trends. Much of the neo-Malthusian discussion (Coale and Hoover, 1961) on the impact of population change on development in the 1950s and early 1960s dealt with the emerging demographic situation in the developing world at the time and was based on this interplay of the changing age structure and savings and investment at the household and societal levels. That the changes in age structure resulting from fertility declines offer a unique window of opportunity for development, provided that it is exploited with timely human resource development policies, is a matter of contemporary discussion and debate (Asian Development Bank, 1997).

### **Mortality and fertility transition**

During the period 1950-2000, mortality declined precipitously in most countries of the region. For Asia and the Pacific, the crude death rate (CDR) decreased by nearly two thirds from around 24 per 1,000 during the early 1950s to 8 per 1,000 during the late 1990s. In all the subregions, except in the Pacific where the CDR was 12 per 1,000, the levels were close to the regional average of 24-25 per 1,000. During the period 1995-2000, the overall levels had nearly converged around 7-8 per 1,000, as recorded in table 2.

Likewise, the expectation of life at birth ( $e_0$ ) in the region during the early 1950s averaged around 42 years with relatively minor differences between subregions, except for the Pacific, where it was around 64 years. By the late 1990s, life expectancy for the region as a whole had increased by 24 years, a remarkable feat by historic experience. The overall increase has been highest in East and North-East Asia (28 years), followed by South-East Asia (24 years) and South and South-West Asia (23 years). More moderate gains (10 years) in the expectation of life at birth were registered in the Pacific.

In 1950, no country in the region had a life expectancy of more than 75 years, as revealed in table 3. Only Australia; Brunei Darussalam; Hong Kong, China; Japan; New Zealand; and Singapore had expectations of life at birth that equalled or exceeded 60 years. Mortality had also started to decrease in some East and South-East Asian countries. In the remaining subregions, life expectancy was below 45 years and in some, it was even less than 40 years. By

**Table 2. Key indices of mortality and fertility, Asia and the Pacific by subregion, 1950 and 2000**

Region	Mortality					Fertility		
	CDR	Life expectancy at birth			IMR	U5MR	CBR	TFR
		Both sexes	Male	Female				
<b>1950-1955</b>								
Asia and the Pacific	23.9	42.1	41.4	42.7	184.4	na	42.9	5.9
East and North-East Asia	23.0	42.9	41.2	44.7	181.2	na	40.7	5.7
China	25.0	40.8	39.3	42.3	195.0	na	43.8	6.2
Japan	9.4	63.9	61.6	65.5	50.6	na	23.7	2.7
South-East Asia	23.3	41.0	39.9	42.1	167.5	na	43.9	5.9
Indonesia	26.1	37.5	36.9	38.1	201.2	na	42.7	5.5
South and South-West Asia	25.5	39.2	39.9	38.5	195.9	na	45.8	6.1
Bangladesh	28.3	36.6	38.3	34.9	207.1	na	48.0	6.7
India	25.4	38.7	39.4	38.0	190.0	na	45.4	6.0
Pakistan	25.0	41.0	42.3	39.8	181.4	na	44.6	6.3
Pacific	12.3	64.0	61.7	66.4	58.6	na	27.2	3.8
Australia	9.4	69.6	66.9	72.4	23.6	na	23.0	3.2
Papua and New Guinea	29.7	34.7	33.8	35.7	157.7	na	43.1	6.2
<b>1995-2000</b>								
Asia and the Pacific	8.0	66.3	64.9	67.8	68.0	92.2	22.1	2.7
East and North-East Asia	7.0	70.9	68.7	73.4	38.0	81.3	15.6	1.8
China	7.0	69.8	67.9	72.0	41.4	47.9	16.2	1.8
Japan	7.6	80.5	77.0	83.8	3.5	4.9	9.8	1.4
South-East Asia	7.4	65.3	63.2	67.5	47.2	64.4	23.8	2.8
Indonesia	7.5	65.1	63.3	67.0	48.4	62.8	22.5	2.6
South and South-West Asia	9.2	61.9	61.5	62.3	76.4	107.5	27.9	3.6
Bangladesh	9.8	58.1	58.1	58.2	78.8	110.8	31.4	3.8
India	9.0	62.3	61.9	62.6	72.5	99.0	26.2	3.3
Pakistan	10.8	59.0	59.2	58.9	95.3	143.5	37.9	5.5
Pacific	7.6	74.1	71.7	76.6	26.2	35.6	18.1	2.4
Australia	7.1	78.7	75.9	81.5	5.4	6.7	13.4	1.8
Papua and New Guinea	10.6	55.6	54.8	56.7	69.0	95.5	34.0	4.6

*Source:* Based on data provided in United Nations (2001). *World Population Prospects: The 2000 Revision*, vol. 1, *Comprehensive Tables* (New York, United Nations).

2000, most countries had attained life expectancies exceeding 60 years, while those that had attained more than 60 years in 1950 extended their expectations of life at birth to 75 years or more. Only a few countries in South Asia (Bangladesh, Bhutan, Nepal and Pakistan) and East Asia (Cambodia, East Timor, the Lao People's Democratic Republic, Myanmar) and Papua New Guinea had life expectancy less than 60 years in 2000. Afghanistan stands out as the only country in the region where it is still below 45 years (see table 3).

**Table 3. Classification of countries and areas by mortality and fertility levels: 1950 and 2000**

1950				
$e_0$ /TFR	$e_0 < 45$	$45 \leq e_0 < 60$	$60 \leq e_0 < 75$	$e_0 \leq 75$
TFR $\geq$ 6.0	China Mongolia Cambodia East Timor Lao People's Democratic Republic Myanmar Afghanistan Bangladesh India Islamic Republic of Iran Maldives Pakistan Turkey Papua New Guinea Vanuatu	Malaysia Philippines Thailand French Polynesia Fiji Samoa Solomon Islands	Brunei Darussalam Singapore	
4.0 $\leq$ TFR $<$ 6.0	Indonesia Viet Nam Bhutan Nepal	Macao, China Republic of Korea Sri Lanka Guam New Caledonia	Hong Kong, China	
2.1 $\leq$ TFR $<$ 4.0		Democratic People's Republic of Korea	Japan Australia New Zealand	
TFR $<$ 2.1				
2000				
TFR $\geq$ 6.0	Afghanistan			
4.0 $\leq$ TFR $<$ 6.0		Cambodia East Timor Lao People's Democratic Republic Nepal Pakistan Papua New Guinea	Bhutan Guam Maldives Samoa Solomon Islands Vanuatu	
2.1 $\leq$ TFR $<$ 4.0		Myanmar Bangladesh	Mongolia Indonesia Malaysia Philippines Viet Nam India Islamic Republic of Iran Turkey Fiji French Polynesia New Caledonia	Brunei Darussalam
TFR $<$ 2.1			China Democratic People's Republic of Korea Republic of Korea Thailand Sri Lanka	Japan Macao, China Hong Kong, China Singapore Australia New Zealand

Source: Based on data provided in United Nations (2001). *World Population Prospects: The 2000 Revision*, vol. 1, *Comprehensive Tables* (New York, United Nations).

The gains in life expectancy at birth have been brought about by significant reductions in infant and child mortality. For example, the infant mortality rate (IMR) for the region as a whole dropped by about two-thirds of the initial level of 184 per 1,000 live births during this period, a trend that is shared by all regions. The decline was highest in East and North-East Asia (79 per cent), followed by South-East Asia (71 per cent) and South and South-West Asia (61 per cent). The Pacific, which had the lowest IMR at the beginning of the period, also recorded appreciable gains amounting to 55 per cent. Similar progress has been achieved in reducing mortality during early childhood. Compared with the region's most developed countries, such as Japan and Australia, where IMR and under-five mortality have declined to very low levels, the corresponding levels remain high in many countries of Asia and the Pacific.

During this period, the rise in life expectancy for females exceeded that of males. Even in South and South-West Asia, where life expectancy for females was lower in 1950, by 2000 it had exceeded that of males, except in Maldives, Nepal and Pakistan. The gap in expectation of life at birth between males and females has, on average, widened to two years for the region as a whole, but the difference is greater where mortality is lower. A number of factors have contributed to this unprecedented pace of mortality decline and for the differential gain in life expectancy among countries of the region. The most significant aspect of this transition is that it has taken place even with relatively modest increases in income levels. Examples include Sri Lanka and India (Kerala State), where mortality fell significantly in a very short time span. The steep decline in mortality was brought about by the prevention of deaths due to malaria, tuberculosis and cholera with the application of Western medical technology, including the use of antibiotics. The emergence of new nation-States and the emphasis given by them to providing health services, improving education and expanding knowledge of the factors affecting ill health and survival have been other important factors. Countries of the region that still lag behind (table 3) are those that have gone through periods of extreme instability, such as Afghanistan and Cambodia, or where there has been only limited progress towards education, particularly female education, as in Nepal, Pakistan and parts of India (Caldwell, 1999).

The 1990s have seen the emergence of HIV/AIDS in such Asian countries as Cambodia, India, Myanmar and Thailand. With no breakthrough in sight to prevent and cure this pandemic effectively, mortality levels could well rise in many countries unless countered by vigorous education campaigns and behavioural changes, particularly among men.

Declines in fertility during this period have been equally dramatic (tables 2 and 3). During the early 1950s, the TFR averaged around 5.9 children per woman in the region. In most countries it was well above 6.0. By 1995-2000, it had dropped to 2.7 for the region as a whole but with significant subregional and intercountry differences in the timing and pace of decline. For instance, while the TFR is below the replacement level of 2.1 in East and North-East Asia (1.8), it is twice as high (3.6) in South and South-West Asia. Evidence indicates that the fertility decline began only during the late 1960s and early 1970s in the countries of North and North-East Asia, closely followed by some South-East Asian countries. While organized governmental intervention to moderate fertility began in India in the 1950s, fertility decline in South and South-West Asia did not gain momentum until the mid-1970s with not as rapid a pace of decline. In the Pacific subregion, by the early 1950s, fertility had decreased significantly in Australia and New Zealand but was very high in the other island economies. But by 2000, fertility had declined in most of these countries, with the exception of Melanesia.

Reviewing the Asian experience, Leete and Alam (1999) have concluded that population policy was the driving force, affecting both the magnitude and speed of the changes. They also concluded that the success of family planning programmes was frequently supported by positive changes in the demand for children.

In most countries, the age at marriage of females has risen markedly during the past two or three decades as a result of increasing education of girls and their participation in gainful employment (ESCAP and UNFPA, 1998; Guest, 1999). Though more recent evidence is not available, an ESCAP and UNFPA (1998) review indicated that by 1990, the singulate mean age at marriage among females had risen above 20 years in most countries and in many, it was well above 25 years. Thus, the increase in age at marriage has played an important role in fertility decline. In addition, diminishing infant and child mortality and the resulting increase in family size, rising income levels and improved access to information have created a latent demand for, and utilization of, family planning services in most countries.

In Japan, the transition to low fertility was achieved by the early 1960s. Delayed marriage and voluntary control of marital fertility, mainly through abortion, which was legalized in the late 1940s, were the major determinants of fertility decline. On the other hand, China achieved replacement fertility by the vigorous Government enforcement of its "one-child" policy. In Hong Kong, China; the Republic of Korea; Singapore; Sri Lanka; and Thailand,



preconditions for a sustained decline in fertility, in particular, lower infant and child mortality and high female education, existed by the late 1960s. However, the provision of contraceptives through government-supported programmes and private channels helped couples to achieve their reproductive intentions more rapidly than anticipated.

Bangladesh and Indonesia have reduced fertility significantly in a short time span because of consistent and high-level political support of government-sponsored, externally supported family planning programmes. The decline is remarkable in the context of low income levels, low female education, and high infant and child mortality. Recent evidence from the Demographic and Health Surveys indicates that fertility and contraceptive use have reached a plateau in these countries due in part to the high desired number of children. The Islamic Republic of Iran and Turkey are other Muslim countries in which fertility has dropped significantly even without much external donor support. In the former, the decline is due in part to its efficient health service delivery system and the more recent but strong support by the Government to provide family planning services. Among the Muslim countries, Turkey had been more progressive historically, resulting in the high educational levels of girls and their empowerment and in the use of family planning. In multi-ethnic Malaysia, where official policy remains pronatalist, rapid fertility decline has taken place among the Chinese and Indian communities but only moderately among the Malays. In part, this is due to the higher socio-economic and human development levels achieved by the Chinese and Indian populations.

In the Philippines, support for family planning has wavered with the changes in government. Despite this and the religious opposition to family planning, fertility has decreased as a result of high female education, delayed marriage and non-marriage. In Myanmar, a Buddhist country with no religious objection to family planning, delayed marriage and non-marriage (very high compared with regional standards) have played important roles in fertility reduction.

Cambodia, the Lao People's Democratic Republic and Viet Nam have undergone war and/or internal strife. These countries, and Mongolia in North Asia, have followed communist/socialist ideology and their policies remained pronatalist until recently. In Viet Nam, fertility fell substantially as a result of government policies in support of family planning and abortion. With the introduction of family planning/birth spacing in Cambodia and the Lao People's Democratic Republic, it is expected that fertility will soon decline, even though other preconditions for fertility decline are far from being fulfilled.

India, which was the first country in the world to adopt family planning as an official policy and programme, presents a mixed picture of progress and change. While fertility has fallen below the replacement level in Kerala, Goa and Tamil Nadu, in other states the decline has been slow. In general, there is a strong association between the level of social and human development, particularly female education, and fertility. While family planning programme efforts, though variable among the States, have played a role in reducing fertility in India, its impact has been more significant in States with higher levels of social and human development.

Fertility remains high in Afghanistan, Maldives, Nepal and Pakistan. Afghanistan has had no stable government for decades and in recent years, women's position was considerably compromised. As a result, Afghanistan ranks as the region's most backward. Support for family planning is ambivalent at best in Nepal and Pakistan. Together with lack of progress in social and human development, fertility remains at a high level. Likewise, in the Pacific island economies, Polynesian countries in general have moderated their fertility to lower levels in comparison with Melanesian countries, which is partly a reflection of their differences in social and human development.

### **Rural to urban transition**

During the second half of the twentieth century, the Asian and Pacific region underwent fairly rapid urbanization and urban growth. It is the only region in the world where urbanization has consistently increased as a result of sustained improvements in urban employment opportunities (Guest, 1999).

While the world's urban population increased from three fourths of a billion in 1950 to 2.8 billion in 2000, the comparable increase for Asia and the Pacific was nearly sixfold, as depicted in table 4. Although the Asian and Pacific region is still predominantly rural, its urban population more than doubled from 17.3 to 35.9 per cent. The corresponding figures for the world as a whole were 29.7 and 47.0 per cent, respectively.

The pace of urbanization has been most rapid in South-East Asia and East and North-East Asia, followed by South and South-West Asia and the Pacific. There are variations, however, among countries within the subregions. In general, the countries of East and North-East Asia and South-East Asia, such as Malaysia, the Republic of Korea and Thailand, have followed an export-led growth policy for most of the 50-year period. Other countries, notably China, have followed the same policy more recently. Consequently, some of the region's fastest urbanization and urban growth have occurred in the

**Table 4. Indicators of rural to urban transition**

Region/Year	1950		Rate of urban growth (1950-1955)	2000		Rate of urban growth (1995-2000)
	Urban population (millions)	Per cent urban		Urban population (millions)	Per cent urban	
<b>World</b>	<b>749.9</b>	<b>29.7</b>	<b>3.0</b>	<b>2,845.0</b>	<b>47.0</b>	<b>2.1</b>
<b>Asia and the Pacific</b>	<b>236.7</b>	<b>17.3</b>	<b>3.6</b>	<b>1,268.0</b>	<b>35.9</b>	<b>2.7</b>
East and North-East Asia	120.8	18.0	3.9	571.7	38.5	2.0
South-East Asia	26.9	14.8	3.7	192.7	37.2	3.6
South and South-West Asia	81.2	16.2	3.1	482.3	32.1	3.1
Pacific	7.8	61.6	3.0	21.3	70.2	1.3

*Source:* United Nations (2000). *World Urbanization Prospects, The 1999 Revision* (New York, United Nations).

forementioned countries. Countries in South and South-West Asia such as India, which followed the policy of import-substitution, have also registered moderately high rates of urban growth. Countries where the urbanization level was high initially, such as Japan and some Pacific countries, including Australia and New Zealand, experienced modest gains in urbanization.

Concurrently, with the rapid pace of urbanization, there has been an increase in the growth of large urban agglomerations in many countries. Consequently, in Malaysia, the Republic of Korea and Thailand, “primate cities” have developed. According to the United Nations (2000), the number of cities with 10 million or more population in Asia and the Pacific grew from two in 1975 to 11 in 2000. The contribution made by rural-to-urban migration to urban growth and urbanization has also been high. In general, countries that experienced rapid urban growth also had the highest share of urban growth due to rural-urban migration (United Nations, 2000 and Gubhaju and others, 2001).

Judging from the rate of growth of the urban population between 1950-1955 and 1995-2000, it appears that there has been a slight deceleration in recent years. However, the rural-urban differential in the rate of population growth remains high. Therefore, it is to be expected that with greater globalization, urbanization will continue and future populations will inevitably become more urban. Reviewing the Asian and Pacific experience, Guest (1999) concluded that the level of internal migration in the ESCAP region was growing, consisting increasingly of rural-to-urban migration. Moreover, Guest points out that internal migration involves a high proportion of temporary migrants, a significant fraction of them being females.

In countries that are at the intermediate stage of the demographic transition, such as Bangladesh, India and Indonesia, the age structure is such that it will put pressure on rural-to-urban migration as the number of new labour force entrants increases. However, countries that have completed their demographic transition, such as the Republic of Korea and Thailand, can see stabilization or even a deceleration in migration as the number of labour force entrants continues to decline in the future (Skeldon, 1991; Guest, 1999).

### **High and low performing countries**

From the above discussion, it is possible to classify countries into three broad categories: (a) those that have completed or are nearing completion of the demographic transition; (b) those that are at intermediate levels; and (c) those that are at early stages (table 3). Countries with a TFR of less than 2.1 and a life expectancy of over 75 years can be considered high-performing countries, while those with a TFR, greater than 4 and an expectation of life at birth of under 60 years can be considered low-performing countries. In general, countries in the latter group have high infant and child mortality and low female education, while those in the former group have very low infant and child mortality and high female education.

Differences in economic development as measured by the rate of growth of gross domestic product (GDP) or the levels of per capita income and poverty seem to be less important. For example, China, the Democratic People's Republic of Korea and Sri Lanka have completed the demographic transition while having had only modest or low levels of economic growth. Mortality has declined significantly and rapidly in most Asian and Pacific countries with relative stability and low levels of economic, social and human development. Fertility, however, has dropped rapidly in countries with high levels of political commitment in support of population policies and programmes and human capital investment. It remains high in countries with low political commitment and social and human development.

Similar patterns are also observed among the different geographic or administrative divisions and/or population subgroups with such countries as India, Indonesia and Malaysia.

### **The path to progress and change**

Mortality decline began during the early part of the twentieth century and gathered momentum after the Second World War with the attainment of independence and self-rule in nearly all countries. Rapid gains in survival were

a result of the adoption of emerging medical technologies in combating disease and death due to infectious and parasitic diseases. Active government interventions, coupled with increases in awareness among the people and rising levels of income, have contributed to this unparalleled progress made by countries in reducing mortality. Yet, high mortality still persists in many countries and population subgroups in the region. These include countries that have undergone the ravages of internal conflict and war during much of the period 1950-2000 and/or countries where social and human development, particularly education, has lagged behind and poverty remains stubbornly high.

Concern with high fertility, on the other hand, was raised by non-governmental organizations, particularly in India, mainly because of its implications for the health, welfare and survival of mothers and children. Around the same time, concern was also being expressed about the adverse implications of population growth for social and economic development, a thinking that was reinforced by the seminal study by Coale and Hoover (1961). This led India to initiate the first government-sponsored family planning programme, an experiment in social organization and engineering, which was followed by other countries. This strategy has been used by many countries in Asia and the Pacific at varying levels of intensity. At one extreme is China, vigorously implemented the “one child” policy by involuntary means. Likewise, in parts of India during the emergency period under Prime Minister Indira Gandhi, some form of coercion was used in controlling fertility. In many countries, however, programmes were planned and implemented, with much less coercion but through the provision of incentives or disincentives for clients of family planning services and for service providers. As these programmes were mainly driven by the targets that were set, in most cases translated into quotas to be achieved by service providers, concerns about the rights of couples and the health of women were not, in general, matters that were considered in the equation. There are other countries, such as the Republic of Korea and Thailand, that followed a more holistic approach combined effective demand generation for family planning — which also recognized the positive impact of social and human development in this regard — and the provision of services through government outlets as well as through NGOs and the private sector.

It should be noted that where family planning services do not meet the needs of couples and individuals, it could result in increased resort to abortion. Available evidence indicates that the incidence of abortion is very high in countries such as Mongolia, Sri Lanka and Viet Nam. In countries where abortion is illegal, the high majority of these are done clandestinely and under unhygienic conditions leading to high maternal mortality and morbidity.

The United Nations, including ESCAP and its partner agencies, in particular UNFPA, has played a pivotal role in creating awareness and consensus among the Asian and Pacific countries and in developing the national technical and managerial capacity for the planning, implementing and monitoring of programmes. NGOs have played an important role in promoting family planning even in countries where they met with opposition for sociocultural and religious reasons. More importantly, at the 1994 International Conference on Population and Development in Cairo, NGOs played an active role in refocusing family planning programmes in the context of a broader “reproductive health” approach that addresses the needs of women, men and children during their life cycle and recognizes the rights of individuals and couples to information and quality services.

### **In prospect: issues and challenges**

The unprecedented progress achieved during the last half-century in most countries of Asia and the Pacific and the possible continuation of trends in the coming decades will have inevitable consequences for development. In a number of countries, particularly in Afghanistan, Cambodia, the Lao People’s Democratic Republic, Maldives, Nepal, Papua New Guinea, Pakistan and Solomon Islands, where the transition is still at an early stage, the challenge would continue to be to improve social and human development and to moderate their fertility and population growth. The challenge for those countries in the intermediate stage of demographic transition (Bangladesh, Fiji, the Islamic Republic of Iran and Turkey) would be to address the momentum effect of population growth as the population in the young adult ages continues to grow.

For countries that have completed or will soon be completing their demographic transition (Australia; Hong Kong, China; Japan; New Zealand; the Republic of Korea; Singapore; and Sri Lanka), the major issue will be to manage the effects of an ageing population for meeting both the possible shortages of labour and the health and other needs of the elderly.

The population of countries that are in the intermediate stage of transition will also begin to age in the not too distant future. Not only will ageing occur at a rapid pace in the Asian and Pacific countries but the number of older persons in the region will also be the highest. With the number of children per woman dropping to levels at or below the replacement level together with rapid urbanization, internal and international migration and family nuclearization, the challenge posed by the region will be at a scale and magnitude never before

experienced. The problem will be compounded by the fact that it will be taking place when the income levels of many countries will still be relatively low and the necessary social security systems will not be in place. Moreover, unless active measures are undertaken, HIV/AIDS will pose the greatest challenge for many countries, at least in the short and medium terms.

With increasing globalization, both internal and international migration will become more important issues affecting the development of many countries. Prudent migration policies, particularly those supportive of migrants, will be a subject of discussion among the receiving and sending countries in both bilateral and multilateral forums. It should also be noted that while the region as a whole was able to reduce poverty significantly during the past couple of decades, the global economic downturn that began in the late 1990s has reversed that trend in a number of countries. During the coming years, Asian and Pacific countries are likely to remain vulnerable to external economic conditions, severely straining their efforts to improve social progress and human development, in particular, reducing the gender biases that continue to exist in many countries of the region.

Despite these challenges, the Asian and Pacific region as a whole is poised to move towards lower mortality and fertility levels as the level of education, of females in particular, improves and information becomes more easily accessible throughout the region. The next 50 years will witness significant shifts in population age-structure and increased migration. These changes will have an impact on development and on the well-being of the people and hence, need to be considered as an integral part of policy and planning.

### **Endnote**

For the purpose of this paper, the Asian and Pacific region is defined to include the countries of the following subregions: East and North-East Asia, South-East Asia, South and South-West Asia and the Pacific. The countries excluded are the countries of West Asia, and North and Central Asia.

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# Population and Poverty: Some Perspectives on Asia and the Pacific

*One key challenge is seeing that population  
and reproductive health programmes, and development  
programmes at large, confer their benefits on the poor*

By Stan Bernstein\*

## **Poverty on the international agenda**

The international community has committed itself to an ambitious programme of social development for the opening decades of the twenty-first century. Attacking poverty directly — as a matter of human rights, to accelerate development and to reduce inequality within and among countries — has become an urgent global priority. World leaders have agreed on a variety of new initiatives, including the United Nations millennium development goals (United Nations, 2001).

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\* Stan Bernstein, Senior Research Adviser, Information and External Relations Division, United Nations Population Fund. The views in this article are those of the author and do not necessarily reflect those of UNFPA.

Some progress in reducing the proportions of people living in extreme poverty was made in the last decade (Chen and Ravillion, 2001). However, while the absolute number of the extremely income poor has decreased by over 100 million, the aggregate decline has been confined to Latin America and parts of Asia. East Asia and the Pacific registered the largest absolute decline (over 185 million fewer persons lived on less than an adjusted US\$1 per day in 1998 than in 1990), but China accounted for all but 38 million of that total. Despite a declining proportion in extreme income poverty (roughly 4 per cent), South Asia registered an absolute increase of 25 million. Several countries in the region have met the goal of halving poverty, while others have seen slower progress or reversals.

socio-political conflicts and natural catastrophes have had a negative impact on several countries. Income inequality has increased in several countries, including some with rapid economic growth (ESCAP, 2002). Higher income inequality requires much higher overall growth rates to achieve progress in poverty reduction (UNDP, ECLAC and IPEA; forthcoming). The assumption that the elasticity of poverty to income gain is one that is often unwarranted.

Further, poverty is multidimensional. Income poverty is only one aspect of the deprivation of the right to essential development assets and opportunities. Education, health (including reproductive health), nutrition, water and sanitation, employment, social and political participation are additional elements of the deprivation of capability and empowerment (Sen, 1999).

The millennium development goals set targets for progress in a variety of dimensions beyond income poverty. There has been significant progress over the last decade in several dimensions, for example, educational enrolment and advancement, infant and child mortality reduction and overall longevity. However, progress in other dimensions has lagged in the aggregate and in many countries.

### **Population trends in the region: dimensions of diversity**

Asia and the Pacific display one of the most diverse social, economic and demographic profiles. This largest of all regions contains countries at virtually all stages of demographic transition. It provides examples of the possibility of rapid change and examples of the stubborn persistence of social and demographic trends. Good overviews of recent trends are readily available in the literature (Gubhaju, Seetharam and Huguet, 2001; Westley, 2001; Leete and Alam, 1999; Leete and Jones, 2002; Asian Development Bank, 2002). For current purposes, it is sufficient to note that most reviews stress the changes in fertility rates, age structures, urbanization and migration.

## **Linkages between population and poverty**

Recent research has reviewed the long-standing skepticism by some economists of a linkage between population dynamics and macroeconomic growth and, based on a more complete data record and improved techniques, concluded that population has a variety of effects on development at the household and national levels (Birdsall and others, 2001). A number of mechanisms have been identified.

### *The demographic bonus*

The change from high to low mortality and fertility can create a “demographic bonus” for countries. Mortality declines first, followed by fertility. What happens as fertility declines is that the working-age population increases relative to younger and older dependants. That creates a one-time opportunity for growth. The opportunity can be realized if countries have made the appropriate investments, not only in family planning but in health and education generally, with special attention given to the needs of girls and women, and in employment opportunities for the new and enabled workforce. Open and responsive governance makes these adjustments possible.

This phenomenon was first analysed in the “East Asian miracle” of the 1980s and 1990s (Asian Development Bank, 1997). The best recent macro-level research suggests that from 1960 to 1995 about a fifth of economic growth was attributable to gains in mortality and about a fifth to reductions in fertility. External financial shocks and the failure of regulatory frameworks (like those that contributed to the 1997-1998 economic catastrophe) can impede progress. But recovery since then, although held back by continuing external problems, shows the value of the earlier demographic and social changes. The collapse hit the poor hardest and they continue to bear the brunt.

The proportion of populations in the “working ages” continues to increase in many countries, particularly those at an earlier stage in the demographic transition. Many countries still have time to invest to profit from their opportunity, but investments need to be made before the opportunity is squandered.

The sheer volume effects of the demographic bonus realized through the age structure changes are supplemented by the changing opportunities for women. Female labour force participation also contributes to economic growth, particularly when it is appropriately compensated, and declining fertility is linked to increased women’s employment. The rising levels of women’s education and increased demand for labour by a growing formal sector increase the opportunity cost of high fertility. Education and fertility declines can combine in a positive feedback in which the growth of the labour force increases faster than the growth of the labour age population alone.

For countries entering the post-transition period, increased old age dependency might act as a drag on further development if such a trend was not balanced by productivity gains. The evidence to date suggests that young age dependency has a stronger effect on economic growth than does old age dependency (Asian Development Bank, 1997), but it must be recognized that the projected pace and level of population ageing are outside the range of past experience. Without accelerated accumulation of resources for old-age support and a strengthening of intergenerational linkages the net effect could be negative.

### *Distributional effects*

Long-term demographic and economic data from 45 developing countries show that high fertility raises absolute levels of poverty by slowing economic growth (and reducing the poverty reduction growth can help deliver) and by skewing the distribution of consumption against the poor. Fertility reduction through greater acceptance of family planning counters both of these effects (Eastwood and Lipton, 2002). Investments in improved reproductive health help to redress gender inequities and barriers to social and economic participation.

The positive redistribution effect comes from (a) the reduction of the requirement of higher outlays for basic needs and education (with lower savings and investments in child quality) of young dependants, and (b) the increased ability of poor households to increase their labour supply and savings. Women with fewer children are more able and often more willing to participate in remunerative work. They are also more likely to invest their added income in the health and education of children. Societal impacts on consumption also help poor households as the increasing scarcity of labour raises wage rates — even for families whose own fertility does not decline — and lowers demand for land (reducing the costs and slowing the unsustainable fractionalization of holdings).

These consumption effects can add substantially to the gains from growth. About half the estimated decline in poverty comes from increases in economic growth and half from the consumption side.

### *Timing effects*

At different stages in the demographic transition these effects differ. At first, when mortality declines, particularly among infants and children, increased expenditure is needed for these young dependants and growth slows. As fertility declines and aggregate growth slow, economic growth increases.

In the early stages of transition, the gap between poor and non-poor households may increase. As poorer families join in the transition (which has

not yet happened in many societies in mid-transition), poverty and inequality reduction effects increase.

The poorer the country and the higher its initial level of fertility, the greater the effect of declining fertility on a decline in absolute poverty. The beneficial effects increase as the demographic transition proceeds. The faster the fertility decline, the larger the potential benefits of the demographic transition but the shorter the time period available to take advantage of them.

The magnitude of demographic effects interacts with the condition of markets, Governments and institutions. Where these institutions are weak, as in many pre-transition or early transition countries, the initial negative effects are magnified. The initial positive effects of fertility declines are likely to be reinforced where labour markets and school systems are working well and parents are prepared to invest in their children's education. Economic and social policies matter. Combined with access to reproductive health, they can accelerate poverty reduction.

#### *The exclusion of the poor*

While more people in a growing number of countries are becoming aware of the relative gains from smaller family size and larger investments in children's health and education, the poor may not be receiving the information or support that will allow them to recognize this (Merrick, 2001). As a result, they do not realize the benefits derived from smaller families. Public economic policies may distort labour markets, leading members of poor households to expect higher returns from child labour than are realistic. They are slow to recognize changing demographics and economic conditions which are more visible to, and more quickly affect, the less marginalized. Generally they have less access to information and fewer of the assets needed to take advantage of the opportunities that societal fertility decline produces. Where women and girls are relatively disadvantaged in decision-making and resource allocation, they bear the higher costs of high fertility but are less likely to realize the immediate gains; this undercuts their motivation to challenge the conditions that restrict their reproductive health access.

Gender inequality presents one of the most pervasive examples of exclusion of the disadvantaged. Reducing gender inequality can accelerate economic growth and have a powerful impact on poverty. Comparing East Asia and South Asia between 1960 and 1992, South Asia started with wider gender gaps in health and education and closed them more slowly. If gender gaps had closed at the same rate in the two subregions, South Asia would have increased its real per capita annual growth in gross domestic product (GDP) by 0.7 to 1.0 per cent (Klasen, 2001).

## **Emerging population trends: selected poverty implications**

### *Poverty and the elderly*

Elderly populations are among the fastest growing segments of the age range. Increases in life expectancy and earlier population growth have increased the total number of older persons; declining fertility rates in many countries have contributed to their increasing share of total populations. Population ageing is posing a growing challenge to formal and informal support systems. Richer countries in the region have expanded the public components of systems contributing to the care of older persons (whether through pension schemes, provident funds or various subsidies and preferences in housing and other services). As in other regions, there is also evidence, however, that increased public resources can contribute to the erosion of expectations of informal familial support.

It is likely that there will be substantial increases in the numbers of elderly persons living in poverty. The legacy of earlier low coverage in public pension systems leaves many without adequate income even as informal support weakens because of increased migration, changing social attitudes and smaller family size. While such challenges can be offset by improved public support, easier transfer of resources over larger distances and increased wealth, many will be left unhelpt.

The oldest old people are overwhelmingly women and they reach their later years with significant accumulated deficits from life-long discrimination and inequality in access to resources and opportunity.

### *HIV/AIDS and poverty*

The impact of the HIV/AIDS epidemic in severely affected countries (for example in sub-Saharan Africa) is devastating. The quality of life, prospects for economic advancement, stability of family and community social systems suffer immeasurably as the pandemic progresses. In the worst-affected countries, public servants and private sector employees are falling sick in increasing numbers; by 2020 these economies could be 20 to 40 per cent smaller than expected because of the pandemic. Damage to public services such as education and health will drive the poor further into poverty.

The prospects for the pandemic in Asia are raising increasing concern, but many countries have not yet appreciated their vulnerability. In India, more newly infected persons are being added annually than in any other country (United Nations, 2002). China is confronting the potential of a larger spread of the disease; there are acknowledged localized pockets of high prevalence, partly related to unsafe medical practices, and large-scale population movements that could readily assist the distribution of the disease. Cambodia,

Myanmar and Thailand face a serious epidemic. Prevalence in some subgroups is also high in Indonesia, Nepal and Viet Nam.

It is hard to predict what the course of the epidemic will be in Asian countries. The potential exists (between 5 and 20 per cent of adult men visit sex workers at least once a year and many of them have wives or other partners) for expansion in several countries (Brown, 2002). Various methods of transmission may spread the disease in different countries. Intravenous drug use has been reported to have increased in several Central Asian countries. Trafficking in women and girls creates additional highly vulnerable populations.

Prevention campaigns in Thailand have demonstrated that the spread of the pandemic can be stemmed. Such programmes require the investment of political will and appropriate resources. Many countries have not mobilized themselves sufficiently, either for prevention or for programmes of treatment and care.

Adult mortality impoverishes life prospects for children. Where HIV/AIDS is severe, it adds significantly to the number of orphans (beyond those created by maternal mortality and other diseases). Globally, 2 million new orphans are created each year owing to the pandemic. Maternal mortality (at some 500,000 per year in South Asia) adds some 1.5 to 2 million more. Orphanhood often has serious consequences for child poverty, health (and survival prospects), education and development, with subsequent negative poverty outcomes in later life.

### **Beyond national averages<sup>1</sup>**

Attention to progress towards achieving national poverty reduction goals should not distract attention from internal differentials. Disparities in wealth, gender and geographical location will have to be reduced to improve the quality of life of the marginalized. These disparities are the result of complex processes of exclusion which tend to perpetuate them.

#### *Infant mortality and poverty*

Infant mortality is a traumatic societal burden. High infant mortality persists because of the prevalence of often-preventable communicable diseases. Vaccination programmes and improved nutrition have led to significant progress, but it has been uneven.

Poor infants and children are more likely to die than children in better-off families. In some countries, for example, the under-5 mortality rate of the poorest 20 per cent of the population is more than four times that of the richest 20 per cent (Adam Wagstaff, 2000). The differentials in infant mortality can be lower, but are still substantial.

**Table 1. Infant mortality levels by wealth quintile, regional comparisons**

Region	Poorest	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Richest	National average	Poorest/richest
East Asia and the Pacific	56.6	46.6	40.1	30.5	20.4	41.0	2.7
South Asia	97.6	105.2	99.9	83.7	56.8	90.7	1.8
Sub-Saharan Africa	107.4	107.1	99.4	91.5	66.6	96.2	1.7
Middle East/North Africa	94.7	78.2	63.5	54.6	33.5	68.0	2.9
Europe/Central Asia	67.0	58.4	56.4	47.0	36.8	54.7	2.0
Latin America and Caribbean	68.9	59.4	50.6	40.7	29.3	52.9	2.7
Asian and Pacific region	72.8	72.1	67.3	56	41	63.6	
Total	90.9	87.3	79.9	70.5	50.7	78.1	
Quintile value/richest, total for the Asian and Pacific region	1.79 1.78	1.72 1.76	1.58 1.64	1.39 1.37	1.00 1.00		

The wealth difference in infant mortality in the Asian and Pacific region mirrors the global average (see table 1). In some regions, progress will be more difficult. In sub-Saharan Africa and South Asia, which have the highest infant mortality rates, the gap between the richest and the poorest is smaller, and even among the richest 20 per cent infant deaths are higher than the average in other regions.

Health risks to infants and children are worse in poor families with many children. Larger families are more common among the poor and their children in them are less likely to receive even basic preventive health care (Jensen and Ahlburg, 1999). If the children become ill, they are less likely to be treated. If the sick child is a girl, her risks can be even higher.

**Table 2. Infant mortality levels by wealth quintile, ESCAP region**

Country	Poorest	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Richest	National average	Poorest/richest
Viet Nam	42.8	43.2	35.2	27.2	16.9	34.8	2.5
Philippines	48.8	39.2	33.7	24.9	20.9	36.0	2.3
Indonesia	78.1	57.3	51.4	39.4	23.3	52.2	3.4
India	109.2	106.3	89.7	65.6	44.0	86.3	2.5
Bangladesh	96.3	98.7	97.0	88.7	56.6	89.6	1.7
Nepal	96.3	107.2	103.6	84.7	63.9	93.0	1.5
Pakistan	88.7	108.7	109.3	95.7	62.5	94.0	1.4
Kazakhstan	35.1	43.7	44.3	50.2	29.1	40.7	1.2
Uzbekistan	49.5	43.8	41.5	33.6	46.8	43.5	1.1
Kyrgyzstan	83.3	73.3	67.5	49.6	45.8	66.2	1.8



Overall, in countries of the ESCAP region (table 2), some of the highest wealth differentials in infant mortality are found in East Asian countries with relatively low national averages. Further progress in infant mortality reduction will require giving greater attention to equity as levels decline. The poorest 60 per cent are often the most disadvantaged.

*Poverty and reproductive health access and use: differentials within countries and regions*

Some of the widest gaps within countries, and between richer and poorer countries, are in the area of reproductive health. The death of a mother in pregnancy or childbirth is hundreds of times more likely in the poorest countries. A woman's lifetime risk of dying of maternal causes is as follows: in Africa, one in 19; in Asia, one in 132; in Latin America, one in 188; but in more developed countries, only one in 2,976 (Hill, AbouZahr and Wardlaw, 2001).

This reflects both higher risk and the larger number of births. Unwanted fertility is higher in poorer settings and among the poorest of the poor. There is less information on maternal morbidity<sup>2</sup> but the differentials are likely to be similar, since the causes — lack of information, access, community and family support, finance, transport and provider quality<sup>3</sup> — are broadly the same.

*Fertility levels and poverty*

Achieved fertility is the resultant of preferences (demand) and the availability of means to realize reproductive choice. These combine to produce significant differences in outcomes. Wealth differentials in fertility outcomes in the ESCAP region tend to be larger than the global average (see table 3).

In the Asian countries reviewed (table 4), not all the wealthy groups have reached low fertility levels. In seven, the wealthiest have reached fertility levels at or below replacement, while the poorest are higher (between 3.1 in Viet Nam and 6.5 in the Philippines). Other countries are earlier in the transition. In Nepal, only the wealthiest had fewer than four children (2.9). In Pakistan, only the wealthiest had as few as four children; other groups of poorer women had between 4.9 and 5.1.

*Family planning prevalence and poverty*

The higher the level of women's overall contraceptive use, the lower the differential between women in the richest and poorest societal groups (see table 5). Once family planning use exceeds 40-45 per cent overall, the differences between wealth groups narrow considerably. Family planning acceptance becomes a social norm widely diffused throughout a society.

**Table 3. Fertility levels (TFR) by wealth quintile, regional comparisons**

Region	Poorest	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Richest	National average	Poorest/richest
East Asia and Pacific	4.30	3.43	2.80	2.40	1.90	2.93	2.23
Southern Asia	4.80	4.38	4.08	3.80	2.80	4.05	1.77
Sub-Saharan Africa	6.91	6.35	6.10	5.54	4.25	5.76	1.72
Middle East/North Africa	5.55	4.50	3.80	2.95	2.50	3.80	2.27
Europe/Central Asia	3.98	3.35	3.08	2.75	1.73	2.93	2.33
Latin America and the Caribbean	6.51	4.93	3.88	2.98	2.07	3.84	3.17
Asian and Pacific region	4.43	3.83	3.45	3.14	2.23	3.42	
Total	6.13	5.32	4.86	4.27	3.20	4.68	
Quintile value/richest, total for the Asian and Pacific region	1.92 1.99	1.66 1.72	1.52 1.55	1.34 1.41	1 1		

In Indonesia, the Philippines and Viet Nam and some Central Asian republics, wealth differentials in contraceptive use tend to be particularly low. Differentials are largest in Pakistan, where contraceptive use is lowest (table 6).

In South Asia, the country with the lowest overall prevalence, Pakistan, at 9 per cent, 20 times as many people in the wealthiest group use contraception as in the poorest. In Nepal, with a prevalence of 26 per cent, the difference is less than three times.

Several Central Asian countries have reached overall prevalence levels close to 50 per cent, with lower differences between richer and poorer.

Recent estimates suggest that levels of unmet need for family planning in Asia (excluding China and including Central Asia) and the Pacific totals around 65 million women of reproductive age, which represents more than half of the

**Table 4. Fertility levels (TFR) by wealth quintile, ESCAP region**

Country	Poorest	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Richest	National average	Poorest/richest
Viet Nam	3.1	2.7	2.2	1.8	1.6	2.3	1.94
Kazakhstan	3.2	3.2	2.9	2.4	1.3	2.5	2.46
Indonesia	3.3	2.9	2.6	2.5	2.0	2.8	1.65
Bangladesh	3.8	3.8	3.5	3.1	2.2	3.3	1.73
Uzbekistan	4.4	3.7	3.3	3.3	2.1	3.3	2.10
India	4.1	3.6	3.2	2.8	2.1	3.4	1.95
Kyrgyzstan	4.6	3.6	3.6	3.3	2	3.4	2.30
Philippines	6.5	4.7	3.6	2.9	2.1	3.7	3.10
Nepal	6.2	5.0	4.7	4.4	2.9	4.6	2.14
Pakistan	5.1	5.1	4.9	4.9	4.0	4.9	1.28

**Table 5. Contraceptive prevalence (percentage married women of reproductive age) by wealth quintile, regional comparisons**

Region	Poorest	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Richest	National average	Richest/poorest
East Asia and the Pacific	37.6	46.3	49.7	50.0	47.2	46.2	1.26
South Asia	20.2	23.4	27.3	29.5	41.8	28.4	2.07
Sub-Saharan Africa	4.2	5.7	7.5	11.7	22.3	10.3	5.36
Middle East/North Africa	24.2	35.3	43.4	48.6	54.7	41.7	2.27
Europe/Central Asia	39.2	44.4	44.4	45.8	50.4	45.2	1.29
Latin America and the Caribbean	27.9	38.1	43.4	49.8	54.5	44.5	1.95
Asian and Pacific region	32.9	38.1	40.3	41.3	46.5	39.8	
Total	16.8	21.6	24.5	28.5	36.4	24.7	
Quintile value/poorest, total for the Asian and Pacific region	1	1.28	1.45	1.69	2.16		
	1	1.16	1.22	1.25	1.41		

developing world total of approximately 113 million (Ross and Winfrey, 2002). The levels, however, are proportionately lower for limiting births than in other regions.

#### *Maternal care and poverty*

In most regions, more than three quarters of pregnant women visit a doctor, nurse or midwife at some point in their pregnancy. Where women's mobility is more restricted, as in the South Asian countries, the figure is nearer one third. In all regions, the higher her income, the more likely a woman is to seek antenatal care. The gap between wealthy and poor families is greatest when national averages are lowest. In South Asia, the gap at the extremes of

**Table 6. Contraceptive prevalence (percentage married women of reproductive age) by wealth quintile, ESCAP region**

Country	Poorest	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Richest	National average	Richest/poorest
Pakistan	1.2	4.1	6.1	10.7	23.2	9.0	19.33
Nepal	15.7	21.2	23.2	26.6	44.9	26.0	2.86
Philippines	19.6	26.1	32.7	32.7	29.2	28.0	1.49
India	24.9	27.5	36.1	42.0	50.6	36.5	2.03
Bangladesh	38.8	40.8	43.7	38.8	48.5	42.1	1.25
Kazakhstan	44.2	48.7	40.9	47.3	48.1	46.1	1.09
Kyrgyzstan	44.4	44.9	48.4	50.9	54.4	48.9	1.23
Uzbekistan	47.2	54.7	55.1	46.4	53.5	51.3	1.13
Indonesia	46.2	55.6	56.8	58.0	56.9	54.7	1.23
Viet Nam	47.0	57.3	59.5	59.4	55.5	55.8	1.18

**Table 7. Medically skilled assisted delivery levels by wealth quintile, regional comparisons**

Region	Poorest	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Richest	National average	Richest/poorest
East Asia and the Pacific	30.5	53.0	68.4	80.6	93.4	60.8	3.11
South Asia	5.3	8.1	11.7	21.9	49.3	17.7	10.49
Sub-Saharan Africa	24.6	32.9	41.2	59.2	82.1	46.2	3.46
Middle East/North Africa	12.8	21.7	37.7	58.6	82.2	38.5	6.61
Europe/Central Asia	82.7	92.3	95.1	98.6	99.7	92.8	1.21
Latin America and the Caribbean	40.2	58.4	72.9	85.6	94.3	65.8	2.38
Asian and Pacific region	40.0	49.0	54.8	62.8	77.8	54.8	
Total	31.2	42.1	51.6	66.2	84.0	52.5	
Quintile value/poorest, total for the Asian and Pacific region	1	1.35	1.66	2.13	2.70		
	1	1.22	1.37	1.57	1.94		

the wealth distribution results from particularly high levels of care among the wealthiest.

Differences by wealth level in attended deliveries are wider (see table 7). The poorer segments of society are even less likely to have skilled assistance at delivery than to seek antenatal care.

In South Asian countries, women (in aggregate) are half as likely to have skilled attendance at birth as they are to have skilled antenatal care. Overall levels of pregnancy care are low; in the two poorest quintiles trained antenatal care is more than three times as common as trained delivery. In sub-Saharan Africa, the other region with high maternal mortality, women are two thirds as likely to have skilled birth attendants as to have skilled antenatal care and the differential in the poorest strata is less marked.

**Table 8. Medical-assisted delivery levels by wealth quintile, ESCAP region**

Country	Poorest	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Richest	National average	Richest/poorest
Bangladesh	1.8	2.5	4.1	9.0	29.7	8.1	16.5
Nepal	2.9	5.2	6.4	9.1	33.7	9.6	11.6
Pakistan	4.6	6.6	6.0	21.5	55.2	18.6	12.0
India	11.9	18.2	30.1	47.9	78.7	34.3	6.6
Indonesia	21.3	34.8	48.1	64.4	89.2	49.1	4.2
Philippines	21.2	45.9	72.8	83.9	91.9	56.4	4.3
Viet Nam	49.0	78.4	84.2	93.6	99.2	77.0	2.0
Uzbekistan	91.9	100.0	99.3	99.0	100.0	97.5	1.1
Kyrgyzstan	96.0	98.2	98.1	99.7	100.0	98.1	1.0
Kazakhstan	99.4	100.0	98.8	100.0	100.0	99.6	1.0

**Table 9. Adolescent (aged 15 to 19) fertility levels by wealth quintile, regional comparisons**

Region	Poorest	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Richest	National average	Poorest/richest
East Asia and the Pacific	85.3	64.7	38.0	29.3	12.7	46.7	6.72
South Asia	138.3	136.8	121.3	105.3	67.5	116.0	2.05
Sub-Saharan Africa	176.8	166.1	155.3	148.8	93.5	143.8	1.89
Middle East/North Africa	72.5	62.0	58.5	33.5	23.0	50.5	3.15
Europe/Central Asia	83.8	65.5	73.3	63.8	31.5	63.8	2.66
Latin America and the Caribbean	181.0	135.3	105.0	73.4	33.1	97.2	5.47
Asian and Pacific region	108.8	93.7	82.8	72.1	40.2	80.4	
Total	154.7	136.4	122.0	108.3	64.4	113.6	
Quintile value/richest, total for the Asian and Pacific region	2.40 2.71	2.12 2.33	1.89 2.06	1.68 1.79	1 1		

Increases in the use of skilled attendants relative to wealth (see table 8) tend to be sharper than for other basic health-care services. Antenatal care and attended delivery are more sensitive to wealth differences than oral rehydration therapy or medical treatment for diarrhoea, medical treatment for acute respiratory infections or immunization. Attendance by a doctor is the most sensitive to income (Gwatkin and Deveshwar-Bahl, 2002).

Childbirth at home or in a health facility is also strongly related to wealth. Nearly 80 per cent of births in the richest families are at a health facility, and most births in the two richest quintiles. At each lower wealth group, the proportion of home births increases. Nearly 80 per cent of the poorest quintile have their children at home.

**Table 10. Adolescent (aged 15 to 19) fertility levels by wealth quintile, ESCAP region**

Country	Poorest	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Richest	National average	Poorest/richest
Viet Nam	51	41	27	18	11	32	4.64
Philippines	130	90	32	29	12	46	10.83
Indonesia	75	63	55	41	15	62	5.00
Pakistan	88	87	66	76	44	74	2.00
India	135	140	117	84	45	116	3.00
Nepal	143	149	132	128	90	127	1.59
Bangladesh	187	171	170	133	91	147	2.05
Uzbekistan	58	50	85	68	39	61	1.49
Kazakhstan	101	65	83	53	26	64	3.88
Kyrgyzstan	120	81	61	91	29	75	4.14

### *Adolescent fertility and wealth*

Though adolescent fertility levels in the ESCAP region are lower than in some other major regions, the differentials between the wealth group extremes are larger: the richest attain very low levels of young fertility.

In East Asia, countries where the young are least likely to give birth have larger differences between poor and rich groups.

In Indonesia, the Philippines and Viet Nam, adolescents in the poorest segments of the population are nearly seven times as likely to have had children within the past year as their better-off counterparts. In the Philippines, poor young women are nearly 11 times as likely to have had a child. These higher levels reflect early marriage, less ability to negotiate delays in sex and reproduction and less access to family planning. In all three countries, reductions in youthful fertility are systematically related to increases in wealth. In South Asia, adolescent fertility levels are higher and only the richest quintile is regularly distinguished from less wealthy groups.

### **Beyond wealth**

Material wealth differences are produced by disparities in physical and social infrastructure, including opportunity, resources, skills and information. They are generated and reinforced by complex social processes of exclusion. Geographical location is important: rural areas provide lower levels of services, information and opportunities than urban areas.

Some of the wealth differentials related to reproductive health services and use reflect greater poverty in more rural areas.<sup>4</sup> But differences can be seen within both urban and rural areas. Fewer rural residents reach the higher income levels seen in cities, but in both settings the poorest have the worst services. In India, for example, total and adolescent fertility levels, contraceptive usage and immunization levels are highly similar across the wealth spectrum in rural and urban areas. The poorest in rural areas are more disadvantaged than their counterparts in cities. Rural families, for example, have less access to safe delivery services, particularly if they involve highly trained personnel or specialized facilities. In the richest groups in both settings, the differences are minor (Gwatkin and others, 2000).

Urban areas are growing rapidly, and the poor of the world are increasingly urban (United Nations Population Division, 2001; Naylor and Falcon, 1996). This provides both opportunities and new challenges. Economies of scale and ease of access could increase coverage, but inequities in access within cities remain large. However, smaller cities, while better served than rural areas, compare poorly with larger cities (Hewett and Montgomery, 2001). The relative disadvantage of medium-sized cities in providing health quality and service is a growing problem as a larger proportion of urban dwellers come to live in them. Municipal and other local

authorities have more responsibility under the decentralization of public health administration, without the corresponding resources or revenue-raising authority. Local governments will find it increasingly difficult to fill the gaps in services.

### **Some ways forward**

Most donor institutions are working to improve the positive impact of health (including reproductive health) interventions for the poor.<sup>5</sup> Health deficits for poorer populations exact a significant toll in lost productivity, human misery and missed opportunities for gender equality and accelerated development. The substantial differentials in access to information and services justify coordinated public, private and community responses on the basis of social welfare arguments and in the light of the substantial economic and social externalities. One key challenge is seeing that population and reproductive health programmes, and development programmes at large, confer their benefits on the poor. The incorporation of population considerations in emerging mechanisms for development planning (for example, in poor countries, poverty reduction strategy papers, sector-wide approaches and other elements of health sector reform) remains an important policy task. The diversity of social, demographic and economic situations in the Asian region will require the careful tailoring of policies and programmes to national realities. Important principles to be incorporated include rights-based approaches, gender and cultural sensitivity, participatory mechanisms for accelerated empowerment, quality programming, efficiency, sustainability and equity. The chart suggests some important priorities for population and reproductive health interventions with general applicability to all anti-poverty interventions.

### **Endnotes**

1. The differentials presented here are based on the reports in the series *Socio-economic Differences in Health, Nutrition and Population in [country]* prepared by Davidson R. Gwatkin and others (2000) for the HNP/Poverty Thematic Group of the World Bank. Forty-four countries with a Demographic and Health Survey were analysed. ESCAP region countries are also aggregated in this presentation. Most of the surveys date from the mid to late 1990s. Work is under way to update and expand the database.
2. This is true of morbidity measures in general. The absence of effective registration systems and paucity of wealth or income measures even renders mortality comparisons within countries a difficult enterprise. (For discussion, see Adam Wagstaff, 2000).
3. Quality-of-care initiatives are an important component of most programmes of assistance to reproductive health care providers, but high or irregular workloads, poor compensation, staff turnover and underdeveloped systems of monitoring and supervision pose constant challenges to attaining and maintaining standards.
4. For comparative studies of the efficiency of service delivery systems, analyses need to be statistically correct for rural-urban proportions. Comparing access within countries looks at differentials within urban and rural places.

## Reaching the poor: towards a pro-poor agenda

Dimension of action	Key issues	Important directions
<ul style="list-style-type: none"> <li>— Attend to problems that most affect the poor</li> <li>— Recognize the dignity of all</li> <li>— Expand participation</li> <li>— Evidence based programme activities</li> <li>— Improve the quality of programmes addressing basic needs, particularly of the poor</li> <li>— Improve and diversify financing and ensure sustainability</li> </ul>	<ul style="list-style-type: none"> <li>— Provide basic social services with sensitivity to people's capacity, needs and cultures</li> <li>— Improve the accessibility of public and private services</li> <li>— Integrated programming</li> <li>— Qualitative approaches and active listening</li> <li>— Improve data bases on needs and situations and on effective action</li> <li>— Ensure the availability and use of data</li> <li>— Provide training for staff and information for potential beneficiaries</li> <li>— Mobilize demand for quality and improve systems of accountability</li> <li>— Make direct investments in quality improvement, recruit effective staff</li> <li>— Mobilize resources</li> <li>— Improve monitoring and evaluation</li> <li>— Reduce costs to the poor</li> <li>— Involve programme staff and beneficiaries in defining and setting priorities</li> </ul>	<ul style="list-style-type: none"> <li>— Provide governance and supporting environments for meeting people's needs</li> <li>— Address the marginalized – women, the indigenous, the poor, those living with HIV/AIDS, people in crisis situations</li> <li>— Provide programmes for adolescents</li> <li>— Expand resources for community and individual action and choice (including microcredit)</li> <li>— Involve local institutions including NGOs, cultural organizations and the private sector</li> <li>— Improve geographical targeting to reach those in need</li> <li>— Respond to expressed unmet needs (including those for reproductive health and family planning)</li> <li>— Advance health sector reform in ways that attend to quality and equity</li> <li>— Develop and improve financing systems: mobilize additional resources</li> </ul>

*Note:* The general dimensions (or principles) of action that are identified in the first column are associated with the key issues presented in the second. The final column recommends particular actions that follow from this analysis.



5. See, for example, Health Systems Resource Centre, Department for International Development Health Systems Resource Centre. 2001. "Health financing: designing and implementing pro-poor policies"; "Which health policies are pro-poor?" and "Health in poverty reduction strategy papers: an introduction and early experience". These and other papers (including national studies) can be found at <[www.healthsystemsrc.org](http://www.healthsystemsrc.org)>

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# Poverty and Mortality in the Context of Economic Growth and Urbanization

*The urban health frontier, especially in  
the poverty-stricken slums, is going to present a  
major challenge for decades to come*

By John C. Caldwell and Bruce K. Caldwell\*

Asia has always been a demographic giant, but in the second half of the twentieth century it also became an economic giant. In those 50 years, real per capita income (expressed in purchasing power parity) in Asia multiplied by more than five, compared with a multiplication in Western countries of little more than threefold, and in Latin America and Africa by 2.3 and 1.6 times, respectively (Maddison, 2001). During this half century, the world GDP in

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\* John C. Caldwell, Emeritus Professor of Demography and Bruce K. Caldwell, Research Fellow, National Centre for Epidemiology and Population Health, Australian National University, Canberra.

fixed United States dollars multiplied six times but that of Asia did so by more than 12 times, taking the continent's proportion of the world economy from 18 to 36 per cent. That growth was fundamental to the mortality revolution outlined here but it was also achieved by massive urbanization, producing huge cities with savage contrasts between the living conditions of the poor and the rich. Asian urban population multiplied over eightfold from under one quarter of a billion to over two billion, and will by 2020 constitute half the population. This was partly the product of hundreds of millions of poor villagers streaming into illegal shanty towns, especially around the largest cities.

The aim of this paper is twofold. First, we will outline the macroscopic changes and then we will focus on poverty and death in the slums of one of Asia's great cities, Dhaka, the capital of Bangladesh, which has grown from a centre of 300,000 people in 1950 to one with around 12 million inhabitants at present. It remains a metropolis where rural-urban migration is still the major source of growth.

### **An outline of change**

Tables 1 and 2 are constructed within a framework of real per capita income (gross national income in purchasing power parity per head) in order to overcome the distortions produced by exchange rates in evaluating relative incomes. Excluded are those countries, mostly small Pacific ones, where the economic income calculations have not been made. The major distortion will probably arise from the omission of Afghanistan, apparently the poorest country, and certainly the one with the highest mortality (an expectation of life at birth of 43 years) in the Asian and Pacific region. The main message of the two tables is that national mortality levels are closely tied to economic development and individual economic levels, especially at the extreme ends of the income range. Indeed, among the richer populations that relationship may be becoming stronger. In group A, with per capita incomes in the US\$ 15,000-25,000 range, life expectancies near 80 have now been achieved, while even the next highest income level is characterized by life expectancies not only little above 70 years but not much greater than those of countries with incomes down to about US\$ 2,000.

These richer countries have achieved the additional decade of life expectancy in two ways which have become increasingly possible during the last few decades and require expensive technology. The first intervention has been the reduction of perinatal mortality by the intensive care of the newborn, especially premature and very light-weight babies. Thus, the almost incredibly low infant mortality rate of 3 per 1,000 live births has been achieved in Hong

Kong, China; Japan; and Singapore, one fifth the level of the next richest nations, and one twentieth of that not only of the poorest nations but of developed countries at the mid-twentieth century. The necessary intensive care has been achieved by the use of expensive equipment in technically advanced hospitals. The second change which has allowed the steepest declines in the whole demographic transition in the mortality of the aged population is the product of high-technology in the form of the expensive testing and treatment of the old (United Nations, 2002; United Nations, 2001).

This is not good news for poorer countries. The Republic of Korea, with a per capita income of over US\$ 8,000, is just getting there, while Malaysia, with half the Republic of Korea's per capita income, has greatly reduced child mortality but not old-age mortality. If the lower bound for achieving really low child and infant mortality is a 1999 real per capita income of US\$ 8,000, then life expectancies near 80 years will, even with 4 per cent annual growth in per capita income, not be reached by the poorest group until the late twenty-first century.

What is better news is that income is not nearly so important in determining mortality over most of the income range, certainly above US\$ 2,000 per capita income. Life expectancy of 70 years is within reach by all but the very poorest countries. It can be reached, as we discuss below, by an emphasis on education and easy access to curative treatment. Much depends on the existence of an adequate public health base. This has been furthered in most Asian countries by very high rates of immunization among children, possibly higher than the Latin America and certainly higher than in Africa. Safer water supplies and sanitation are also important.

Where national poverty plays a decisive role is among the very poor countries, found mostly in South Asia and the old Indo-China grouping. Here, the near universal provision of safe water and sanitation has been beyond the capacity of government budgets. In 1994-1995, the proportion of the population with access to safe drinking water was 95 to 100 per cent in the group A countries except the Republic of Korea (where it was 89 per cent), 88 per cent in Malaysia, 60 per cent in Pakistan, 48 per cent in Nepal and 39 per cent in the Lao People's Democratic Republic. An anomaly was the situation of Bangladesh, where a very high rural level of tubewells for water access has meant the almost universal drinking of bacteriologically safe water, but where it is now realized that much of this water may contain dangerous levels of arsenic. The exact danger is still undetermined (Caldwell and others, 2002). Similarly, access to satisfactory sanitation in 1994-1995 fell from over 90 per cent in richer countries to 30 per cent in Pakistan, 20 per cent in Nepal and 19 per cent in the Lao People's Democratic Republic.

**Table 1. Parity purchasing power per capita income (PPPPI) and mortality, 1999-2002**

Income Group (1999)	Country or area	PPPPI (1999)	Life expectancy at birth (LEB) (years)	Increase in LEBs over last 25 years (years)	Under 5 mortality (per thousand births)	PPPPI ranking	Life expectancy ranking	Relative ranking to PPPPI ranking	Percentage urban
<b>A. Over US\$ 15,000</b>	Japan	25 170	82	7.5	5	1	1	0	79
	Australia	23 850	79	7.0	7	2	3	-1	85
	Singapore	22 640	78	7.6	4	3	5	-2	100
	Hong Kong, China	22 570	80	7.1	4	4	2	+2	100
	New Zealand	21 130	78	6.5	8	5	5	0	86
	Republic of Korea	15 530	76	11.7	10	6	4	+2	83
	Malaysia	7 640	73	8.9	9	7	8	-1	59
	Turkey	6 440	71	11.1	50	8	13	-5	77
	Thailand	5 950	73	10.1	31	9	8	+1	31
	Iran (Islamic Republic of)	5 520	70	14.1	43	10	15	-5	63
<b>C. US\$ 3,000-5,000</b>	Kazakhstan	4 790	66	-0.3	53	11	30	-19	57
	Fiji	4 780	70	7.8	22	12	15	-3	51
	Maldives	4 200	68	14.3	49	13	24	-11	27
	Samoa	4 070	70	12.4	32	14	15	-1	22
	China	3 550	71	6.6	73	15	13	+2	33
	Philippines	3 390	70	10.5	36	16	15	+1	60
	Turkmenistan	3 340	67	4.7	69	17	26	-9	45
	Sri Lanka	3 230	73	6.5	24	18	8	+10	25

<b>D. US\$ 2,000-3,000</b>												
	Vanuatu	2 880	69	13.2	36	19	21	-2	21			
	Indonesia	2 660	67	15.9	51	20	26	-6	43			
	Georgia	2 540	74	3.5	22	21	7	+14	62			
	Azerbaijan	2 450	72	2.0	41	22	12	+10	58			
	Kyrgyzstan	2 420	69	3.8	47	23	21	+2	33			
	Armenia	2 360	73	-0.1	18	24	8	+16	71			
	Papua New Guinea	2 260	58	10.9	63	25	36	-11	18			
	Uzbekistan	2 230	70	4.1	37	26	15	+11	37			
	India	2 230	64	12.0	87	26	28	+2	29			
	Solomon Islands	2 050	70	11.8	31	28	15	+13	21			
<b>E. US\$ 1,000-2,000</b>	Pakistan	1 860	61	10.0	103	29	32	-3	38			
	Viet Nam	1 860	69	16.9	46	30	21	+9	20			
	Mongolia	1 610	64	8.1	87	31	28	+3	65			
	Bangladesh	1 530	61	13.2	94	32	32	0	26			
	Nepal	1 470	60	14.0	100	33	34	-1	13			
	Lao People's Democratic Republic	1 430	59	12.1	107	34	35	-1	25			
	Cambodia	1 350	57	16.2	106	35	37	-2	17			
	Bhutan	1 260	63	17.5	82	36	30	+6	8			
	Tajikistan	1 100	68	3.8	77	37	24	+13	28			

Sources: United Nations (1998). *World Urbanization Prospects: The 1996 Revision* (New York, United Nations); United Nations (2001). *World Population Prospects: The 2000 Revision*, vol. 1, *Comprehensive Tables* (New York, United Nations); United Nations (2002). *2002 ESCAP Population Data Sheet* (Bangkok, Economic and Social Commission for Asia and the Pacific).

**Table 2. Average characteristics by income grouping (unweighted averages)**

Group	PPPCI (US\$)	Life expectancy at birth	Under 5 mortality	Percentage urban population
A	21,815	79	6	89
B	6,390	72	33	66
C	3,920	69	45	42
D	2,410	69	48	36
E	1,500	62	89	33

*Source:* See table 1.

Access to curative services also falls with income. The poorer countries usually have inferior services with low-quality staff and shortages of drugs. Indeed, growing dissatisfaction with the lowest-level services has led to rural Chinese bypassing them and going to district hospitals and Indians increasingly turning to private practitioners. The number of private practitioners in most countries is increasing faster than the rate of economic growth and they will inevitably form an ever larger proportion of total health services. In retrospect, primary health care will be seen to have been a stopgap measure, albeit a very important one, for spreading health services to the poor during the late twentieth and early twenty-first centuries until economic growth allowed the development of the public-private mix which has long characterized developed countries. In many countries, they may be paralleled by the rise of government-organized national health insurance.

### **Relative success and failure in mortality improvement**

There are two ways of measuring mortality advantage and disadvantage and they yield different findings, especially in the case of one anomalous group. The first way is to compare the life expectancy ranking with that of real per capita income ranking; the second way is to examine the rate of increase of life expectancy over a period such as the last 25 years, 1970-1975 to 1995-2000 (see table 1).

The anomalous group is constituted by the seven Asian republics that emerged from the break-up of the Union of Soviet Socialist Republics. All had rising life expectancies up to about the 1970s and also rising incomes until around that time. Subsequently, the economic system faltered and then changed, real per capita income fell, and, rather uniquely in the modern world, life expectancy either levelled off or fell (although not to the same extent that occurred in the European segments of the former Union of Soviet Socialist Republics). According to the United Nations (2001) there were two patterns. In the Caucasian republics (Armenia, Azerbaijan and Georgia), mortality



decline ceased or flattened out as early as the 1970s and bottomed out in the 1980s, while in the Central Asian republics (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan), mortality declined through the 1980s only to rise or flatten out in the 1990s. What is true of all of them is that, prior to crises, the centralized system provided good educational and health systems, and subsequently high levels of education and women's independence plus a commitment to survival, especially children's survival, arising from low mortality levels and an expectation of medical treatment. This meant that mortality levels did not fall as far as income levels. Thus, Armenia, Azerbaijan, Georgia, Tajikistan and Uzbekistan now all have life expectancy far above that predicted by incomes, Kyrgyzstan somewhat above, but Kazakhstan and Turkmenistan well below (in the latter two, the income figures are probably more likely to be suspect than the mortality ones). Nevertheless, the mortality crisis meant that the life expectancy gains over the last quarter of the twentieth century were all below half of the 9.5 years recorded by Asia as a whole during the period, while those of Armenia and Kazakhstan had actually fallen.

Other countries have increased their life expectancy disproportionately over the last quarter of a century: Cambodia, the Lao People's Democratic Republic and Viet Nam with peace returning to Indo-China; Bangladesh, Bhutan, India and Nepal as a second Asian economic miracle comes within reach of South Asia; Indonesia and the Islamic Republic of Iran with a greater concentration on health services; and some Pacific and Indian Ocean countries such as Maldives, Papua New Guinea, Samoa and Vanuatu. Some of these countries and areas made gains because they started the quarter of a century from an under-performing level. In spite of their relatively rapid recent progress, Indonesia, Maldives and Papua New Guinea still have lower life expectancies than their real per capita incomes would mandate.

The important lessons come from two countries that have been singled out before as examples of the way that economies need not shackle the pursuit of good health for all: Sri Lanka and Viet Nam, ten and nine ranks respectively higher in their life expectancies than might be anticipated from their real per capita incomes. Their political systems are different but the success of each depends on a relatively good situation for women, high education levels for females as well as males, and easy and low-cost access to an adequate health service. Both have probably been assisted by societies which are not strongly socially stratified and have largely been moulded by Buddhism (see Caldwell, 1976; Pieris, 1999). Partly as a consequence, both emphasize egalitarianism and popular involvement.

The richer countries tend to be the most urbanized, largely because they are the most industrialized. The relationship is neither simple nor linear, as is shown by a comparison of moderately prosperous Thailand, with only one third

of its people in towns, with much poorer Mongolia with two thirds of the population urbanized. The explanations lie in very different intensities of rural land use and contrasting political histories. Urbanization helps in mortality reduction for at least two reasons. The first is that urban mortality in developing countries has been lower than that of rural areas since at least the mid-twentieth century because it is easier to give access for such concentrated populations to modern medical technology and specialist hospitals. Doctors prefer to live there. In contrast to the situation in early industrializing Europe, where the cities were highly polluted and the killers of their inhabitants, contemporary developing country cities actually have safer water and sanitation than rural areas. The second reason for the rural disadvantage is that some of its population are still at least partly in the subsistence sector of the economy, unused to an exchange economy or getting the most out of public facilities, with little money to spend, and often with their own explanations of disease causation which weaken their determination to secure the most from the modern medical system. This is reinforced by lower educational levels outside the towns. Recently, it has been argued that the urban mortality advantage was disappearing (Brockerhoff and Brennan, 1998), but the case remains insecure and, in any case, was most conspicuous outside the Asian and Pacific area.

But this is not the whole story, as is shown later in this paper. The new cities, especially in South Asia, are characterized by huge socio-economic differentials in their populations, with their poor prevented from making full use of the urban health facilities.

Contemporary developing countries do have one huge advantage in achieving lower mortality over the experience of the now developed countries. Health technologies have improved and public health measures have become ever more suited to mass application. The result has been a persistent decline in the cost of achieving specific health targets. Table 3 shows that in 1990, United States dollars purchasing power parity, Australia, the United Kingdom of Great Britain and Northern Ireland and the United States of America could not confer upon their populations a life expectancy of 60 years until their per capita incomes were around US\$ 6,000. By the end of the twentieth century, Bangladesh and Viet Nam could reach this mark with only one sixth of that per capita income.

### **Emerging issues**

Two further changes will have an impact on the Asian and Pacific struggle for good health for all.

The first is the continuing rise in the proportion of the aged, as is shown in table 4. This is largely a reflection of declining birth rates, with almost half the population of the ESCAP region now living in countries with

**Table 3. Real per capita income in 1990 American dollars when life expectancy of 60 years was attained**

Date	Country	Per capita income
1914	Australia	5 800
1919	Sweden	3 200
1931	United Kingdom of Great Britain and Northern Ireland	5 500
1933	United States of America	6 500
1935	France	4 500
1946	Italy	3 000
1948	Japan	1 700
1959	Sri Lanka	1 200
1966	Malaysia	2 000
1970	Republic of Korea	1 350
1977	Turkey	4 100
1978	Philippines	2 000
1987	Indonesia	2 350
1989	Viet Nam	1 000
1993	India	1 400
2000	Pakistan	2 100
2002	Bangladesh	900

*Sources:* United Nations (2001). *World Population Prospects: The 2000 Revision*, vol. 1, *Comprehensive Tables* (New York, United Nations); Keyfitz, N. and W. Flieger (1968). *World Population: An Analysis of Vital Data* (Chicago, University of Chicago Press); Maddison, A. (2001). *The World Economy: A Millennial Perspective* (Paris, Development Centre of the Organization for Economic Cooperation and Development).

below-long-term-replacement fertility. The result, unforeseen only 20 years ago, is that by 2050 East Asia will have a larger proportion of its population over 65 years of age than will North America. The situation will at that date be less severe in South-East and South Asia, where the proportions of the old will be much the same as they are at present in Europe.

High proportions of the old place very considerable burdens on government budgets, as has been demonstrated for the United States of America (Lee and Edwards, 2001). This is partly because keeping the old alive means the employment of expensive, high-technology approaches. But in the West, it has also been the product of a tradition whereby the residential family incorporates the young and meets a substantial proportion of their educational and health costs from the household budget. In contrast, the old live separately and pension, health and often residential expenses are met by the State with money raised by — often resented — taxes.

It has been held that Asian countries have an advantage here because of a continuing tradition of aged parents living with their married children and being at least partly supported by them. It is open to doubt whether this system

**Table 4. Percentage of the population aged 65 years and over in 1950, 2000 and 2050**

	1950	2000	2050
Asia	4.1	5.9	16.7
Eastern Asia	4.5	7.7	23.6
South-Central Asia	3.7	4.6	13.2
South-Eastern Asia	3.8	4.7	16.1
Europe	8.2	14.7	29.2
North America	8.2	12.3	21.4
Latin America	3.7	5.4	16.9

*Source:* United Nations (2001). *World Population Prospects: The 2000 Revision*, vol. 1, *Comprehensive Tables*, (New York, United Nations), (Past: Estimates; Future: Medium Projection).

can indefinitely survive rising levels of education, female employment, occupational and associated geographical mobility, and Western influences among the younger married generations. This family transition appears to be under-way, albeit slowly, in Japan. If it runs its full course, the jolt in East Asia will be tremendous, for two reasons. The first is the speed with which the transformation of the age structure will have taken place. East Asia will have moved from the proportion of the population over 65 years of age being 4.5 per cent, to it being 23.6 per cent in the course of 100 years. The United Kingdom of Great Britain and Northern Ireland climbed somewhat more slowly from 4.7 per cent over 65 years in 1911 (through 6.1 per cent in 1921) and will not pass the 23.6 per cent level until almost 2030, a span of 120 years (Keyfitz and Flieger, 1968; United Nations, 2001). The second is that Europe had long since had in place various mechanisms, admittedly often deficient, for assisting the indigent old, while Asia has to invent such systems.

The second change, shown in table 5, is the rapidity of urbanization. East Asia, long thought of as one of the great agrarian regions of the world, will have half its population living in urban areas by 2014 and 60 per cent by 2030. Even more startling, a majority of the population of South-Central Asia will live in towns and cities from 2032.

Clearly, future concerns will focus more and more on urban populations, especially city ones. This is not an especially gloomy picture. Urbanization is a product of economic growth and is itself an engine for achieving higher incomes and lower mortality. But, in many of the larger cities, the poor and undereducated will number millions. In the poorer parts of Asia, mostly in South Asia, intractable problems will beset the attempt to bring good health to the poverty-stricken slums often outside the planning arrangements of the Government because of the illegality of the settlements. The full range of problems is evident in Bangladesh's metropolis, Dhaka, with its population already at 12 million and growing by half a million people a year.

**Table 5. Percentage of the population urban in 1950, 2000 and 2030**

	1950	2000	2030	Date when 50 per cent urbanized
Asia	17.4	37.6	55.2	2020
Eastern Asia	18.0	40.6	59.1	2014
South-Central Asia	16.6	30.7	48.5	2032
South-East Asia	14.8	36.9	55.0	2021
Latin America	41.4	75.4	83.2	1974
Africa	14.6	37.8	54.3	2021

*Source:* United Nations (1998). *World Urbanization Prospects: The 1996 Revision* (New York, United Nations).

### **The Dhaka slums: good health for all?**

Dhaka, having been a major city as the Moghul capital of Bengal from 1608 to 1704, was then eclipsed by Calcutta and had declined to being a minor provincial centre by the beginning of the twentieth century. Its modern expansion began only after it was made the colonial capital of East Bengal and Assam from 1905 to 1912 and subsequently after 1947, the administrative capital of East Pakistan. Intensive growth set in after it became the capital of the newly independent nation of Bangladesh in 1971. From around 100,000 inhabitants in 1901, the population rose to just under 300,000 in 1951, two million in 1974 and approximately 12 million today (Siddiqui and others, 1990; United Nations, 2001).

Dhaka is the main destination in Bangladesh for rural-urban migrants and in contrast to most Asian cities, this source of growth continues to outstrip its own natural increase, resulting in an annual growth rate of nearly 6 per cent (Islam, 1998:71). The growth has resulted in Dhaka being transformed from a small largely administrative town into a complex metropolis with a huge socio-economic gradient from a very wealthy elite to a vast urban poor population. This partly reflects the composition of the migrants who comprise a diverse group, some being educated individuals with skills in demand, but many being very poor families with little education, few skills, and usually little or no capital — it is the landless who have least reason to stay in the country and most to gain by migrating to the city. The poorest live in squatter settlements known as basties (bosties), with the destitute living on the streets of the main city as pavement-dwellers, both groups consisting predominantly of migrants. This enormous expansion and the growing diversity of the city have affected every aspect of the citizen's lives, including their health.

In 1999-2000, a project, Access to Health and Reproductive Health Services (AHRHS), employed survey and microdemographic approaches to

examine health among the poorer population of Dhaka. Within the framework provided by the survey information, families were identified that had experienced particular health issues, such as the death of a child, and the circumstances and outcomes explored. The survey was conducted in the last months of 1999 and the microdemographic follow-up in the first months of 2000. Two lists were compiled covering together about one third of the city's population. One covered bosties, the other poor areas. The interviewing unit was the household and the persons in it. The sample yielded interviews with 911 bostie households and 914 poor households.

The majority of migrant households reported that their health was better (72 per cent of non-bostie poor area dwellers and 64 per cent of bostie-dwellers) in Dhaka than it had been in the rural area. The main reasons they gave as affecting their health negatively was the very poor environment in which they lived (poor area, 83 per cent, bosties, 92 per cent). The main positive health reasons they gave were the presence of good doctors (poor area, 64 per cent, bosties 63 per cent) and the availability of health services (poor areas, 73 per cent, bosties, 60 per cent — respondents were allowed to give more than one reason).

Indices of health, such as infant and child mortality, have been consistently better in urban than rural Bangladesh, but the differential appears to have diminished in recent years. For example, the under-5-year mortality rate, though declining, is only marginally better in urban Bangladesh (96.7 in 1999-2000) than in rural Bangladesh (112.6), a differential that was substantially less than earlier figures (in 1993-1994, the under-5-year mortality rate was 114.3 in urban areas and 153.2 in rural areas) (Mitra and others, 2001). For the bosties, mortality rates are in general above rural rates; AHRHS recorded a rate of 165 in the bosties and 115 in non-bostie slums, though a truer comparison might be between the bostie-dwellers and the very deprived socio-economic strata in the rural areas from which many had migrated.

The key factors here are social composition, household and community environment, access to public services and health facilities. In terms of the composition of the population, the key factors are their poverty, the lack of education and the fact that many slum-dwellers, including most bostie-dwellers (poor area 50 per cent, bostie 72 per cent) and pavement-dwellers (96 per cent) are migrant households.

For the poorest households (a category excluding many bostie households), mortality rates appear to be disproportionately higher. By a household index of possessions, Perry and others (1997:16) found that those with the least possessions had 88 per cent higher mortality than the others. Caldwell and others (2001) found a 30 per cent margin. A number of factors may be involved. Firstly, the extremely poor may lack food security: 71 per

cent of bostie-dwellers reported in the AHRHS that at some time in the past year they had no money to pay for food. Secondly, many find it difficult to afford health care, paying not only for a doctor's examination but also for medicine and for medical tests. Many also find it difficult to afford the time required to seek treatment from a hospital. Thirdly, the very poor live in the worst, most crowded and unhygienic housing.

Bostie and pavement-dwellers, however, are not just poor. Most are also uneducated: the AHRHS found that 40 per cent of males and 53 per cent of females aged six and over in the bosties had never been to school. This was also true of 22 per cent of males and 29 per cent of females in other poor areas (excluding the bosties). In comparison, the DHS found that 31 per cent of rural males and 40 per cent of rural females aged six and over had never been to school and 18 per cent of urban males and 29 per cent of urban females had not (Mitra and others, 2001:13).

Caldwell and others (2001) found that education of the mother was a more important predictor of child death than income or possessions. The mother's education was closely linked to whether the child had had the full recommended schedule of immunizations. It was also linked to the likelihood of seeking treatment from a trained health provider for a sick child, but was less important in that respect than wealth as measured by the possessions index. Education also contributed to better hygiene. Educated mothers were more likely to wash their hands prior to preparing food. Similarly, they were much more likely to ensure that their children used sanitary toilets.

However, a household's individual characteristics constitute only one factor. The AHRHS also found that locality, and particularly living in a bostie, had an independent effect. In part, this reflects the influence of neighbours. In an AHRHS sub-study, it was found that in decisions to seek health care for young children, young mothers were strongly influenced by the older women living in neighbouring houses. In many cases involving migrant households, these women substituted for relatives who would have made such decisions in their village homes. These women are more experienced, but as older women they are generally less educated and more traditional than the young women they are advising. In the bosties, the women can act to discourage women from seeking attention from hospitals and clinics and instead encourage them to seek attention from a *kobiraj* (practitioner of "ayurvedic" medicine, often having many aspects of a folk healer) or other traditional healer.

Locality also affects health through its environment and its access to health services. A major factor affecting health in the Dhaka slums, and particularly in the bosties and on the pavements, is, as the respondents themselves commented, the lamentable state of the environment. Overcrowding

is a major problem with extremely high population density and houses squashed closely together. House quality is generally better in the urban areas, and especially Dhaka, than in rural Bangladesh. However, the bosties are exceptional in their lack of security of tenure, which means that there is little incentive either for house-owners or tenants to improve housing conditions. Many of the houses are extremely small and poorly built. More generally, environmental conditions are unhygienic, especially in the bosties. Drainage is extremely poor, sanitation inadequate and non-existent, and rubbish, including faeces, uncollected and indeed scattered underfoot. Bosties, as illegal settlements, are often located in areas regarded as unsuitable for housing, for example areas subject to flooding.

More critically, because they are illegal settlements, bosties receive few or no government services, such as paved roads, paved footpaths, drains, sewerage, piped water or rubbish collection. A lack of paved roads and footpaths, and a lack of drains together with poor housing mean that bostie-dwellers are in a poor position to cope with the effects of flooding.

Lack of sanitation results in a large proportion of the population using open latrines or in some cases no latrines at all. In cases where households do have access to sanitary latrines, up to 10 households or 50 individuals may share one. Young children rarely bother: their faeces are collected and thrown onto rubbish heaps, or where these are absent, simply into the open, a point that highlights the importance of municipal rubbish collection. The insecurity of tenure in the bosties means that house-owners have little incentive to improve matters by building better sanitary facilities. The lack of piped water means that most households have to share wells (themselves generally safe, but having to queue for water and carry it over a distance reduces the amount of water available for cleanliness, and storage raises the potential for contamination). The result of such poor environmental conditions is that such infections as pneumonia and diarrhoea remain major killers of children, and tuberculosis of adults.

On top of environmental conditions that are conducive to infection, Dhaka suffers from extremely high atmospheric pollution, including excessive levels of lead, nitrous oxides and suspended particulate matter owing to poorly maintained motor vehicle engines (Karim, 1999). There is strong evidence that atmospheric lead impedes the mental and physical development of children and nitrous oxides and particulate matter contribute to respiratory illnesses.

The health impact of a poor environment is compensated, to some extent, by access to health facilities and expertise, of a far higher standard, in theory, than is available in rural Bangladesh. However, the health system is not fully utilized. Government health services are predominantly in the form of large



specialist hospitals, with some out-service facilities, mostly found in the old part of the city, and often difficult for the poor to attend. Services that are, in theory, free usually involve payment, at least for medicine. Families usually have to queue for services, time they can ill afford away from work. On top of this, many of the poor say they are badly treated by the health workers, and are reluctant to go unless they have no choice.

Increasingly, health services are provided by the private sector. The better-off use private clinics, often staffed by government doctors after hours. Somewhat cheaper services are provided by doctors who work in rooms often at the back of pharmacies. The poor who cannot afford these services use other alternatives, the most important of which is simply to ask the pharmacist for medicine. Dhaka has one pharmacy for every 1,000 people (Mookherjee and others, 1996:1). In addition, people use untrained (quack) doctors, or obtain medicine from traditional or alternative medical providers such as *kobiraj*, fakirs or homeopaths. These providers are preferred as being cheap, convenient, polite and, in the case of traditional providers, more in keeping with the understanding of appropriate treatment of clients (Fariduddin and Khan, 1996:43; Caldwell and others, 2001).

Treatment varies according to gender. For persistent illness, Ahsan and Ahmad (1991:17) found that doctors were eventually consulted by 60 per cent of males but only 22 per cent of females. This reflects, no doubt, a male preference, a concern for the well-being of the household head, usually the main breadwinner, as well as female seclusion and modesty, which makes it difficult for women to go to male doctors, but also to female doctors in the case of reproductive tract infections (RTIs) and sexually transmitted diseases (STDs). Furthermore, men usually control the family finances and while women can in emergencies take some initiative with regard to their children, they usually do not for their own health, for to do so might be regarded as putting their own interests before that of their households. A final factor is a belief that many problems that affect women specifically are natural, and hence are not to be interfered with. This is particularly the case with childbirth, with serious implications for both mother and child.

The proportion of childbirths attended by highly trained attendants (doctors and nurse/midwives) is extremely low in rural Bangladesh (8 per cent). It is higher in urban Bangladesh but is still only about 33 per cent (Mitra and others, 2001:118) and it is clear that many dangerous cases are not being attended to in time. In answers to the AHRHS, it was clear that many women who had lost children had not sought appropriate care in time. The women felt that childbirth was natural and were reluctant, until too late, to seek support from health-care workers, and especially male doctors. Most of the births in urban areas are attended by traditional birth attendants, a minority with

limited training (9 per cent of births), but most without any (42 per cent). A substantial proportion were attended by family members (14 per cent) and a few by no one (1 per cent). Many traditional birth attendants believe that to call a doctor or nurse would be to suggest that they were not skilled enough to conduct the birth. Furthermore, in many cases, the husband was away from home working. The AHRHS interviews suggested that an important factor in not seeking medical care for newly born infants was that in many cases of serious illness, the child was believed to be suffering from conditions that could not be treated by the modern medical system but only by a traditional doctor.

In rural Bangladesh, the Government has attempted with limited success to overcome the gap between the hospital-based system and the basic health needs of the populace by creating a primary health-care system based on Union Health and Family Welfare Clinics employing a medical assistant and a female paramedic (family welfare visitor), and more recently instituting a very basic Essential Service Package. This has not been altogether successful for a number of reasons, including a lack of popular acceptors of the value of the services being offered, and lack of an effective referral system for more serious cases between the clinics and the district and subdistrict hospital system. This, however, is only now being attempted in Dhaka by the Dhaka Municipal Corporation with support from the Asian Development Bank.

## **Conclusion**

Poverty is inimical to good health. The very poorest countries cannot afford a minimally protective curative health service across the entire population. Only the very richest can afford for the mass of their populations the expensive measures which keep nearly all newly born babies alive and many old sick people from prematurely succumbing to death, thus achieving life expectancy close to or beyond 80 years. In between these extremes, life expectancy can be raised to at least 70 years by comprehensive educational, public health and curative systems accessible even to the poor.

The most neglected group has been the urban poor, and this is increasingly serious because soon, and for the rest of time, most of the population in the region will be urban. In terms of health services, minimum safety nets have slowly been established in rural areas, while urban health has largely been left to the market. Such a system does not meet the needs of the very poor in the cities. In addition, the poorest, the rural-urban migrants in "squatter" areas, are often positively discriminated against by being denied roads, electricity, water, sewerage, and refuse removal services on the grounds that their settlements are illegal and are subject to clearance at any time.

Dhaka provides a good example of all these problems, being a huge and rapidly growing metropolis in Asia's most health-challenged region. The settled poor are disadvantaged, but, with legal tenure, they have access to most services, although even they suffer from their constrained inability to purchase health services in a largely market situation. But the most disadvantaged are the hostie-dwellers, those in illegal shanty towns. They lack most services and are often a long way from hospitals and other health provision. They can be easily missed by public health programmes. They often retain the age-old health beliefs of the rural areas. This is particularly the case among the women, a serious matter because pregnancy, birth and the survival of young children are often regarded as matters to be faced by them alone.

The way to the future is in the long-term economic growth. In the medium term, it is to move towards education for all with nearly all children progressing well into secondary education. But it is the short term that should immediately concern us, with the strongest focus being on the poorest of the poor. It is urgent that recognition be given to the reality of the continuing rural-urban migration of people so poor that they cannot afford to pay rent and are capable only of using free or very cheap materials to construct makeshift housing on empty government (or, less often, private) land. They must be given free or very cheap areas to settle on where there is no dispute about their right to do so or their right to services such as water, sewerage, electricity and refuse removal. There must be some kind of health service with no or low charges, not only for medical attention but also for prescribed medicines. There is a strong case for dynamic rather than passive health services. Somehow, health educators have to convey the message of the efficacy of modern medicine to the women, and the message that reproduction and infant health are the concern of husbands as well as wives. This will be helped if professional antenatal and birthing services are available for all and if families are educated to employ such services.

The urban health frontier, especially in the poverty-stricken slums, is going to present a major challenge for decades to come.

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# Migration and Poverty

*The challenge to policy makers is to facilitate the types of movement that are most likely to lead to an alleviation of poverty while protecting migrants from abuse and exploitation*

By Ronald Skeldon\*

## **Migration and poverty: ambivalent relationships**

Migration can both cause and be caused by poverty. Similarly, poverty can be alleviated as well as exacerbated by population movement. Easy generalizations are impossible to make but it is likely that the relative impact of migration on poverty, and of poverty on migration, varies by level of development of the area under consideration. In some parts of the world and under certain conditions, poverty may be a root cause of migration, whereas in other parts, under different conditions, the poor will be among the last to move. Equally, in some areas, migration may be an avenue out of poverty while in others it contributes to an extension of poverty.

The situation is made complex because both terms, “migration” and “poverty”, are difficult semantically: both are intuitively obvious but, in

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\* The author is a Professorial Fellow at the University of Sussex in the United Kingdom and Honorary Professor at the University of Hong Kong.

**Table 1. Percentage of population below the national poverty line, 1990-2000**

Country	Year	Percentage	Year	Percentage
<b>South and South-West Asia:</b>				
Bangladesh	1989	47.8	2000	34.0
India	1988	38.9	1999	26.1
Nepal	1985	41.4	1996	42.0
Pakistan	1991	22.1	1999	32.6
Sri Lanka	1991	33.0	1996	39.4
<b>South-East Asia:</b>				
Indonesia	1990	15.1	1999	18.2
Philippines	1991	45.3	2000	39.4
Thailand	1990	27.2	1999	15.9
<b>East and North-East Asia:</b>				
China	1990	9.4	1999	3.7
Mongolia	1992	17.0	1998	35.6
<b>North and Central Asia:</b>				
Armenia	1988	18.0	1999	55.0
Georgia	1988	16.0	1999	60.0
Kyrgyzstan	1988	37.0	1999	55.0
Tajikistan	1988	59.0	1999	83.0

*Source:* Extrapolated from graphs published in ESCAP/UNDP (2002). *ESCAP/UNDP Initiative for the Achievement of Millennium Development Goals in Asia and the Pacific. Millennium Development Goals: Lessons, Opportunities and Challenges* (Bangkok), which were based on ESCAP, *Growth with Equity: Policy Lessons from the Experiences of Selected Asian Countries* (ST/ESCAP/2007); ADB, Country papers prepared for the Inception Workshop on Building a Poverty Database; World Bank, *World Development Report 2000/2001: Attacking Poverty*; IMF, and World Bank, *Poverty Reduction, Growth and Debt Sustainability in Low-income CIS Countries*.

practice, have proved notoriously difficult to define and to measure accurately. In this paper, all forms of human population movement will be considered under “migration”, although “population mobility” might be a more appropriate term: that is, both internal and international migrations and both short-term circular movements as well as more permanent migration will be included in the discussion. Under “poverty”, a distinction between chronic, absolute poverty on the one hand and the more perceptual “relative deprivation” on the other will be drawn.

In the countries of Asia and the Pacific during the 1990s, poverty appears to have declined in Bangladesh, India, China, the Philippines and Thailand but increased in Pakistan, Sri Lanka and throughout the new republics of Central Asia (table 1). Little change in poverty levels in Indonesia and Nepal could be discerned over the same period. However, the figures for China, in particular,

**Table 2. Official estimates of total number of foreign workers in selected Asian economies, 1996-2001**

Country or area	1996	1997	1998	1999	2000	2001
Taiwan Province of China		245 697	255 606	278 000	326 515	
Hong Kong, China <sup>a</sup>	164 300	171 000	180 600	193 700	216 790	
Japan <sup>b</sup>	610 000	630 000	660 000	670 000	710 000	
Republic of Korea <sup>b</sup>	210 494	245 399	157 689	217 384	285 506	330 194
Singapore				530 000	612 233	
Indonesia <sup>c</sup>	24 868	24 359	21 307	14 863	16 836	
Malaysia <sup>b</sup>	745 239	1 471 645	1 127 652	818 677	799 685	804 984
Philippines <sup>c</sup>	4 333	6 055	5 335	5 956		
Thailand <sup>b</sup>	1 033 863	1 125 780	1 103 546	1 089 656	1 102 612	
China <sup>c</sup>	80 000	82 000	83 000	85 000		60 000
Viet Nam <sup>c</sup>					30 000	

*Source:* Country papers presented at the Workshop on International Migration and Labour Market in Asia, Tokyo, Japan Institute of Labor and OECD, 4-5 February 2002.

<sup>a</sup> Including an estimate of foreign domestic workers only; there are no stock figures for the highly skilled.

<sup>b</sup> Including estimates of undocumented workers.

<sup>c</sup> Estimate of foreign experts only, primarily professionals, the highly skilled and teachers.

need to be taken with a great deal of caution. It is known that the restructuring has brought about the loss of large numbers of jobs in the state sector, a trend that can only continue after that country's accession to the World Trade Organization. For example, some 26 million workers have been laid off from state enterprises since 1998 and the real rate of unemployment in 2002 may be in excess of 20 per cent in some sectors.<sup>1</sup>

Uncertain though many of the estimates of unemployment and poverty may be, these pale in comparison with the difficulties inherent in the measurement of migration. Available data on international migration suggest that population movement is likely to have increased from all the economies under consideration (table 2). However, in several cases these figures either omit or severely underestimate the number of undocumented migrants. Any estimates of the numbers of undocumented migrants are likely to be suspect to some degree, simply by the nature of the phenomenon. These may be based on the number of apprehensions on attempted entry or on arrests in country, with assumptions made on the number of those eluding the official net. For some countries, the number of undocumented migrants is substantial. For example,

some 2.1 million illegal entrants to Malaysia were apprehended between 1992 and 2000 (Hugo, 2002:4) and estimates of the stock of undocumented migrants in that country before the 1997 financial crisis ranged up to 1.43 million (ILO, 1998). The vast majority of these migrants came from neighbouring Indonesia.

Even more difficult is the estimation of the number of internal migrants. Data for the number of movers in Thailand, where poverty levels declined markedly during the 1990s, even taking into account the impact of the 1997 financial crisis, suggest that migration might actually have slowed in the 1990s. Preliminary figures from the 2000 census indicate that the proportion of the population which had moved in the five years before the census was lower than in 1990, or 13.9 per cent in 2000 compared with 16.8 in 1990 (Thailand, 2002). To draw the conclusion that a relative reduction in mobility might be conducive to a reduction in poverty would be deceptive, if not just wrong. First, it is well recognized that the population census only captures a part of total population movement, omitting most circulation and short-term migration. Studies in Thailand, following the 1990 census, showed that a change in the reference period used to define a "migration" from the three months of the census to one month in the National Migration Survey of Thailand increased the numbers of migrants by over one fifth (Chamratrithirong and others, 1995). Second, and more critically, it is known that the number of poor in Thailand increased from 6.8 million at the beginning of 1997 to 7.9 million at the end of 1998. These figures represent an increase in the proportion of the total population classified as poor from 11.4 to 12.9 per cent (UNDP, 1999:129). Nevertheless, it would also be deceptive to conclude that the increase in poverty as a result of the financial crisis had caused the observed decline in five-year migration. A more likely hypothesis is that the crisis stimulated an increase in precisely the types of mobility that censuses and general surveys are least able to measure: that is, in short-term mobility as people moved to seek alternatives to loss of jobs in the urban sector or loss of markets in the rural sector. Mobility could, in those years, have increased rather than decreased and been more a survival strategy than a pathway towards better opportunity.

Thus, any attempt to draw clear relationships from existing data between volume and patterns of migration on the one hand, and poverty on the other, is likely to be problematic. This paper can only seek to raise in very broad relief the likely scenarios that are the result of poverty influencing migration and vice versa. Many of the points raised below are to be considered hypotheses requiring rigorous testing rather than statements of fact. Our empirical base and the ambivalent nature of the relationships between migration and poverty do not yet allow a more complete analysis.



## Poverty as a root cause of migration

Migration is often seen simply as a flight from poverty: there are no opportunities available locally so people migrate in order to survive. Flight from a devastating famine would appear to be the classic example of this type of relationship, well illustrated by pictures in the media of emaciated people who have walked great distances to reach feeding stations run by international agencies and charities. Unequivocally, such cases exist but these are generally restricted to the poorest parts of the world, and primarily to parts of sub-Saharan Africa. In Asia, such cases, although still found in pockets across that vast area, have become less common given the rapid economic development over the last half of the twentieth century. Examples within living memory include the “Great Hunger” in China, 1959-1960, when millions moved in desperate attempts to find food, although millions more were prevented from moving by the authorities. The real impact of this last great famine in China on population migration has yet to be reported, although general discussions are included in Becker (1996) and Banister (1987). Other, more limited but more recent examples can be found in South Asia such as Orissa in India in 2001.

The survival migration of the poorest is likely to be mainly local, or regional at most, and primarily within country. In apparent contradiction to the logic of survival migration, the general finding of most studies of migration in non-disaster situations is that it is not the poorest who move but those with access to some resources, no matter how meagre these might appear. Migration always involves some costs of transportation and the abandonment of many of the few possessions the poor might have. The poorest of the poor cannot afford either risk or movement and the majority starves in situ. Even in the “Great Famine in Ireland 1845-1850”, it was rarely the poorest who emigrated to North America. The more able-bodied among them could perhaps reach the United Kingdom but many of the rest perished. Emigration rates from the hardest-hit counties were often significantly less than from those counties not so affected (see Miller, 1985).

In a different continent in a different era, the majority of those who fled from China to Hong Kong, China, after the victory of the communist forces in 1949 might have had a “well-founded fear of being persecuted” (the definition of a refugee) but over half claimed that they had moved for “economic reasons” (Hambro, 1955). They were not among the poorest in China at the time. This discussion is not to deny that poverty is an important cause of migration but to suggest that there are other factors at work. Except in particular areas and at particular times, it is not absolute poverty as such that is significant in accounting for migration but whether people feel that they are poor.

## **Migration as the result of poverty**

Poverty as the root cause of migration and migration as the result of poverty might suggest the same thing but there are significant differences. Migration as the result of poverty shifts the focus to the issue of feeling poor: relative rather than absolute deprivation. Migration, either of outsiders into a community, or of natives going outside their community, establishes linkages between origins and destinations. These linkages spread knowledge about conditions in a wider world that can transform communities from conditions of “subsistence affluence” (Sahlins, 1974) to those of relative deprivation without any significant real change in the quantity of subsistence in the community. What changes is the less tangible quality of life when the number of potential migrants increases as a consequence of community members beginning to judge their own conditions relative to those of people living elsewhere. Thus, migration creates the conditions that lead to people feeling themselves to be poor, which in turn leads to further migration as they move in order to satisfy new-found aspirations. This process is perhaps at the root of most migration, giving the impression that poverty is the driving force but in reality is the product of a desire to better oneself against new standards rather than the result of absolute deprivation. Migration is thus both the creator and the product of poverty.

Most of those who can respond to the information coming into any community are the more innovative, the better-off and the better educated even if these qualities themselves are relative. In an isolated rural community, for example, the better educated might be those with just the most basic primary education among the many with no formal education at all. Migrants need not always, or even generally, respond to information coming into a community: they may be selected by labour recruiters or other representatives of an expansionary urban-based group. Again, recruiters are unlikely to select the weakest or poorest members of any group. Migrants are either a selected or self-selected group within any population. Thus, the general conclusion is that migrants from any community, and particularly the initial migrants, are among the most innovative and dynamic members of that community (see Skeldon, 1990). Whether their loss can contribute to poverty creation will be considered in a later section.

## **Migration as a cause of poverty**

Nevertheless, there are ways in which migration can lead directly to an increase in the number of absolute poor. The clearest way is through forced relocation without adequate planning and support. In many cases, the forced

relocation is essentially the product of development, mainly through the creation of lakes and reservoirs that are the result of the construction of dams, although displacement for roads and urban expansion is also important. For example, worldwide, it is estimated that between 90 and 100 million people were involuntarily displaced by infrastructural development projects during the last decade of the twentieth century (Cernea and McDowell, 2000:2). In India alone, some 20 million people are estimated to have been displaced over about 40 years, the majority of whom became impoverished (Cernea, 2000:12) while in China over a similar period, well over 30 million were displaced (Meikle and Zhu, 2000:128). The Three Gorges Project, currently under construction on the Yangtze, is estimated to displace well over a million people.

Perhaps the key difference separating forced population displacement due to development policy from other types of migration is that the numbers moving and the timing of the movements are known. Thus, if poverty is indeed the result of the forced migration it is the fault of inadequate planning rather than of the movement itself. There is no necessary reason that the migration must lead to an extension of poverty although this often appears to be the result. There can be little excuse for a lack of adequate reconstruction and this particular relationship between migration and poverty appears to be one that is ideally suited to effective policy intervention.

A more difficult dimension of migration leading to an extension of poverty relates to the loss of innovative and educated community members: in essence, a “brain drain” whether at national or village levels. It has proven singularly difficult to demonstrate empirically a fall in macrolevel economic indicators in the face of a marked exodus of the educated at the national level. Equally, the evidence for a decline in either agricultural production or productivity upon rural-to-urban migration at the village level is elusive. Much of the difficulty is derived from the fact that much of the migration may be circular in nature. Both the educated at the national level, and workers moving from village to town, either return at a later stage, or move to extend the resource base of their families by incorporating new resources elsewhere.

The so-called “brain drain” argument is difficult to sustain at the macrolevel in East Asia. Tens of thousands of students left Japan; the Republic of Korea; Taiwan Province of China; and Hong Kong, China for study overseas from the 1960s at precisely the time that these economies began to grow rapidly (Skeldon, 1997a:108-115). It is difficult to see that these economies could have grown even faster than they did if the students had stayed home. Over time, increasing numbers returned and there clearly was a “brain gain” rather than a brain drain in these economies. This scenario, however, need not

necessarily apply more generally. The loss of relatively small numbers of the educated from marginal economies such as many in sub-Saharan Africa may indeed contribute to slower or even declining growth. Ghana, for example, has lost 60 per cent of the doctors trained in the 1980s and a total of about 60,000 highly skilled workers are reputed to have fled African economies during the last half of the 1980s (Harris, 2002:87). The loss of large numbers of Russian technicians may also be a significant factor in the rising poverty observed in the Central Asian republics. While the assessment of the impact of the loss of the highly educated and skilled needs to be carried out on a region-by-region basis, a critical factor will always be whether there is something for the educated to return to in their economies of origin. Where there is little to return to, a brain drain is more likely to occur, but where origin economies are more dynamic, a brain gain may be the result.

At the local level, assessments of the impact of outmigration on production are equally problematic although few studies support the idea that there is a negative impact on farm production (Simmons, 1984:171). An assessment in China has shown that the loss of labour due to outmigration can have a negative impact on income from cropping but has no impact on crop yields (de Brauw and others, 2001). Where the impacts become intense in marginal areas and migration develops to such an extent that the reproductive capacity of a village is eroded, leading to ageing and declining populations, then pockets of deprivation may emerge even in the most developed societies. For example, the severely depopulating areas (*kaso*) in Japan present a challenge to policy makers to supply adequate services to ageing populations. Agricultural income in these areas was 70 per cent of the national average in the mid-1990s and they covered almost half of the total land area of the country but represented only 6.3 per cent of the total population (Skeldon, 2001:46). In poorer economies, those left behind may be those most likely to experience “chronic poverty” (Kothari, 2002) with poverty thus a residual of migration.

Finally, in this section, the question is whether migration concentrates the poor in destination areas, and primarily in the largest metropolitan centres of the developing world. Even if it is not the poorest who migrate from the villages, relative to city people in destination areas they are often poor and their concentration may be a drag on development. Here again, the evidence to support the apparent logic of this statement is far from conclusive. There is little evidence to suggest that migrants are overrepresented among the urban poor, with migrants tending to have higher labour force participation rates than native-born in cities in the developing world. This statement should certainly not imply that the living conditions of all migrants in towns are satisfactory or

that they do not appear among the ranks of the urban poor. Many of the occupations filled by migrants, and particularly those undertaken by poorly educated migrant women, are badly paid, insecure and often require work under appalling conditions. However, given that migration is generally not the principal component of urban growth in the developing world (natural increase is usually more important), and that migrants have higher rates of employment than the local urban-born, the principal causes of urban poverty are to be found in the metropolitan regions themselves rather than in migration to them.

### **Poverty alleviated by migration**

Implicit in much of the discussion thus far has been an underlying assumption that the relationship between migration and poverty should in some way be negative: either that migration was the result of deprivation or that migration leads to the impoverishment of certain areas. While these statements cannot be discounted in every case, there is a lack of empirical data to support them as general conclusions. The weight of the evidence provides support for a very different conclusion: that the movement of population can be a significant factor for the alleviation of poverty. The principal reason lies in the nature of the migration process itself. Migrants rarely move simply from A to B but their movement is a complex system of circulation between two, or among several, destinations. Also, migrants are rarely individuals operating in a social vacuum but are meshed into family, household and community networks. Migrants, rather than individual income maximizers, can be conceptualized as existing within a communal risk-minimizing strategy. Such an interpretation falls within the so-called “new home economics” approach to theories of migration (see, for example, Massey and others, 1993; Stark, 1991).

Migration can therefore be seen as a system linking origins and destinations in which flow not just people, but also money and goods. The incorporation of new destinations broadens the resource base of a household, perhaps allowing a more optimal deployment of labour as those underemployed during the slack part of the agricultural cycle can find work on a plantation or in town. Gender differences can become important. In areas where males undertake most of the agricultural work, as in Latin America, for example, women can be released from rural households to access off-farm activities in town, and vice versa in areas where women dominate labour input into agriculture as in much of Africa. The diversification of resource base, labour input and gender role can all act to alleviate poverty where households are dependent upon a single resource at one location. In such diversification,

however, there is always the possibility of the exploitation of migrants at destinations and the social disruption that can ensue upon separation of family members. These negative consequences need to be balanced against possible improvement in status of migrants who may acquire skills or pursue education at destinations. Here, in particular, there appear significant gender issues as women, by absenting themselves even temporarily from patriarchal structures, can improve their status (Hondagneu-Sotelo,1994).Temporary absences of men, by thrusting the women left behind into positions of responsibility to run the households, can also elevate their status and, indirectly or directly, reduce the incidence of deprivation.

Where the migration is essentially circular in nature, it is likely to be a support for the communities of origin but when migrants begin to spend longer away from home, over the long term, the outmigration may eventually act to undermine the demographic and economic viability of the community. The resultant transformation need not necessarily imply an extension of poverty as more capital-intensive forms of economy may emerge. Even when migrants spend longer at destinations, they rarely cut off relations with their areas of origin: they go back at regular intervals and they send goods and money to relatives in their home country, village or town which introduces the critical issue of remittances.

Like so many components of migration and poverty, remittances are notoriously difficult to measure accurately. Unless specialized surveys are undertaken, estimates of the amounts of money and goods remitted by internal migrants within a country are impossible to make. While there are estimates of the volume of flows remitted by international migrants, it is recognized that these capture only those that flow through official channels: much is transmitted through informal channels through relatives or when the migrants return. What is indisputable is that the volume and importance of these flows are vast. In 1990, it was estimated that the observable volume of global remittances was \$US 71.1 billion per annum, making it second only to oil in terms of value in international trade (Russell, 1992). Considering the global flows from developed to less developed countries only, the volume probably doubled from about \$US30 billion in the late 1980s to more than \$US60 billion a decade later (Martin and Widgren, 2002).

In Asia, the Philippines is the country of emigration par excellence with some 7 million Filipinos from a resident population of 78.7 million in mid-1992 living or working overseas. In 2000 alone, more than 800,000 workers were deployed overseas with more than \$US6 billion in foreign

exchange remitted back to the Philippines (Go, 2002). Remittances from overseas workers are also important for many other labour exporters such as Bangladesh, India, Pakistan and Sri Lanka. For the Pakistan of the mid-1980s, they represented about 9 per cent of GDP and were “an important factor in allowing Pakistan to sustain the highest growth on the South Asian subcontinent through most of the 1970s and 1980s” (Addleton, 1992:123). In the state of Kerala in the 1990s, remittances accounted for 21 per cent of state income (Kannan and Hari, 2002:200). Even Viet Nam, a relatively recent entrant into regional and global labour markets, had around 300,000 workers overseas in 2000, who were remitting some \$US 1.25 billion annually (Nguyen, 2002).

Although the important dimension of foreign exchange earnings is missing in remittances from internal migrants, these, too, are significant for communities of origin. The data from the National Migration Survey of Thailand showed that over one quarter of outmigrants had sent money or goods back to their households of origin during the 12 months prior to the survey (Osaki, 2002). The data also showed that the proportion remitting tended to increase with time spent away from home and that one third of those who had been away for more than 10 years were still sending money back home. Given that the number of internal migrants in any country vastly exceeds any numbers going overseas, the volume of money sent back to the rural sector from cities in the developing world is likely to be significant, even if amounts sent by overseas migrants are likely to be greater on a per capita basis simply because, on average, they earn more. In China, studies suggest that households that send out internal migrants are able to increase the per capita income of those left behind by between 14 and 30 per cent (de Brauw and others, 2001:20).

More important than the actual amounts, however, are the uses to which the monies are put and the impact that the remittances are likely to have on the areas of origin of migration. Perhaps *the* critical issue in the migration and poverty equation is whether remittances can help to alleviate poverty. One perspective is that remittances tend to be used for conspicuous consumption rather than investment: for house construction or the sponsoring of weddings, and the like, rather than improvements that are likely to lead to increasing agricultural productivity. A common use of remittances, nevertheless, is also to pay for the education of the next generation and that does appear to be a clear investment strategy.

However, a clear distinction between investment and consumption may be difficult to maintain in the context of the use of remittances. Expenditure on

house construction, for example, can stimulate local building enterprise, thus generating employment and trade in materials. Even something as apparent an example of conspicuous consumption as wedding feasts generates demand for local foods, supports local musicians, and so on. Thus, there are important indirect effects of remittance money in the villages. The general conclusion from studies of the use of remittances is that migrants tend to use their wealth wisely and the benefits appear to more than counterbalance costs (see, for example, Gunatilleke, 1986).

More difficult to assess is the impact of remittances on inequality. Given that those who move tend to be from the wealthier families in any community, the remittances logically flow back to those families, exacerbating or at least reinforcing existing inequalities. Poverty can be measured by the proportion of wealth controlled by the various quintiles in any population and if the upper 20 per cent are increasing their “share” as a result of migration, and the lowest fifth decreasing their share, it could be argued that migration was indeed contributing to the intensification of poverty in a society. Yet again, the evidence is contradictory. In Pakistan, although inequalities increased between migrant and non-migrant households, the distribution of remittances appears to have spread benefits to a greater range of groups and areas that could effectively “undermine the centre” of traditional power (Addleton, 1992). Migration flows do tend to be generated out of specific “niches” or areas of origin. Hence, certain microregions may benefit relative to those areas that send relatively few migrants, increasing regional as well as social inequalities (Seddon and others, 2002). Nevertheless, data from Thailand show that though the per capita amount of remittances to poor households may be much less than to wealthier families, they have a much greater relative impact and help to alleviate poverty (Osaki, 2002). Thus, migration may help to reduce absolute poverty among some while simultaneously acting to increase feelings of relative deprivation among others. Overall, people may be better fed as a result of migration but the feelings of deprivation may generate resentment. Migration has been shown to be a significant component in the development of particular social and revolutionary movements, a theme that remains under-researched (Skeldon, 1987). The results of those movements have led in the past to destruction that has extended poverty on a massive scale.

The final issue related to migration as a factor in the alleviation of poverty, and one that returns the debate to the macrolevel, emerges from the nature of the migrants arriving at destinations, both domestic and international. It has been emphasized that migrants tend to be among the more innovative and better-educated members of any population. A small number of migrants are traders and entrepreneurs who are the brokers of economic exchange



generating not only wealth for themselves but employment for locals at origins and destinations that can help to generate prosperity. Entrepreneurship, often associated with particular ethnic groups, the Chinese or the Jews, for example, is perhaps more a function of situations and linkages that are the result of migration than of particular ethnic characteristics. Entrepreneurs are the minority among the migrants, the “essential outsiders” (Chirot and Reid, 1997) who generate capital accumulation. Migration, both internal and international, is thus an integral part of the whole process of economic development which must underlie any attempt to alleviate poverty.

### **Conclusion: policy dilemmas**

This discussion should have revealed the complexity of the relationship between migration and poverty. In most areas migration appears, on balance, to bring an improved probability of survival and often an alleviation of poverty. At the same time, exploitation and disruption can be an integral part of the transformations associated with the population movement. Amid the uncertainty of outcome, several policy-relevant propositions can be advanced. First, constant attention needs to be directed towards the protection of migrants, both male and female. Second, migration is not a new phenomenon even if there are certain novel aspects about the current situation: it has characterized all societies at all times. Thus, migration is not suddenly going to stop and cease being a characteristic. Governments need to learn to plan for it and attempts to control population movements within countries have invariably met with a distinct lack of success over anything but the immediate short term. Attempts to control movements across international borders have met with greater success but at huge cost both financially and often socially and politically. The issues of border control remain beyond the limits of this paper but policy makers need to address whether the restriction of movement is in the best interests of their own population as well as the populations of origin areas.

The weight of the evidence is that mobility enhances economic growth and improves the lot of most, but not all, of the population. Generally, spatially static populations are likely to be economically stagnant populations. A paper presented by the Organisation for Economic Cooperation and Development (OECD) to the Earth Summit 2002 argued that if the European Union, Canada, Japan and the United States allowed migrants to make up just 4 per cent of their labour force, the returns to origin areas could be in the region of \$US 160-200 billion a year, a sum far greater than any potential debt relief (cited in *The Guardian*, 26 August 2002). Migration may not be able to eradicate all types of poverty, and may even exacerbate some, but the alternative of

attempting to limit or restrict migration is likely to be much less productive. The words of John Kenneth Galbraith appear to capture the essence of the whole relationship:

Migration is the oldest action against poverty. It selects those who most want help. It is good for the country to which they go; it helps to break the equilibrium of poverty in the country from which they come. What is the perversity in the human soul that causes people to resist so obvious a good? (cited in Harris, 2002:119)

However, it is important to recognize that migration can involve costs, economic and social, as well as benefits. The challenge to policy makers is to facilitate the types of movement that are most likely to lead to an alleviation of poverty while protecting migrants from abuse and exploitation. This paper has attempted to draw attention to the range of possible outcomes. It is likely that the relationship between migration and poverty will be different in the dynamic economies of East Asia, for example, than in the more stagnant economies of sub-Saharan Africa. Within regions and within countries, there will also be variations. There can be no universal policy recommendation just as there is no single and simple interrelationship between migration and poverty. While accepting a variety of outcomes, this writer stands by a generalization made earlier in the pages of this journal that “policies that accept the wider mobility of the population are likely to accord with policies that will enhance the well-being of greater numbers of people” (Skeldon, 1997b:3). More recent work of others appears to advocate similar approaches (see, for example, de Haan, 2002 and Kothari, 2002), yet the immediate challenge remains the need to incorporate an appreciation of the potentially positive role of migration in poverty reduction programmes.

### Endnote

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# Education and Health in South Asia: What Do We Know?

*Despite progress made in all the South Asian countries in expanding health facilities and services, the morbidity and mortality situation of women continues to remain unsatisfactory. Malnutrition, caused by a combination of low incomes, inadequate or poorly balanced diets and poor food hygiene, has been one of the key determinants of ill health among the poor; and women are at a much greater risk than men*

By Leela Visaria\*

During the last decade, at least three international conferences (the World Conference on Human Rights in Vienna in 1993, the International Conference on Population and Development in Cairo in 1994 and the

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\* Gujarat Institute of Development Research, Gota, Ahmedabad, 380 060, India.

Fourth World Conference on Women in Beijing in 1995) sought to reshape a vision of women's lives by placing gender equity, women's rights, empowerment, health (including reproductive health), quality of life, equality and freedom at the centre of population and sustainable development policies and programmes. In the period since these international events, almost all States, as signatories of the action agendas of the conferences, have attempted to move closer to fulfilling many of the commitments. In this endeavour, they have also sought the help of both national and international non-governmental organizations, institutions and corporate sectors. However, certain challenges remain for many of the countries in terms of access to services for some of the marginalized groups. Perhaps more innovative approaches rather than the standard poverty alleviation approaches are needed to bring all within the fold of development.

In the last three decades, almost all countries in the ESCAP region have made noteworthy progress in improving women's overall status and more specifically their health and education indicators, two areas where female disadvantages have traditionally been conspicuous. In the first section, this paper outlines the achievements or improvements made in access to the basic health and education status of women in four countries in the Indian subcontinent (Bangladesh, India, Nepal and Pakistan; however, Sri Lanka and the other small or island countries are omitted). The factors that constrain progress in achieving the goals set by the international conferences such as the International Conference on Population and Development as well as by the countries themselves, are also discussed. The measures needed to reach the goals to improve the health and education status of women in these countries are outlined in the subsequent section. Unequal access to development associated with poverty is a cross-cutting theme throughout the paper.

All four countries have articulated women's concerns and made provision in their plans and programmes to address those concerns and their development. However, despite the rhetoric and some measures that have been initiated, women's participation in almost all sectors remains very limited. This is a consequence of both their low educational achievements and the biases favouring males in all walks of life. The persisting gender disparities in regard to various benefits and opportunities are brought out by the data and analyses presented below.

The data quality, breadth of issues covered and the time duration for which information on various indicators is available vary a great deal between the countries under consideration. An effort is made, however, to cull out those data which are more or less comparable in terms of both estimations and the time period to which they refer. They do provide the flavour of the prevailing situations in each of the countries and also point to the country-specific issues. Except for Nepal, the countries are large in terms of population and show wide interregional variations within them. However, in the broad canvas that is presented here, it is not possible to address this important issue. Wherever appropriate, reference will be made to the differences within the countries.

### **Access to education**

Illiteracy contributes to women's marginalization within the family, workplace and public arena. The large gender gap prevailing in most countries in the South Asian region in levels of education results in women's powerlessness or non-involvement in decision-making at home. Illiterate women are also caught in a vicious cycle of poverty, repeated childbearing and ill-health. At the workplace, women without education are engaged in low-paid irregular wage employment, work long hours and also face the threat of unemployment. In the public arena, they face indifference or receive scant attention from providers of health-care or other services. Education is essential to enable them to break out of this predicament. The advantages in providing education to women have been well established throughout the world. It elevates women's status in all spheres of life and decisively determines their access to paid employment, earning capacity, overall health, control over fertility, family size, spacing of births and decision-making. Educated women are able to ensure that their children, both boys and girls, attend school, receive good-quality education and have access to health care.

However, until recently South Asia countries have had practically no tradition of providing education to women. When they adopted universal primary education as a fundamental goal, barely 3 to 7 per cent of women were counted as literate in India or Nepal. The situation in Bangladesh and Pakistan was equally dismal. Since then, there has been a considerable increase in the enrolment of girls at the primary level of education. While the gender gap in literacy has somewhat narrowed because of the rapid increase in the literacy level of women, there is still a long way to go in universalizing education among girls. To provide education to all in the South Asian countries would require not only strong political will, serious bureaucratic commit-

**Table 1. Changes in the educational profile of women and men in South Asian countries, various years**

	Male	Female	Male	Female	Male	Female
<b>Bangladesh</b>	<b>1974</b>		<b>1981</b>		<b>1991</b>	
Percentage literate in 10 and over population	37.2	13.2	39.7	18.8	45.5	24.2
Percentage literate in 10-14 age group	37.9	28.1	—	—	—	—
Percentage literate in 20-24 age group	14.2	1.1	12.2	2.3	—	—
<b>India*</b>	<b>1971</b>		<b>1981</b>		<b>1991</b>	
Percentage literate in 10 and over population	49.9	22.6	57.0	29.0	64.3	38.1
Percentage literate in 10-14 age group	59.8	38.1	66.8	44.8	77.0	59.7
Percentage literate in 20-24 age group	60.7	28.7	66.6	37.1	71.5	43.8
<b>Nepal</b>	<b>1971</b>		<b>1981</b>		<b>1991</b>	
Percentage literate in 10 and over population	24.7	3.7	34.0	12.0	54.5	25.0
Percentage literate in 10-14 age group	—	—	50.8	21.2	76.0	49.3
Percentage literate in 20-24 age group	—	—	41.7	12.6	64.3	26.3
<b>Pakistan</b>	<b>1972</b>		<b>1981</b>		<b>1991</b>	
Percentage literate in 10 and over population	30.2	11.6	35.0	16.0	—	—
Percentage literate in 10-14 age group	31.4	16.4	31.3	19.6	—	—
Percentage literate in 20-24 age group	40.3	15.7	46.0	22.8	—	—

\* For India, the category "literate" also includes those who report themselves as literate without any formal schooling.

Sources: United Nations, 1995, 1996, 1997; Visaria and Ramachandran, 2002.

ment, mammoth investment in the development of infrastructure, such as school buildings and teacher training, but also social engineering in order to mobilize the parents to send their daughters along with their sons to schools.

As shown in table 1, all four countries have indeed made considerable progress in providing education to women and men in the past three decades. It may, however, be noted that the increase in education is a recent phenomenon in all the countries. The spurt occurred in India a decade or two earlier than in the other countries and, although recent data for Pakistan are not available, its education revolution has just begun.<sup>1</sup> All the same, the backlog of illiterate population will remain with all the countries for the next four or five decades. Around 1990, only 24 per cent (Bangladesh) to 38 per cent (India) of females 10 years of age and over and 45-64 per cent of adult men in this region were



reported to be literate. Since then, in the past 10-year period, these countries have reportedly made significant progress in improving the literacy status of its young population; however, detailed data from the latest round of censuses are yet to become available.

Further, the literacy level is considerably higher in the urban areas compared with rural areas in all the countries (not shown in the table). In Bangladesh, for example, according to the 1991 data, the urban female literacy rate of 52.5 per cent was more than twice the corresponding rural rate of 20 per cent. For the same year in India, 31 per cent of rural women were reported to be literate as against 64 per cent of urban women (the 2001 census data are not yet published).<sup>2</sup> During the past three decades, Nepal has also made considerable progress in developing its national education system. Despite a significant improvement in the proportion of literates in the population since 1971, only a quarter of the adult females were reported to be literate in 1991, the majority of whom live in urban areas. Although data for the 1990 decade are not available, the situation in Pakistan is likely to be much more dismal, partly because until recently there was no tradition of providing education to women in many parts of the country. Concerns of safety of girls, limited supply of female teachers etc. have hampered providing literacy to girls.

The fact that the spread of education is a recent phenomenon is evident in the data in table 1. Nearly 76 per cent of boys and 50 per cent of girls aged 10 to 14 were literate in Nepal in 1991 (as against 42 and 24 per cent of men and women aged 10 years and over, respectively). India is the other country for which similar data are available; it shows a similar pattern, with a much higher percentage of children than adults (77 per cent of boys and 60 per cent of girls aged 10-14 years were reported to be literate) as literate. The 1991 figures for Bangladesh and Pakistan by age are not available but the situation is unlikely to be different. Among the 20-24-year-old young adults in 1991 who would have enrolled in school in the mid-1980s, the percentage literate among men ranged between 65 and 71 per cent, but among women, between 26 and 44 per cent, with Nepal at the lower end and India at the higher end of the scale. This suggests a gender lag in the provision of education; boys began to receive education in large numbers earlier than girls, who began to enter schools in large numbers a decade or more later.

The overall literacy rates do not give an indication of the level of education that the women and men attain. One summary measure available is the mean number of years of schooling estimated for the adults 25 years and

**Table 2. Mean years of schooling (25 and over) in South Asian Countries, 1980 and 1990**

Country	1980			1990		
	All	Male	Female	All	Male	Female
Bangladesh	2.0	3.1	0.9	2.0	3.1	0.9
India	2.2	3.3	1.1	2.4	3.5	1.2
Nepal	1.8	2.7	0.9	2.1	3.2	1.0
Pakistan	1.7	2.7	0.7	1.9	3.0	0.7

*Sources:* United Nations, 1995, 1996, 1997; Visaria and Ramachandran, 2002.

over, for years around 1980 and 1990. Estimates given in table 2 clearly indicate that in 1990 males and females had received on an average three and one year of schooling, respectively. The situation had marginally improved in one decade but is not very different in the four countries under consideration. The implications of such a low level of education for the well-being of the population in general and women in particular are discussed in a later section.

Some further data on education presented for the four countries in table 3 suggest that school participation by girls relative to boys is much less and girls drop out of the school system earlier than boys do. Despite the fact that equal access to education opportunities for both sexes is guaranteed by Bangladesh's constitution, and girls comprised almost 45 per cent of the primary school-age population, the participation of girls in the education system was significantly lower than that of boys. At the secondary level, only 15 per cent of all girls were enrolled in school as against 32 per cent of boys, and girls comprised 34 per cent of all children. At the higher level of education, the share of girls would be even smaller. Further, while in recent years a large percentage of children in the primary school age group may be enrolled in schools, the percentage of those attending classes regularly is likely to be much smaller, and more so in the case of girls. As evident in the average number of years of schooling, the completion rate of even the primary cycle is very low. The drop out of the system at various stages of the primary cycle occurs even before attaining the minimum educational standards or literacy skills. Poverty, non-conducive social norms and values and insecurity are important factors contributing to the high dropout rates in Bangladesh.

The Nepalese Government had subscribed to the goal of achieving universal primary education by the year 2000 and has made the five-year primary education programme starting at 6 years of age officially compulsory and free of charge in government schools. Considerable efforts have been

**Table 3. Education profile of countries in South Asia, decade of the 1990s**

<b>Item</b>	<b>Bangladesh</b>	<b>India</b>	<b>Nepal</b>	<b>Pakistan</b>
<b>Female teachers as percentage of total</b>				
Primary	—	—	—	—
Secondary	10	36	10	15
<b>Female pupils as percentage of total</b>				
Primary	48	45	42	32
Secondary	51	38	38	31
<b>Adult illiteracy rate (aged 15 and over)</b>				
Male	48	32	42	43
Female	71	56	77	73
<b>Youth illiteracy rate (aged 15-24)</b>				
Male	40	21	24	30
Female	61	36	59	59
<b>Combined primary/secondary gross enrolment ratio</b>				
Male	49	81	94	53
Female	38	62	53	26
<b>Children out of school (percentage of age group)</b>				
Primary — Male	20	17	7	—
Primary — Female	30	29	38	—
Secondary — male	73	29	32	—
Secondary — Female	84	52	60	—

*Sources:* United Nations, 1995, 1996, 1997; Visaria and Ramachandran, 2002.

made to expand primary school education and increase the participation of girls in schooling, by establishing schools in remote areas, providing free tuition and books and giving special incentives to encourage teachers to work in these areas. Despite these efforts, and a dramatic increase in enrolment at the primary, lower secondary and upper secondary levels of general education, available data indicate that girls lag behind boys in school enrolment,<sup>3</sup> and in literacy and educational attainment. In 1991, girls constituted only 37.2 per cent at lower secondary and 28.7 per cent at upper primary levels. Further, about half of the males and three fourths of all females in the appropriate age groups were not participating in secondary education. The low level of literacy among females in Nepal is due to social prejudices against female education, restrictions on their mobility and their overall low social status. The system of early marriage further leads to lower participation by women in formal education.

In recent years, the Government of Pakistan has also accorded priority to education; however, allocations to the education sector have until recently been around 2 per cent of gross national product, one of the lowest levels in the world. Consequently, all levels of Pakistan's education system have been underdeveloped and underfinanced, in both absolute and relative terms. Pakistan continues to have very high illiteracy, low rates of participation and very limited educational opportunities for many children, particularly for girls in the rural areas, despite a dramatic increase in student enrolments at the primary, middle and secondary levels in the late 1980s and early 1990s. However, despite the increases, girls constituted only about 31 per cent of all students enrolled at the primary and middle levels of education in 1993-1994. Although reliable and up-to-date information is not available, it is generally accepted that nearly 50 per cent of girls who enter the primary level at grade 1 drop out before completing grade 5 and the highest dropout rate occurs between grade 1 and 2. The low enrolment and high dropout rates, particularly for rural girls, are due to a number of reasons such as poor physical facilities in schools, long distance to school and shortage of teachers, especially of female teachers. Further, schooling in Pakistan involves substantial cost to parents, which influences their decision about sending girls to school given the economic and sociocultural constraints.

Given the inadequate investments in education by the Government, resulting in inadequate school facilities in terms of separate schools for girls (only about a third of primary schools are for girls), and an unsafe school environment, religious schools have become an alternative avenue for the education of girls in rural areas where there are no facilities for primary education or where the primary schools are located at a considerable distance from the village. In the mosque schools, the Imams teach children Islamic studies and in the Mohallah schools literate women in the local area teach girls the Islamic studies and skills of home management. The very low female enrolment in formal schools implies that a very limited pool of educated women from which teachers are recruited is available in Pakistan, which in turn further limits the educational opportunities for girls, particularly in the rural areas.

India, on the other hand, appears to be in a somewhat more fortunate position with regard to enhancing enrolment of boys as well as girls at the primary level compared with its neighbours. The Government's efforts to provide schools throughout the country seem to have contributed to the

achievement.<sup>4</sup> Despite the criticism that a significant proportion of rural schools are single-teacher schools, the statistics suggest that enrolment at the primary level has become universal for boys and that girls are not lagging far behind throughout India. However, household data collected by the National Sample Survey do not fully corroborate the official service statistics. For example, as opposed to officially 82 per cent of all girls enrolled at the primary level of education in 1996, the Survey reported 68 per cent of girls being enrolled and 63 per cent attending school. According to the 1991 census, 45 per cent of all girls and 39 per cent of rural girls aged 6 to 10 years were reported to be attending school.

However, evidently the decade of the 1990s has witnessed a major achievement in school attendance in India. The overall achievements, however, mask the important fact that the spread of education has been quite uneven. Not only do women continue to be at a disadvantage compared with men, but this also applies to rural areas as compared with urban areas. Within rural areas, certain segments of the society, such as those belonging to scheduled tribes and other economically and socially backward groups, have lagged behind. The stated reasons for non-attendance at school for girls have ranged from high cost of education, lack of interest in studies, and the perception of parents that education is unnecessary for girls. Lack of proper school facilities and marriage, were also important reasons for girls not going to school or dropping out of schools. These reasons have to be understood in a wider context in order to evolve appropriate policy prescriptions.

### **Health care: existing situation and access**

South Asia is the only region of the world where men outnumber women in the total population.<sup>5</sup> This deficit of women relative to men stems from various forms of lifelong discrimination against girls and women, particularly from the inferior nutrition and health care that girls receive early in life and during their childbearing years. Even though women are the main providers and carers of family members, their own health needs are inadequately addressed almost everywhere. In all the four countries of the Indian subcontinent under review, boys are more valued than girls, who have less access to health care. Discrimination is reflected in the female infant and child mortality rates, which are higher for girls than for boys.

**Table 4. Health Profile of South Asian Countries, various years in the decade of 1990s**

<b>Item</b>	<b>Bangladesh</b>	<b>India</b>	<b>Nepal</b>	<b>Pakistan</b>
<b>Life expectancy at birth</b>				
Male	60	62	58	61
Female	60	63	57	63
<b>Life Expectancy at age 60</b>				
Male	15	16	15	17
Female	16	17	16	18
<b>Infant mortality rate</b>				
Male	78	67	81	75
Female	79	78	84	73
<b>Child mortality rate (1-4 years)</b>				
Male	14	29	NA	9
Female	16	42	NA	10
<b>Maternal mortality rate</b>	600	440	830	200
Prevalence of anemia (percentage of pregnant women)	53	88	65	37
Percentage of women receiving pre-natal care	23	62	15	27
Percentage of all births attended by skilled health staff	12	42	11	18
Percentage women among adults with HIV/AIDS	15	24	40	19

*Sources:* United Nations, 1991, 2000.

Although data on food distribution within the household are difficult to collect, there is enough microlevel evidence to show that it is not always equally distributed among all family members. In all South Asian countries, there is a practice of men and boys eating first, and whatever is left is then distributed among the girls and women. Invariably, the adult women end up eating less food that is of inferior quality and nutritive value. As a result, girls and women in these countries are much more likely to be malnourished or anaemic compared with boys. These practices are further aggravated when family incomes shrink; women are the major sufferers of deprivation.

Table 4 presents a comparative picture on several health indicators derived from recent data available from the countries. The life expectancy at birth and at age 60, shown in the table, indicates that, except for Nepal, women in the countries concerned live slightly longer than men (about one year). However, until very recently, this was not the case. Men outlived women in this entire region for several decades. With the spread of immunization services and the control of many of the communicable diseases, the natural biological advantage of women has finally taken precedence. The female

advantage in life expectancy at birth is expected to increase in the coming decades in all the countries.

The life expectancy of women at older ages (at age 60 and above) is also about a year higher than that of men. A somewhat higher life expectancy of women compared with men at older ages implies that women will have to spend a part of their old age without partners because, besides living a little longer, women tend to marry older men and do not generally remarry when widowed. Given their minimal literacy attainment, the elderly women are more likely than elderly men to live in poverty. Further, widowed and other women are also restricted in their employment opportunities, property rights and social behaviour and movement in public space.

On the other hand, the infant mortality rate for girls in the early 1990s was slightly higher than that of boys in Bangladesh and Nepal, and significantly higher in India. Pakistan was the only exception, with a female infant mortality rate lower than the male rate by two points. At the same time, female child mortality (mortality at ages 1 to 4 years) is significantly higher than male child mortality in all the countries. Not only that: there has been no improvement in the relative death rates of females at childhood ages; if anything, the situation seems to have worsened. Preference for sons is widespread throughout this region. Studies conducted in these countries have shown that behavioural factors, including care-seeking practices, operate against young female children. Girls are less likely to receive medical attention than boys, and if they do receive treatment it tends to be at a later stage of illness and provided by less qualified personnel (Waldron, 1987). Many of the discriminatory practices involved are subtle and lie deep within intimate family behaviour.

In the entire South Asian region, it is difficult to obtain reliable estimates of maternal mortality. In Nepal, the indirect estimates of maternal mortality rate have ranged from 510 per 100,000 live births for the country as a whole, to 850 based on three rural districts (United Nations, 1996, p. 21). The levels observed in the neighbouring countries of Pakistan<sup>6</sup> and Bangladesh and in certain States of India are also similar. The high maternal mortality in this region is attributed to several causes, such as complications during pregnancy and delivery, indirect obstetric causes such as aggravation of pre-existing conditions, and deaths arising from a condition not related to pregnancy but occurring within 42 days. In Pakistan, an estimated 20,000-30,000 women die every year from complications of pregnancy, childbirth or unsafe abortion. Again, the majority of maternal deaths that occur during or soon after birth are

caused by haemorrhage, sepsis, toxæmia, labour and primitive abortion methods.

Except for Pakistan, the prevalence of anaemia among pregnant women in the countries concerned exceeds 50 per cent; in other words, more than half of all pregnant women are anaemic. This adversely affects not only the health of the mothers but also of the infants born to them. A sizeable proportion of infants are born with low birth-weight.

In Nepal, less than 10 per cent of deliveries take place in a health facility and, given the mountainous terrain and poor road and transport network, access to emergency obstetric care is virtually impossible for most of the rural women. In Pakistan also, a very substantial percentage of birth deliveries take place at home with the help of *dais* or traditional birth attendants. According to the 1990-1991 Pakistan Demographic and Health Survey, 52 per cent of all births were attended by *dais*, while relatives attended another 12.5 per cent.

Although the majority of current HIV infections are still among men not only in the world but also in South Asia, AIDS is increasingly spreading among women. The recent estimates suggest that almost 40 per cent of HIV/AIDS cases in Nepal are women. While the proportion in the other three countries is small, there is no reason to be complacent. Largely monogamous women are increasingly exposed to the infection owing to the behaviour of their husbands.

The other major health problems faced by women stem from poor environmental sanitation, high prevalence of communicable diseases, nutritional deficiencies and parasitic infections. Despite the progress made in all the South Asian countries in expanding health facilities and services, the morbidity and mortality situation of women remains unsatisfactory. Malnutrition, caused by a combination of low income, inadequate or poorly balanced diets and poor food hygiene, has been one of the key determinants of ill health among the poor, and women are at a much greater risk than men. The problem is aggravated by cultural barriers, which prevent women's mobility to access health care when it is not available within the village where they live. It is also aggravated by the fact that many rural health institutions, such as primary health centres, have problems in attracting staff at all levels. This problem is even more acute with respect to female paramedical personnel owing to the severely restricted supply of qualified girls and problems of their safety in remote locations.



## Challenges ahead

In the developing countries, including those of South Asia, health sector reforms are being implemented and issues related to financing, resource allocation and management have become very important. We need in-depth and dispassionate research on what impact these reforms have on the poorer sections of the societies and particularly women. Women comprise a large segment of the vulnerable population group in these countries and since access and the utilization of health services are influenced by cultural and social factors, we need to highlight the gender issues in health sector reforms. Especially in this context, issues such as the introduction of user fees and what impact it would have on the access of women to health care must be fully understood. Questions such as whether vulnerable groups will be appropriately served by the private sector must be addressed and debated (Fillmer and others, 1998).

Another challenge is involving women themselves in some way in the design, implementation and evaluation of both health and education policies and programmes. Their voice must receive more than token representation. Along with that, the policy makers and concerned personnel of both health and education departments will have to be educated to “listen” to women.

We also need to understand why the poor are less educated and suffer greater mortality and morbidity. Many of the determinants of illiteracy and poor health would require taking a broader view and going beyond the health or education sectors. Issues of sanitation, clean water, employment etc. are all closely interlinked and a holistic approach would be needed if we aim at the well-being of all, including women.

Also, innovative approaches such as providing support for girls' secondary education in Bangladesh (where girls have been exempted from paying tuition fees and are given cash incentives) need to be carefully reviewed for possible upscaling. Similarly, the education guarantee scheme of Madhya Pradesh in India, which has reportedly increased school participation among girls from backward communities, also need to be carefully evaluated for possible lessons and replication in other parts of the country.

## Endnotes

1. Overall, India has fared better than its neighbours and declared to provide free and compulsory education to all children by 1960. The goal of universal education even today remains elusive but certain pockets, such as the southern State of Kerala, have managed to nearly

universalize literacy but the proportion of literate girls has been very small in the tradition- and caste-ridden north Indian States of Uttar Pradesh and Bihar.

2. According to the National Family Health Survey, two conducted in India in 1998-1999, 72 per cent of urban women and 44 per cent of rural women were reported as literate. The corresponding figures for men were 87 and 69 (see: IIPS, 2000).

3. Gross enrolment ratios include under-age and over-age students as well as repeaters, and thus tend to exaggerate the enrolment situation.

4. According to the latest Education Survey available for 1993, 83 per cent of habitations and 94 per cent of the population in India have a primary school within a distance of one kilometre. It is in the very small villages and hamlets located in remote areas that schools have not been set up. However, alternative schools have been set up in many such areas in the last 8-10 years, which has resulted in a tremendous increase in enrolment at the primary level (Visaria and Ramachandran, 2002).

5. In the case of Nepal and, to a smaller extent, Bangladesh, the excess of females in the total population is explained in terms of net emigration of men to countries like India in search of work. However, males have outnumbered women in the young age group 0-14 in both these countries — a fact that can be explained largely in terms of higher female infant and child mortality compared with male mortality.

6. Several United Nations reports have estimated the maternal mortality rate for Pakistan at 600 per 100,000 live births in 1988, while the Government's Eighth Five-year Plan estimates the rate at 300 for 1993.

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# Adolescent Reproductive Health in Asia

*It is evident that the sexual and reproductive health of adolescents has emerged as an issue of great concern in Asia. This is based on two demographic trends that exist in the region: the widening gap between sexual maturity and age at marriage, and the continuing prevalence of adolescent marriage and low contraceptive use during adolescence.*

By Bhakta B. Gubhaju\*

The reproductive health of adolescents is of growing concern today. The Programme of Action adopted at the International Conference on Population and Development, held at Cairo in 1994, stresses the importance of addressing adolescent sexual and reproductive health issues and promoting responsible sexual and reproductive behaviour (United Nations, 1994). The reproductive health needs of adolescents have been largely ignored by the existing health services. Therefore, there is a need to provide such services and to undertake research in understanding adolescent sexual behaviour and reproductive health.

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\* Population Affairs Officer, Population and Rural and Urban Development Division, United Nations Economic and Social Commission for Asia and the Pacific.

It is important to recognize the growing incidence of premarital sexual activity among adolescents, owing to the widening gap between age at menarche and age at marriage. As most acts of premarital sexual intercourse are unprotected, sexually active adolescents are increasingly at risk of contracting and transmitting sexually transmitted diseases (STDs), including HIV/AIDS. In addition, young women are particularly vulnerable to coerced sexual intercourse as a result of gender power imbalances. Sexually experienced adolescents are typically unaware of the consequences of unprotected sexual intercourse and are poorly informed of their sexuality and means of protecting themselves, often leading to unwanted pregnancy and abortion.

In some Asian countries, there is a high proportion of marriage during adolescence, resulting in a high rate of adolescent childbearing. Motherhood at a very young age entails a risk of maternal mortality that far exceeds the average, and the children of young mothers tend to have higher levels of morbidity and mortality. Early childbearing continues to be an impediment to improvements in the educational, economic and social status of women. It is also known that contraceptive use among married adolescents is noticeably lower than among older women. Thus, it is important that information and services on reproductive health be made available to both married and unmarried adolescents.

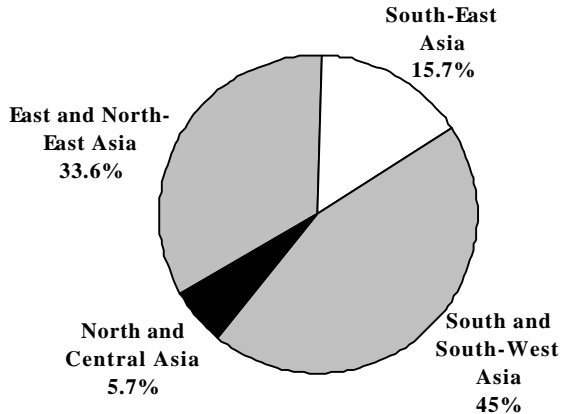
This paper first highlights the demographic dimensions of the sexual and reproductive health of adolescents in Asia. It discusses adolescent sexuality and the factors that influence their sexual behaviour. It also discusses adolescent childbearing and contraceptive use. Finally, it examines the consequences of adolescent sexuality and childbearing and concludes with a discussion outlining the scope for further research.

## **Demographic dimensions of adolescent sexual and reproductive health**

### **Adolescents in Asia**

Adolescence is defined as the stage of life during which individuals reach sexual maturity; it is the period of transition from puberty to maturity (United Nations, 1997). The 10-19 age group identifies the period of adolescence. However, for the purpose of this paper, the word “adolescents” refers to the 15-19 age group, as data on reproductive health are most commonly available for this particular age group. Furthermore, the reproductive health problems and needs of adolescents tend to be more distinct than those of youth aged 20 to 24 years old.

**Figure 1. Percentage distribution of population aged 15 to 19: Asia, 2000**

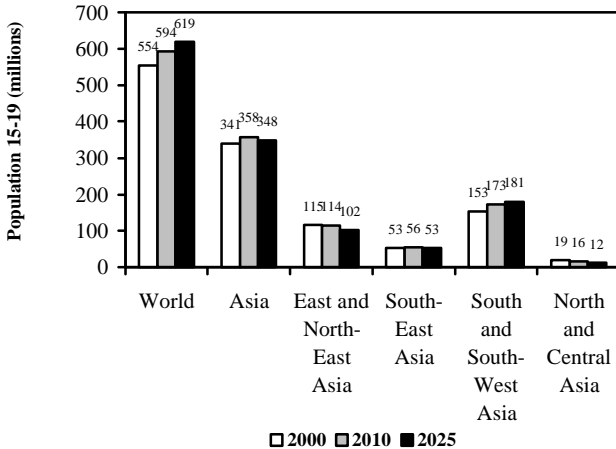


*Source:* United Nations (2001a). *World Population Prospects, The 2000 Revision*, vol. 1, *Comprehensive Tables* (United Nations Publication, Sales No. E.01 XIII.8).

Of the world's 6.1 billion population in 2000, over one billion people (19.1 per cent) belonged to the 10-19 age group. The Asian region comprises 712 million people in this age group. According to United Nations medium-variant projections, the number of persons in the 10-19 age group will continue to grow worldwide, reaching 1,253 million by the year 2025, while in Asia this number will decline to 698 million by the year 2025 (United Nations, 2001a).

The population in the 15-19 age group, hereafter referred to "as adolescents", will also experience a remarkable change during the period 2000-2025. In 2000, there were 554 million adolescents living in the world, of whom 48.5 per cent were females. Over three fifths (62 per cent) of these adolescents belong to Asia. In this region, 9 per cent of the total population in 2000 were adolescents. Figure 1 shows that the largest number of adolescents reside in South and South-West Asia (45 per cent) followed by East and North-East Asia (33.6 per cent). According to United Nations medium variant projections, the world adolescent population will increase by 40 million to 594 million by 2010, while in Asia it will increase by 17 million to 358 million by 2010. While the world's adolescent population will continue to grow to 619 million

**Figure 2. Trends in population aged 15 to 19: world and Asia, 2000, 2010 and 2025**



Source: United Nations (2001a). *World Population Prospects, The 2000 Revision*, vol. 1, *Comprehensive Tables* (United Nations Publication, Sales No. E.01 XIII.8).

by 2025, Asia will witness a fall in its adolescent population to 348 million by 2025, dropping to 7 per cent of the total population (figure 2).

Within Asia, the number of adolescents will continue to grow in South and South-West Asia, from 153 million in 2000 to 181 million in 2025, while other subregions will exhibit a decline in the number of adolescents in 2025.

### Age at marriage

There are two distinct issues concerning the trends in age at marriage in Asia that have implications for the sexual and reproductive health of adolescents. The first concerns the trend towards an increase in the age at marriage in many countries in the region. This trend has resulted in an extended period of adolescence before marriage in these countries. At the same time, a number of studies have documented the trend of a fall in age at menarche, which implies an earlier onset of adolescence, sexual maturity and the ability to reproduce. This trend is commonly attributed to a variety of environmental, genetic and socio-economic factors, including improved

**Table 1. Percentage of women aged 20 to 24 and 40 to 44 who married by ages 15, 18 and 20, by country and year of survey**

Country	Year of survey	20 to 24			40 to 44		
		Percentage married by age			Percentage married by age		
		15	18	20	15	18	20
Bangladesh	1996/1997	46.8	68.5	77.1	73.5	93.6	96.7
India	1992/1993	26.1	54.2	71.4	40.8	72.4	85.3
Indonesia	1997	5.8	29.6	47.0	18.2	49.1	67.2
Kazakhstan	1999	0.3	14.7	54.6	0.1	7.8	37.1
Kyrgyzstan	1997	0.1	21.2	58.4	0.0	15.7	46.7
Lao People's Democratic Republic	2000	7.3	26.0*	49.5**	6.0	23.3*	48.8**
Mongolia	1998	0.2	10.4	36.7	0.4	17.7	44.8
Nepal	1996	19.1	60.3	75.7	36.5	75.0	87.1
Pakistan	1990/1991	11.4	31.6	48.9	18.0	44.8	60.9
Philippines	1998	2.0	14.6	27.5	3.3	20.2	36.8
Sri Lanka	1993	1.1	13.7	27.8	8.0	26.3	40.5
Thailand	1987	2.4	20.5	37.0	3.1	24.4	47.4
Turkey	1998	4.2	23.0	42.8	10.8	43.0	66.2
Uzbekistan	1996	0.4	15.3	55.7	0.2	18.0	56.2
Viet Nam	1997	0.9	12.4	35.9	1.3	13.2	34.6

*Sources:* Various demographic and health surveys.

\* By age 17.

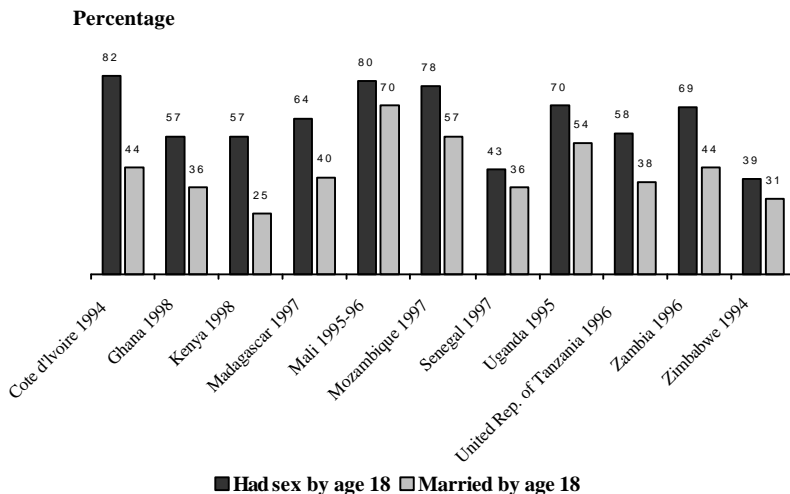
\*\* By age 19.

nutrition and exposure to modern social life. As a result, young girls are biologically mature enough to engage in sex and become pregnant at an earlier age, although they may not be emotionally and psychologically mature enough to understand the implications. The widening gap between age at menarche and age at marriage increases the possibility that young people will engage in premarital sexual activity. Moreover, because of the sexual inequality that prevails in many Asian societies, adolescent girls are particularly vulnerable to the risks associated with misinformed and unprotected sexual relationships, as well as the adverse consequences of adolescent pregnancy.

The second issue relates to the high incidence of marriage during adolescence in some countries in the region, resulting in higher rates of childbearing. Table 1 shows the trend in the proportions married by ages 15, 18 and 20 between women aged 40 to 44 and women aged 20 to 24 at the time of the survey. This table reveals that in several countries in Asia, there is a clear



**Figure 3. Women aged 20 to 24 who had sexual intercourse and/or who married by age 18, sub-Saharan Africa**

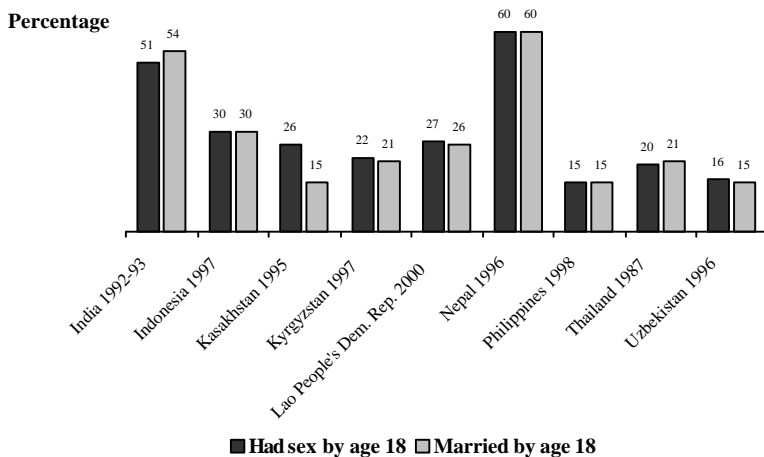


Source: Population Reference Bureau (2001). *Youth in sub-Saharan Africa: A Chartbook on Sexual Experience and Reproductive Health* (Washington, DC, Population Reference Bureau, MEASURE Communication), figure 7, p. 13.

tendency towards a decline in the proportions married by ages 15, 18 and 20 between the older cohort of women aged 40 to 44 and the younger cohort of women aged 20 to 24. It is only in Kazakhstan and Kyrgyzstan that there has been a notable increase in the proportions married by ages 15, 18 and 20 between the older and younger cohort of women. In the Lao People's Democratic Republic, Uzbekistan and Viet Nam, the proportions married have remained almost unchanged.

It is, however, to be noted that despite the decline in the proportions married by ages 15, 18 and 20 over time, some countries currently exhibit a high incidence of marriage during adolescence. In Bangladesh, for instance, 47 per cent of women aged 20 to 24 were married by age 15, and 69 per cent and 77 per cent of these women were married by ages 18 and 20, respectively. A similar high rate of adolescent marriage is observed in India and Nepal. Among women aged 20 to 24, over 70 per cent of women in these countries were married by age 20, and over half the women were married by age 18. Similarly,

**Figure 4. Women aged 20 to 24 who had sexual intercourse and/or who married by age 18, by country and year of survey**



Sources: Various demographic and health surveys.

26 per cent of women in India and 19 per cent of women in Nepal in the age group 20 to 24 were already married by age 15.

### Age at first sexual intercourse

In sub-Saharan Africa, the incidence of premarital sex is clearly evident from figure 3, which shows that sexual experience precedes marriage in nearly every country surveyed. In those countries, the proportion of young women who first had sexual intercourse by age 18 is much higher than those women who were married by this age (Population Reference Bureau, 2001). By contrast, available data suggest that premarital sex is less common in Asia. According to the demographic and health surveys carried out in Asia, in six out of nine countries the proportion of women aged 20 to 24 who had sex by age 18 is either lower or equal to the proportion of women who were married by this age (figure 4). In Kyrgyzstan and the Lao People's Democratic Republic, the proportion of women aged 20 to 24 who had sex by age 18 is marginally higher than those women who were married by this age, while in Kazakhstan the proportion of women aged 20 to 24 who had sex by age 18 is substantially higher than those women who were married by this age (25.5 per cent versus 14.7 per cent).

## Adolescent sexuality

### Sexual behaviour

Although national-level surveys tend to suggest that premarital sex is less common in Asia, more focused in-depth studies on adolescent sexual and reproductive health undertaken in some countries of Asia have revealed that it is clearly on the rise. Survey results on the sexual behaviour of adolescents in Asia suggest that a noticeable percentage of adolescents are sexually experienced. In the Republic of Korea, for example, 24 per cent of male and 11 per cent of female secondary school students were reported to have had premarital sexual intercourse. Among sexually experienced adolescents, the majority of women had their first sexual intercourse with a steady boyfriend with marriage in mind, while a significant proportion of men had their first experience with a commercial sex worker or a casual friend. In Nepal, the Republic of Korea, Thailand and Viet Nam, over half of the adolescent men had sexual intercourse with sex workers. A large number of sexually experienced young men also reported having multiple sexual partners; close to 70 per cent of male students in the Republic of Korea and about 30 per cent of young men in Thailand had more than two partners (Brown and others, 2001).

In India, although traditional norms oppose premarital sex, some studies indicate a growing trend towards premarital sexual activities among adolescents (Sharma, 2000). Data from Bangladesh revealed a very high incidence of premarital sex: 61 per cent of males as compared with 24 per cent of females had had premarital sexual activity among adolescents, and this percentage was much higher in urban than in rural areas (Uddin, 1999). Results from a 1991 study conducted in nine districts of Nepal also found that 20 per cent of young people were engaged in premarital sex (Rai, 2001).

In the case of Myanmar, it has been traditionally believed that unmarried people are not sexually active; however, many people acknowledged that unmarried people are engaged in premarital sex (Htay and others, 2000). In the Lao People's Democratic Republic, a study among community members revealed that sex and pregnancy before marriage were common and more or less accepted because of the common belief that pregnancy outside marriage leads to marriage (Sananikhom and others, 2000). Similar findings were revealed by the series of country case studies on sexual and reproductive health carried out by the UNESCO Regional Clearing House on Population Education and Communication, Bangkok (see box 1).

However, the motivations for premarital sexual intercourse are likely to be different for adolescent men and women. Young men tend to have the

### **Box 1. Premarital sexual behaviour among adolescents**

**Cambodia:** A study of garment workers revealed that only 2 per cent of unmarried female garment workers had had any form of sexual experience and that these sexual encounters had been with their boyfriends. These young women were on the average 18 years of age at the time of their first sexual experience. However, male garment workers were less likely to have had their first sexual experience with their marriage partners. Some 40 per cent had had their first sexual experience with their girlfriends and another 40 per cent with commercial sex workers (Ampornsuwanna and others, 2000: 6).

**Malaysia:** A study on the reproductive health of adolescents (aged 13 to 19) revealed that 40 per cent of respondents had begun dating from age 13. By the age of 18, 84 per cent had started holding hands, 85 per cent kissing and necking and 83 per cent petting. In the household survey, 1 per cent admitted to having had sexual experience, while 24 per cent confirmed that in the media survey. Of these, 18.4 per cent had had their first sexual intercourse between 15 and 18 years. Yet another study showed that 45 per cent of respondents aged 15 to 21 had dated and 9 per cent reported having had premarital sexual intercourse. As in most studies, more boys than girls reported having had sexual intercourse, confirming the belief that there is less pressure for boys to remain virgins or that they are more aggressive when it comes to having sex (Lee, 1999:4-5).

**Philippines:** The 1994 young adult fertility and sexuality study showed that some 18 per cent of youth were engaged in premarital sex, with a higher level of premarital sex, at 26 per cent among males as compared with 10 per cent among females. This study also revealed that there had been very little change in the level of premarital sex among females over the previous 12 years, declining slightly from 11.5 per cent in 1982 to 10.2 per cent in 1994. The average age at sexual debut is 18 years for girls and 18.3 years for boys (Berja, 2000:5).

**Thailand:** Sexual activity is found to be much more common among male than female adolescents. In a study conducted in 21 private and government secondary schools, it was found that nearly one third of male students in grade 12 were sexually active. In another study from schools, community centres and organizations in provincial cities, two thirds of single males aged 15 to 24 reported having had sexual intercourse. Surveys have also indicated that between 36 and 45 per cent of males had their first sexual experience with a commercial sex worker. In comparison with males, fewer female adolescents were engaged in premarital sex, ranging from only 1 per cent of single females in the school-based study to about 10 per cent of young females drawn from the broad catchment area (Soonthornhdaha, 1996:1-2). Yet, another study conducted among final-year secondary school students in Suphanburi province found that 40.6 per cent of male and 6.6 per cent of female respondents had experienced sexual intercourse (Gray and Sartsara, 1999:7). The above studies also found that the average age at first sexual intercourse was around 16 years for boys and 18 years for girls.

*Source:* UNESCO Regional Clearing House on Population, Education and Communication, Bangkok.

sexual debut out of curiosity or for the sake of sexual pleasure, but young women are more likely to have premarital sexual intercourse for love, and associate it with marriage or a longterm relationship (Isarabhakdi, 2000; Soonthornhadha, 1996).

Because of the differences in the nature of premarital sexual intercourse between men and women, the adolescent women often experience negative consequences of premarital sexual relations. A study from Free Trade Zone communities in Sri Lanka reported cases of single young women who became pregnant after having unprotected premarital sexual intercourse. These women started their sexual relations with their partners who promised to marry them in exchange for sexual intercourse. However, after discovering the partner's pregnancy, the man either disappeared or left for another woman. As a result, these young abandoned women suffered the consequences of unwanted pregnancy, including unsafe abortions and the stigmatism of being a single mother (Hettiarachchy and Schensul, 2001).

The low level of contraceptive use among "sexually active unmarried adolescents" has also been reported in numerous surveys. For instance, among Vietnamese college students, only 32 per cent of females and 28 per cent of males used a contraceptive method at first sexual intercourse (Brown and others, 2001). In the Lao People's Democratic Republic, out of sexually experienced adolescents aged 15 to 25, as many as 79 per cent did not use any contraceptive methods at first sexual intercourse (Sisouphanthong and others, 2000). Similarly, a study in Nepalese border towns found that less than 65 per cent of unmarried men aged 18 to 24 ever used a condom during sexual intercourse with non-regular sex partners, including commercial sex workers. They claimed to be free from STDs because they thought they were careful to choose disease-free women as partners. However, many men did become infected with STDs, which made them realize the danger of unprotected sexual intercourse (Tamang and others, 2001).

Adolescents, particularly women, are also more susceptible to coercive sexual relationships. There are reports of "sugar daddy" phenomena, which refer to sexual relations between young women and older and wealthier men; young women have sexual intercourse with the older men in exchange for economic gains. In addition to coercion based on the economic power of men, young women have been forced to have sexual intercourse by a person with authority over them. In the Republic of Korea, 9 per cent of female factory workers surveyed had been forced to have their first sexual intercourse with factory supervisors or colleagues (Brown and others, 2001). Moreover, even in

the context of dating, young women tend to be coerced to have sexual intercourse with their boyfriends. One fourth of young Thai women had their first sexual intercourse because they could not resist pressure from their boyfriends. These women accepted sexual demands of their boyfriends to please them and to sustain the relationship. Young women in Bangkok also admitted the weak bargaining power of women over the issue of sexual intercourse (Isarabhakdi, 2000; Soonthorndhada, 1996).

These risky sexual behaviours of adolescents seem to be compounded by a widespread sexual double standard in many Asian societies. Such a double standard accepts or even encourages promiscuity among men, but strictly restricts women's sexual behaviour. Peer pressure among adolescent men to have sexual experiences is one example of the double standard. For example, approximately 40 per cent of young men in rural Thailand said they had their first sexual intercourse because they wanted to be as experienced as their friends (Isarabhakdi, 2000). On the other hand, young women in Bangkok expressed concern about being labelled as loose and complained about the social norm of favouring virgins as marriage partners, but at the same time encouraging men to be sexually experienced (Soonthorndhada, 1996). These young women therefore fall between the sexual demands of their boyfriends and social pressure to be good women.

### **Factors that lead to risky behaviour among adolescents**

The previous section identified the sexual and reproductive health issues affecting both unmarried and married adolescents. The factors and "barriers" that can lead to risky reproductive health-related behaviour among adolescents in general, particularly among unmarried adolescents, fall into four main categories, which are identified below.

#### *Limited access to information*

First, adolescents often lack access to sufficient and correct information. Cognitive distortions and a sense of non-susceptibility lead to uninformed decisions, which may result in unwanted pregnancy and STDs. The notions that they are "too young to be pregnant" and "unprotected intercourse just once could not lead to conception or STD transmission" are prevalent among teenagers. There is a great need for reproductive health information and services targeted at adolescents. Information on the risks and prevention of pregnancy, STDs and HIV/AIDS, as well as on the consequences of unplanned pregnancy and abortion, is particularly needed.

### *Peer pressure*

A second factor in risky reproductive health-related behaviour concerns the increasing significance of peer pressure. Growing social acceptance of premarital sex plays a major role in reproductive health-related decision-making among adolescents and other young people. As adolescence is a developmental period of physical transition and identity formation, the struggle for individual autonomy and the social construct of masculinity or femininity render teenagers susceptible to peer pressure. The influence of that pressure is increasing in the context of the erosion of traditional parental control over premarital sexual behaviour and the declining role of family members, especially grandmothers, in providing adolescent girls with premarital instruction and advice on appropriate sexual and marital behaviour (Gage, 1998). A study on the sexual experience of rural Thai youth found that peer influence was one of the main motivations for engaging in first premarital intercourse (Isarabhakdi, 2000).

While parents are perceived to be the logical source of information, they often do not discuss sexual issues with their children because they are embarrassed by the subject. As a result, the family is no longer the prime reference group in reproductive health-related decisions, since teenagers tend to value the opinions of their friends more highly.

### *Inadequate access to youth-friendly health services*

Third, inadequate access to youth-friendly health services is a major barrier for young people and adolescents often “falling through the cracks”. Since they no longer qualify for paediatric services and their health problems are not like those of adults, they require specially trained health personnel. Health systems in most countries, particularly in Asia, generally do not specifically address adolescent needs and adolescents often do not feel comfortable visiting clinics designed for adults.

Moreover, health-care providers in those clinics seem unprepared to discuss sexual issues with adolescents and many fear that the provision of contraceptives will condone premarital sexual activity. Especially in countries with conservative values and traditions, many parents and policy makers have held strong views that providing contraceptive information and services will promote promiscuity among unmarried adolescents. However, reviews of sex education programmes in several countries conclude that sex education does not encourage early sexual activity, but can delay first sexual intercourse and lead to more responsive behaviour (UNAIDS, 1997).

Hence, the lack of knowledge of contraceptives on the one hand and access to contraceptive services and supplies on the other may prevent adolescents from using contraceptives even when they want to protect themselves from pregnancy.

### *Economic constraints*

Finally, economic constraints can influence the behaviour of young people in some cases. Resource constraints affect the ability to buy contraceptives or seek medical services. Another economic dimension is manifested through youth involvement in sexual relations for economic gain. Economic exchanges are made with persons who are perceived to be in a position to provide economic remuneration for sexual favours. Adolescents are more likely than adults to engage in such sexual behaviour as offering sex for money or having coercive sex. Adolescent girls are more vulnerable than adult women to being involved in such exploitative sexual practices because of compelling reasons to earn money for their own needs or for their families (Podhisita and others, 1994).

## **Adolescent childbearing and contraceptive use**

### **Childbearing**

This section examines the level and trends in adolescent childbearing in Asia. According to the United Nations (2001a), 132 million babies are born worldwide each year. Close to 90 per cent of these births (119 million) occur in the developing world, and slightly over three fifths (76 million) in Asia. Of the total annual births in the world, about 14 million babies (10.6 per cent) are born to adolescent mothers. In Asia, 6 million babies (8 per cent) are born to adolescent mothers.

Several countries in Asia have witnessed a substantial decline in the total fertility rate over the past few decades and a subsequent fall in adolescent fertility. However, there are still a number of countries in the region with fairly high adolescent fertility rates. According to the *2001 ESCAP Population Data Sheet*, the adolescent fertility rate in Asia is 36 births per 1,000 females aged 15 to 19 (United Nations, 2001b). This regional average, however, masks the considerable rate differences within the subregions of Asia. Adolescent fertility rates are highest in South and South-West Asia (57 births per 1,000) followed by 45 births per 1,000 in South-East Asia, and 37 births per 1,000 in North and Central Asia. The adolescent fertility rate is lowest in East and North-East Asia (4 births per 1,000).



**Table 2. Percentage of women aged 20 to 24 who had had a child before ages 15, 18 and 20, by country and year of survey**

Country	Year of survey	Percentage of 20 to 24-year-olds who had had a child by age		
		15	18	20
Bangladesh	1996/1997	14.7	46.5	63.3
India	1992/1993	5.1	28.3	48.6
Indonesia	1997	1.7	14.0	31.4
Kazakhstan	1999	0.2	6.0	22.1
Kyrgyzstan	1997	0.0	4.2	36.6
Lao People's Democratic Republic	2000	1.7	17.5	36.7
Mongolia	1998	0.1	5.4	24.7
Myanmar	1997	1.4	14.5	40.9
Nepal	1996	1.9	26.2	51.6
Pakistan	1990/1991	3.3	17.2	30.5
Philippines	1998	0.5	7.1	20.5
Sri Lanka	1993	0.4	5.4	16.6
Thailand	1987	0.8	9.3	23.9
Turkey	1998	0.9	10.9	26.2
Uzbekistan	1996	0.0	2.6	25.3
Viet Nam	1997	0.3	4.1	18.9

*Sources:* Various demographic and health surveys.

The high rates of adolescent childbearing found in South and South-West Asia are obviously related to early age at marriage. It is evident from table 2 that Bangladesh has one of the highest levels of adolescent childbearing, followed by Nepal and India; all these countries are characterized by early age at marriage for females. It is interesting to note that in Bangladesh about 15 per cent of women aged 20 to 24 had had a child before they reached 15. By the time they were 18 years of age, about 47 per cent had had a child and over three fifths (63.3 per cent) had had a child before age 20. Similarly, over half the women aged 20 to 24 in Nepal and almost half the women in this age group in India had had a child before reaching age 20.

### **Contraceptive use**

The study of the use of contraceptives among adolescents reveals an issue of key importance to this particular group, namely, that adolescent girls may know about contraceptives but do not necessarily use them. The data presented in table 3 show that knowledge levels concerning contraceptives exceed 90 per cent among adolescent married girls surveyed in all of the countries except the Lao People's Democratic Republic, Myanmar and Uzbekistan. However,

**Table 3. Percentage of currently married women of reproductive age with knowledge and current use of any contraceptive by age, by country and year of survey**

Country	Year of survey	Knowledge of contraception			Use of contraceptives		
		15-19	20-24	15-49	15-19	20-24	15-49
Bangladesh	1996/1997	99.9	100.0	100.0	32.9	43.1	49.2
India	1992/1993	90.4	95.1	95.8	7.1	21.0	40.6
Indonesia	1997	94.0	97.3	97.2	44.5	60.7	57.4
Kazakhstan	1999	—	—	99.6	39.2	53.0	66.1
Kyrgyzstan	1997	99.1	100.0	99.8	29.3	48.7	59.5
Lao People's Democratic Republic	2000	66.9	77.7	79.4	6.7	20.2	32.2
Mongolia	1998	97.6	99.5	99.3	23.5	48.1	59.9
Myanmar	1997	87.1	92.2	92.9	21.3	30.4	32.7
Nepal	1996	96.9	98.7	98.4	6.5	15.8	28.5
Pakistan	1996/1997	—	—	94.3	6.2	9.9	23.9
Philippines	1998	96.5	98.7	98.8	21.8	39.8	47.8
Sri Lanka	1993	96.3	98.9	99.1	30.3	53.6	66.1
Thailand	1987	99.5	99.4	99.6	—	—	67.5
Turkey	1998	98.5	99.1	98.9	33.6	52.9	63.9
Uzbekistan	1996	85.7	93.8	95.7	15.8	35.5	55.6
Viet Nam	1997	97.0	97.6	98.9	18.1	55.1	75.3

*Sources:* Various demographic and health surveys.

adolescents' knowledge of contraception is relatively lower as compared with women aged 20 to 24 and women aged 15 to 49. It is also evident that in countries where the knowledge level is very high, there is only a small difference in contraceptive knowledge between females in the age groups 15 to 19 and 20 to 24.

A higher level of knowledge about contraception, however, does not always translate into a higher level of contraceptive use. For example, in India and Nepal, knowledge of contraception among adolescents was more than 90 per cent. Despite this high percentage, less than 10 per cent of adolescent girls were found to be using any form of contraceptive in these two countries. There is a considerable difference in the use of contraceptives among adolescents across countries. Less than 10 per cent of adolescents were found to be using any form of contraceptive in India, the Lao People's Democratic Republic, Nepal and Pakistan, while contraceptive use among adolescents was fairly high (at least 30 per cent) in such countries as Bangladesh, Indonesia, Kazakhstan, Sri Lanka, Thailand and Turkey. It should also be noted that the use of

contraceptives among adolescents is remarkably lower than among women aged 20 to 24 and among women aged 15 to 49 in general. The difference is especially striking in Mongolia, the Philippines, Sri Lanka, Turkey, Uzbekistan and Viet Nam.

These data show that even when adolescent girls know about contraceptives, they are much less likely to be using them than older women, indicating a large unmet need for contraceptives among adolescents. The above findings coincide with the results of a study carried out by the United States of America Bureau of the Census, which found that contraceptive use among adolescent girls in developing countries was much lower than that among older women (McDevitt and others, 1996). The study further revealed that there were approximately 13 million teenage girls living in developing countries with an unmet need for family planning. The study also indicated that, in many Asian countries, 30 per cent or more of married adolescent girls wanted to delay or limit childbearing but were not currently using contraceptives. The overall unmet need among adolescents might therefore be much higher if sexually active, unmarried teenagers who were not currently using any contraceptives were included.

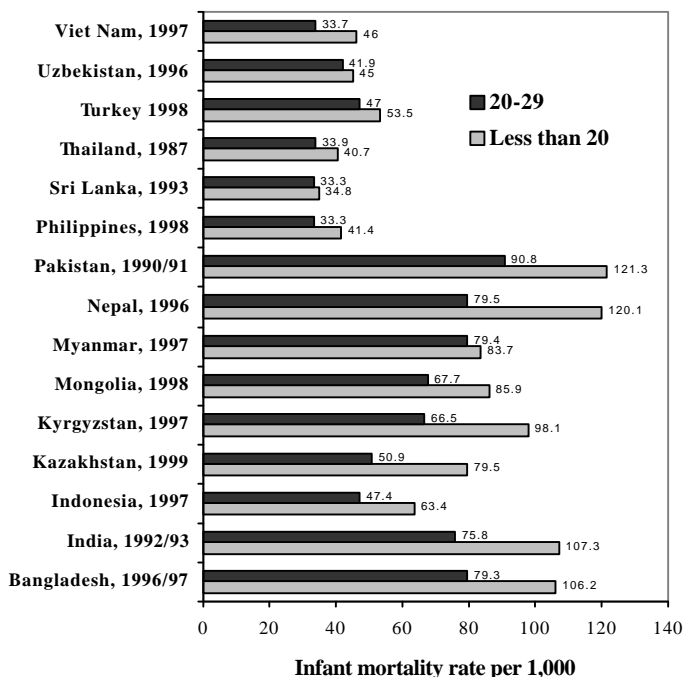
## **Consequences of adolescent sexuality and childbearing**

### **Maternal and child health**

Adolescent pregnancy and childbearing have significant effects on maternal and child health. Children born to adolescent mothers are highly likely to have a low birth weight and to be premature, injured at birth or stillborn, and are associated with delivery complications resulting in higher mortality. The increased risk of infant death to adolescent mothers is also associated with immaturity of early childbearing and inexperience in child-rearing. Studies have invariably shown that infant mortality rates are generally higher for babies born to adolescent mothers than for those born to women in their 20s or 30s (United Nations, 1989; McDevitt and others, 1996).

Because adolescents are physiologically and socially immature, health risks associated with their pregnancies and childbearing are more pronounced than are those among older women (United Nations, 1989; Royston and Armstrong, 1989). Studies reviewed by the Population Reference Bureau found that adolescent women were especially vulnerable to reproductive health problem, and were more likely than older women to die from problems related to pregnancy and childbirth. Most importantly, adolescent women faced

**Figure 5. Infant mortality rate per 1,000 live births by women's age at childbirth, by country and year of survey**



*Sources:* Various demographic and health surveys.

increased risks during pregnancy and childbirth because they had less information and access to prenatal, delivery and postpartum care as compared with older women (Ashford, 2001). Studies reviewed by UNESCO suggest that in Bangladesh the high incidence of teenage pregnancies has contributed to high maternal mortality: among adolescent girls under 18, the maternal mortality rate is three to four times higher than among older women (Uddin, 1999).

An elevated risk of dying among births occurring to adolescent women can be observed from data tabulated from the demographic and health surveys carried out in Asia. It is evident from figure 5 that in Bangladesh, India, Nepal and Pakistan, over 1 in 10 babies born to adolescent women die before

reaching their first birthday. In all the countries surveyed, infant mortality rates are higher among children born to adolescent women as compared with women aged 20 to 29. The risk of dying during infancy is at least 1.3 times higher among births occurring to adolescent women as compared with women aged 20 to 29 in such high-mortality countries as Bangladesh, India, Nepal and Pakistan. Although the infant mortality rate is much lower in Viet Nam (34.8 per 1,000 live births) and is only moderately high in Kazakhstan (50.3 per 1,000 live births) and Kyrgyzstan (66.2 per 1,000 live births), the risk of dying during infancy is between 1.4 and 1.6 times higher among births to adolescent women as compared with women aged 20 to 29. These data reaffirm the fact that in virtually all societies adolescent childbearing is detrimental to both the mothers and their offspring.

The risk of early childbearing to the health of mother and child is focused mainly on married adolescents, as in many Asian countries sexual activity and childbearing begin within marriage and data on childbearing are typically gathered from married women. However, in several countries of Asia there is evidence of premarital sexual relationships leading to premarital births, although such births vary greatly across societies. Young unmarried women who have children are socially as well as economically disadvantaged. This is partly because of the traditional values that strongly oppose sexual relationships, pregnancy and childbearing among the unmarried. Most importantly, births to unmarried adolescents are likely to be unplanned or unwanted and, above all, single mothers may be living in poverty. In 22 out of 27 countries for which data were available, the proportion of last births that were unwanted or mistimed was remarkably higher among unmarried adolescent mothers than among married adolescent mothers. These circumstances, therefore, greatly increase the poor outcomes of adolescent childbearing in terms of the health of the mothers and children (Singh, 1998).

### **Sexually transmitted diseases and HIV/AIDS**

It has been estimated that at the end of 2001, approximately 40 million people worldwide were living with HIV/AIDS, of which, a total of 6.4 million people belonged to the Asian region (UNAIDS, 2001). Young people bear a special burden in the HIV/AIDS pandemic. Nearly one third of those currently living with HIV/AIDS are aged 15 to 24. Adolescents are more vulnerable than adults to unplanned pregnancies, STDs and HIV/AIDS. It has been documented that although premarital sex is less common in the Asian region, it is clearly on the rise. It has been observed that when adolescents become sexually active, they tend to have multiple partners and use condoms and other contraceptives inconsistently. Furthermore, younger women are more

## **Box 2. Vulnerability of young girls in the transmission of HIV infection**

It is the interplay of biological, cultural and economic factors that make young girls particularly vulnerable to the sexual transmission of HIV. While both girls and boys engage in consensual sex, girls are more likely than boys to be uninformed about HIV, including their own biological vulnerability to infection if they start having sex very young. Girls are also far more likely than boys to be coerced, raped or enticed into sex by someone older, stronger or richer. Sometimes, the power held over them is mainly that of greater physical strength. Sometimes it is social pressure to acquiesce to elders. Sometimes it is a combination of factors, as may be the case with older “sugar daddies” who offer schoolgirls gifts or money for school fees in return for sex. In the era of AIDS, the consequences for young girls can be disastrous.

*Source:* UNAIDS (2001). *Report on the Global HIV/AIDS Epidemic, June 2000* (Geneva, Joint United Nations Programme on HIV/AIDS), p. 47.

vulnerable to forced sex and sex in exchange for gifts and money, with increased risks of contracting STDs, including HIV/AIDS (Ashford, 2001).

It has been found that while women, in general, are more likely than men to be infected with HIV during unprotected vaginal intercourse, the prevalence of HIV infection among adolescent girls is strikingly high. Biologically, young girls are vulnerable to the risk of HIV transmission because their genital tracts are not fully mature. In addition to this biological vulnerability, there are other cultural and economic factors that multiply the risk of contracting HIV infection among adolescent girls (see box 2).

Sexually transmitted disease is a major health problem among youth in much of Asia, according to studies commissioned by UNESCO. For example, in Bangladesh two thirds of all reported STDs occur among people under 25 years of age and the incidence is much higher among women aged 15 to 19 than among men of the same age (Uddin, 1999). Half of the HIV/AIDS-infected persons in Viet Nam were adolescents and youth (Nga, 2000). In China, 8.7 per cent of the HIV carrier and AIDS patients belong to the 16-19 age group (Sun, 2000).

While adolescents, in general, are especially vulnerable to HIV/AIDS, certain groups of adolescents are more at risk of HIV infections than others. For example, adolescents in need of special protection, including street children, sexually exploited children, including those engaged in prostitution, and migrant children, face additional risks. A United Nations study suggests that young migrants are susceptible to HIV infection: on the one hand, young

male migrants tend to engage in unsafe sexual practices when they are away from the family, and young women migrants, on the other hand, may be forced to work as sexual workers as a means of survival (United Nations, 2001c).

## Conclusions

From the preceding analysis, it is evident that the sexual and reproductive health of adolescents has emerged as an issue of great concern in Asia. This is based on two distinct demographic trends that exist in the region:

(a) The widening gap between sexual maturity and age at marriage, which results in premarital sexual activities among adolescents in many countries and areas in the region;

(b) The continuing prevalence of adolescent marriage and low contraceptive use during adolescence, resulting in a high rate of adolescent fertility.

The adverse health consequences of adolescent fertility for both mothers and children include the high rate of maternal mortality and infant mortality. The vulnerability of adolescent girls to STDs, including HIV/AIDS, and early childbearing also have a negative impact on the educational prospects of girls, including pregnancy-related school dropout, thereby threatening their economic and overall development prospects. When schoolgirls become pregnant, they either resort to illicit abortion, which is often unsafe, or carry the foetus to full term, which hampers their opportunities for socio-economic advancement.

In addition to recent demographic trends, the following factors influence the sexual and reproductive behaviour of adolescents in Asia:

- Inadequate access to correct information
- Availability of, and access to, youth-friendly health services
- Peer pressure and the erosion of the role of the family
- Economic constraints

While many Governments in the region have begun to recognize the importance of sexual and reproductive health issues for adolescents, particularly after the adoption of the Cairo Programme of Action in 1994, the programmes in this field are still at an early stage of development. Important prerequisites for effective reproductive health programmes for adolescents include political commitment, the development of sound policies and strategies and the development of social and community support systems.

In Asia, married adolescents are generally the target group of reproductive health-related research, whereas in Africa and Latin America both married and unmarried adolescents are included. Based on the recognition of early sexual maturity and premarital sexual activities among adolescents, research should, therefore, focus on both married and unmarried adolescents.

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