





*Asia's adolescents and young adults may be increasingly prone to various types of risk behavior (Tokyo, Japan)*  
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In recent years, policymakers and program managers in many Asian countries have turned increasing attention to youth—the special needs of adolescents and young adults in today's world and the special challenges of reaching young people with information and services. One reason for the current focus on youth is the large number of adolescents and young adults in many Asian societies.

In 1960, there were 284 million people in Asia between the ages of 15 and 24; in 2000, there were 615 million (Appendix Table 4). This expansion of the region's youth population reflects an underlying 1.6 percent annual growth rate.

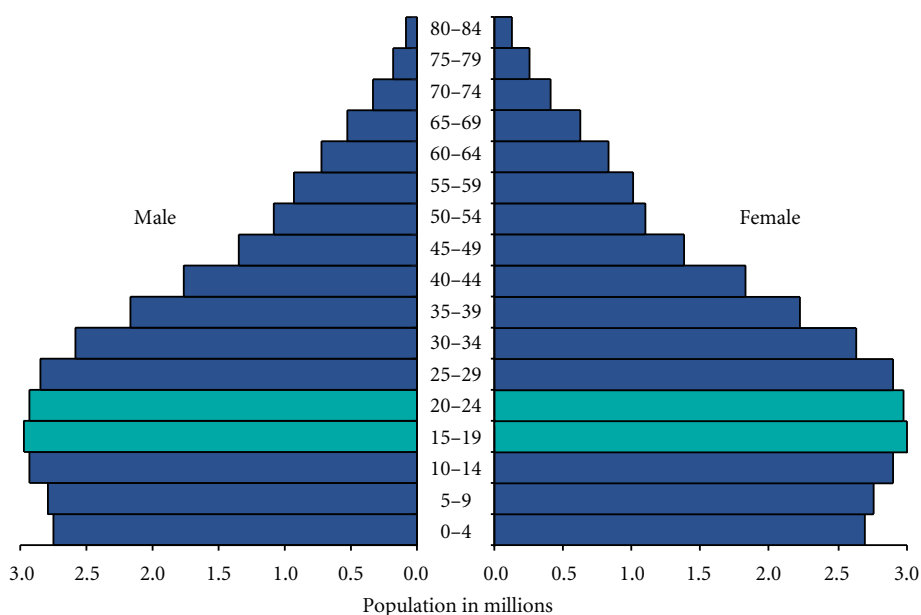
Between 1960 and 2000, the number of adolescents and young adults doubled or more than doubled in nearly every country of Asia. The only exceptions were China, Japan, North Korea, and Kazakhstan. The rapid growth of youth populations has created pressure to expand education, health, and employment programs aimed at this age group. Policymakers must keep in mind, however, that the period of expansion is short. Between 2000 and 2040, the number of young people in Asia will grow much more slowly—from 615 million to 658 million, at a rate of only 0.2 percent a year. In some countries of Southeast and South and Central Asia and in nearly all the countries of East Asia, the period of rapid expansion is already over.

In addition to absolute numbers, the proportion of young people in the total population creates policy concerns. Over the past 40 years, the proportion of Asia's population in the 15–24-year age bracket increased and then declined—from 17 percent in 1960 to 21 percent in 1985 (data not shown) and then to 18 percent in 2000. It will decline further, to a projected 14 percent, by 2040. This temporary increase in the proportion of young people in a population is called a “youth bulge.” It is the result of a transition from high to low fertility about 15 years earlier. The youth bulge consists of large numbers of adolescents and young adults who were born when fertility was high followed by declining numbers of children born after fertility declined. The age structure of Thailand's population in 1995 (Figure 1) illustrates this pattern.

Some scholars have described a youth bulge as a situation in which 20 percent or more of a population is in the age group 15 to 24 years (see, for example, Huntington 1996). Some have speculated that societies with such large proportions of young people may be subject to dynamic, and potentially disruptive, political and social movements. At the other extreme, populations with less than 15 percent adolescents and young adults are described as having a “youth deficit.” This situation also creates problems, such as too few new entrants into the labor force.

In addition to expanding services and facilities to cope with large numbers of

Figure 1. Age and sex structure of Thailand's population in 1995



Source: United Nations (2001).

young people, the growth of Asia's youth population, although temporary, raises two important policy concerns. The first stems from the fact that adolescents and young adults are about to enter or are already in their prime reproductive years. Unusually large numbers in this age group will lead to unusually large numbers of births, even when fertility is low. The potential for population growth resulting from this temporary imbalance in the age structure is a phenomenon that demographers call "population momentum." Thus, although fertility has declined throughout Asia, because of population momentum, national populations are expected to grow well into this century.

Government policymakers and others are also concerned because adolescents and young adults are particularly prone to various types of risk behavior. In many Asian societies, the shift from traditional agriculture toward an industrial, export-based economy has brought about dramatic changes in young people's lives. Youth surveys and other measures indicate rising levels of smoking, drinking, drug use, and unprotected sex. Evidence of high-risk sexual behavior is particularly worrying given the rising prevalence of HIV/AIDS and other sexually transmitted infections (STIs) in some Asian countries. Yet few countries have adequate programs in place to help young people avoid such risks.

*How important is the youth bulge?* \_\_\_\_\_

The size and duration of the youth bulge differ among Asian countries because of variation in the timing and magnitude of the preceding fertility decline. The youth bulge can also be affected by migration because migrant populations

typically include large numbers of young adults. Fertility first declined in the 1950s and early 1960s in Japan, Singapore, and Hong Kong. In Japan, the youth bulge occurred in the 1960s, and in Singapore and Hong Kong in the 1970s, with the absolute number of young people peaking by 1980. By contrast, in countries such as Nepal and Pakistan that are only now beginning to experience fertility decline, the number of young people will not peak until around 2040.

The youth bulge as a proportion of total population tends to be large in countries where fertility drops quickly from a very high to a very low level, for instance in China, South Korea, Singapore, and Thailand. The duration of the youth bulge also varies widely—from less than 20 years in Japan, South Korea, and Singapore to around 40 years in the Philippines.

A rapid transition can be disruptive in the short run because both the absolute number of young people and the youth share of the total population rise quickly to high levels. But this situation is temporary. A slower transition may be easier to deal with in some respects, but the total size of the youth population can become very large.

For example, in China where the transition was rapid, the youth population not quite doubled (from 106 to 199 million) between 1960 and 2000. In the Philippines, where the transition has been slower, the youth population grew three times (from 5 to 15 million) over the same period. Given population momentum, such large increases in the number of young people have important implications for future population growth.

### *Characteristics of Asia's youth*

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*Marrying later.* Policymakers have advanced various proposals to mitigate the effects of the youth bulge on population growth. One suggestion is that delaying childbearing will slow down population growth even if total fertility remains the same. Many governments have raised the legal age of marriage, and policymakers have encouraged young people to marry later, to lengthen the interval between marriage and first birth, and to extend intervals between births.

Government intervention may not always be necessary, however, because young people in most Asian societies are already waiting later to marry. Yet delays in marriage have produced another situation that policymakers may view as problematic—the creation of a “young singles” population unheard-of a few decades ago.

In 1950, 34 percent of Asian women age 15 to 24 were single; by 1990, this proportion had risen to 62 percent (Appendix Table 5). Although less dramatic, the proportion of young men who were single also increased. This rise in the proportion of young men and women who are single has occurred in every country of the region. It is of concern because many of these young people are subject to well-known precursors of risk behavior such as disturbed family backgrounds, living away from parents, and unsupervised migration from rural to urban areas.

East Asia has led the trend in proportions of young people who are single. In this subregion (excluding China), the proportion of women age 15 to 24 who were single rose from 70 percent in 1950 to 91 percent in 1990. Among men in this age group, the proportion single rose from 87 to 96 percent. In South Asia, the absolute levels were much lower, but the changes were even more dramatic: The proportion single rose from 18 to 42 percent for young women and from 56 to 77 percent for young men. The trend in Southeast Asia has been intermediate. Projections from national census data across Asia suggest that the proportion of young people who are single will continue to rise in the future (Xenos and Kabamalan 1998).

It is important to appreciate the significance of this trend in terms of absolute numbers. Between 1950 and 1990, the number of single young women in Asia rose nearly fourfold—from 22 to 82 million. Somewhat less than half of this increase was due to population growth; more than half was due to the trend toward delayed marriage.

*Staying longer in school.* As with percentages single, school enrollment has increased throughout the region (Appendix Table 5). In Asia as a whole, the proportion of women age 15 to 24 who were enrolled in school doubled—from 6 to 12 percent—between 1950 and 1990. For young men, the proportion also doubled—from 9 to 18 percent.

Within this age group, the rise in enrollment was much larger for adolescents than for young adults. In 1990, 26 percent of girls and 39 percent of boys age 15 to 19 were enrolled in school. Among young adults age 20 to 24, 6 percent of women and 12 percent of men were enrolled.

East Asia has the highest levels of school enrollment, while Southeast Asia had the largest percentage increases between 1950 and 1990. In both regions, enrollment rates for young women are approaching the levels for young men. In South Asia, school enrollment is considerably lower, and enrollment rates are still much lower for women than for men.

Again, it is important to consider what this means in absolute numbers. In South Korea, for example, the total number of young people age 15 to 24 more than doubled between 1950 and 2000, rising from 3.8 million to 7.7 million. Over the same period, the number of young people enrolled in school increased more than 10-fold, from 0.5 to 5.4 million (NSO 2001). This explosion in school enrollment has placed heavy demands on South Korea's education system.

The total youth population of South Korea is projected to drop by about 30 percent by 2025. Thus, although the proportion of young people in school may rise a bit higher, the absolute number in school will drop considerably because of the decline in the youth population. The situation in South Korea is more extreme than in most other countries of Asia, but the same pattern of rise and fall in the numbers in school has already occurred or can be anticipated in every country of the region.

*More or less likely to have a job.* In most Asian countries, employment rates are much higher for men than for women. For young men, labor force participation has declined steadily throughout the region (Appendix Table 5), undoubtedly reflecting the steady rise in school enrollment.

For women, the pattern is more complex and much harder to measure, clearly affected by cultural factors as well as levels of economic development. Even countries in the same subregion show contrasting patterns. Women age 20 to 24 who are not in school, for example, are likely to be working in Thailand, but unlikely to be working in Indonesia, where early marriage is much more common.

### *Levels of risk behavior*

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*Sexual risk taking.* Youth surveys in several Asian countries have found that sexual risk taking is much higher among young men than young women. There is some evidence—from Taiwan for example—that levels of risk taking are rising for both men and women, however.

A comparative analysis of survey results from Thailand, Taiwan, and the Philippines shows that young men's first sexual experience occurs most often outside of marriage (Choe et al. 2001b). Among men age 15 to 24 who have experienced sex, 93 percent in Thailand, 92 percent in Taiwan, and 87 percent in the Philippines had their first sex outside of marriage. The patterns for women, by contrast, differ broadly. In Taiwan, 70 percent of women age 15 to 24 who have experienced sex had their first sex outside of marriage, compared with only 30 percent in the Philippines and Thailand.

In all three countries, women who leave their parents' home or leave school at an early age are more likely than other women to have their first sexual experience outside of marriage. In Thailand and the Philippines, young women who have some college education or who plan to go to college are less likely than other women to have their first sex outside of marriage.

The relationship between college education and first sexual experience is just the opposite in Taiwan. Taiwanese women who attend college or plan to attend college are more likely than other women to have their first sex outside of marriage. Thus, sexual experience outside of marriage is not only more common among women in Taiwan than in the other two countries, but it is also more common among Taiwanese women with higher education. Because development is generally more advanced in Taiwan than in Thailand or the Philippines, the patterns revealed by these surveys suggest that—for women—sex outside of marriage is likely to increase with economic development and social modernization.

Although sexual activity outside of marriage is less common in the Philippines than in Taiwan, the 1994 Young Adult Fertility and Sexuality Study (YAFS-II) found considerable evidence of risk-taking behavior—among



Available statistics do not allow a precise identification of young people most in need of health and family planning services (Shanghai, China)  
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young men—that could lead to unwanted pregnancy and the spread of HIV and other STIs. By the time they reach age 24, almost 40 percent of Filipino men have had sex with at least one partner other than their wives or future wives (Raymundo, Xenos, and Domingo 1999). Almost 10 percent have visited a sex worker, and 3 percent have had five or more sexual partners. By contrast, only 2 percent of single young women have ever had sex, and virtually all of these have had only one sexual partner.

Modeling studies have shown that the patterns of male sexual activity documented in the Philippines can greatly accelerate the spread of HIV and other STIs. This is particularly true when men have sex with sex workers and also with other partners. The situation is especially worrying because so few young Filipino men use condoms. Only 23 percent of sexually active young men reported that they had ever used a condom, and far fewer (4 percent) reported having used a condom during their most recent sexual encounter. Half of young men who recently visited a sex worker said that they never use condoms at all.

Studies conducted in 1994 in Thailand and Taiwan also found that levels of condom use were disturbingly low. Among young Thai men who had had sex and whose first sexual experience was outside of marriage, one-half to two-thirds reported that they did not use any contraception during their first sexual encounter. Among young men and women who had had sex in Taiwan, one-third to one-half reported that they never used contraceptives or used them only “once in a while.”

The good news, as demonstrated by more recent experience in Thailand, is that sexual risk-taking can be greatly diminished by comprehensive, well-designed national programs. In Thailand, condom use in sex work went from less than 30 percent in 1990 to more than 90 percent in 1997. During the 1990s, the percentage of men using sex services declined by half, and STI levels fell by more than 90 percent.

**Smoking, drinking, and drug use.** Youth surveys in several Asian countries show significant levels of smoking and drinking. Drug use is much less common, but it is not negligible, particularly considering that it is likely to be underreported in these surveys. Young men are much more likely than young women to drink, smoke, or use drugs (Table 1). They are also likely to start these risk behaviors at younger ages than women.

Figure 2 compares teenage smoking rates in nine Asian countries and the United States. Among boys age 15 to 19, smoking is most common in Indonesia (at 38 percent) and China (36 percent) and least common in Nepal (12 percent). Among girls, smoking is most common in the United States (35 percent) and Japan (12 percent) and least common in Indonesia and China (1 percent). The countries are listed in the figure according to gross domestic product (GDP) per capita. This arrangement shows some increase in girls’ smoking in wealthier countries, although there is considerable variation.

**Table 1. Percentage of boys and girls age 15–19 who currently drink, smoke, or use drugs: Various countries in Asia**

Country and year	Drink		Smoke		Use drugs	
	Boys	Girls	Boys	Girls	Boys	Girls
China 2000	37	9	36	1	NA	NA
India 1998/99	2	1	14 <sup>a</sup>	2 <sup>a</sup>	NA	NA
Indonesia 1988	2	0	38	1	1	0
Japan 2000 <sup>b</sup>	39	31	26	12	NA	NA
Nepal 2000	21	11	12	4	NA	NA
Philippines 1994	47	12	28	3	2	0
South Korea 2000	46	51	21	11	3	3
Taiwan 1994	NA	NA	30	5	NA	NA
Thailand 1994	43	16	33	2	6	1

*Sources:* For China, State Family Planning Commission of China; for India, IIPS and ORC Macro (2000); for Indonesia, Demographic Institute, Faculty of Economics, University of Indonesia (1999); for Japan, National Institute of Public Health (2000); for Nepal, Choe et al. (2001a); for the Philippines, Raymundo, Xenos, and Domingo (1999); for South Korea, Han et al. (2000); for Taiwan, Choe et al. (2001a); for Thailand, Podhisita and Pattaravanich (1995). NA: Information not available.

<sup>a</sup> Includes chewing tobacco.

<sup>b</sup> For ages 15–18 only.

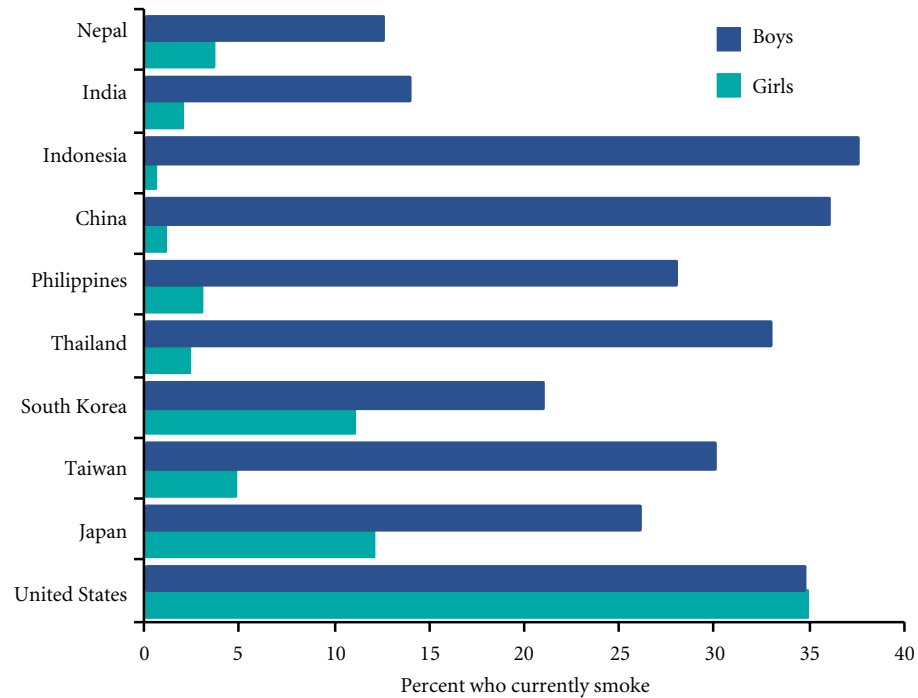
In Thailand and the Philippines, drinking is much more common than smoking. Nearly half of adolescent boys in both countries drink, while around one-third smoke. In Indonesia, by contrast, drinking is rare, while smoking is particularly common among boys but not among girls. The low level of drinking in Indonesia is, no doubt, related to the Islamic prohibition of alcohol.

Although data are limited, parents' attitudes appear to have a strong influence on whether or not their children drink, smoke, or use drugs. Parents in Asia tend to be much more permissive with their sons than with their daughters, which no doubt helps explain why risk behavior is so much more common among boys than among girls.

It is interesting to compare findings from Asia with results from the 1999 Youth Risk Behavior Surveillance coordinated by the Center for Disease Control and Prevention in the United States. Among American high-school students (grades 9 to 12), 50 percent had drunk alcohol in the 30 days before the survey, 33 percent had smoked, 27 percent had used marijuana, and 4 percent had used cocaine. Thus Asian boys—at least in the countries where data are available—are about as likely to drink or smoke as American adolescents but are much less likely to use drugs. In contrast to the situation in Asia, adolescent drinking, smoking, and drug-use rates in the United States are similar for boys and for girls.



Figure 2. Percentage of boys and girls age 15–19 years who currently smoke in nine countries of Asia and the United States



Sources Choe et al. 2001a.

**Early childbearing.** Although the average age at marriage is going up everywhere in Asia, many women in South Asia and parts of Southeast Asia marry and have their first child while still in their teens. In Bangladesh, Nepal, and India, half or more of young women are married by age 18 (Table 2). Most of these young women give birth within the first two years of marriage.

This is a serious health concern. Studies all over the world have shown that health and mortality risks are significantly higher when women this young give birth, both for the women themselves and for their children (Table 3). Apart from biological factors, early marriage and childbirth often mean the early termination of a woman’s formal education. Women who marry at very young ages also tend to have limited access to mass media and other sources of information. As a result, these women have limited knowledge of reproductive health, and they are less likely to use maternal and child-health services than women who wait until a later age to marry and give birth.

### *Identifying youth at risk*

Available statistics do not allow a precise identification of young people most in need of health and other services. It would be useful, for instance, to identify young people who are single, out of school, out of work, living away from their families, and engaging in risk behavior.

**Table 2. Percentage of women age 20–24 who were married or in union before age 18 and percentage of women who gave birth by age 20: Various countries in Asia**

Country and year	Percent women age 20–24 married or in union before age 18		Percent woman who gave birth by age 20	
	Fewer than 7 years of schooling	7 or more years of schooling	Current age 20–24	Current age 40–44
Bangladesh 1996/97	79	36	63	84
China 1992	8	2	14	22
India 1998/1999	64 <sup>a</sup>	17 <sup>b</sup>	47	58
Indonesia 1997	45	13	31	45
Nepal 1996	68	26	52	53
Pakistan 1990/1991	38	7	31	38
Philippines 1998	36	10	20	26
Sri Lanka 1987	NA	NA	16	31
Thailand 1987	25	8	24	28

*Source:* For China, Alan Guttmacher Institute (1995); for all other countries, ORC Marco, Demographic and Health Surveys, various years.

NA: Data not available.

<sup>a</sup> Fewer than eight years of schooling.

<sup>b</sup> Eight years or more of schooling.

**Table 3. Infant mortality (deaths per 1,000 live births) for children of mothers under age 20 compared with children of mothers age 20–29: Various countries in Asia**

Country and year	Deaths per 1,000 live births	
	Mother less than 20	Mother 20–29
Bangladesh 1999/2000	103	70
India 1998/99	93	63
Indonesia 1997	63	47
Nepal 1996	120	80
Pakistan 1990/91	121	91
Philippines 1998	41	33
Sri Lanka 1987	35	33
Thailand 1987	41	34
Vietnam 1997	46	34

*Source:* ORC Macro, Demographic and Health Surveys, various years.

*Notes:* Infant mortality is expressed as the number of deaths before age 1 year per 1,000 live births. Women who give birth in their teens are likely to come disproportionately from disadvantaged socioeconomic groups where infant mortality tends to be high for a variety of reasons. Yet the relationship between mother's age at birth and infant mortality holds up even after controlling for relevant socioeconomic variables.

*Programs that help young working people feel more connected to their communities may reduce risk behavior (Mindanao, Philippines)*  
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The image that appears here in the printed version of this publication was not made available for use on the internet.

Studies suggest that closeness to parents provides some degree of protection against adolescent risk behavior. Teachers and school-mates also appear to have a positive influence—young people who are out of school or whose schooling has been interrupted are more likely than others to engage in risk behavior.

Findings from Thailand, the Philippines, and Indonesia suggest that teenagers who do not live with their parents and do not attend school are at particularly high risk of drinking, smoking, or using drugs. Programs targeting such young people might usefully include efforts to make them feel more connected to adults and to the community in general, possibly through neighborhood clubs or young persons' groups at the workplace. Programs that feature

adult mentoring may give teenagers who are away from home and out of school some of the same kinds of support that other young people receive from their parents and teachers.

Mass media campaigns targeting young people with information about risk behavior may also be effective. One encouraging sign has been the decrease in teenage smoking in Thailand where a strong anti-tobacco campaign was aimed at adolescents.

Information on the number of young people who are single has important implications for health policy and programs because single people may be particularly likely to engage in high-risk behavior. Survey data from the Philippines suggest that “the longer men remain single, the greater their risk of exposure to HIV infection” (Balk et al. 1997). Single women, who may be living away from their parents to pursue education or a career, also have important reproductive health needs.

Young people who are both single and out of school (Appendix Table 5) are one of the most difficult groups to reach with information and services. This group has grown wherever the shift toward later marriage has outpaced the rise in school enrollment. Between 1950 and 1990, the percentage of young women single and out of school rose in every major country of Asia except Japan, Taiwan, Thailand, and the Philippines.

Trends for young men have been quite different. Up to 1990, only two of the countries covered in Appendix Table 5 had major increases in the percentage of young men single and out of school—India and Pakistan. Several other countries had decreases, with the upward movement of enrollment rates easily outpacing male marriage delay.

Despite strenuous government efforts to expand educational facilities, the proportion of young women single and out of school is projected to increase still further in all but the most economically advanced countries of Asia. Government and nongovernmental programs need to be redesigned or expanded to meet the needs of this burgeoning population group (see box).

Policymakers could also make use of additional information to identify more specific segments of youth populations. Certainly a more detailed examination of urban youth would be useful, particularly of young people who have recently migrated to urban areas and are living apart from their families.