

Asia's Demographic Miracle: 50 Years of Unprecedented Change

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Asia's reproductive revolution has undoubtedly been one of the most significant and far-reaching changes ever in human behaviour

The demographic landscape of Asia has seen unprecedented changes over the past 50 years of the post-Second World War era. A rapid and spectacular transition from high to relatively low mortality and fertility has made the eventual attainment of the stabilization of the region's population, and global population, a real possibility in the first century of the new millennium. Rapid fertility decline is not only slowing population growth but also fundamentally changing the age composition of populations.

Asia's demographic success story is, of course, associated with the stunning economic and social changes that have occurred during this period. There were big rises in real incomes and massive reductions in poverty levels as the region's economies shifted away from a nearly total reliance on agriculture to increasing emphasis on modern urban-based industries. Big social changes occurred alongside spectacular economic growth. These include, in particular, the spread of basic education and the associated rise in literacy levels. At the same time, it is hardly an exaggeration to say that the region's demographic transformation has made a real and significant contribution to what can be called the Asian miracle.

Population and health policies, and through them public sector health and family planning programmes, had a major influence in shaping the region's demographic transformation (Asian Development Bank, 1997). National family planning programmes had their birth in South Asia, starting in India with a bold initiative that launched the world's first national family planning programme in 1952, but quickly spread throughout Asia and elsewhere, encompassing China, the world's population giant, a little over a decade later. While the impetus for launching these programmes was the recognition that the size and rapid growth of their populations would have negative implications for national development, the main objective behind them was, and remains, to improve the quality of life of their people. This objective was emphatically re-emphasized 40 years later, in a much changed international climate that characterized the 1994 International Conference on Population and Development (ICPD) (United Nations, 1995).

As Asia's demographic transition gathered pace in the early 1970s, following the sharp reduction in mortality, especially of infants and children, the population growth rate peaked. Subsequently, as fertility decline gained momentum, the growth rate has almost halved, with the inertia of demographic momentum accounting for much of the current 1.3 per cent annual growth in population (table 1). This figure is also significantly lower than the current population growth rate in Africa (2.3 per cent) and even Latin America (1.5 per cent). The overall figures for Asia do, of course, conceal markedly different levels of growth in different parts of Asia. For example, the population growth rate of eastern Asia at 0.8 per cent is half that of south-central Asia (table 1). Among the most populous countries, China has come closest to attaining population stabilization. Conversely, Pakistan's current population growth rate at 2.6 per cent implies a doubling of its population of 138.7 million by around the end of the first quarter of the new century. The other Asian population giants, India and Indonesia, are currently growing at an annual rate of around 1.5 per cent. However, their growth rates are expected to decline rapidly in the early decades of the twenty-first century.

Table 1. Population growth rates in Asia, by subregion and most populous countries

(per cent)

Subregion/country	1950-1955	1960-1965	1970-1975	1980-1985	1990-1995	2000
Asia	1.91	2.21	2.28	1.88	1.55	1.31
Eastern Asia	1.75	1.98	2.12	1.31	1.04	0.79
China	1.87	2.07	2.21	1.38	1.10	0.83
South-central Asia	2.03	2.38	2.35	2.30	1.94	1.67
India	2.00	2.26	2.24	2.17	1.86	1.53
Pakistan	2.24	2.69	2.58	3.42	2.68	2.64
South-eastern Asia	1.92	2.37	2.44	2.14	1.72	1.43
Indonesia	1.69	2.14	2.41	2.06	1.54	1.36

Source: Compiled from data contained in United Nations, 1999. World Population Prospects: The 1998 Revision. Volume I: Comprehensive Tables (New York, United Nations).

Note: The following are included in the "eastern Asia" subregion: China; Hong Kong, China; Democratic People's Republic of Korea; Japan; Macau; Mongolia; Republic of Korea. The "south-central Asia" subregion: Afghanistan, Bangladesh, Bhutan, India, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Maldives, Nepal, Pakistan, Sri Lanka, Tajikistan, Turkmenistan; Uzbekistan. The "south-eastern Asia" subregion: Brunei Darussalam, Cambodia, East Timor, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand; Viet Nam. The "western Asia" subregion: Armenia, Azerbaijan, Bahrain, Cyprus, Gaza Strip, Georgia, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Turkey, United Arab Emirates; Yemen.

Postponement of death

The postponement of death to ever later ages over the past half century has been as marked in Asia as in other regions of the world. During this period, the average expectation of life at birth in Asia has increased by 25 years, that is on average one half a year every year (table 2). These steep declines in mortality are one of human history's great triumphs. They came, especially in the 1950s and 1960s, as many infectious diseases such as malaria, cholera and tuberculosis were increasingly brought under control with the importation of Western medical technology, particularly antibiotics and the spread of knowledge about the factors associated with good health. Coupled with these advances were the general improvements in the socio-economic conditions of the masses, including those related to hygiene, which accompanied poverty reductions.

Table 2. Life expectancy at birth in Asia, by subregion and most populous countries

(years)

Subregion/country	1950-1955	1960-1965	1970-1975	1980-1985	1990-1995	2000
Males						
Asia	40.6	47.9	55.9	59.5	63.2	65.5
Eastern Asia	41.4	50.3	63.1	66.3	67.6	69.4
China	39.3	48.7	62.5	65.5	66.7	68.5
South-central	39.9	46.1	50.8	54.7	59.8	62.5
Asia						
India	39.4	46.2	51.2	55.1	60.3	62.9
Pakistan	40.2	45.7	50.6	55.6	60.6	63.9
South-eastern	39.5	45.1	50.3	56.2	61.8	64.6
Asia						
Indonesia	36.9	41.7	48.0	54.5	61.0	64.3
Western Asia	43.7	50.5	56.1	60.9	64.3	67.1
Females						
Asia	42.0	48.9	56.8	61.5	65.9	68.8
Eastern Asia	44.7	52.5	65.2	69.0	71.8	74.1
China	42.3	50.4	63.9	67.7	70.5	72.8
South-central	38.6	45.0	49.6	55.1	60.6	63.9
Asia						
India	38.0	44.7	49.3	54.8	60.5	63.9
Pakistan	37.6	44.5	50.5	56.9	62.6	66.3
South-eastern	41.7	47.8	53.5	59.9	65.5	68.8
Asia						
Indonesia	38.1	43.4	50.5	58.0	64.5	68.2
Western Asia	46.8	53.8	59.9	64.8	68.2	71.4

Source: Compiled from data contained in United Nations, 1999. World Population Prospects: The 1998 Revision.

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As Asia enters the new millennium, the pattern of causes of death has come to resemble that of Western societies with diseases of the circulatory system and various forms of cancer being dominant causes. Moreover, the rapid spread of the HIV/AIDS pandemic in many parts of Asia will, if it continues unabated, make it difficult to maintain significant further increases in average survival in the decades ahead. As elsewhere in the world, the containment of HIV/AIDS will require urgent action by Asian governments and non-governmental organizations to provide an appropriate range of education and services in an effort to help to prevent further transmission.

The key factor in the sharp rise in the expectation of life at birth in Asian populations has been the massive reduction in infant mortality (table 3), coupled with substantial declines in childhood mortality. Overall, the current infant mortality rate in Asia, at 54 deaths per thousand live births, is less than one third the level prevailing in the early 1950s. Even in those countries that have not been the forerunners in Asia's development, such as India and Pakistan, infant mortality rates have tumbled. The success of immunization and related health programmes, often as part of maternal and child health care programmes, coupled with continued improvements in living standards, are obvious factors in this decline. Yet, despite these impressive declines, considerable scope remains for further improvements in the coming decades, with infant mortality rates in Asia being more than five times higher than those in the developed regions of the world.

Table 3. Infant mortality rates in Asia, by subregion and most populous countries

(per 1,000 live births)

Subregion/country	1950-1955	1960-1965	1970-1975	1980-1985	1990-1995	2000
Asia	180	131	98	83	63	54
Eastern Asia	181	112	56	48	43	36
China	195	121	61	52	46	39
South-central Asia	186	154	132	107	79	69
India	190	157	132	106	78	68
Pakistan	190	155	140	115	84	70
South-eastern Asia	154	119	101	78	54	42
Indonesia	160	133	114	90	59	44
Western Asia	189	146	111	79	61	44

Source: Compiled from data contained in United Nations, 1999. World Population Prospects: The 1998 Revision. Volume I: Comprehensive Tables (New York, United Nations).

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Reduction in births

In the half century since 1950, Asia has experienced a transition from high to low fertility of a magnitude that was quite unexpected, and at a speed that was unprecedented (Leete and Alam, 1993). Fifty years ago, Asian women were marrying at young ages and having an average of six births during their lifetime and, even by the early 1970s, the corresponding figure was five births (table 4). Today, Asian women are marrying at a significantly later age than 50 years ago and having an average of just 2.5 births, which is rapidly approaching the population replacement level.

Table 4. Total fertility rates in Asia, by subregion and most populous countries

(children per woman)

Subregion/country	1950-1955	1960-1965	1970-1975	1980-1985	1990-1995	2000
Asia	5.91	5.62	5.09	3.70	2.85	2.52
Eastern Asia	5.71	5.19	4.49	2.47	1.88	1.79
China	6.22	5.72	4.86	2.55	1.92	1.82
South-central Asia	6.08	6.01	5.72	4.92	3.79	3.17
India	5.97	5.81	5.43	4.47	3.56	2.93
Pakistan	6.50	7.00	7.00	6.50	5.51	4.76
South-eastern Asia	6.03	5.90	5.31	4.18	3.05	2.54
Indonesia	5.49	5.42	5.10	4.06	2.90	2.42
Western Asia	6.38	6.18	5.57	4.96	4.05	3.63

Source: Compiled from data contained in United Nations, 1999. World Population Prospects: The 1998 Revision. Volume I: Comprehensive Tables (New York, United Nations).

Note: The following are included in the "eastern Asia" subregion: China; Hong Kong, China; Democratic People's Republic of Korea; Japan; Macau; Mongolia; Republic of Korea. The "south-central Asia" subregion: Afghanistan, Bangladesh, Bhutan, India, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Maldives, Nepal, Pakistan, Sri Lanka, Tajikistan, Turkmenistan; Uzbekistan. The "south-eastern Asia" subregion: Brunei Darussalam, Cambodia, East Timor, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand; Viet Nam. The "western Asia" subregion: Armenia, Azerbaijan, Bahrain, Cyprus, Gaza Strip, Georgia, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Turkey, United Arab Emirates; Yemen.

It is clearly evident from a comparison of the patterns of the trends in tables 2 and 4 that mortality decline preceded and was initially much more substantial than the decline in fertility. It is also apparent that, while the timing of the decline in mortality rates was remarkably similar across the different regions of Asia, the timing and magnitude of the fertility decline were significantly more variable; for example, contrast the patterns of eastern Asia and south-central Asia in table 4. Of course, an important factor in these differing patterns of fertility decline is the extent to which contraception was adopted, itself often a function of the efficacy of government-led family planning programmes, a topic that we shall consider below.

The policy and programme experience of eastern and south-eastern Asia

While family planning programmes in south-central Asia began long before those in eastern Asia, those in the latter subregion were the first to gain significant momentum and show a major impact. The socio-economic and demographic situation in eastern Asia was much the same as that in south-central Asia in the 1950s and the early 1960s. Typically, the populations in both subregions were predominantly agrarian, low income and with low levels of social development. Fertility levels were generally high but death rates were declining as these subregions passed through the first stage of the demographic transition.

Within Asia, only Japan had completed its transition from high to low fertility by the early 1960s. Japan's fertility transition was facilitated by a massive postponement of marriage and accompanied by rapid reductions in marital fertility during the 1950s. The main method of fertility control in that country was abortion which had been legalized in 1948 as a result of public pressure rather than as part of a government policy to reduce fertility.

During the late 1950s and early 1960s, the populations in the so-called city states of Hong Kong and Singapore as well as in the Republic of Korea, Taiwan Province of China and Thailand were either starting on the path towards rapid fertility decline, or at least were at a stage which would foster a reduction in fertility once contraceptive methods were made available. Several other countries followed about a decade later, notably China and Indonesia, where population policies were backed by rigorous family planning programmes, especially in China with enforcement of its one-child family policy. By the mid-1980s, most countries in eastern and south-eastern Asia had, or had nearly, completed the transition from high to low fertility.

The transition in those subregions transcended political, economic, cultural and religious boundaries. It occurred in poor agricultural settings at lower levels of development and, more predictably, in newly industrializing economies. Culture, and through it the values attached to children, also supported the fertility transition in eastern and south-eastern Asia, although some cultural settings were more conducive to fertility regulation than others.

Population policies and family planning programmes

Supply side factors, in particular population policy and family planning programmes, played a major part in the fertility transition of eastern and south-eastern Asia. In sharp contrast with the earlier European fertility decline was the role played by government leadership through population policy, and particularly government-led family planning programmes. The latter not only played a supportive role in helping to accelerate fertility declines but, in several countries, also brought them about. National programmes made a substantial contribution to increasing contraceptive use, lowering fertility and slowing population growth. Governments, supported by bilateral and multilateral donors and especially the United Nations Population Fund (UNFPA), took the lead in promoting and providing family planning services. This was in part because slower population growth and improved social welfare of the people were high on their development agenda, and in part because there was no alternative structure with sufficient resources to finance and administer the programmes.

However, the role and importance of policies and programmes was by no means the same throughout eastern and south-eastern Asia. Thus, in Indonesia, as in China, the government provided firm leadership in support of its family planning programme and ensured that it was promoted and encouraged at all administrative levels. Indonesia became the first predominantly Muslim society to undergo substantial fertility decline. By contrast, in Thailand, government leaders were less closely involved in actively promoting family planning, relying more on simply making the means available and thereby catering to what has been described as a "latent" demand for family planning (Knodel and others, 1987). The method, or method mix, varied widely among countries and was mainly determined by a combination of programme provision, cultural preferences and religious considerations.

In multi-ethnic Malaysia, the relatively slow fertility transition of the Malays has contrasted sharply with the rapid fertility decline among the Chinese and Indian communities. These contrasting trends have taken place in a context where the family planning programme has generally been low-key and where a pro-natalist policy has been in existence since the early 1980s (Leete, 1996).

On the demand side, the rapid decline in infant and child mortality helped to promote and reinforce the desire for smaller families. But the major factor affecting the demand for children was undoubtedly the spread and upgrading of schooling and the associated decline in levels of illiteracy among women of reproductive age. From the late 1960s onwards, governments throughout eastern and south-eastern Asia made major investments in education, particularly in primary education, as well as in health, especially rural health, programmes that also included the provision of clean water and improved sanitation.

The policy and programme experience of south-central Asia

Post-1950 economic and social development in south-central Asia has been much less pronounced than in eastern and south-eastern Asia, with the economic and social conditions of the people being much less favourable in general. Even today the people of south-central Asia still remain predominantly rural, and poverty levels, although well below those of 50 years ago, remain high. Rapid population growth has clearly put pressure on government budgets and lessened the ability of governments to increase social investments in education and health. Social progress has been relatively modest and substantial gender differences in schooling as well as in other spheres of life persist to a much more marked extent than in the countries and areas of eastern and south-eastern Asia. Thus, for example, in the late 1990s, only one quarter of all adult females in Bangladesh and Pakistan are literate, and just over one third are in India — proportions that are substantially lower than those for adult males in these countries (World Bank, 1998).

A strong son preference and discrimination against girls are deeply rooted in traditional agrarian modes of organization in patriarchal societies (Caldwell, 1982). Son preference tends to be strengthened where girls leave their parents' home at marriage and do not inherit land or property as is the case in much of south-central Asia. In parts of that subregion, the plight of girls may well have worsened in recent years in situations where couples feel increasingly constrained to have fewer children than in the past (Korea Institute for Health and Social Affairs and UNFPA, 1996). Thus, there has been increasing evidence in parts of south-central Asia of female sex-selective abortion following foetal sex-detection tests, as well as wilful neglect of female babies in the provision of nutrition and medical attention.

Maternal mortality remains relatively high throughout much of south-central Asia, indicating weaknesses in the coverage and quality of reproductive health services, including family planning, particularly in rural areas. Significant proportions of mothers give birth without the presence — or even having seen — a skilled birth attendant, and are out of reach of emergency care to deal with obstetric complications. The lack of services, both human and physical, results in many avoidable maternal deaths, particularly in areas of extreme poverty.

Fertility changes

While fertility reductions in south-central Asia have been much slower than in eastern and south-eastern Asia, there have been some impressive changes. Sri Lanka is the only country in the former subregion that has completed the transition to replacement-level fertility. The decline began in the 1950s, largely as a result of a rise in the age at marriage (especially of females), and subsequently through a fall in marital fertility as a result of increased contraceptive use.

By the end of the 1990s, women in Bangladesh and India are having an average of three children, so these countries are well on the road to eventually reaching the population replacement level. However, the relatively recent, and largely

unexpected, rapid fertility decline in Bangladesh since the early 1980s contrasts sharply with the much steadier change that has occurred in India. Initial scepticism about the magnitude of the fertility decline in Bangladesh, given its limited socio-economic development, has been swept aside by evidence from Demographic and Health Surveys in the 1990s showing increasing use of modern methods of contraception, with contraceptive prevalence rates above 50 per cent (Mitra and others, 1995 and 1997).

By contrast, fertility levels in Pakistan and Nepal remain high, with women bearing an average of five children during their lifetime. A key factor in the maintenance of high fertility in both countries appears to be the neglect of women's education and their general low status, together with a large unmet need for reproductive health services: a significant proportion of sexually active women want to avoid or postpone pregnancy, but do not use contraception. While the family planning programme of Pakistan has a long history, nearly as long as that of India, it has been conspicuous by its lack of impact and it contrasts sharply with the successful programme of Bangladesh, which has been able to overcome traditional barriers. The programme in Pakistan has suffered from a lack of consistent political support and policy focus, coupled with a weak social enabling environment, including insufficient resources.

Family planning programmes in south-central Asia have traditionally placed more emphasis on permanent rather than reversible methods, particularly female sterilization, but less so recently, especially in Bangladesh and Nepal. The emphasis on one-time methods is based on the consideration that they require little follow-up with acceptors, are not user-dependent for success and are logistically convenient to deliver (Caldwell and Caldwell, 1996). Serious resource limitations have constrained attempts to widen choices and improve quality of care.

Challenges as the new millennium dawns

Asia's reproductive revolution has undoubtedly been one of the most significant and far-reaching changes in human behaviour of the second half of the twentieth century. Undoubtedly, population policy was the driving force, affecting both the magnitude and speed of changes. Within diverse socio-economic contexts, Asian cultures and religions were generally receptive to the spread of contraception. The success of family planning programmes was, of course, frequently supported by positive changes in the demand for children.

But the Asian demographic miracle cannot be taken for granted, as the initial impact of the recent financial and economic crisis has shown. The crisis, which began in mid-1997, caused an interruption and reversal of the region's remarkable development gains. The effects of the crisis differed sharply. They were most marked in Indonesia, following one of the most dramatic economic collapses of this century, and also serious in Thailand. Elsewhere, and reflecting the interdependence of countries in the global economy, even those countries not directly affected experienced indirect effects as a result of loss of trade and investment, for example. Economic downturns often tend to affect the social sectors disproportionately. Declining exchange rates and substantial reductions in government budgets curtailed reproductive health programmes, including family planning programmes, and set back efforts to tackle quality of care dimensions (UNFPA and ANU, 1998). In brief, the crisis exposed the vulnerability of the social sectors in the poorer Asian countries. Strengthening the provision of basic social services, particularly for the Asian poor, will remain a challenge into the next century.

Population problems still persist in several parts of Asia. Given that the demand factors for reducing family size are not there, governments will need to remain involved in population programmes. Numerous surveys conducted in Asian countries show that there is considerable evidence of unmet need for family planning information and services. Substantial proportions of women with three or more living children want to stop childbearing. In order to meet this substantial unmet demand, there is a need to increase access, that is, to expand the number of facilities and trained personnel providing relevant services. Programmes should respond to the needs of individuals, promote sustainability and, much more than in the past, take into account gender perspectives, including male involvement.

Adolescent reproductive health continues to be a difficult issue for many Asian societies to address (UNFPA, 1999). Sometimes education and services for unmarried people are considered too sensitive for government agencies to tackle. The key actions for the further implementation of the ICPD Programme of Action, agreed by governments at the ICPD+5 review in mid-1999, underline the importance of providing information and services to meet the reproductive and sexual health needs of adolescents (United Nations, 1999).

At the threshold of the twenty-first century, many Asian countries have low and even sub-replacement fertility levels and, with the rapidly changing population dynamics under way, new problems associated with the ageing of populations are beginning to emerge. Because the majority of the world's older persons are living in Asia, issues relating to population ageing are now justifiably attracting increasing policy attention.

Finally, the need to monitor development progress in general, and population programmes in particular, is increasingly being recognized by all stakeholders. The establishment of goals, targets, benchmarks and milestones, including in areas such as HIV/AIDS, will help to provide an impetus for Asian countries to realize the vision of the 20-year ICPD Programme of Action.

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