Reproductive Choices for Asian Adolescents: A Focus on Contraceptive Behavior

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CONTEXT: *Adolescents constitute a large and growing proportion of many Asian populations; thus, their knowledge and use of contraceptives have major implications for both public health and population growth.*

METHODS: *Data from Demographic and Health Surveys, other national surveys and studies conducted during the last decade are used to examine the contraceptive behaviors of Asian adolescents. The analysis includes Bangladesh, India, Nepal, Pakistan and Sri Lanka in South Asia, as well as Indonesia, the Philippines, Thailand and Vietnam in Southeast Asia.*

RESULTS: *Although awareness of contraception is almost universal among married adolescents, knowledge of specific methods and sources of supplies is limited. Use of modern methods varies considerably among countries, from 2% of adolescents in Pakistan to 44% in Indonesia. In general, however, contraceptive prevalence is lower in South Asia than in Southeast Asia. Although there has been a substantial increase in contraceptive use among adolescents, unmet need remains high, ranging from 9% in Indonesia to 41% in Nepal. The vast majority of unmarried, sexually active adolescents either do not use any contraceptives or use traditional methods.*

CONCLUSIONS: *Asian adolescents need accurate information about sexuality, reproduction and contraception as well as user-friendly reproductive health services. Intervention research is needed to identify appropriate strategies to address these needs.*

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With the widespread acceptance of family planning, nearly every Asian country has experienced a drop in birthrates. However, national populations are expected to grow well into the next century because of population momentum—a consequence of the increasing numbers of adolescents* and young people in the region.

The generation entering the adolescent years now is the largest in human history. In 2000, in the developing world as a whole, the population of adolescents aged 10–19 was estimated at 995 million, about one-fifth of the total population. According to the medium population projections of the United Nations (based on 1998 revised population estimates), this number will reach 1,060 million by 2020—an increase of 65 million, or 6.5%.[1] The proportion of adolescents in the population varies modestly among regions—from 19% in Asia to 23% in Africa, with the most rapid future growth expected to occur in Africa.[2] Of the 1.15 billion adolescents in the world, more than 700 million live in Asia.[3]

CHANGING REPRODUCTIVE HEALTH NEEDS

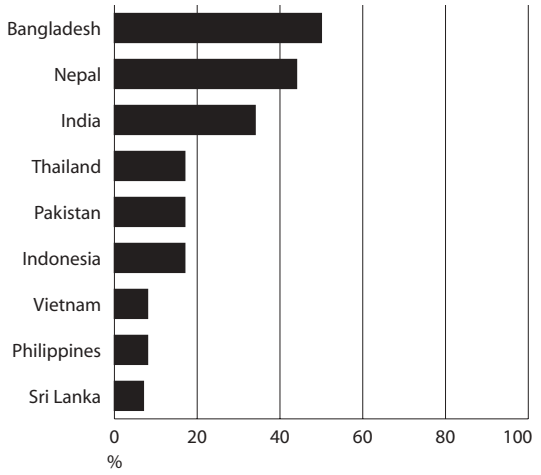
Many people experience critical and defining life events—first marriage, first sexual intercourse and parenthood—during adolescence. These life events were once considered inseparable, but this is no longer true for many young people. Adolescents are staying in school longer, marrying later and are increasingly becoming sexually active before marriage. Young people now experience puberty at earlier ages than did previous generations, with girls entering puberty between the ages of 8 and 13 and boys between 9 and 14.[4] Because the time between puberty and marriage has increased, many young people experience first sexual intercourse and childbearing in a different personal and social context than did previous generations.[5] These changes can have profound consequences for the reproductive and sexual health of adolescents.

Adolescents should be able to protect themselves from unwanted sex, unplanned pregnancy, early childbearing, unsafe abortion and sexually transmitted infections (STIs). However, adolescents form one of the largest groups with an unmet need for reproductive health services. There are differences in the way these needs are met for adolescents from different socioeconomic strata of society, as well as for those living in urban and rural areas. One of the most important challenges facing reproductive health programs in Asia is how to address the needs of adolescents as they initiate sexual activity and are exposed to the risk of unwanted pregnancy and infection. Understanding the extent to which young people know about and use contraceptives is therefore a significant issue for research and policy.

In this article, we examine the contraceptive behaviors of adolescents in Asia, focusing on Bangladesh, India, Nepal,

*Unless specified otherwise, adolescent is used to refer to 15–19-year-olds in this article.

FIGURE 1. Percentage of female adolescents who have ever been married, selected countries of South Asia and Southeast Asia



Sources: Reference 9, reference 10, reference 23 and reference 30.

Pakistan and Sri Lanka in South Asia, and on Indonesia, the Philippines, Thailand and Vietnam in Southeast Asia. Adolescents aged 10–19 constitute more than one-fifth of the population in most of these countries, a proportion that ranges from 18% in Thailand to 25% in Bangladesh.[6] The sheer size of this population, coupled with dramatic changes in lifestyles and life circumstances, pose serious challenges for those charged with developing programs to address adolescents' special needs.

Although adolescents in Asia have common concerns, there is tremendous diversity in the region. Significant social and cultural differences make generalizations regarding policy and program interventions difficult, if not impossible. The paucity of data on this population further compounds the problem of conducting a comprehensive analysis of the challenges faced by adolescents in Asia, and the nature and scope of efforts required to address them.

Taking stock of what we know and what we need to know about adolescents' contraceptive behaviors is an essential first step in the design of effective reproductive health programs. After discussing the social and cultural context within which attitudes and behaviors are formed, we examine Asian adolescents' knowledge of contraceptives, contraceptive use dynamics and unmet need for contraception. We conclude with a discussion of programmatic and research issues that are critical if the reproductive health needs of adolescents in this region are to be addressed.

THE SOCIAL AND CULTURAL CONTEXT

The meaning of adolescence as a social construct varies across cultures. Social norms regarding the roles of women and men and their culturally ascribed positions directly influence patterns of sexual behavior, contraceptive use and the balance of responsibility for childrearing. Therefore, an understanding of the context that determines reproductive attitudes and behaviors is important for analyzing contraceptive behaviors of adolescents.

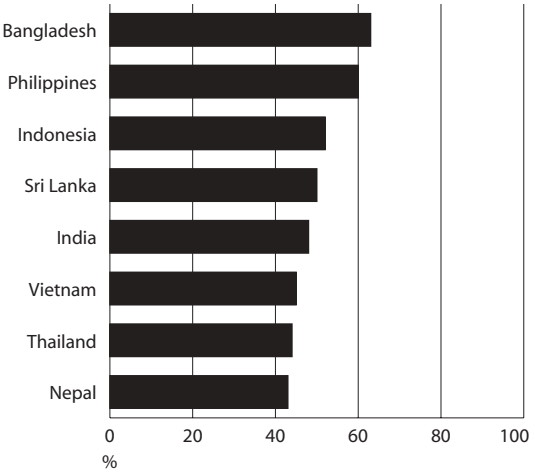
First, in most Asian cultures male and female gender roles typically create an imbalance in negotiating positions between partners. Such imbalances are exacerbated for younger people because they are more vulnerable. Therefore, to understand the contraceptive behaviors of adolescents, it is important to understand how biological and culturally constructed gender roles relate to sexual behavior. Issues related to sexuality, however, have been largely ignored in the design of policies and programs because sexuality is a sensitive issue—both politically and culturally.[7]

Second, adolescents are not a homogenous group; they have significant social, economic and gender differences. For example, young women do not have the same education and employment opportunities as young men. Young women also face familial and societal pressures for early marriage and early and closely spaced childbearing.[8] In many parts of South Asia, a young woman must prove her fertility soon after marriage, and son preference is an important determinant of fertility behavior. To further compound the problem, sexual coercion within and outside marriage is frequently the norm.

Third, in recent years there has been a shift toward delayed marriage in all the countries discussed here, a development that has led to an extended period of adolescence for young women. However, the proportion of ever-married adolescent females is much lower in Southeast Asia than in South Asia, except in Sri Lanka and Pakistan (Figure 1). Among Southeast Asian countries, the proportion of ever-married female adolescents is as low as 8% in the Philippines and Vietnam, and as high as 17% in Indonesia and Thailand.[9] In contrast, early marriage continues to be the norm in South Asian countries such as Bangladesh, India and Nepal. The proportion of ever-married female adolescents ranges from one in three in India to more than two in five in Nepal and one in two in Bangladesh.[10]

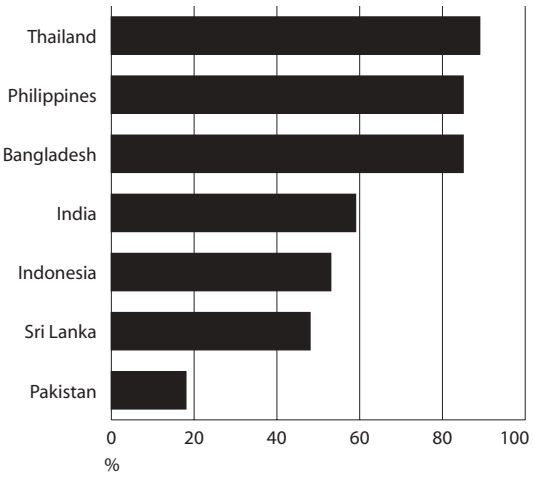
Like early marriage, early childbearing is the norm in

FIGURE 2. Percentage of married female adolescents who have had a child, selected countries of South Asia and Southeast Asia



Sources: Reference 9, reference 10 and reference 30.

FIGURE 3. Percentage of married female adolescents who have heard of condoms, selected countries of South Asia and Southeast Asia



Sources: **India**—International Institute for Population Sciences (IIPS), *National Family Health Survey 1992–93,* Mumbai: IIPS, 1995. **All other countries**—reference 17.

South Asia (Figure 2, page 187). The practice is pervasive in Bangladesh, where 63% of currently married adolescents have had a child.[11] In India and Nepal, those proportions are 48% and 43%, respectively.[12] Although early marriage is less common in Southeast Asia, early childbearing within marriage is as frequent. Sixty percent of currently married adolescents in the Philippines are mothers.[13] Similarly, 52% of currently married adolescents in Indonesia and 45% of those in Vietnam have had a child.[14]

Thus, the gender roles, sexual behaviors and marriage patterns that determine fertility intentions and contraceptive behaviors vary in Asian countries. However, it must be kept in mind that these countries are currently experiencing unprecedented change, and that social norms are changing at a rapid pace.

DATA AND METHODS

We have used data collected in the late 1980s and 1990s in Demographic and Health Surveys (DHS) and in national surveys that used instruments and questions similar to those in the DHS. One important limitation is that the DHS data are limited to ever-married women aged 15–49, except for Bangladesh and the Philippines. The survey in Bangladesh included currently married men, and the survey in the Philippines included never-married women.

The DHS uses a standard set of questions to assess contraceptive knowledge and use among women. In regard to knowledge, women are first asked to name spontaneously all the methods a couple can use to delay or avoid pregnancy. The interviewer then prompts women to recognize contraceptive methods by providing a description of the methods the women have not mentioned spontaneously.

Information on contraceptive practice is assessed by asking women whether they have ever used each of the methods they have heard of. Currently married, nonpregnant women are also asked whether they or their husbands are currently doing something or using any method to delay or avoid pregnancy.

National surveys have a number of drawbacks that limit their ability to present a truly representative and comprehensive picture. As mentioned earlier, almost all the surveys were limited to ever-married women, so nationally representative information on unmarried women, including unmarried adolescents, is not available for those countries. Data on younger adolescents (10–14 years) are not available for any country except Bangladesh. Although 15–19-year-old married women were included in all surveys, they constitute a relatively small proportion of the sample. Adolescent males were excluded from all surveys. Other drawbacks include differences in design and survey methods and considerable variation in the training of interviewers. In addition, the time periods for which data are available vary. These constraints necessitate caution in making cross-country comparisons and identifying time trends.

Additional data have been culled from small-scale studies to discuss key issues for which national survey data are not available. However, the results of such studies are not representative of the general adolescent populations of any of the countries discussed. These studies focused on different adolescent groups in diverse settings. Thus, they included the male and the female, the unmarried and the married, the rural and the urban, and the school-going and the out-of-school, as well as clinic and hospital attendees. Educated, urban, unmarried adolescents were the group most often studied. Methodologies used in these studies varied, and included self- or investigator-administered questionnaires, qualitative interviews, clinical observations and hospital records. Despite limitations in sampling design and varied methodologies, these studies offer valuable information that can be used to initiate a discussion on contraceptive behaviors of unmarried adolescents.

RESULTS

Knowledge of Contraception

In almost all of the countries studied, the proportion of currently married adolescent women knowing of at least one traditional or modern contraceptive method exceeded 90%; it was as high as 99.9% in Bangladesh.[15] However, this proportion was much lower in Pakistan, where only 76% of currently married adolescents knew of at least one method.[16]

The proportion of currently married adolescent women who were aware of at least one modern reversible female method (oral contraceptives, the injectable, the IUD or the implant) varied from 59% in Pakistan and 63% in India to 99% in Bangladesh and Thailand.[17] As would be expected, in each country, adolescents' knowledge of specific methods corresponded to the contraceptive method mix promoted there. In India, for example, the method most commonly known to adolescents was tubal sterilization (89%), the predominant method promoted by the national program. The proportion of Indian adolescents who were

aware of reversible methods ranged from 39% for the IUD to 59% percent for the condom.[18] In Vietnam, the IUD, which is the dominant method in the national program, was the most widely known method among 1,464 15–19-year old students surveyed in Ho Chi Minh City.[19] However, a survey of 13–22-year-old youth in six provinces of Vietnam showed that condoms, followed by the pill and the IUD, were the most widely known method; nearly two-thirds of survey respondents were aware of condoms.[20]

The condom deserves special attention because it is the only method that can protect against both unwanted pregnancy and STIs. In both South and Southeast Asia, however, the proportion of adolescents knowing of the condom was lower than the proportions knowing of other modern reversible methods. Wide variations existed among countries in both regions (Figure 3). In South Asia, levels of knowledge about the condom among married adolescent women ranged from 18% in Pakistan and 48% in Sri Lanka to 85% in Bangladesh. In Southeast Asia, 53% of married adolescents in Indonesia knew of the condom, compared with 85–89% of those in the Philippines and Thailand.[21]

Of equal importance to awareness of contraceptive methods is knowledge of the sources from which these methods can be obtained. Knowledge of sources of contraceptives varied sharply by region and was not as widespread as knowledge of methods in most countries for which comparable data were available. Knowledge of sources of supply was nearly universal among married adolescents in Southeast Asia—94% in Vietnam, 95% in Indonesia and 99% in Thailand. On the other hand, awareness of where to obtain contraceptives was comparatively low in most South Asian countries—59% in Pakistan and 70% in Bangladesh—except Sri Lanka, where it was 90%.[22]

Contraceptive Use

Overall, contraceptive use was much lower in South Asia—except for Bangladesh and Sri Lanka—than in Southeast Asia (Table 1). Fewer than one in 10 married adolescent women reported using a traditional or modern contraceptive method in Pakistan (6%), Nepal (7%) and India (8%).[23] In comparison, between two in 10 and five in 10 reported using a contraceptive method in the Philippines (22%), Thailand (43%) and Indonesia (45%).[24]

Assessment of time trends and comparisons among countries were difficult because time periods for which comparable data were available and levels of service provision varied among countries. Although contraceptive prevalence differs among countries, there has been an overall increase in contraceptive use among currently married adolescents in these countries. In Pakistan, for example, the proportion of married adolescents practicing contraception rose from 3.4% in 1994–1995 to 6.2% in 1996–1997, an 82% increase.[25] This proportion rose by 32% in Bangladesh between 1993–1994 and 1996–1997, by 27% in the Philippines between 1993 and 1998, and by 22% in Indonesia between 1994 and 1997.[26] (In these three countries, contraceptive prevalence increased much more rapidly among adolescents than in any other age-group during this period.) However, use of contraceptives among married adolescents in India rose only slightly (from 7% to 8%) between 1992–1993 and 1998–1999.[27]

Contraceptive prevalence among married adolescent women lagged substantially behind that for married women in other age-groups in countries where comparable data were available. As Table 1 shows, contraceptive prevalence for married 15–19-year-olds was 10–20 percentage points lower than that for their 20–24-year-old counterparts in most of these countries. This difference was smallest in Pakistan (four points) and largest in Vietnam (37 points).[28] This pattern reflects not only a lower level of sexual activity among adolescents, but also the fact that many are just beginning childbearing and are, therefore, less likely to want to delay or avoid pregnancy than are older women.[29]

Except in India, most married adolescent contraceptive users in the countries under discussion used reversible methods. This would be expected because many adolescents would not have reached their desired family size. It is also possible that use of reversible methods was more common among younger women because of their higher educational attainment. (Evidence from Sri Lanka suggests that women with higher education are three times as likely to use a reversible method as those with no education.[30]) Fewer than 2% of adolescents reported use of nonreversible methods. Although negligible, the use of nonreversible methods was reported more often in South Asia (2% in India, 1% in Sri Lanka, 0.6% in Nepal and 0.1% in Bangladesh) than in Southeast Asia (0.5% in Thailand).[31]

Married adolescents used modern contraceptive methods more frequently than traditional methods in all the countries under discussion except Pakistan. The use of modern methods was as high as 44% (in Indonesia) and as low as 2% (in Pakistan).[32] The use of traditional methods was less than 5% in most countries in both South Asia and Southeast Asia. However, in Sri Lanka and the Philippines, where traditional methods have always accounted for a relatively high proportion of overall contraceptive use, one in 10 married adolescents were currently using traditional methods.[33]

TABLE 1. Percentage of married female adolescents using contraceptives in selected countries of South Asia and Southeast Asia, according to type of method; and percentage of 20–24-year-olds using any method

Country	% of adolescents using			% of 20–24-year-olds using any method
	Modern methods	Traditional methods	Any method	
Bangladesh (1997)	27.8	4.9	32.9	43.1
India (1998–99)	4.7	3.3	8.0	26.0
Nepal (1996)	4.4	2.2	6.5	15.8
Pakistan (1996–97)	2.4	3.9	6.2	9.9
Sri Lanka (1987)	10.7	9.5	20.2	42.3
Indonesia (1997)	44.3	0.2	44.5	60.7
Philippines (1998)	11.4	10.4	21.8	39.8
Thailand (1987)	40.5	2.6	43.0	56.8
Vietnam (1997)	14.9	3.2	18.1	55.1

Sources: Reference 9, reference 10, reference 23 and reference 30.

The method most commonly used by married adolescents varied across countries. The pill was the most frequently used method in the Philippines (6%), Sri Lanka (7%), Bangladesh (18%) and Thailand (25%).[34] The condom was the most frequently used method in Nepal (2%) and Pakistan (1%), the injectable dominated the method mix in Indonesia (24%), and the IUD did so in Vietnam (10%).[35] Tubal ligation was the most commonly used method reported among married adolescents in India, although this method was used by a negligible minority (2%).[36] Within countries, the method mix among married adolescent women was similar to that among married women in their 20s. Periodic abstinence was the most widely used traditional method in Bangladesh, Sri Lanka and Thailand (2–5%); withdrawal was most popular in Nepal, the Philippines and Vietnam (2–5%). In India and Pakistan, an equal proportion of married adolescents reported using periodic abstinence and withdrawal (2% for each method in each country).

The methods most commonly used by married adolescents reflected the dominant methods promoted or prevalent in their country. For example, since the late 1980s, the method mix in Bangladesh has changed substantially, with use of oral contraceptives increasing and use of permanent and traditional methods leveling off or declining. This shift can be attributed to an active social marketing program that has promoted the pill and the condom since the mid-1970s, as well as to effective outreach services that, until the last few years, delivered oral contraceptives to clients' homes. Likewise, the national family planning programs in India and Vietnam promoted female sterilization and IUDs, respectively, until recently.

Contraceptive Discontinuation

It is important to assess continuation rates and understand the reasons why adolescents discontinue using contraceptive methods. Such an analysis could provide important information about the adequacy of services targeted to adolescents who need special information, counseling and follow-up care. Discontinuation because of contraceptive failure has obvious implications for the number of unwanted pregnancies and the prevalence of induced abortion. Discontinuation may be a particularly significant issue for adolescents, who have more limited access than adults to contraceptive services, and more unpredictable and irregular sexual encounters. Adolescents also often have inadequate or incorrect knowledge about the reproductive cycle and about effective use of contraceptives.[37]

Data on discontinuation, however, are scarce. In countries with relatively high levels of contraceptive prevalence, such as Indonesia and Bangladesh, adolescents were more likely than older women to discontinue their method within the first year of use. They were also 2–3 times as likely as older women to abandon contraceptive use for reasons such as side effects and health concerns, desire for a more effective and convenient method, problems of access or their husband's disapproval. However, adolescents were no more likely than older women to discontinue use due to method failure.[38] In contrast, data from India show that a smaller proportion of 13–24-year-old women discontinued use than women in any other age-group. The 1992–1993 National Family Health Survey reported that 29% of 13–24-year-old women discontinued contraceptive use, compared with 39% of 25–34 and and 32% of 35–49-year-old women. Compared with women aged 25 or older, younger women were more likely to mention desire for a child but were less likely to mention method failure as their main reason for discontinuation.[39]

It is important to determine whether adolescents switch to another method immediately after discontinuing a contraceptive. Information on patterns of contraceptive switching among adolescents was lacking in all countries. Data on method-specific cumulative probabilities of contraceptive switching within the first two years of contraceptive use in Bangladesh show that among users of oral contraceptives, adolescents have a pattern of contraceptive switching similar to that of other age-groups. However, among users of other modern methods, the likelihood of switching to another method was higher among adolescents than among women in other age-groups.[40] These findings suggest that adolescents could benefit from improvements in education and service provision targeted specifically to them, and particularly from counseling that would encourage the adoption of the methods that are most appropriate to their particular circumstances.[41]

Unmet Need

A large proportion of births to adolescents in all the countries we studied were unplanned (Figure 4). The proportion of unplanned births ranged from less than 10% in Indonesia to 30% or more in Sri Lanka, Thailand and the Philippines.[42] The vast majority of unplanned births were mistimed rather than unwanted. These findings provide clear evidence of a large unmet need for contraception among adolescents. Interestingly, the proportion of unplanned births was much lower than unmet need in countries with low contraceptive prevalence, such as India, Nepal and Pakistan. In contrast, in countries with relatively high contraceptive prevalence—such as Bangladesh, Indonesia, the Philippines and Vietnam—the proportion of unplanned births was slightly higher than or equal to unmet need. Identification of the factors that explain the difference between reported unplanned births and unmet need could help improve the contraceptive practice of adolescents.

The level of unmet need among married adolescents was higher in South Asia than in Southeast Asia; the Philippines was an exception. Substantial differences in unmet need among adolescents existed in each region (Table 2). In South Asia, for example, 19% of married adolescents in Bangladesh had an unmet need for contraception, compared with 41% in Nepal.[43] Similarly, the level of unmet need in Southeast Asia ranged from 9–10% in Indonesia and Vietnam to 32% in the Philippines.[44] Most of the unmet need among married adolescents was for means of spacing births

rather than means of limiting childbearing. The proportion of married adolescents who had an unmet need for means of limiting births was lower than 2% in all countries, except in the Philippines, where it was 5%. During the last decade, the level of unmet need among married adolescents has declined in all the countries for which comparative data were available, but the magnitude of decline varies across countries (not shown). Unmet need declined by more than 30% in Pakistan and Indonesia, compared with 15% in Bangladesh and 11% in India.

Our analysis provides evidence that, at the time these data were collected, current family planning programs were addressing only a small part of the contraceptive demand (the sum of met need and unmet need) of adolescents in South Asia, with the exception of Bangladesh, where 65% of the contraceptive demand of married adolescents was satisfied. Of the contraceptive demand of adolescents, only 14% was met in Nepal,[45] 21% in Pakistan and 23% in India.[46] In comparison, the proportion of adolescents' contraceptive demand being addressed by existing family planning programs in Southeast Asia ranged from 41% in the Philippines to 83% in Indonesia.[47]

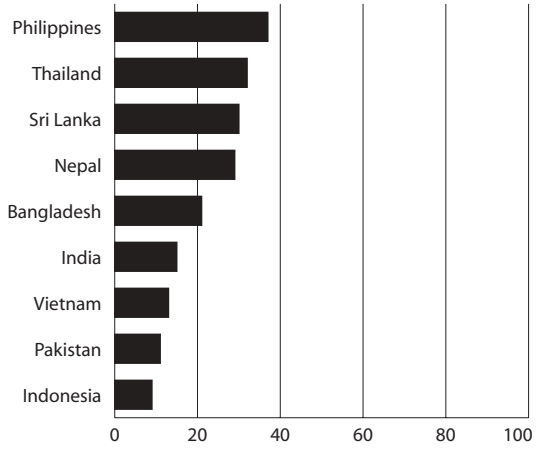
The combination of high unmet need with considerable contraceptive awareness in most of the countries studied, especially those in South Asia, indicates that married adolescents face significant barriers to contraceptive use. First, a married adolescent in South Asia faces enormous familial and societal pressures to have a child, preferably a son, as soon as possible, even when she and her husband want to delay childbearing. Second, knowledge of contraception, as measured in national surveys, is unlikely to reflect a familiarity with and understanding of contraceptives adequate to lead to contraceptive use. In India, for example, universal awareness of contraception was not accompanied by a similar level of knowledge about specific modern reversible methods. Likewise, in Bangladesh, although all married adolescent women knew about contraception, information on the sources of contraceptive supplies was limited. Third, compared with older women, younger women may be less likely to use contraceptives for fear of side effects and health concerns, as indicated by data from Bangladesh and the Philippines. The Demographic and Health Survey in the Philippines revealed that 41% of younger women mentioned side effects and health concerns as reasons for not using contraceptives, whereas only 29% of older women did so.[48] Fourth, there is cross-regional evidence that when young, married females seek fertility regulation services in conservative, high-fertility societies, they encounter substantial, often explicit, provider resistance, as providers are sometimes influenced by cultural mores that prohibit contraceptive use among adolescents.[49] Surveys in Bangladesh, Vietnam and Nepal report that fieldworkers were less likely to visit adolescent females than older women.[50] Fifth, undue emphasis on methods that are inappropriate for married adolescents, for example sterilization in India, does not address the birth spacing needs of young women who are still in the early stages of family formation. Sixth, data from Bangladesh, the Philippines and Vietnam show that younger women are more likely than older women to be influenced by their husbands and to be inhibited by religious beliefs that prohibit contraceptive use.[51] Finally, the inability to negotiate use of contraceptives is a major barrier for adolescent women, who are less likely to discuss family planning with their partners.[52]

TABLE 2. Percentage of currently married female adolescents with unmet need for contraception in selected countries in South Asia and Southeast Asia

Country	Unmet need			% of demand satisfied
	Spacing	Limiting	Total	
Bangladesh (1997)	17.8	0.9	18.7	65.0
India (1998–99)	25.6	1.6	27.1	22.8
Nepal (1996)	38.9	1.6	40.5	13.9
Pakistan (1996–97)	22.4	0.6	23.0	21.4
Indonesia (1997)	8.6	0.5	9.1	83.2
Philippines (1998)	27.4	4.6	32.1	41.4
Vietnam (1997)	9.0	0.7	9.7	65.1

Sources: Reference 9, reference 10 and reference 23.

FIGURE 4. Percentage of births to married adolescents that are unplanned, selected countries of South Asia and Southeast Asia



Sources: **Thailand and Pakistan**—reference 17. **All other countries**—references 9 and 10.

Unmarried Adolescents

Available evidence from countries in Asia suggests that an increasing proportion of unmarried adolescents are sexually active. This behavior places them at risk of unintended pregnancy and STIs. A review in India showed that 20–30% of adolescent males and up to 10% of adolescent females were sexually active before marriage.[53] A study in Bangladesh found high rates of premarital sexual activity among adolescents in rural areas, where 38% of unmarried males and 6% of unmarried females were sexually active by age 18.[54] In yet another study in Bangladesh, 14% of married and 11% of unmarried adolescent males reported premarital sexual activity. However, the reported portion of married and unmarried female adolescents with pre-

marital sexual experience was less than 1%.[55] In a study in one district in Nepal, one in 10 rural, unmarried 15–19-year-old males reported sexual activity.[56] In Vietnam, a study of unmarried 17–24-year-old urban students found that 15% of young men and 2% of young women reported sexual experience.[57] Similarly, in a survey of sexual behavior of adolescent students in Indonesia, 20% of young men and 6% of young women had experienced sexual intercourse.[58]

Very little is known about the contraceptive behaviors of unmarried adolescents in the countries discussed in this paper. DHS and other national surveys have largely excluded this group. Despite an extensive search of Medline and Popline, we were able to find only a few studies that explored the contraceptive behaviors of unmarried adolescents in these countries. Because relatively few unmarried adolescents report being sexually active, data on contraceptive use from these studies may not accurately reflect their contraceptive behaviors. These studies indicate, however, that a large majority of unmarried, sexually active adolescents do not use a contraceptive method. Those who report practicing contraception often use traditional methods that are more difficult for adolescents to use consistently and effectively because they require accurate knowledge of the reproductive cycle and active cooperation of the partner.

Early marriage is not a choice when wife and mother are the only socially valued and economically secure roles for women…

According to a review of a number of studies on premarital sexual behavior among school- and college-age males in India, the vast majority engaged in unprotected sex, even with commercial sex workers.[59] A study in Sri Lanka found that fewer than one in five sexually active unmarried adolescents used contraceptives.[60] In a survey of 13–22-year-old youth in six provinces in Vietnam, 41% of unmarried sexually active males reported using modern contraceptive methods. It was difficult to assess contraceptive use among young women because few reported having had premarital sex.[61] Another study in Vietnam, which examined contraceptive use at first sexual intercourse among unmarried 17–24-year-old students, showed that only 28% of young men and 32% of young women used contraceptives, primarily condoms and traditional methods.[62] A study of unmarried adolescent women who sought abortions in hospitals in Hanoi showed that only 11% had ever used contraceptives.[63] In the Philippines, more than half of female students who were sexually active had used a contraceptive method, primarily rhythm or withdrawal, at the time of their first sexual experience.[64]

Given this evidence, contraceptive behaviors must be examined against the backdrop of early marriage and childbearing among adolescent women in some countries, and rising premarital sexual activity among adolescents in almost all countries.

DISCUSSION AND CONCLUSION

Only recently have Asian countries begun to focus on questions of how reproductive health programs for adolescents should be designed and implemented. Should special programs be designed for adolescents or should sexual and reproductive health services be mainstreamed within existing primary health care programs? What strategies can best reach adolescents in school and out of school? How should programs target young men and women? What strategies can most effectively ensure the involvement of parents, teachers, religious leaders and communities? Very few experiments have been undertaken to test interventions for addressing adolescents' needs. It is, therefore, important to undertake intervention research to identify and examine appropriate strategies for improving adolescent reproductive health.

Designing appropriate and effective strategies to improve adolescent reproductive health requires a better understanding of the reproductive behaviors of adolescents. Our analysis of adolescent contraceptive behaviors and the social and cultural context influencing contraceptive dynamics reveals both commonalities and differences between South Asia and Southeast Asia. Countries in South Asia (except Sri Lanka) are characterized by early marriage, and early childbearing within marriage is prevalent in both regions. Thus, married adolescent women in Asia constitute a uniquely vulnerable population with special needs. Our findings indicate that to improve the reproductive health of adolescents in South Asia, policies are needed to raise the age at marriage and delay childbearing. Southeast Asian countries, on the other hand, must focus on delaying childbearing.

For demographic reasons, policymakers have advocated for many years that age at marriage should be increased and childbearing delayed. There is also a strong health rationale for preventing early childbearing. Unfortunately, however, there are no "technology bullets" to raise age at marriage and delay childbearing. An examination of the social and cultural context of this problem suggests that these cultures mandate early marriage and childbearing. Early marriage is not a choice when wife and mother are the only socially valued and economically secure roles for women, as is the case in most countries in South Asia.[65] Within this framework, policy must challenge social norms that devalue women. The answers lie in finding routes to economic and social survival for women, and in providing information that is honest and timely and that recognizes the power differentials in relationships that perpetuate the problems of early marriage and childbearing.

Our analysis is focused on contraceptive behaviors. Although there has been a significant increase in contraceptive use among adolescents in all countries, there remains a large unmet contraceptive need, which is generally greater in South Asian than in Southeast Asian countries. Our data indicate that strategies different from those traditionally used to meet the contraceptive needs of older couples are required to meet the needs of adolescents.

Enhancing access to information and services targeted to adolescents is a high priority. Adolescents also need more contraceptive choices. Married adolescent women, especially those in South Asia, do not have information about reversible methods and the sources from which such methods can be obtained. Adolescents also need special coun-

seling to dispel misconceptions about contraceptive side effects and health concerns and to enhance their negotiating skills. Orienting service providers to the special needs of adolescents, equipping service delivery points with a basket of methods, providing informed contraceptive choice and organizing effective outreach services could bring about positive changes in contraceptive use dynamics. And finally, because adolescent women are especially disempowered because of their age and social status, programs must be designed to promote shared responsibility and active involvement of males as responsible sexual partners, husbands and fathers to prevent unwanted pregnancy and STIs.

Available evidence suggests that an increasing proportion of unmarried adolescents are sexually active. However, data on their contraceptive behaviors are grossly inadequate. From the limited information available, it is evident that the vast majority of unmarried, sexually active adolescents use either traditional methods or no method. Traditional methods are more difficult to use consistently and effectively than modern methods and none of them provide any protection against STIs. These findings highlight the need for innovative strategies to reach out to unmarried adolescents with better information and services.

All adolescents need accurate, user-friendly information about sexuality, reproduction and contraception. This need is shared by all young people, rich and poor, sexually active and inactive, married and unmarried, male and female. Adolescents must also be adequately equipped with the skills needed to translate knowledge into healthy behaviors. The differences in social and cultural environments as well as the characteristics of adolescents in each society must be kept in mind when designing reproductive and sexual health programs. Multiple entry points (education, work, sports or other social activities) and settings (home, community, workplace, school or clinic) must be used to enhance access to sexual and reproductive health information and services. Programs must build upon and link to existing services in flexible, new ways so that many more adolescents can be reached.

Our analysis reveals an urgent need for research on adolescent sexual and reproductive health in Asia. Of particular relevance to future programming is the need for more information on adolescent sexuality, including the circumstances surrounding sexual initiation and the decision to practice contraception. This information is critical to the creation of user-friendly reproductive health programs for adolescents. Finally, a deeper understanding of the social dynamics that create pressures for married women to prove their fertility soon after marriage could help in the design and implementation of strategies to empower adolescents.

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RESUMEN

Contexto: *En muchos países del Asia el porcentaje de adolescentes en la población es elevado y continúa creciendo; en consecuencia, el nivel de conocimiento y de uso de anticonceptivos de este grupo poblacional tiene importantes consecuencias tanto para la salud pública como para el crecimiento demográfico.*

Métodos: *Datos recogidos en las Encuestas Demográficas y de Salud, en diversas encuestas nacionales y en estudios realizados durante la última década, fueron analizados para examinar la conducta que observan los adolescentes asiáticos en materia de anticoncepción. El análisis abarca a Bangladesh, India, Nepal, Pakistán y Sri Lanka en el Asia del Sur, así como a Indonesia, las Filipinas, Tailandia y Vietnam en el Asia Sudoriental.*

Resultados: *Si bien casi todos los adolescentes casados tienen conocimientos sobre la anticoncepción, su conocimiento de métodos específicos y las fuentes de ellos es muy limitado. El uso de métodos modernos varía considerablemente entre los diferentes países, desde el 2% de los adolescentes de Pakistán hasta el 44% de los de Indonesia. No obstante, en general, la prevalencia del uso de anticonceptivos es más baja en el Asia del Sur que en el Asia Sudoriental. Aunque ha habido un aumento sustancial del uso de anticonceptivos entre los adolescentes, la necesidad insatisfecha se mantiene elevada y varía entre el 9% en Indonesia y el 41% en Nepal. La gran mayoría de adolescentes no casados y sexualmente activos no usan anticonceptivos o utilizan métodos tradicionales.*

Conclusiones: *Los adolescentes asiáticos necesitan tener acceso a información confiable sobre sexualidad, reproducción y anticoncepción, así como a servicios de salud reproductiva suministrados en un ambiente receptivo. Se debe investigar sobre las intervenciones que pueden identificar las estrategias adecuadas para satisfacer estas necesidades.*

RÉSUMÉ

Contexte: *Les adolescents représentent une proportion vaste et grandissante de nombreuses populations d'Asie. Leur connaissance de la contraception et l'usage qu'ils en font s'accompagnent dès lors de sérieuses implications, tant pour la santé publique qu'en termes de croissance démographique.*

Méthodes: *Les données d'Enquêtes démographiques et de santé et celles d'autres enquêtes nationales et études menées durant les 10 dernières années servent à l'examen des comportements des adolescents d'Asie vis-à-vis de la contraception. L'analyse couvre le Bangladesh, l'Inde, le Népal, le Pakistan et Sri Lanka en Asie du Sud, et l'Indonésie, les Philippines, la Thaïlande et le Vietnam en Asie du Sud-Est.*

Résultats: *Malgré une conscience presque universelle de la contraception parmi les adolescentes mariées, la connaissance des méthodes spécifiques et des sources d'approvisionnement est limitée. La pratique des méthodes modernes varie considérablement d'un pays à l'autre, de 2% parmi les adolescentes pakistanaises à 44% chez les Indonésiennes. En général, toute fois, la prévalence contraceptive est moindre en Asie du Sud qu'en Asie du Sud-Est. En dépit d'une hausse importante de la pratique contraceptive chez les adolescents, le besoin non satisfait demeure élevé, de 9% en Indonésie à 41% au Népal. La grande majorité des adolescents célibataires sexuellement actifs n'utilise aucun contraceptif ou pratique les méthodes traditionnelles.*

Conclusions: *Les adolescents d'Asie ont besoin d'une information précise sur la sexualité, la reproduction et la contraception, ainsi que de services de santé génésique accueillants et ouverts. Une recherche d'intervention serait utile à l'identification des stratégies aptes à répondre à ces besoins.*

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