

CONTRACEPTIVE PREVALENCE IN THE DEVELOPING WORLD



The first section of this report underscored the importance of looking at national population growth as the outcome of the interplay of current and future fertility, mortality, and migration, on the one hand, and population age structure — its built-in momentum — on the other. In the first half of the 21st century, a country's fertility level will be key to understanding its long-term growth potential and the way in which its age composition evolves. Regional fertility levels will help

dictate the extent to which some world regions grow relative to others.

*This section on **Contraceptive Prevalance in the Developing World** summarizes currently available information about levels and trends in a principal determinant of fertility level in that part of the world likely to see the greatest population growth during the first decades of this millennium. It also presents a new estimate of unmet need for contraception in the developing world.*

Contraceptive Prevalence Matters

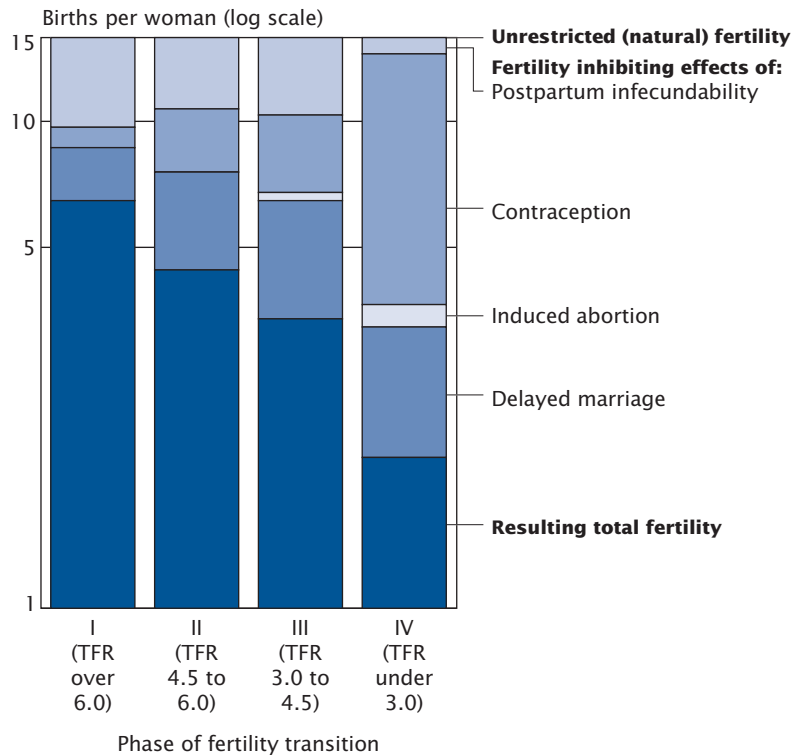
Over the past three decades, developing countries have made substantial progress toward improving maternal and child health, providing reproductive health services to couples, and bringing fertility and mortality levels into line with national goals. While the HIV/AIDS pandemic has had a dramatic impact on the health, growth, and composition of seriously affected populations, fertility remains the dominant factor dictating the future size, growth, and composition of most developing nations.

Of the many factors considered important in understanding variation in fertility over time and from one population to the next, contraceptive prevalence is considered key in many developing countries. Over 20 years ago, Bongaarts (1976, 1981, 1982) observed that as a country passes through the demographic transition from high to lower fertility, four “proximate determinants” of fertility account for most of the difference between natural fertility and the observed total fertility rate. These factors include changes in marriage patterns, changes in postpartum infecundability (due to changing breastfeeding patterns), increased reliance on family planning to space or limit births, and changes in rates of induced abortion. Bongaarts argued, and considerable empirical evidence provides support to the proposition, that contraceptive prevalence becomes increasingly important in understanding fertility change as the fertility transition proceeds (Figure 42).

Figure 42.

Conceptual Model of the Changing Contribution of Contraception and Other Proximate Determinants to Fertility Decline

The relative importance of factors determining fertility level varies with phase of fertility transition.



Source: Bongaarts (1982).

From a demographic standpoint, then, contraceptive prevalence levels are integral to understanding recent trends, current levels, and perhaps the future direction of fertility in developing countries.

In 1994, 180 nations met at the International Conference on Population and Development (ICPD) in Cairo and adopted a Programme of Action which included among its major goals improving reproductive health and making family

planning services universally available to couples in all countries (United Nations, 1995a). The first 5-year review of progress made in achieving the objectives of the ICPD indicates that additional effort is required to meet these objectives (United Nations, 1999a).

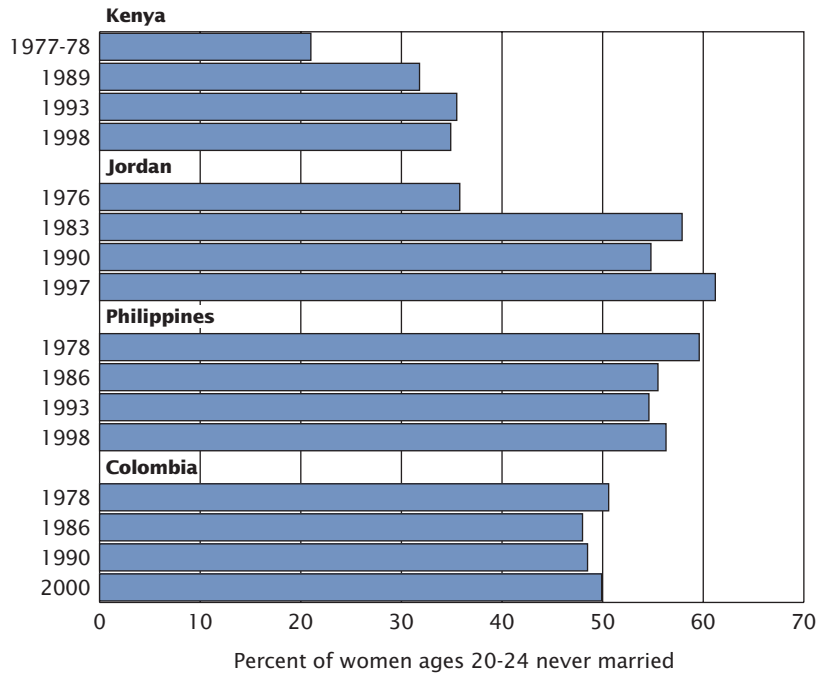
This section reflects the importance attached to contraceptive prevalence around the world, from both demographic and reproductive health standpoints.

The Fertility Transition Reflects Changing Marriage Patterns and Increased Control of Fertility Within Marriage

The combined effects of rising age at marriage and the growing use of family planning to postpone the onset of childbearing or limit family size within marriage is illustrated with data from four developing countries in Figures 43 through 46.

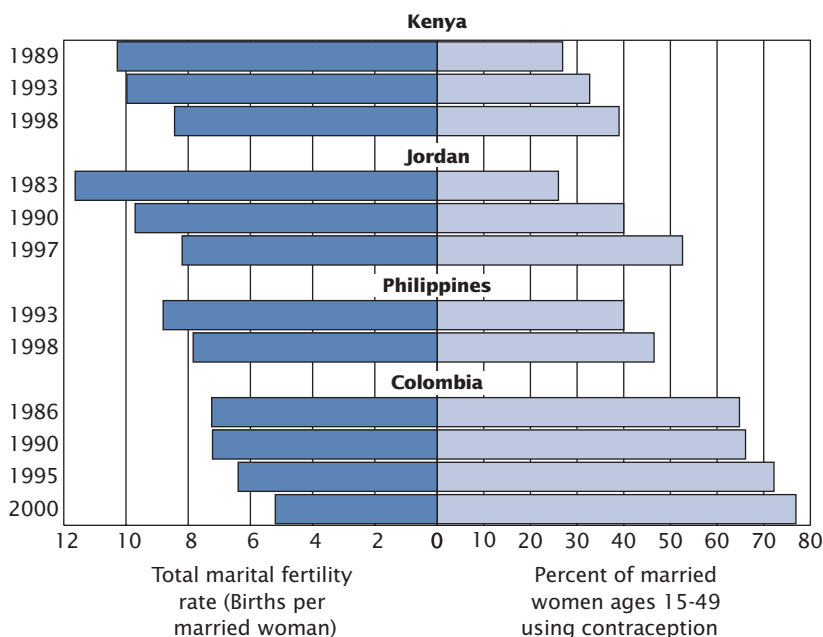
Since at least the 1970s, young women in Africa, Asia, and Latin America have increasingly delayed first marriage for reasons such as the pursuit of education and, more generally, with changing roles of women and their participation in the labor force. Mean age at first marriage has been relatively low in Africa; relatively high in Asia, the Pacific, and in Latin America and the Caribbean (United Nations, 1987:100). But it has been rising in all developing regions. Postponing marriage may lead to smaller family size because couples have fewer years of childbearing (United Nations, 1987:101) and/or because women who delay the onset of childbearing also choose to have smaller families.

Figure 43.
Trend in Percent of Women Ages 20-24 Never Married, Selected Developing Countries Over the past 25 years age at marriage has risen or stabilized ...



Source: Kenya (1980), Kenya and Macro International (1990, 1994, 1999), Jordan (1979), Anderson (1984), Zou'bi et al. (1992), Jordan and Macro International (1998), Philippines (1979), Concepcion (1991), Philippines and Macro International (1994, 1998), POPLAB Staff (1980), Colombia and IRD/Westinghouse (1988), and Colombia and IRD/Macro International (1991, 1995).

Figure 44.
Contraceptive Prevalence and Total Marital Fertility Rate, Selected Developing Countries
... while couples' use of contraception has lowered fertility within marriage.



Source: U.S. Census Bureau, International Programs Center. Age-specific marital fertility rate calculations are based on fertility from the International Data Base and proportions married from Kenya (1980), Kenya and Macro International (1990, 1994, 1999), Jordan (1979), Anderson (1984), Zou'bi et al. (1992), Jordan and Macro International (1998), Philippines (1979), Concepcion (1991), Philippines and Macro International (1994, 1998), POPLAB Staff (1980), Colombia and IRD/Westinghouse (1988), and Colombia and IRD/Macro International (1991, 1995). Contraceptive prevalence estimates are from Table A-13.

Figure 43 shows the increase in the percentage of women ages 20-24 never married in Kenya and Jordan since the late 1970s, and the stabilization of this percentage in the Philippines and Colombia.

While delayed marriage may account for part of the decline in fertility rates in developing countries during the 1980s and 1990s, decreasing marital fertility is typically related to increases in contraceptive use within marriage. Figure 44 shows the inverse relationship between total marital fertility — the number of births a woman would have over her reproductive lifetime if subject to the age-specific fertility rates of married women ages 15-49 — and contraceptive use of married women for Kenya, Jordan, the Philippines, and Colombia.

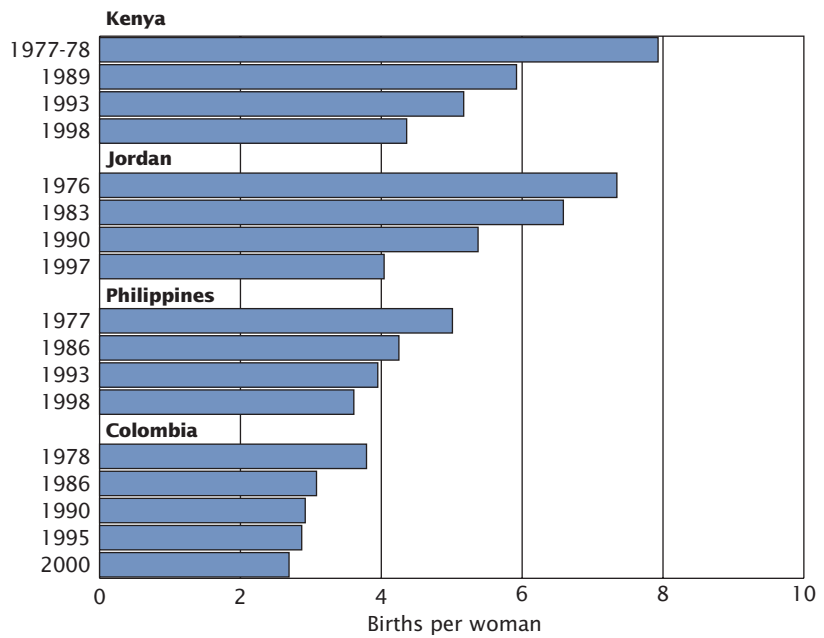
As a result of both delayed marriage and use of contraception within marriage, the number of births a woman has during her reproductive lifetime has fallen dramatically over the past few decades throughout the developing world. For example, a woman could expect to have eight births in Kenya in the late 1970s but just over four today (Figure 45).

Countries With Higher Contraceptive Use Are Likely to Have Lower Fertility

While family planning does not explain all country-to-country variation in fertility levels, the relationship between the two variables is strong. For 94 countries of Africa, Asia and the Pacific, and Latin America and the Caribbean with survey data collected on contraceptive use in the 1990s, a 1-percentage point increase in use of any method of contraception is associated with a 0.06 birth decrease in total fertility rate (TFR). A 1-percentage point increase in modern method prevalence³ is also associated with a 0.06 birth decrease in TFR (Figure 46).

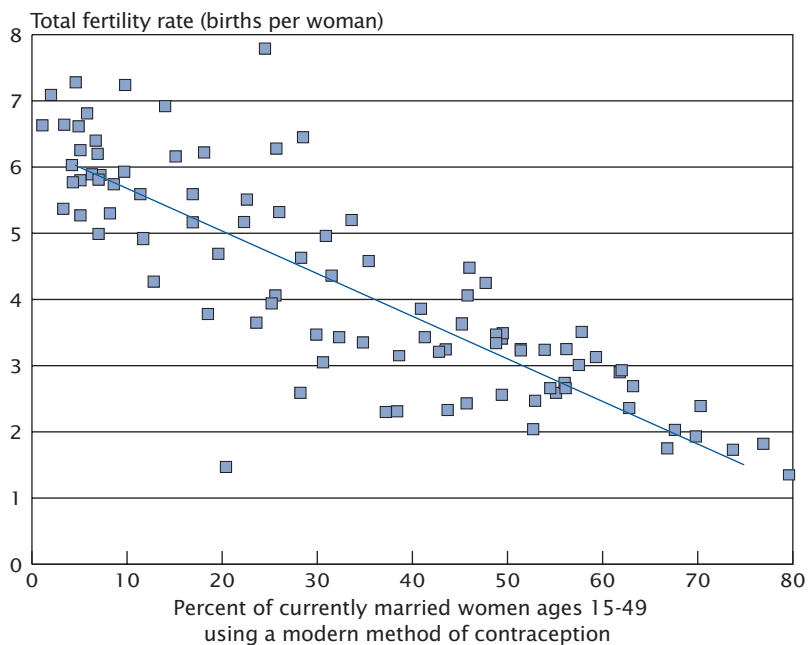
³ Contraceptive prevalence rate refers to the percentage of a population — generally women of reproductive age or married women of reproductive age — using contraception. Modern method prevalence refers to the percentage using a “modern” method of contraception — condoms, pills, IUDs, vaginal methods, injectables, and sterilization. “Traditional” methods and traditional method prevalence refer to such methods of contraception as periodic abstinence, withdrawal, douche, and prolonged breastfeeding as well as folk methods.

Figure 45.
Trend in Total Fertility Rate, Selected Developing Countries
Countries are moving from 7- and 8-child families to 2- to 4-child families.



Source: U.S. Census Bureau, International Programs Center, International Data Base; POPLAB Staff (1980), Jordan (1979), and Anderson et al. (1984).

Figure 46.
Total Fertility Rate by Modern Method of Contraceptive Prevalence, Developing Countries: 1990 or Later
Fertility levels and contraceptive prevalence rates are strongly correlated across countries.



Source: Table A-13 and U.S. Census Bureau, International Programs Center, International Data Base.

Smaller Proportions of Women in Sub-Saharan Africa Rely on Family Planning Than Women in Other Developing Regions

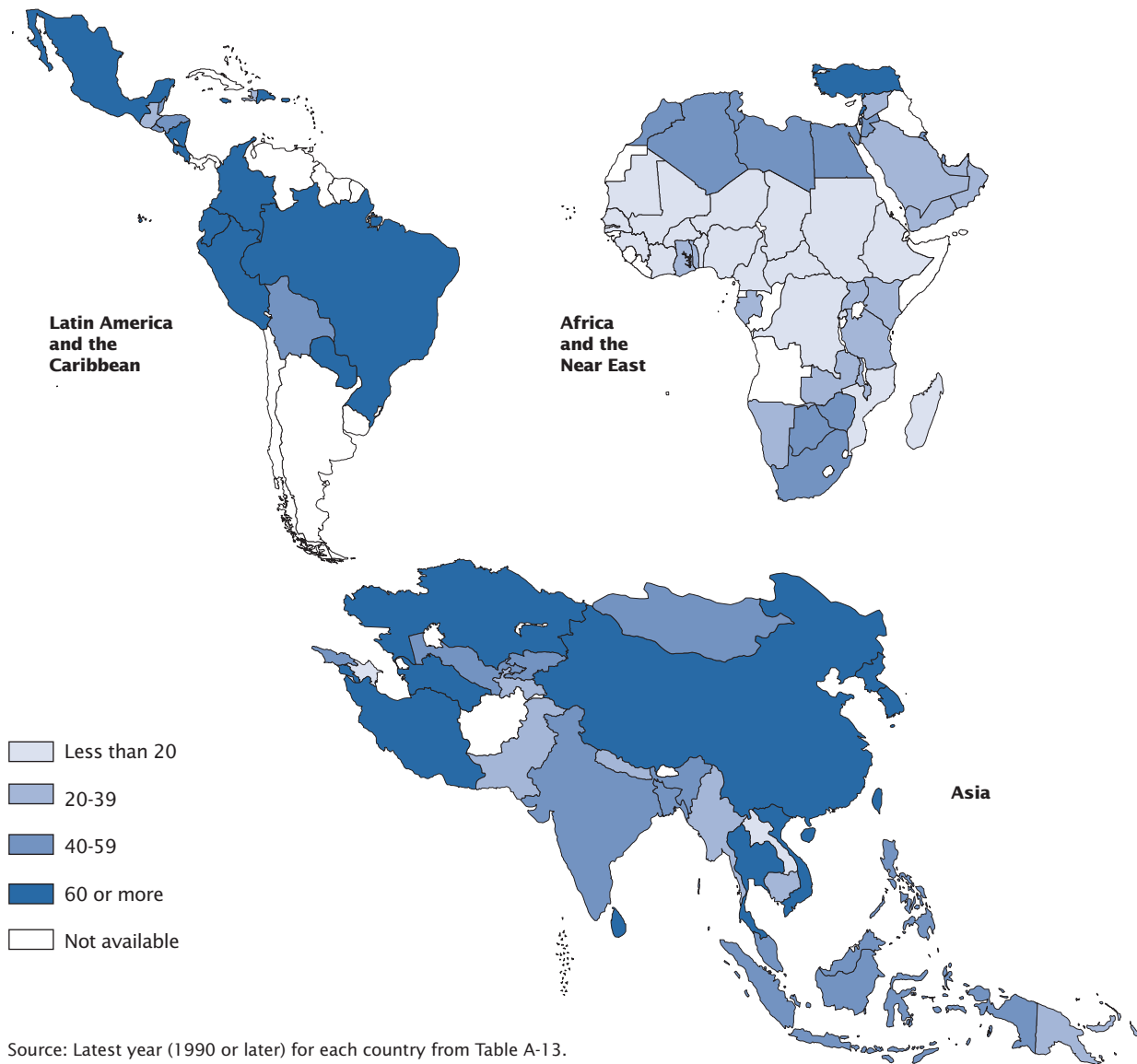
Figure 47 shows contraceptive prevalence (any method) at the national level for Africa, Asia, and Latin America. In general, Sub-Saharan African countries have lower prevalence levels than other

developing regions. About 1 in 9 Sub-Saharan African countries has a prevalence level for married women ages 15-49 as high as the median level for all developing countries (44 percent, based on estimates from 96 countries with surveys conducted in the 1990s, see Appendix Table A-13).

In contrast, 6 in every 10 countries in the Near East and North Africa

have a prevalence rate as high or higher than the median level for all developing countries with data, as do 7 in 10 of the developing countries making up Asia (including the Asian New Independent States of the former Soviet Union) and the Pacific. Nine in 10 of the countries of Latin America and the Caribbean exceed the median prevalence level for developing countries.

Figure 47.
Percent of Currently Married Women of Reproductive Age Using Some Method of Contraception: 1990 or Later
Contraceptive prevalence varies across countries and regions.



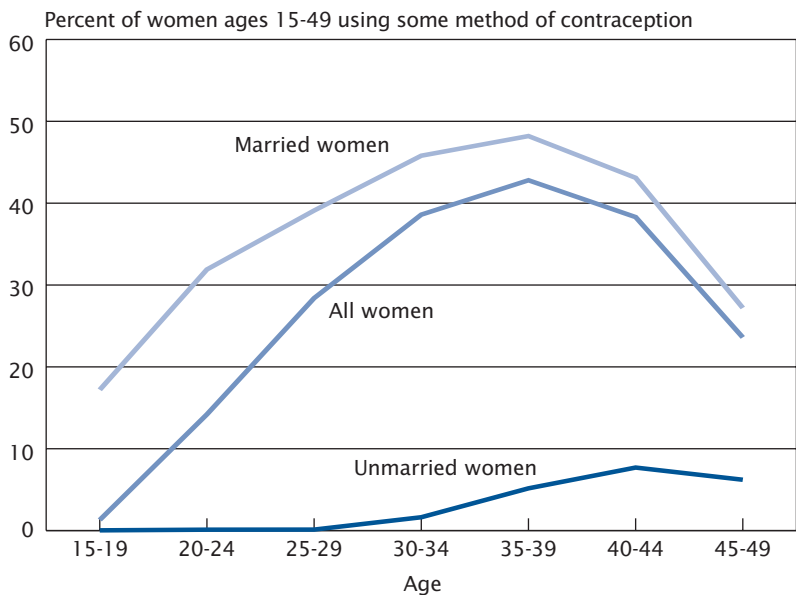
Source: Latest year (1990 or later) for each country from Table A-13.

Unmarried Women as Well as Married Women Rely on Contraception in Some Countries

The contraceptive prevalence rate (CPR) is meant to provide a meaningful measure of the extent to which women at risk of pregnancy and childbirth are taking steps to avoid pregnancy at a point in time. In some countries, married women of reproductive age are not the only population subgroup at risk. In those countries, the CPR calculated either for all women, or for sexually active unmarried women as well as for married women, provides a more useful measure of the inhibiting effects of contraception on fertility. Expanding the focus to at-risk unmarried women also provides a better understanding of the actual number of women in a country in need of reproductive health services.

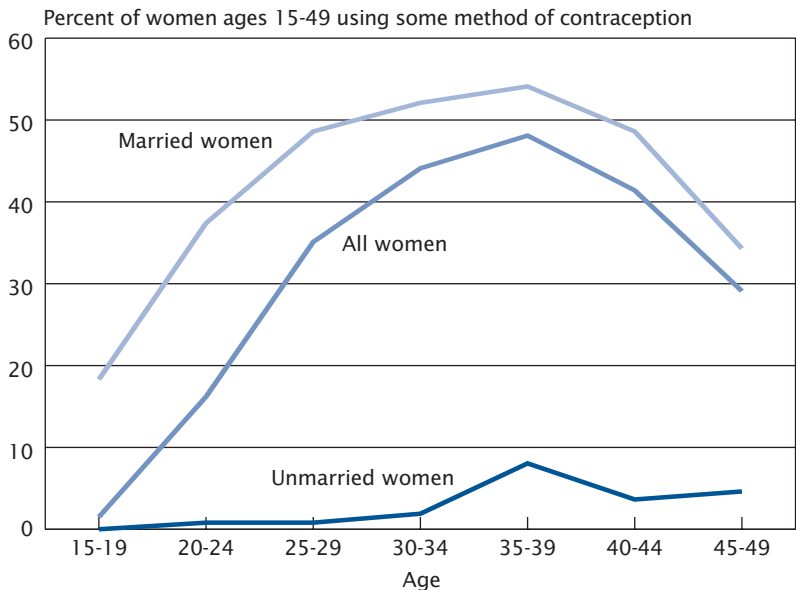
Figures 48a and 48b illustrate the utility of recognizing unmarried users of contraception as well as married users in the Philippines. From 1993 to 1998, overall prevalence increased from 40 percent to over 46 percent of currently married women, and the CPR for all women also increased. However, contraceptive prevalence rates for unmarried women changed very little. In both years, a small percentage of unmarried women, generally those ages 30 and over, reported use of contraception.

Figure 48a.
Age-Specific Contraceptive Prevalence Rates for Subgroups of Women, the Philippines: 1993
Contraceptive prevalence for all women reflects rates of both married and unmarried women.



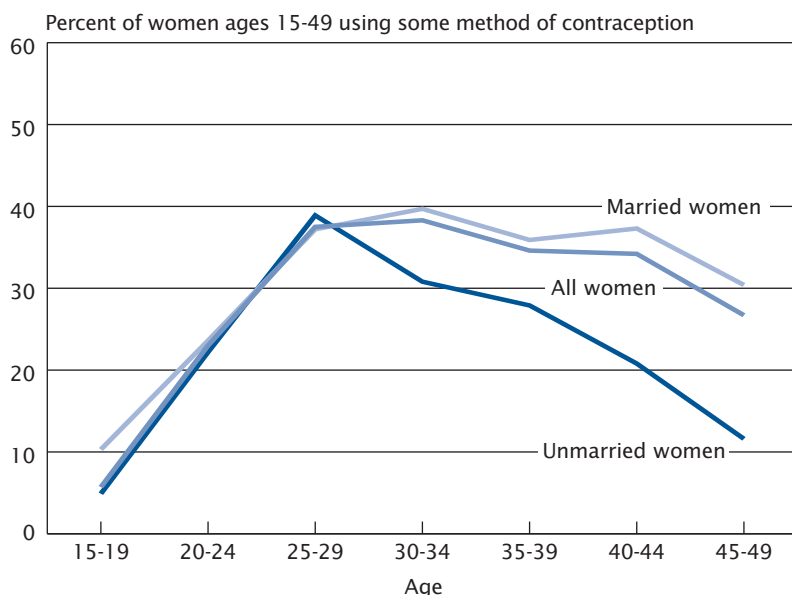
Source: Philippines and Macro International (1994). Rates for unmarried women calculated at the U.S. Census Bureau, International Programs Center.

Figure 48b.
Age-Specific Contraceptive Prevalence Rates for Subgroups of Women, the Philippines: 1998
In the Philippines, as in other countries, most women using family planning are married.



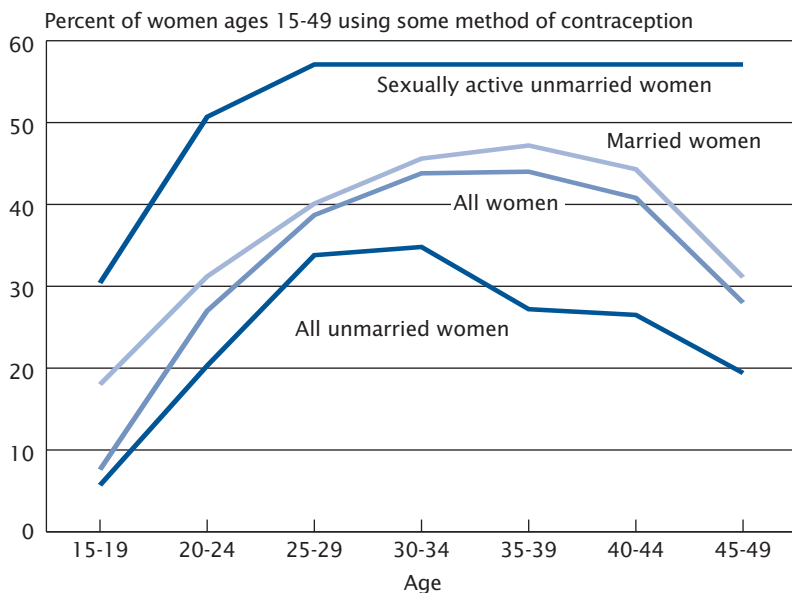
Source: Philippines and Macro International (1999). Rates for unmarried women calculated at the U.S. Census Bureau, International Programs Center.

Figure 48c.
Age-Specific Contraceptive Prevalence Rates for Subgroups of Women, Kenya: 1993
In Kenya, substantial percentages of unmarried women also use contraception...



Source: Kenya and Macro International (1994). Rates for unmarried women calculated at the U.S. Census Bureau, International Programs Center.

Figure 48d.
Age-Specific Contraceptive Prevalence Rates for Subgroups of Women, Kenya: 1998
... but only about half of sexually active unmarried women are protected.



Note: The group "All unmarried women" shown here is the same group shown in Figure 48c as "Unmarried women." The group includes the subgroup "sexually-active unmarried women," shown separately in Figure 48d.

Source: Kenya and Macro International (1999). Rates for unmarried women calculated at the U.S. Census Bureau, International Programs Center.

A different situation exists in Kenya. The 1993 DHS showed contraceptive prevalence rising among women in each age group from 15-19 through 30-34, to a level of just under 40 percent, then declining at older ages (Figure 48c). Unlike women in the Philippines, however, younger unmarried Kenyan women used contraception in roughly the same proportions as their married counterparts. From a demographic standpoint, failing to recognize the level and trend in contraceptive prevalence among unmarried Kenyan women would tend to misstate the fertility-inhibiting effects of contraception in this population.

The importance of measuring the CPR among unmarried women as well as for married women is apparent in Figure 48d, which shows that about 30 percent of unmarried, sexually active Kenyan women ages 15-19 and nearly 60 percent of unmarried, sexually active Kenyan women ages 25 and above used contraception.

Considering population subgroups separately helps clarify the nature of the need for reproductive health services in some countries, helps quantify total demand, and suggests the extent to which the needs of specific groups of women (such as the 70 percent of sexually-active, unmarried women ages 15-19 in Kenya who are not using contraception) are perhaps not being met.

Available information on contraceptive prevalence for currently married women for all countries is presented in appendix Tables A-13 and A-14. Statistics on contraceptive prevalence for all women of reproductive age may be found in appendix Tables A-15 and A-16.

Higher Method Effectiveness Typically Accompanies Higher Prevalence

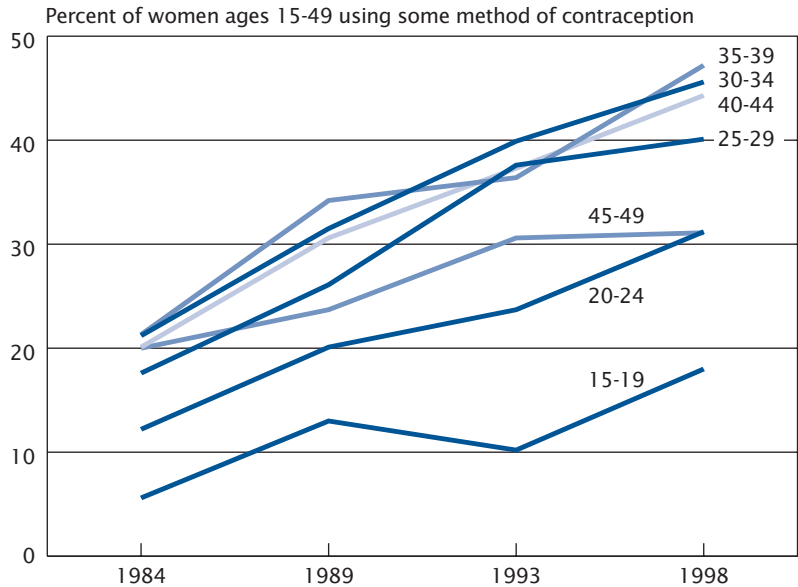
The fertility-inhibiting effect of family planning use is augmented in most contexts because increases in prevalence tend to be accompanied, over time, by shifts toward use of more effective methods. Not only do higher proportions of currently married women (and of all women) of reproductive age adopt family planning to control their childbearing, but the methods they choose tend to be those which are more effective. Modern methods of contraception tend to be increasingly preferred by couples to traditional methods. Figures 49-51 illustrate this relationship in two countries, Kenya and Egypt.

Over the past 20 years, Kenyans have increasingly adopted family planning to delay the onset of childbearing after marriage or after the birth of a first or second child, to space births, or to limit family size. During the 1989-93 period, for example, ideal family size³ for married women fell by about one child, from 4.8 to 3.9 children per woman. During the same period, the percentage of women with three living children who said they wanted to stop having children rose from 33 percent to 47 percent.

Contraceptive prevalence (all methods) for currently married Kenyan women rose from 17 percent in 1984 to 27 percent in 1989 to 39 percent in 1998. As Figure 49 shows, these increases occurred throughout the reproductive age range. Figure 50 shows that overall increases were accompanied by two kinds of method shift among contraceptive users. The first was a general shift toward more effective methods over time: The proportion

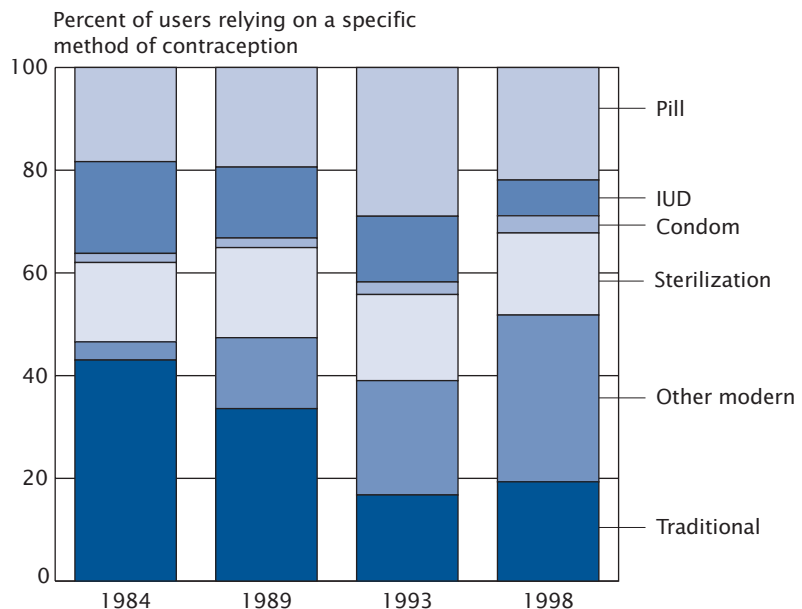
³ Ideal family size refers to a survey-based measure of mean family size preference in a population. See, for example, Kenya and Macro International (1989:50).

Figure 49. **Contraceptive Prevalence by Age, Currently Married Women, Kenya: 1984-1998**
Over time, increasing proportions of Kenyan women in all age groups have begun using family planning.



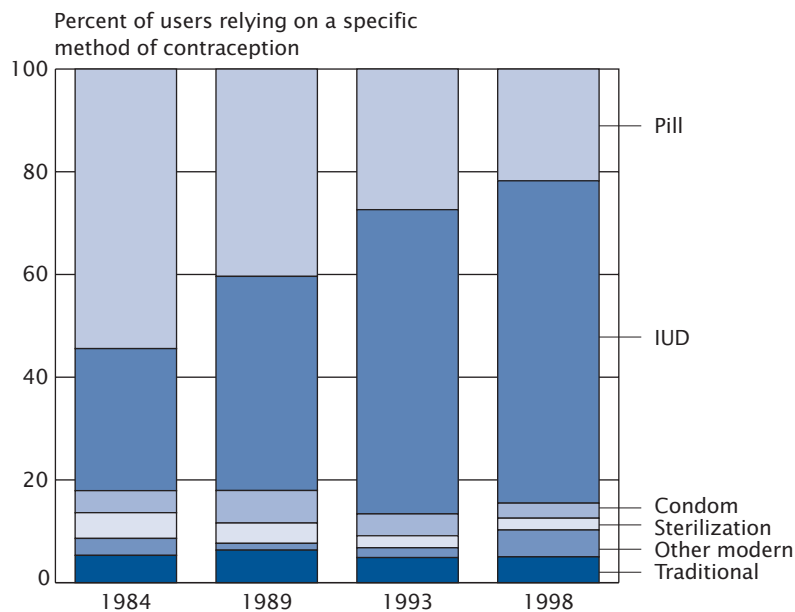
Source: Table A-14.

Figure 50. **Percent of Users Relying on Specific Methods of Contraception, Kenya: 1984-1998**
Kenyan women increasingly choose more effective, modern methods.



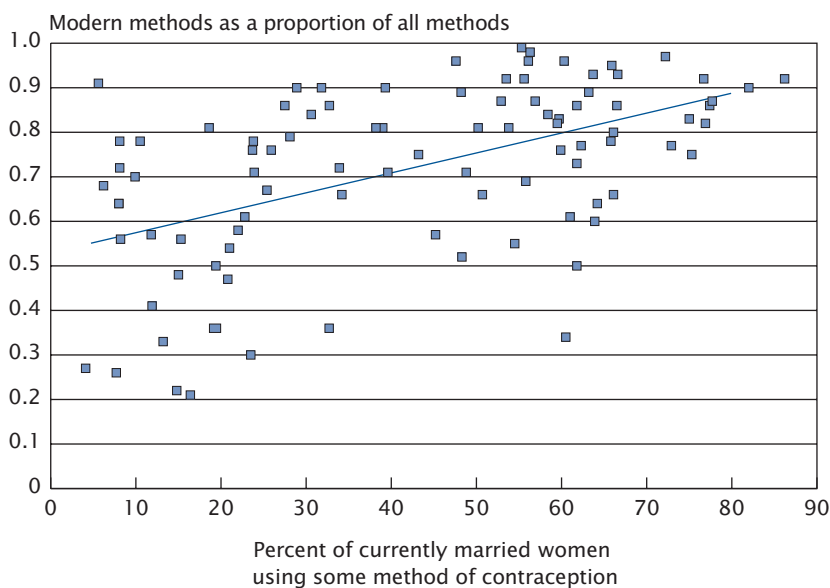
Source: Table A-13.

Figure 51.
Percent of Users Relying on Specific Methods of Contraception, Egypt: 1984-1995
Egyptian women shift between modern methods.



Source: Table A-13.

Figure 52.
Proportion of Married Women of Reproductive Age Using Contraception Who Rely on Modern Methods by Contraceptive Prevalence Rate (All Methods), Developing Countries: 1990 or Later
In general, countries with higher prevalence have a method mix favoring more effective methods.



Source: Most recent survey data for developing countries from Table A-13.

of women practicing contraception who relied on traditional methods declined from over 40 percent in 1984 to under 20 percent in the 1990s. The second change was in method preference among users of modern methods. From 1984 to 1998, an increasing share of modern-method users relied on injectables (shown in the figure as part of “other modern” methods); a decreasing share, on the IUD.

Egypt illustrates the case of a population where couples, having adopted more effective, modern methods of contraception over time, collectively chose a different method mix but did not return to traditional methods.

Between the first half of the 1980s and the middle of the 1990s, Egypt’s total fertility fell from about five births per woman to less than four. During the same period, contraceptive prevalence rose from 30 percent of currently married women in 1984 to 47 percent in 1992-1995. During the 1984-88 period, women in the age range 20-44 adopted contraception in increasing numbers, with greater use of the IUD accounting for much of this rise. During the 1988-92 period, family planning use expanded from this base, and the IUD became the method of choice for an increasing proportion of users (Figure 51). Traditional methods continued to be used, but by about the same small fraction of all users over the 1984-1995 period.

The combination of (1) increased adoption of modern methods of contraception with increasing prevalence by populations where overall prevalence is relatively low and traditional method utilization is significant, and (2) relatively low traditional method use as a fraction of all-method CPR by populations which have already reached moderate overall CPR levels is reflected in

the cross-sectional relationship shown in Figure 52. This figure shows the proportion of users relying on modern methods as a proportion of all users for 93 developing countries with survey data collected during the 1990s.

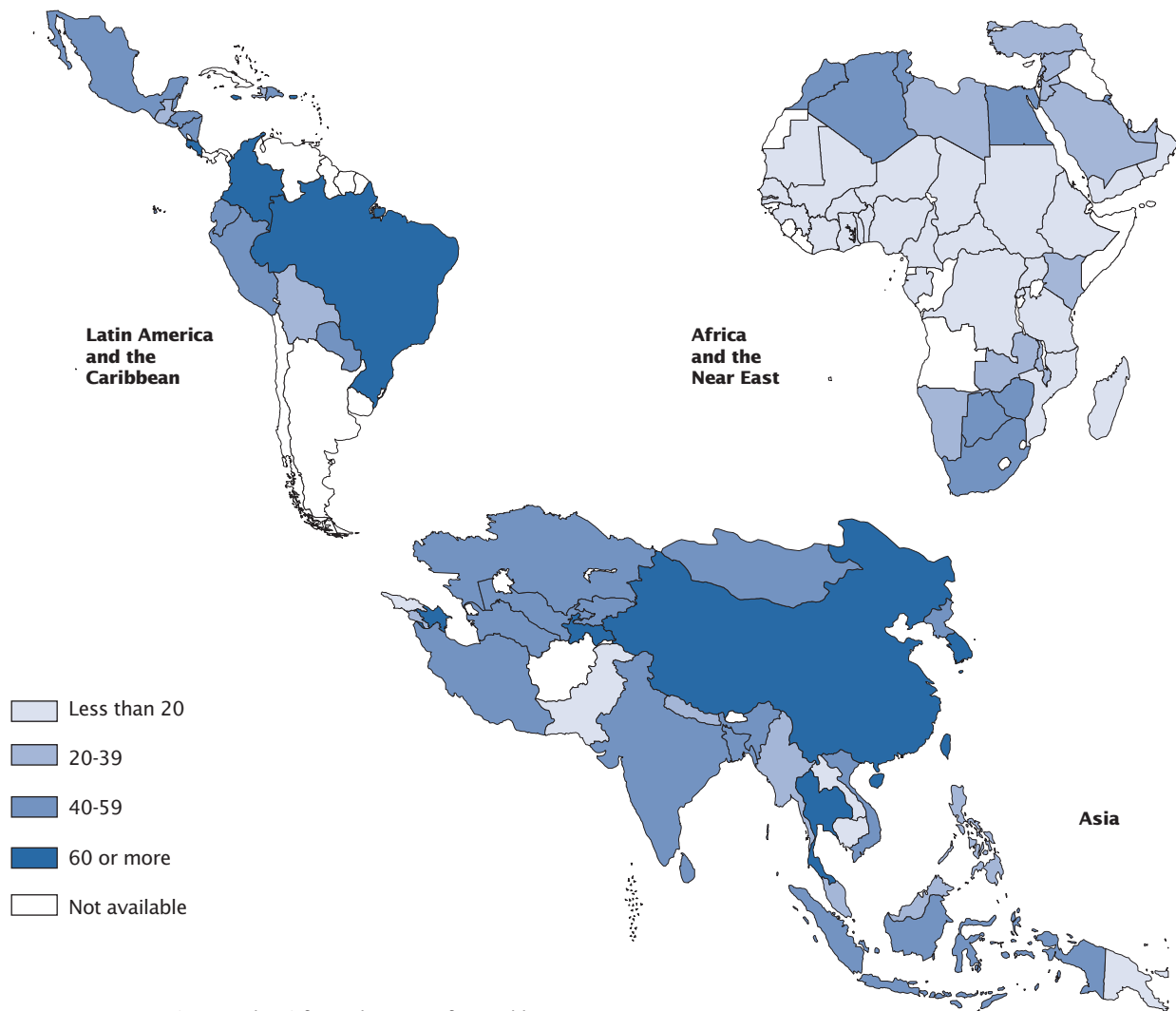
Use of more effective methods is associated with higher prevalence. In most countries where 50 percent or more of currently married women practice family planning,

70 percent of couples using contraception rely on modern methods.

As Figure 53 shows, countries in Latin America and Asia are more likely to have relatively high modern-method prevalence than are countries in Sub-Saharan Africa or the Near East. Again, using survey data collected in the 1990s, median modern-method prevalence for countries in Latin America and the Caribbean is 58 percent; for Asia

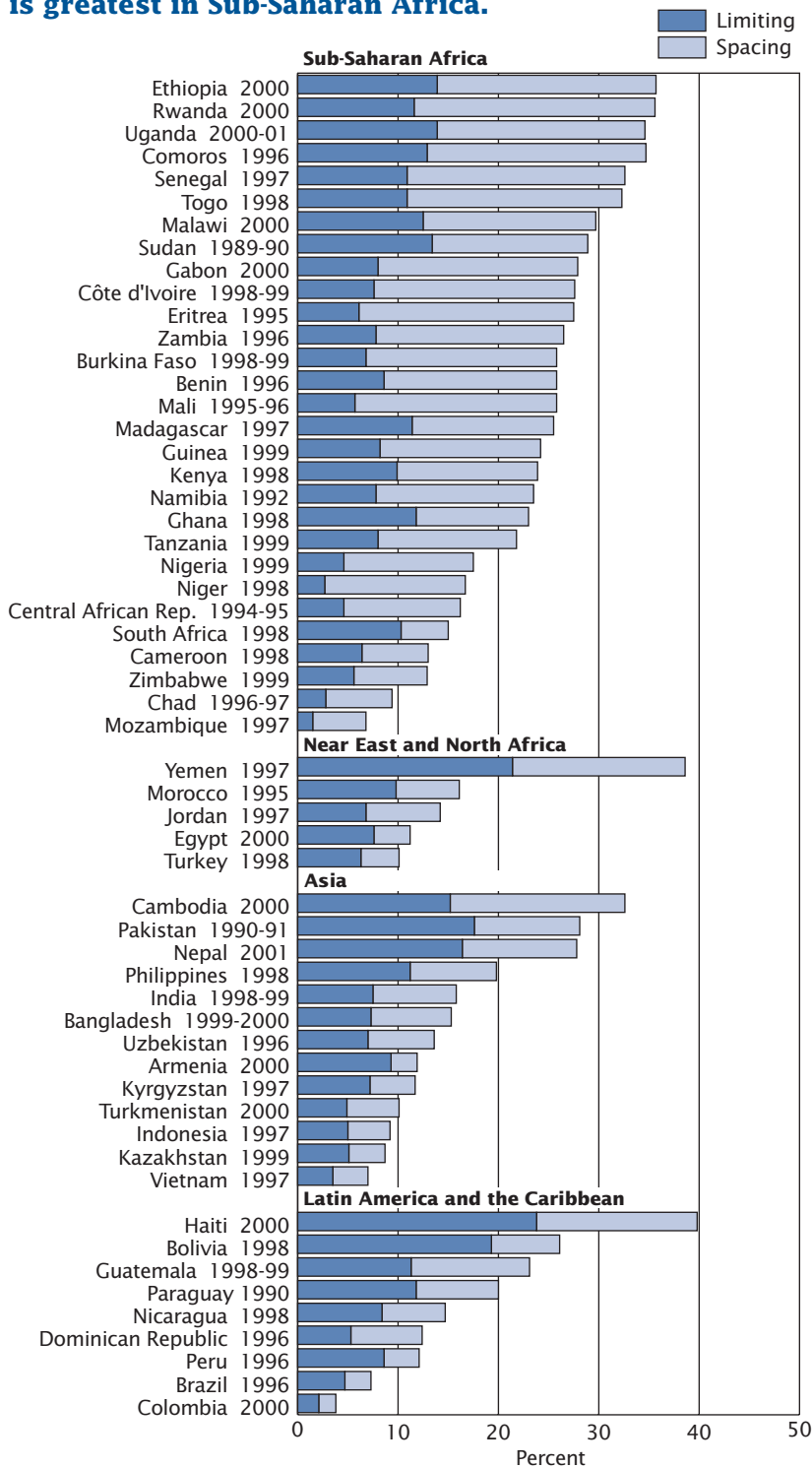
and the Pacific, 46 percent; for the Near East and North Africa, 33 percent; and for Sub-Saharan Africa, 7 percent. The median proportion of users relying on modern methods is over 80 percent for Latin America and the Caribbean, Asia and the Pacific; over 70 percent for the Near East and North Africa; and just under 65 percent for Sub-Saharan African countries.

Figure 53.
Percent of Currently Married Women of Reproductive Age Using a Modern Method of Contraception: 1990 or Later
Women in Latin America and the Caribbean are more likely to use more effective methods of contraception than women living in Sub-Saharan Africa.



Source: Latest year (1990 or later) for each country from Table A-13.

Figure 54.
**Percent of Currently Married Women
 Ages 15-49 With Unmet Need for Contraception,
 Developing Countries: 1990 or Later**
**The percent of women with unmet need
 is greatest in Sub-Saharan Africa.**



Source: Most recent Demographic and Health Surveys and surveys of the Centers for Disease Control. For a list of recent surveys conducted, see www.measuredhs.com and www.cdc.gov/nccdphp/drh/gp_surveys.htm.

Increased Use of Contraception Is Accompanied by a Continued Unmet Need for Family Planning

In its 1999 review of progress made toward achieving the goals of the International Conference on Population and Development, the United Nations noted that substantial progress has been made in extending family planning and reproductive health services to couples in need of these services throughout the developing world (United Nations, 1999a:10). The United Nations also estimated that over half of all couples in developing countries are now using some form of contraception.

At the same time, substantial numbers of women who would prefer to control their fertility — either by limiting the number of children they have or by controlling the onset or spacing of wanted births — are not currently using contraception. These women are considered to have “unmet need for family planning.”

Women who would like to postpone their next pregnancy but are not using contraception, and women whose last pregnancy was mistimed, are considered to have unmet need for family planning for spacing purposes. Women who want no more children and are not using contraception, as well as women whose last pregnancy was unwanted, are defined as having unmet need for family planning to limit fertility.

Figure 54 shows levels of unmet need for both spacing and limiting for 56 countries that conducted Demographic and Health Surveys in the 1990s. Unmet need has been and continues to be a more pervasive problem in Sub-Saharan Africa than in other world regions. In over half the Sub-Saharan African countries shown in Figure 54, at least one fourth of married women ages

15-49 were considered to have unmet need for contraception.

Generally smaller percentages of women at risk have unmet need for family planning in the Central Asian republics of the former Soviet Union, the countries of the Near East and North Africa, and Latin America and the Caribbean. The median percentage of married women with unmet need for either spacing or limiting is 26 percent for the Sub-Saharan African region (based on countries shown in Figure 54), compared to 12 percent to 15 percent for the other listed world regions. The developing countries of Asia exclusive of the Asian NIS but including India have an intermediate median level of unmet need of about 18 percent of married women of reproductive age.

Over 100 Million Developing Country Women Have Unmet Need for Family Planning Services

If, instead of focusing on percentages of women with unmet need, absolute numbers of married women with unmet need are considered, the geographic locus of need changes dramatically. The same change in perspective permits a better picture of the magnitude of the challenge to the

health care community at national, regional, and global levels.

By combining the latest available estimates of percentages of married women of reproductive age (MWRA) for each country with unmet need figures taken from Demographic and Health Surveys, it is possible to estimate numbers of MWRA with unmet need for the current year.⁵

About 112 million married women in these developing regions have unmet need for family planning in 2002. This figure excludes MWRA in China, for which no estimate is available.⁶ It includes nearly 28 million women in Sub-Saharan Africa, over 7 million women in the Near East and North Africa, 65 million women in Asia (excluding China, Japan, and the Asian NIS), over 10 million women in Latin America and the Caribbean, and 1.5 million women in the eight Asian New Independent States.

⁵ MWRA with unmet need is calculated as the product of (1) percent of MWRA with unmet need from the latest DHS and (2) projected number of MWRA from the International Data Base of the U.S. Census Bureau. The median unmet need for countries of a region with a survey estimate is used to calculate total number of women with unmet need for any country lacking its own estimate.

⁶ Ross, Stover, and Willard (1999:75) indicate that unmet need in China is negligible.

Moreover, it should be noted that these figures do not include the unmet need for contraceptive services and products among unmarried women, nor do they take into account the possible need for more effective contraceptives among users of traditional and folk methods.

Unmet Need for Family Planning Influences Global Population Increase Through Fertility Levels

Contraceptive prevalence levels are integral to an understanding of recent trends and current levels of fertility in developing countries. The success or failure of individual nations in addressing unmet need for contraception, in turn, helps determine future fertility levels and also future population growth in the developing world and globally.⁷ At the same time, reductions in unintended pregnancies occurring because of unmet need will contribute to achieving the reproductive health goals adopted by the world community of nations in Cairo in 1994.

⁷ One recent study estimated that meeting unmet need would reduce the total fertility rate by about 18 percent for a group of countries in Africa, Asia, and Latin America (Westoff and Bankole, 1995).