

Contraceptive Use

Contraceptive Use and Fertility

Contraceptive use is a second key proximate determinant of adolescent fertility, though accumulated evidence indicates that the use of family planning by women in this age group is less important a determinant of their fertility than age at entry into union.¹⁴

Maternal and child health and family planning programs have now been implemented in virtually all developing countries to make contraceptive information and services available to couples wishing to control their childbearing. Programs designed to motivate and inform couples interested in planning their families, as well as programs aimed at making services more accessible to couples, represent important tools of government and private sector agencies concerned with

improving maternal and child health in these countries.

Since the late 1960's, general improvements in public acceptance of women's rights in the area of fertility limitation and the expansion of government services to underserved populations have been associated with significant increases in the use of contraception by women in all age groups. These trends have been more pronounced in parts of Asia and Latin America, and less obvious in Sub-Saharan Africa. However, the extent to which contraceptive use rather than rising age at marriage has been significant in determining declines in fertility rates has varied from country to country. In addition, the impacts of changes in the distribution of the population, growing female literacy and enrollment ratios, and improved labor force opportunities for women on changes in motivation and actual use of contraception have also varied from country to country (see, for example, Cochran and Guilkey (1991, 1992)).

Actual use of contraception among adolescents (as among other age groups) may be considered a function of (1) interest or motivation in delaying, spacing, or limiting childbearing within a population, and (2) the accessibility of contraceptive services to that population. Effective access may, in turn, be defined in terms of:

- awareness or knowledge of sources of family planning information and other services;
- proximity to one or more sources of those services; and
- the extent to which other constraints exist that limit utilization of those services. Such constraints may include the cost of contraception, social barriers, and the quality of services available (a function of the availability of medical personnel, facility operating procedures, motivation of staff, adequacy of supplies, and other factors not dependent on proximity. See Lewis and Novak 1980:243).

¹⁴ See, for example, United Nations (1987:178), UNESCAP (1987:296), UNECLAC (1987:320), Farid (1987:347,352).

What the Data Show

Contraceptive prevalence is relatively low among adolescent women, and standard errors of survey statistics relating to prevalence are correspondingly relatively larger than for some other kinds of data. This being so, the reader should recognize the limitations of the conclusions drawn in this section of the report. This is particularly true of conclusions about (1) trends in adolescent contraceptive use, which rely on data from two or more surveys, each with its own sampling (and nonsampling) errors, and (2) prevalence among adolescent subgroups. With this word of caution in mind, let us turn now to the data, beginning with the relationship between contraceptive prevalence and fertility among married adolescent women.

Adolescents and Contraceptive Use: A Sensitive Issue

Interpreting and analyzing contraceptive use data, especially among teenagers, presents some difficulties. Most international comparisons of contraceptive use focus on the activities of married women. Because the customs governing marriage and the formation of marriage-like unions vary from country to country, the definition of a union equivalent to marriage may vary from study to study. However, it often includes some form of consensual union (as has been true for both the WFS and DHS programs). The real difficulty arises not from the definition of marriage but from the sensitivity of questioning unmarried teens about their family planning practices and, by implication, their sexual activities. Surveys in some countries (primarily Asia and the Near East) have not asked unmarried women about family planning practices, so that data are available only for ever-married women.

Even where questions have been asked, sample sizes from the World Fertility Survey program and the Demographic and Health Surveys program are too small to permit full and separate analysis of each country's prevalence rates among married and unmarried teenagers.

This report presents data for all adolescent women, both currently married and never married. However, most of the discussion in this section on contraceptive use refers only to currently married adolescent women because doing so allows comparison of results across more countries.

Some data on unmarried women are introduced on pages 40-42 because these women comprise a significant portion of adolescent users of contraception in many countries.

Figure 20.
Fertility and Contraceptive Use of Adolescent Women



The empirical association with fertility. A cross-national comparison of percentages of currently married women ages 15-19 using contraception and age-specific fertility data from surveys conducted in the late 1980's and early 1990's (figure 20) fails to show the kind of clear relationship expected for populations comprised of all women of reproductive age taken together. If the expected inverse relationship shows up at all in these data, it is for the countries making up the Latin America and Caribbean group. But even here the relationship is at best weak. In short, during the past decade, like the decade before, contraceptive use has not been the dominant proximate determinant of fertility for women in the age range 15 to 19. Age at marriage is the telling factor in determining exposure to pregnancy and childbearing for adolescent women.

Prevalence. Proportions of married adolescent women using any method of family planning, modern or traditional, are generally low, but with sizeable intraregional and interregional variation.¹⁵ In some countries (Brazil, Costa Rica, Jamaica, Mauritius, and Thailand, for example), more than 40 percent of married adolescent women are using some kind of contraception. However, at the other end of the

¹⁵The discussion and figures in this section of the report, and appendix tables 15 and 16 (which are the basis for much of the discussion), distinguish modern from traditional methods of contraception. Modern methods include the pill, condom, intra-uterine device (IUD), injection, implants, vaginal methods (including foam, jelly, diaphragm), female sterilization, and male sterilization (vasectomy). Traditional methods include the periodic abstinence/rhythm method, withdrawal, and folk methods.

*Data for Tanzania are from the 1991/1992 DHS. Data for other countries are from the latest DHS.

spectrum, in quite a few countries, mostly in Sub-Saharan Africa, contraceptive use by married women ages 15 to 19 is below 10 percent. For 12 of the 22 Sub-Saharan African countries listed in appendix table 15, the most recent survey figure on contraceptive prevalence is below 10 percent.

For modern methods, the median levels of contraceptive use in the regions, taking the most recent estimate available for each country, are:

Region	Percent
SSA	2.1
ANENA	9.7
LAC	22.6

Levels of contraceptive use among married women in the 15-19 age group, regardless of region, are low relative to levels of use among older women (ages 20-49 years, figure 21 and appendix tables 15 and 16). This is hardly surprising. Adolescent women are young, at the beginning of their reproductive lives and, once married, often are under social pressures to have children.

Method mix. Married adolescents use contraception less frequently than older women (as noted), and when they do use family planning to delay, space, or limit childbearing, they may use less efficient methods. Though figure 21 and appendix tables 15 and 16 show that age-specific differences in method mix are generally small, where there do seem to be sizeable within-country differences — as in Senegal and Tanzania in SSA; India, Jordan, and Yemen in ANENA; and Guatemala in LAC —

Figure 21.
Use of Contraceptive Methods by Selected Age Groups

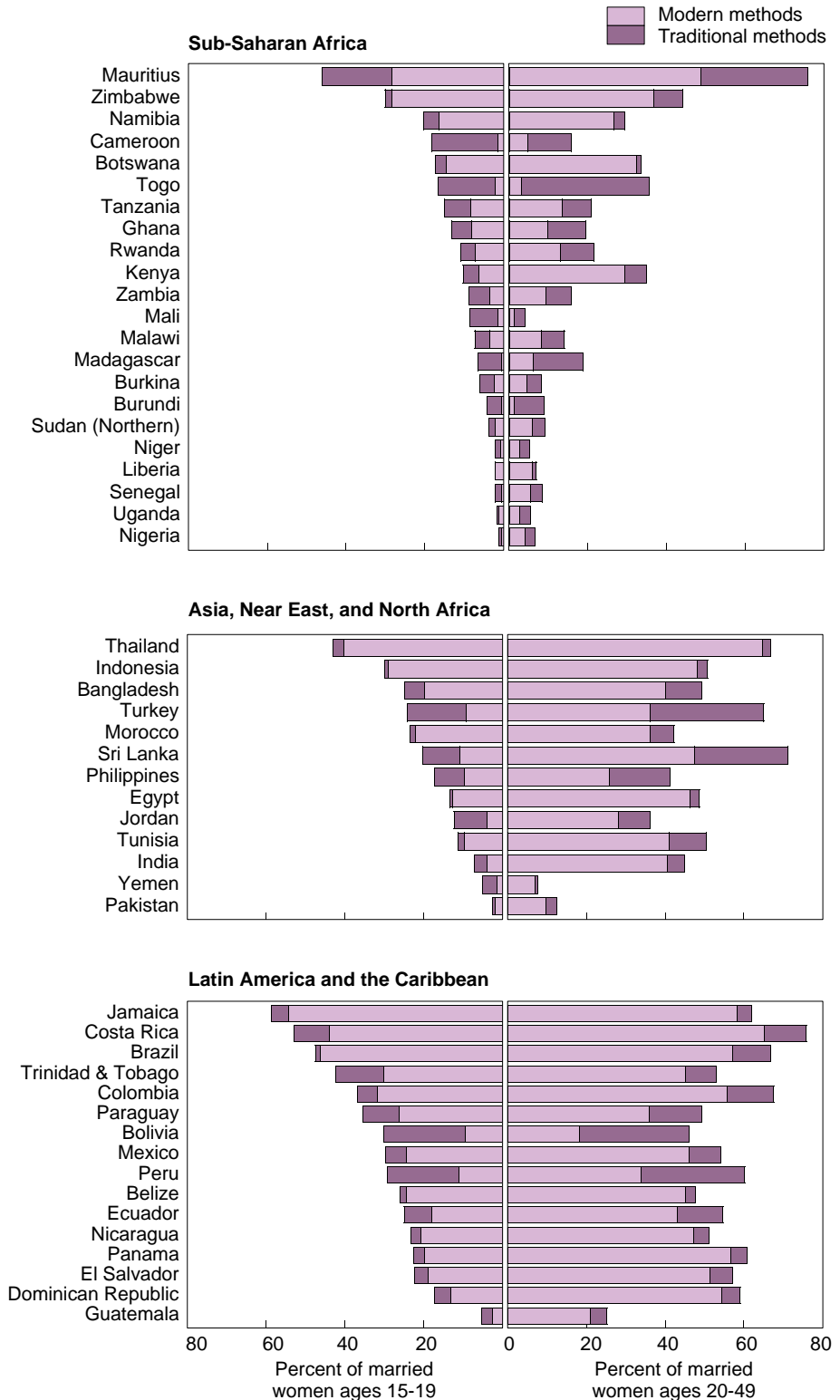


Figure 22a.
Use of Contraception by Knowledge of Source of Modern Method
 (30 countries)

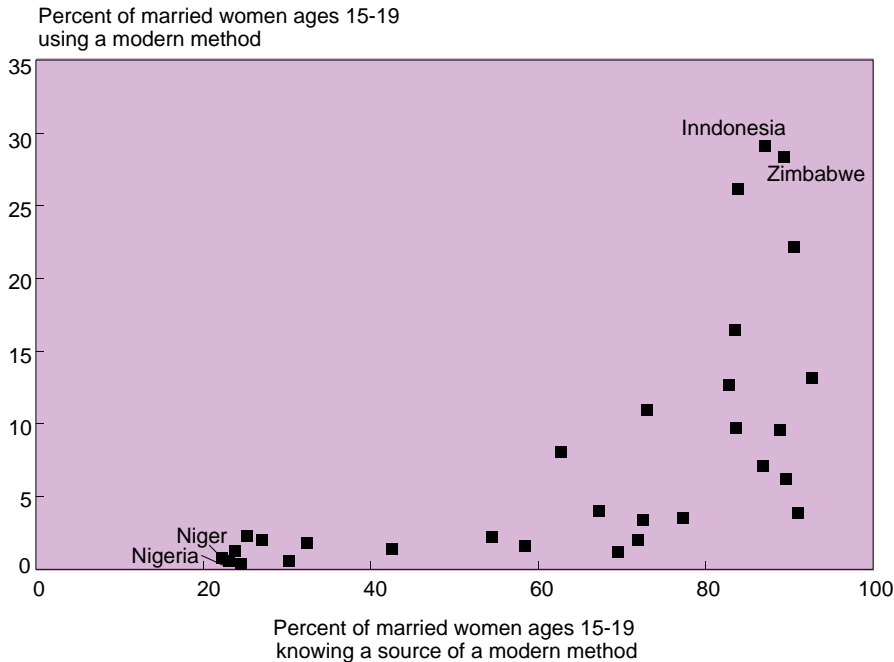
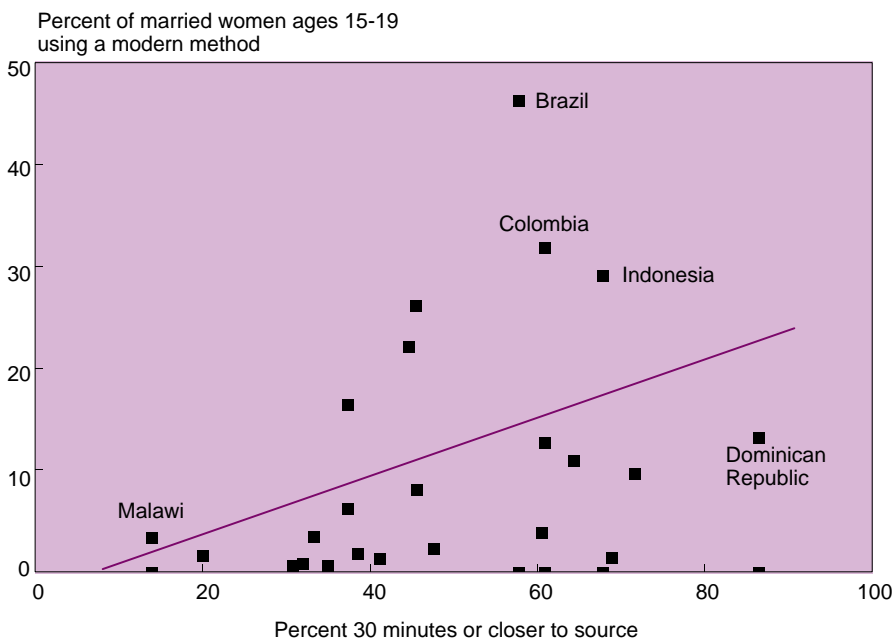


Figure 22b.
Use of Contraception by Proximity to Nearest Source
 (23 countries)



these consistently point to use of less effective methods by *adolescent* women.

Access. Knowledge of family planning methods, knowledge of a source of a method or of a modern method, proximity to or density of sources, and the financial cost of contraception are alternative indicators of effective “access” to family planning in a population. Relationships between these kinds of variables and levels of current use of modern contraception across populations suggest how resources devoted to family health services might be more efficiently utilized, at least for this particular age group.

Three measures of access are used here (figures 22a,b,c): (1) percent of married women ages 15-19 knowing a source for a modern method of contraception (taken from appendix table 17); (2) percent of women ages 15 to 49 who say they are within 30 minutes travel time of a source for a modern method (a proxy for proximity for married women ages 15-19); and (3) the cost of an annual supply of oral contraceptives as a percentage of gross national product per capita (from appendix table 18). The cost of oral contraceptives is used because young couples, who are more interested in delaying the start of childbearing or in spacing the births of their children, tend to use oral contraceptives more often than other methods (appendix table 15; United Nations 1987: 151-157).

The data, from DHS surveys undertaken in the late 1980's and early 1990's, show that:

- The relationship between contraceptive use (of any modern

method) and knowledge is positive: countries with higher percentages of married adolescent women knowing a source of a modern method are more likely to have higher levels of contraceptive use in this age group. However, as figure 22a shows, the relationship is more curvilinear than linear,¹⁶ reconfirming evidence from numerous sources on the relationships between motivation, contraceptive knowledge, and actual use: knowledge is a necessary but not a sufficient condition for use. For the 30 countries represented in this graph, only countries with high levels of awareness have higher levels of utilization among adolescents, but a number of countries with relatively high awareness do not have high proportions of adolescents using modern methods of family planning.

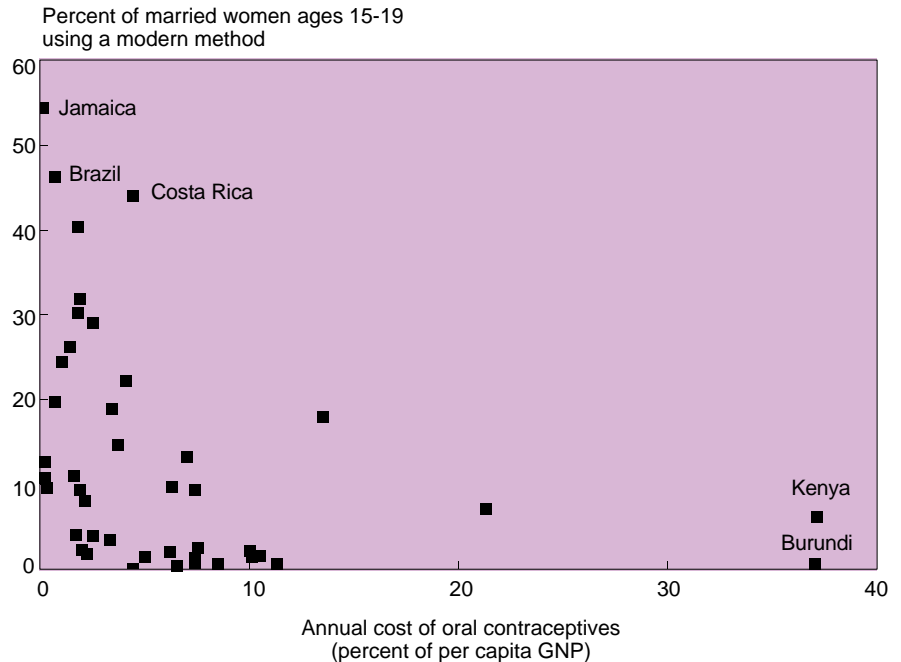
- Access to modern contraceptives, measured by reported proximity to a supply source, is also positively related to contraceptive use, though the relationship is weaker than that between knowledge and use (figure 22b). Colombia, Indonesia, and Brazil have relatively good access and relatively high prevalence among married adolescents. Malawi is a country with relatively poor access and low prevalence. However, there are also a number of countries

¹⁶ R-squared and the t-statistic for the estimated coefficient of the knowledge-of-source variable of an ordinary least-squares regression line through the data points shown in figure 22a are 0.41 and 4.4, respectively. If the natural logs of knowledge and contraceptive use are substituted in order to linearize the relationship, the fit is improved: R-squared and the t-statistic increase to 0.64 and 7.0, respectively.

Figure 22c.

Use of Contraception by Cost of Contraceptives

(41 countries)



with moderately high to high levels of access as measured by proximity, but low prevalence (the Dominican Republic, for example). Again, this is consistent with our understanding of contraceptive use as a function of both supply and demand factors.

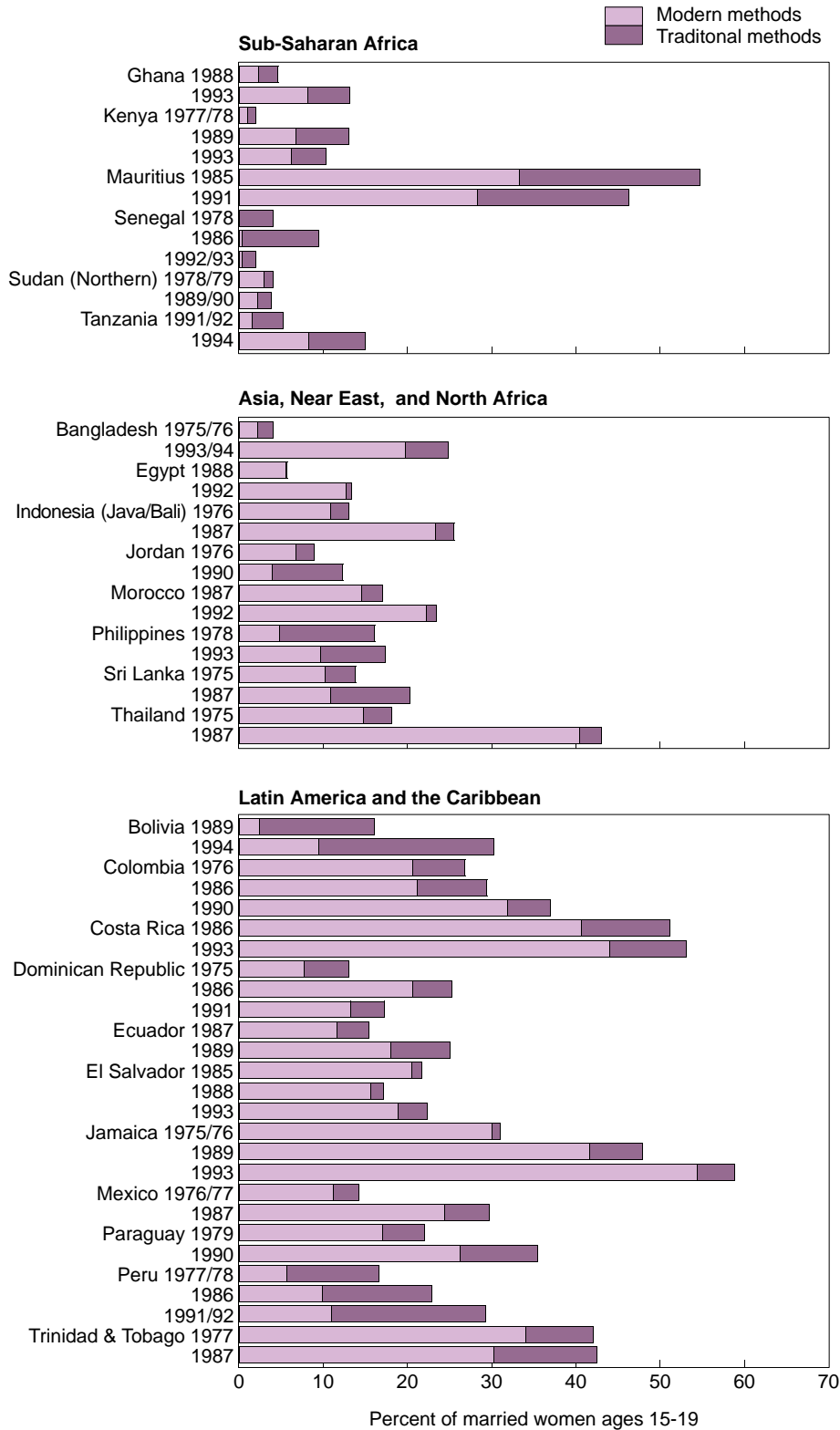
- As expected, use of modern contraception by married adolescent women is inversely related to its cost in 41 countries shown in figure 22c. However, once again, the relationship among countries is more convex than linear, suggesting that cost is not the only consideration underlying contraceptive use among married adolescents in the developing world.

Taken together, these graphs imply that access to family planning

methods may well be important, but is not a sufficient explanation for variation in prevalence levels across countries.

There are other possible reasons for not finding easily interpretable, linear relationships between the measures of access employed here and levels of contraceptive use among adolescent couples as well (see, for example, Tsui 1991; Cochran and Guilkey 1991; Casterline 1991). An obvious possibility is that simple 2-way associations based on aggregate level, cross-sectional data are only imperfectly able to capture relationships involving motivation as well as access and individual-level decisions affecting the beginning of childbearing and the spacing of children during the teenage years (cf. Wilkinson 1991).

Figure 23.
Trends in the Use of Contraceptive Methods by Adolescent Women



Trends in Contraceptive Use Among Married Adolescents

Data from the World Fertility Surveys conducted in the late 1970's and early 1980's can be combined with DHS data sets from the late 1980's and early 1990's to show trends (figure 23). These data show that contraceptive use among married adolescents has increased in most countries over the last 20 years.

There are exceptions. The Dominican Republic, Kenya, Mauritius, and Senegal appear to have witnessed recent declines in the use of contraception among adolescents. However, small apparent decreases (or increases) in prevalence also may be at least partly attributable to sampling error. And the declines in prevalence in Kenya and Senegal are the result of decreases in the less well-measured use of traditional methods.

Comparison of WFS and DHS data also provide some idea of regional changes that have occurred in the prevalence of *modern* methods of family planning.¹⁷ The data suggest that use of modern methods by married adolescents has risen in most, but not all, countries in the three regions; specifically, in 3 of 6 Sub-Saharan African countries; in 7 of 8 Asian, Near East, and North African countries; in 9 of 11 Latin American and Caribbean countries.

¹⁷ Trends in the use of modern methods are shown because modern method prevalence is arguably better measured than levels and changes in levels of use of nonmodern methods. Countries where modern method prevalence has risen then fallen, with the latest value greater than the earliest shown, are counted as cases of rising use here.

In Asia, the Near East, and North Africa, all countries surveyed had an increase in overall use of family planning. Most countries had increases in the use of modern methods, particularly Bangladesh and Thailand, where modern method use more than doubled.

Most Latin American and Caribbean countries also had increases in both overall use and use of modern methods. However, the Dominican Republic, El Salvador, and Trinidad and Tobago reported noticeable declines in the use of modern methods by adolescents.

Contraceptive Use by Unmarried Adolescents¹⁸

Up to this point, the data presented on contraceptive use have referred to married women ages 15 to 19. In many countries, sexual activity prior to marriage is uncommon, and so is the use of contraception. However, in other countries, young men and women are sexually active prior to marriage, and unplanned pregnancy among young

¹⁸ The term "unmarried," as used here, follows definitions used in the surveys from which the data are taken. It refers to women not currently in union; i.e., neither formally married nor living in union with a man.

unmarried women is a growing concern among health workers.

Recognizing this, most of the African and Latin American DHS samples have been designed to provide information about all women rather than ever-married women. The collection of information on current contraceptive use for all women, regardless of their marital status, permits a better description of contraceptive use on the part of young women for these countries. The collection of information about sexual activity among unmarried teens as part of the same series of surveys provides insight into the contexts within which that use takes place.

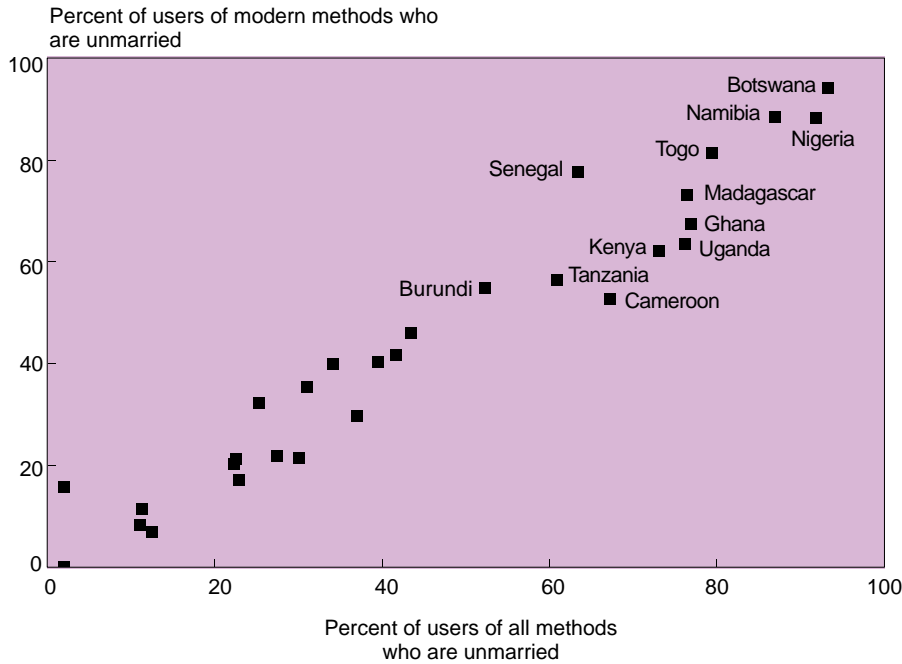
Data from 19 Sub-Saharan African and 9 Latin American/Caribbean DHS studies conducted in the late 1980's and early 1990's show that, as would be expected, contraceptive prevalence is lower among unmarried teens than for married women ages 15 to 19 (table 7, rows 1 and 2). Exposure to sexual intercourse, pregnancy, and childbearing is less for unmarried adolescents than for women in union, and this is reflected in the frequency of contraceptive use. However, the data also show that nearly 6 in 10 adolescent women in African countries and 2 in 10 adolescent women in Latin America who use contraception are *unmarried* (table 7, rows 3 and 4). In short, a substantial proportion of adolescent users of modern methods of family planning in Africa and Latin America, at least, are unmarried.

Table 7.
Contraceptive Use Among Married and Unmarried Adolescents: Regional Means

	Sub-Saharan Africa (19 countries)	Latin America/ Caribbean (9 countries)
Contraceptive prevalence (modern methods) among:		
Married women ages 15-19	3.0	3.7
Unmarried women ages 15-19	2.5	0.8
Percentage of users of contraception (women ages 15-19) who are unmarried:		
All methods	59.0	21.2
Modern methods	57.4	19.9
Percentage of methods used by women 15-19 that are modern:		
Married women	44.8	65.2
Unmarried women	42.9	95.6

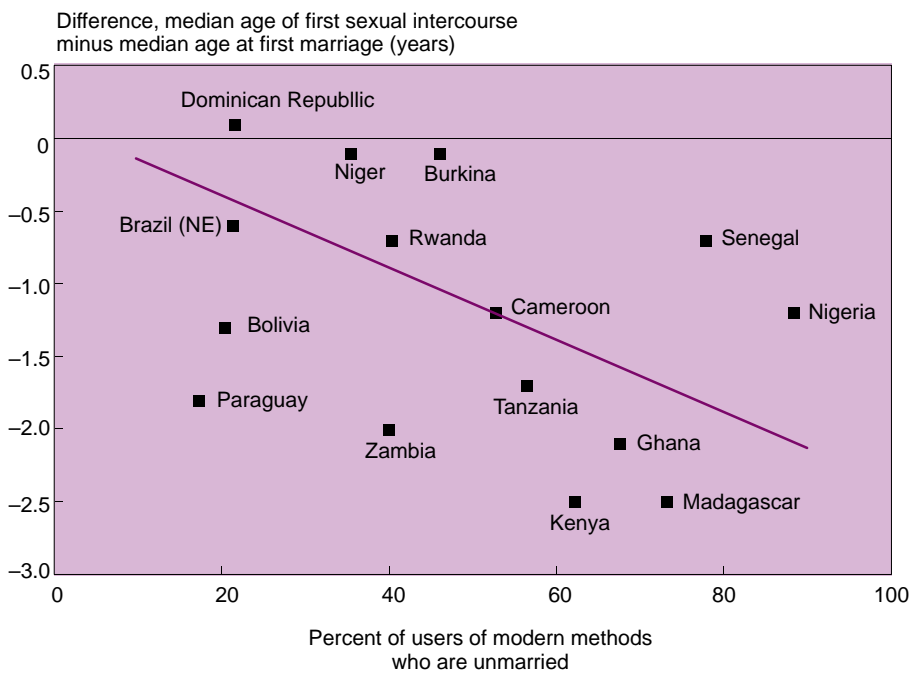
Note: Values shown are simple means for countries for which data are available. Data on use of contraceptives among currently married and all women ages 15-19 are available only for the Philippines out of all DHS countries in Asia, the Near East, and North Africa.

Figure 24.
Marital Status of Contraceptive Users Ages 15-19
 (29 countries)



Regional averages obscure the very considerable country-to-country variation in these numbers. Country-specific data presented in figure 24 draw attention to those countries where unmarried adolescents represent a particularly sizeable part of all adolescent users and where family planning communication and delivery strategies, as well as other outreach programs, should be designed with this fact in mind. Figure 24 shows that for some African countries — including Botswana, Nigeria, Namibia, Togo, Madagascar, Senegal, and 6 others — over one-half of all adolescent users are unmarried, whether all methods or just modern methods are considered. The Latin American and Caribbean countries are clustered in the under-50-percent-of-users range, but even here as many as one-fourth of teenage users of contraception are unmarried.

Figure 25.
Premarital Sexual Activity and Use of Modern Contraceptives by Unmarried Adolescents
 (15 countries)



Part of the explanation for country-to-country variation in proportions of adolescent contraceptive users who are unmarried lies in variability in the timing of first sexual intercourse from one population to the next. (The timing of first sexual intercourse in a population is one of the proximate determinants of fertility listed in the framework set out in figure 1, page 3). DHS data for 14 countries and 1 subnational region (Northeast Brazil) help define populations of young adults exposed to the risk of pregnancy prior to marriage (figure 25). These data show that modern method usage among unmarried teenagers is closely associated with premarital sexual activity (measured in terms of duration rather than frequency, as median age at first intercourse minus

median age at first marriage). Though data relating to premarital sexual activity may be subject to a variety of kinds of reporting error,¹⁹ these data suggest that countries where young women are sexually active for longer periods of time prior to marriage are also countries where relatively high percentages of adolescent users of modern methods are unmarried (figure 25).

This correlation does not indicate whether the need for contraception among unmarried adolescents is being met in these countries.

However, work recently completed using DHS data from seven African countries (Botswana, Ghana, Liberia, Nigeria, Togo, Uganda, and Zimbabwe) suggests that it may not be: only 1 in 6 (ever) sexually active unmarried teens in these countries is currently using contraception, and only 8 percent are using a modern method of contraception. (Figure 26 data are from Macro International 1993a - 1993g.)

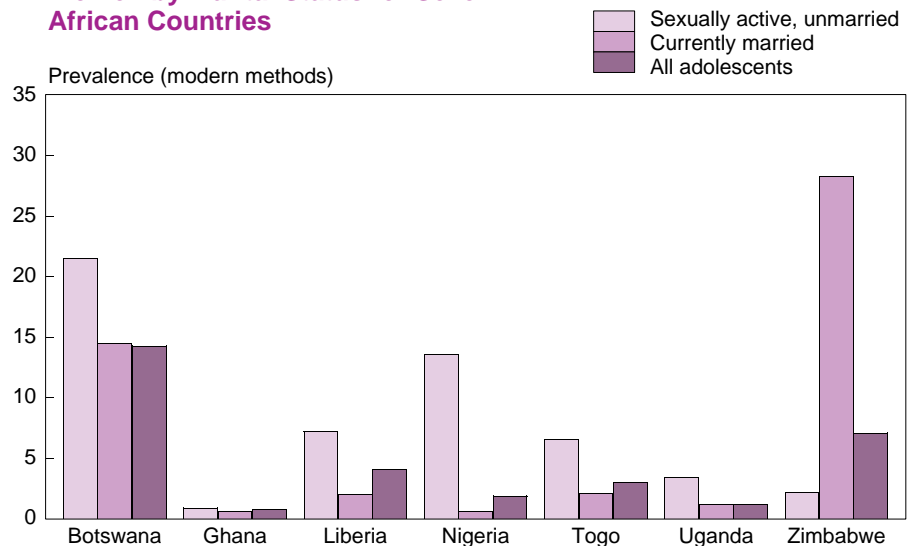
Unmet Need for Family Planning

The term “unmet need for family planning” refers to women at risk who do not want additional children or want to postpone their next birth but are not presently using any

¹⁹ See, for example, the cautionary statements to this effect from the 1988 Zimbabwe DHS or United Nations (1989:44-54).

Figure 26.

Contraceptive Prevalence of Adolescent Women by Marital Status for Seven African Countries



method of contraception.²⁰ Even where access to family planning information and services seems to be fairly good, the motivation to use contraception effectively may be weak, or women may face other obstacles — related to the quality of available care, for example — in taking advantage of those services. For whatever reasons, most age groups in most populations include

a group of women who may be said to have unmet need.

Data from Demographic and Health Surveys fielded in the late 1980's and early 1990's indicate that between 15 percent and about 45 percent of currently married adolescent women in each of the three regions are classified as having unmet need for contraception (appendix table 19). These figures may be considered lower bounds if some additional need is attributed to currently sexually active teens who are not using contraception.²¹

The implied number of *married* adolescents with unmet need is in itself a rather large figure. It represents approximately 3 million women in need in Sub-Saharan

²⁰ Unmet need has been measured from DHS data as the percentage of fecund, nonpregnant, nonamenorrheic women in union who, either for the last pregnancy or for those within some defined time frame, wanted to control their child-bearing but were not practicing contraception (Westoff and Ochoa 1992:2-4). The treatment of pregnant and amenorrheic women has varied from report to report, however. (See, for example, Westoff and Ochoa 1992 and Philippines (NSO) and Macro International 1994:76:fn. 1 and 2). The figures shown in table 8 are taken from the same table in each report and use the same definition across age groups within each country. Figures in column 2 (for women ages 20 to 49) are weighted means, based on age-specific total unmet need (i.e., for spacing and for limiting) weighted by numbers of currently married women.

²¹ Unfortunately, the data required to estimate this possible additional unmet need — tables showing currently sexually active unmarried adolescents by use of contraception — have not been published by Macro International.

Figure 27.
**Percent of Currently Married Women Ages 15 to 19
With Unmet Need for Family Planning**

Map not available at this time.

Table 8.
Unmet Need of Adolescents and Older Women for Selected Countries

Country	Percent of married women ages 20-49 with unmet need	Percent of married women ages 15-19 with unmet need
Kenya	36.1	41.9
Cameroon	23.0	15.1
Philippines	26.1	31.5
Indonesia	12.5	15.6
Dominican Republic	15.6	36.3
Colombia	15.4	15.0

Sources: Figures are from most recent DHS final reports. Figures for adolescent women are also shown in appendix table 19.

Africa; 8.6 million women in Asia, the Near East, and North Africa; and over 1 million women in Latin America and the Caribbean.²²

Most of the unmet need reported is for spacing or postponement rather than fertility limitation, since very few couples in the age range 15-19 intend to stop family formation at this age. (Country data on type of unmet need are shown in appendix table 19).

If absolute numbers of young, married women with unmet need are used as a guide, the region with the highest unmet need is Asia, the

²² These figures are calculated by multiplying (1) unweighted mean regional percentages of unmet need for DHS countries (from appendix table 19) by (2) numbers of currently married women ages 15-19, taken from the International Data Base of the Bureau of the Census.

Near East, and North Africa, with its 8.6 million young women in need of family planning services. If intensity (or the proportion of women in individual countries with unmet need) is considered, then Sub-Saharan Africa, with four countries with 40 percent or more of married adolescents with unmet need and another three countries with 30 percent or more with unmet need has the highest overall gap (figure 27). Interestingly enough, the region of greatest need, measured as the proportion of *countries* with more than 30 percent of couples classified as having unmet need, is Latin America and the Caribbean. Six of the 10 countries from this region in figure 27 have over 30 percent unmet need among adolescents, compared with 2 to 4 countries out of 10 in the other two regions.

Because patterns (and certainly the absolute numbers of women with unmet need) at other ages may be quite different across regions, it would be misleading to suggest, on the basis of these data, that the region of greatest unmet need overall is ANENA (or SSA or LAC). But these data do indicate a serious need among adolescent women in all three regions. They further suggest that the need among this age group is somewhat more widespread in the region with the highest contraceptive prevalence levels (Latin America and the Caribbean).

Moreover, particularly in countries where proportions of married adolescents with unmet need are highest, adolescent unmet need may exceed that of older women (table 8).

The pregnancies associated with adolescent unmet need are high risk pregnancies (in terms of both maternal and infant health) as well as being unplanned. For this reason, perhaps even more than for reasons having to do with the various social disadvantages and societal costs of early childbearing, this group of women should be considered in need of special attention as governments of the developing world consider their responses to the reproductive health challenges highlighted in Cairo.

From the Cairo Program of Action:

“All countries should, over the next several years, assess the extent of national unmet need for good-quality family planning services and its integration in the reproductive health context, paying particular attention to the most vulnerable and underserved groups in the population. All countries should take steps to meet the family-planning needs of their populations as soon as possible and should, in all cases by the year 2015, seek to provide universal access to a full range of safe and reliable family-planning methods and to related reproductive health services...” (section 7.16).