ST/ESA/SER.A/215

Department of Economic and Social Affairs
Population Division

WORLD POPULATION MONITORING 2002

REPRODUCTIVE RIGHTS AND REPRODUCTIVE HEALTH

United Nations
New York, 2004

The Department of Economic and Social Affairs of the United Nations Secretariat is a vital interface between global policies in the economic, social and environmental spheres and national action. The Department works in three main interlinked areas: (i) it compiles, generates and analyses a wide range of economic, social and environmental data and information on which States Members of the United Nations draw to review common problems and to take stock of policy options; (ii) it facilitates the negotiations of Member States in many intergovernmental bodies on joint courses of action to address ongoing or emerging global challenges; and (iii) it advises interested Governments on the ways and means of translating policy frameworks developed in United Nations conferences and summits into programmes at the country level and, through technical assistance, helps build national capacities.

NOTE

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The designations of "more developed regions" and "less developed regions" are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process.

The term "country" as used in the text of this publication also refers, as appropriate, to territories or areas.

The present report has been reproduced without formal editing.

ST/ESA/SER.A/215

United Nations publication
Sales No. E.02.XIII.14
ISBN 92-1-151369-3

PREFACE

The present report has been prepared in response to Economic and Social Council resolution 1995/55 of 28 July 1995, in which the Council endorsed the terms of reference and the topic-oriented and prioritized multi-year work programme proposed by the Commission on Population and Development at its twenty-eighth session.[1] According to the multi-year work programme, which was to serve as a framework for the assessment of the progress achieved in the implementation of the Programme of Action of the International Conference on Population and Development,[2] a new series of reports on a special set of themes would be prepared annually. The Commission on Population and Development, in its decision 2000/1,[3] decided that the special theme for the year 2002 should be "Reproductive rights and reproductive health, with special reference to human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)", which is the topic of the present report. This is the second report reviewing reproductive rights and reproductive health. The theme selected for 1996, "Reproductive rights and reproductive health, including population information, education and communication" was the topic of the first annual report.[4]

The report provides recent information on selected aspects of reproductive rights and reproductive health covering the following topics: entry into reproductive life; reproductive behaviour; family planning; abortion; maternal mortality and morbidity; sexually transmitted infections; human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS); and reproductive rights. The report also contains a set of annex tables providing data specific to reproductive rights and reproductive health.

The report was prepared by the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. Acknowledgements are due to the various United Nations offices, regional commissions and specialized agencies that helped directly or indirectly in its preparation. In particular, chapters V and VI were prepared by the World Health Organization and chapter VII by the Joint United Nations Programme on HIV/AIDS. Recognition and appreciation are also extended to Teresa Castro Martin of the Higher Council for Scientific Research, Madrid, for assisting with the substantive editing of the report.

For further information, please contact the Director, Population Division, Department of Economic and Social Affairs, United Nations, New York, NY 10017, United States of America.

NOTES

[1] See *Official Records of the Economic and Social Council, 1995, Supplement No. 7* (E/1995/25), annexes I and II.

[2] *Report of the International Conference on Population and Development, Cairo, 5-13 September 1994* (United Nations publication, Sales No. E.95.XIII.18), chap. I, resolution I, annex.

[3] See *Official Records of the Economic and Social Council, 2000, Supplement No. 5* (E/2000/25), chap. I, sect. B.

[4] *World Population Monitoring 1996: Selected Aspects of Reproductive Rights and Reproductive Health* (United Nations publication, Sales No. E.97.XIII.5).

SOURCES, METHODS AND CLASSIFICATIONS

Data on global and regional demographic trends used in the present report are taken from *World Population Prospects: The 2000 Revision,*[1] the official United Nations publication of estimates and projections. Country data are taken from the same report, national sources or various United Nations sources, as appropriate. The population estimates and projections, which are prepared biennially by the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, provide the standard and consistent set of population figures that are used throughout the United Nations system as the basis for activities requiring population information. Population policy data are taken from the population policy databank maintained by the Population Division; *Global Population Policy Database, 1999*,[2] and updates; and from *Results of the Eighth United Nations Population Inquiry among Governments on Population and Development.* [3]

United Nations population estimates were made by collecting, evaluating and adjusting, as necessary, all available data for the period 1950-2000. For the period 2000-2050, figures are the result of projections from the year 2000.

The countries and areas that are identified as statistical units by the Statistics Division of the United Nations Secretariat and covered by the estimates and projections are grouped geographically into six major areas: Africa; Asia; Europe; Latin America and the Caribbean; Northern America; and Oceania. Those major areas are further divided geographically into 21 regions. In addition, the regions are organized, for statistical convenience, into two general groups—more developed and less developed—on the basis of demographic and socio-economic characteristics. The less developed regions include all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean, and Oceania (excluding Australia and New Zealand). The more developed regions include all other regions plus the three countries excluded from the less developed regions. Other regional groupings are used as appropriate to the subject matter.

NOTES

1 *World Population Prospects: The 2000 Revision,* Vol. I, *Comprehensive Tables* (United Nations publication, Sales No. E.01.XIII.8, and corrigendum); vol. II, *The Sex and Age Distribution of the World Population* (Sales No. E.01.XIII, 9); and vol. III, *Analytical Report* (Sales No. E.01.XIII.20).

2 *Global Population Policy Database, 1999*. (United Nations publication, Sales No. E.00.XIII.5, and corrigendum).

3 *Results of the Eighth United Nations Population Inquiry among Governments on Population and Development* (United Nations publication, Sales No. E.01.XIII.2.).

CONTENTS

TEXT TABLES

ANNEX TABLES

FIGURES

BOXES

Explanatory Notes

Symbols of United Nations documents are composed of capital letters combined with figures.

Various symbols have been used in the tables throughout this report as follows:

Two dots (..) indicate that data are not available or are not separately reported.
An em dash (—) indicates that the amount is nil or negligible.
A hyphen (-) indicates that the item is not applicable.
A minus sign (-) before a figure indicates a decrease.
A full stop (.) is used to indicate decimals.
A slash (/) indicates a crop year or financial year, for example, 1994/95.

Use of a hyphen (-) between years, for example, 1994-1995, signifies the full period involved, including the beginning and end years.

Details and percentages in tables do not necessarily add to totals because of rounding.

Reference to dollars ($) indicates United States dollars, unless otherwise stated.

The term "billion" signifies a thousand million.

The group of least developed countries currently comprises 49 countries: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, the Central African Republic, Chad, the Comoros, the Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, the Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Sierra Leone, Senegal, Solomon Islands, Somalia, the Sudan, Togo, Tuvalu, Uganda, the United Republic of Tanzania, Vanuatu, Yemen and Zambia.

The following abbreviations have been used:

AIDS	acquired immunodeficiency syndrome
DHS	Demographic and Health Survey
FFS	Fertility and Family Survey
HIV	human immunodeficiency virus
ICD	International Classification of Diseases
IUD	intrauterine device
IUSSP	International Union for the Scientific Study of Population
MMR	maternal mortality ratio
PAPCHILD	Pan-Arab Project for Child Development
RAMOS	Reproductive Age Mortality Study
SMI	Safe Motherhood Initiative
STD	sexually transmitted disease
STI	sexually transmitted infection
TFR	total fertility rate
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization
YARHS	Young Adult Reproductive Health Survey

INTRODUCTION

At the twenty-first special session of the General Assembly for an overall review and appraisal of the implementation of the Programme of Action of the International Conference on Population and Development, held in New York in 1999, Governments affirmed their renewed and sustained commitment to the principles, goals and objectives of the Programme of Action, including those related to reproductive rights and reproductive health. In particular, Governments, in collaboration with civil society, including non-governmental organizations, were called upon to increase investments designed to improve the quality and availability of sexual and reproductive health services, including establishing and monitoring clear standards of care; ensuring the competence, particularly the technical and communication skills, of service providers; ensuring free, voluntary and informed choices, respect, privacy, confidentiality and client comfort; establishing fully functioning logistical systems, including efficient procurement of necessary commodities; and ensuring effective referral mechanisms across services and levels of care, taking care that services are offered in conformity with human rights and with ethical and professional standards (General Assembly resolution S-21/2, annex, para. 52 [e]). The call for improvement in such a broad range of services constituted a continued endorsement of the concepts of reproductive rights and reproductive health that had been adopted at the International Conference on Population and Development five years earlier.

The adoption of the concepts of reproductive rights and reproductive health at the International Conference on Population and Development, which was held in Cairo in 1994, marked a turning point in the approach to fertility and family planning issues and programmes. The Programme of Action of the International Conference on Population and Development defined reproductive health in a comprehensive manner to encompass issues related to physical, mental and social well-being in all matters relating to the reproductive system, and to its functions and processes (see box 1). Thus, in contrast with previous approaches that focused on specific aspects of reproductive health, such as safe motherhood, maternal and child health and family planning, the reproductive health approach is concerned not only with pregnancy-related health issues but also with health and human rights issues related to reproduction and sexuality that arise within and outside the childbearing ages. As noted by AbouZahr (1999), the reproductive health approach reflects the conceptual linking of the discourse on human rights with that on health.

The broad definition of reproductive health implies that the health and survival of infants and children, for example, are important indicators of reproductive health. Child survival is viewed as being closely linked to the timing, spacing and number of births as well as to the reproductive health of mothers. Early, late, numerous and closely spaced pregnancies are major contributors to high infant and child mortality and morbidity rates, especially where health facilities are scarce. Where the reproductive health status of women is poor, therefore, infant and child health are likely to be poor also.

Similarly, adolescence is a period during which the prospects for a healthy reproductive life can be compromised. Major risk factors include premature entry into sexual relationships, multiple partners, early childbearing, high-risk sexual behaviour, unsafe abortion[1] and lack of basic health information and services. Sexually transmitted infections, especially the human immunodeficiency virus (HIV) and the acquired immunodeficiency syndrome (AIDS) pose major threats to adolescents, especially those in contexts where the epidemic is most severe.

The childbearing ages have traditionally been the focus of family planning programmes, as well as of mother and child health programmes. Within the context of the reproductive health approach, the childbearing ages also reflect the accrued risks in earlier stages of the life course. If fertility has been impaired through high-risk sexual behaviour in adolescence, this often becomes apparent in the childbearing years. The childbearing ages have also become the ages of significant risks of contracting and dying from HIV/AIDS. In contexts where the epidemic is most severe, unprotected heterosexual sex and sexual relations with multiple partners appear to be the most important factors accounting for the rapid spread of the epidemic (UNAIDS, 2000).

Since childbearing among women in most societies often ends by the age of 45 years, the post-reproductive ages have traditionally been outside the realm of traditional approaches to fertility and

BOX 1. REPRODUCTIVE RIGHTS AND REPRODUCTIVE HEALTH AS DEFINED IN THE PROGRAMME OF ACTION OF THE INTERNATIONAL CONFERENCE ON POPULATION AND DEVELOPMENT [a]

"Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this last condition are the right of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility that are not against the law, and the right of access to appropriate health-care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant. In line with the above definition of reproductive health, reproductive health care is defined as the constellation of methods, techniques and services that contribute to reproductive health and well-being by preventing and solving reproductive health problems. It also includes sexual health, the purpose of which is the enhancement of life and personal relations, and not merely counselling and care related to reproduction and sexually transmitted diseases" (chap. VII, sect. A, para. 7.2).

"Bearing in mind the above definition, reproductive rights embrace certain human rights that are already recognized in national laws, international human rights documents and other consensus documents. These rights rest on the recognition of the basic right of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health. It also includes their right to make decisions concerning reproduction free of discrimination, coercion and violence, as expressed in human rights documents. In the exercise of this right, they should take into account the needs of their living and future children and their responsibilities towards the community. The promotion of the responsible exercise of these rights for all people should be the fundamental basis for government- and community-supported policies and programmes in the area of reproductive health, including family planning. As part of their commitment, full attention should be given to the promotion of mutually respectful and equitable gender relations and particularly to meeting the educational and service needs of adolescents to enable them to deal in a positive and responsible way with their sexuality. Reproductive health eludes many of the world's people because of such factors as: inadequate levels of knowledge about human sexuality and inappropriate or poor-quality reproductive health information and services; the prevalence of high-risk sexual behaviour; discriminatory social practices; negative attitudes towards women and girls; and the limited power many women and girls have over their sexual and reproductive lives. Adolescents are particularly vulnerable because of their lack of information and access to relevant services in most countries. Older women and men have distinct reproductive and sexual health issues which are often inadequately addressed" (chap. VII, sect. A, para. 7.3).

---

[a] *Report of the International Conference on Population and Development, Cairo, 5-13 September 1994* (United Nations publication, Sales No. E.95.XIII.18), chap. I, resolution 1, annex.

family planning programmes. In contrast, the reproductive health approach recognizes that reproductive health problems can occur well beyond the childbearing years. Complications of childbirth, such as obstructed labour, can result in vaginal fistula with negative effects on sexual and overall health well after childbearing is terminated. In women, menopause can trigger many biological and physical changes that may lead to alterations in the skeletal and cardiovascular systems. In men, tumours of the prostate gland are relatively common in the later adult years; they can impair sexual function and result in death. In both men and women, early sexual initiation and multiple partners increase the risk for reproductive cancers.

In consonance with the breadth of the scope of reproductive rights and reproductive health adopted at the International Conference on Population and Development, the interventions required to ensure reproductive health that were agreed upon are multipronged and cover a broad range of services that previously were outside the scope of traditional health, family planning and mother and childcare services. The Programme of Action called upon countries to strive to make accessible through the primary health-care system, reproductive health to all individuals of appropriate ages as soon as possible, and no later than the year 2015 (United Nations, 1995, chap. I, resolution 1, annex, para 7.6). Components of reproductive health care within the context of primary health care were also clearly specified and include services ranging from family planning counseling to the treatment of cancers of the reproductive system and HIV/AIDS.

Since 1994, Governments, civil society and the international community have made efforts to implement the agreements reached in Cairo with respect to reproductive rights and reproductive health. The five-year review and appraisal of the implementation of the Programme of Action showed that important achievements had been made in improving reproductive health (United Nations, 1999). The Conference's broad-based definition of reproductive health is being accepted by an increasing number of countries. The rising use of family planning methods indicates that there is greater accessibility to family planning and that more and more couples and individuals are able to choose the number and spacing of their children (see General Assembly resolution S-21/2, annex, para. 9). However, in some countries progress has been limited, and in some cases setbacks have occurred. In particular, millions of couples and individuals still lack access to reproductive health information and services, and there is continued discrimination against women and girls, increases in mortality from HIV/AIDS, high levels of maternal mortality and morbidity and continued adolescent vulnerability to reproductive and sexual health risks (see General Assembly resolution S-21/2, annex, para. 10).

Many countries have made policy, legislative and institutional changes to better support the implementation of reproductive health programmes. According to the report of the International Forum for the Operational Review and Appraisal of the Implementation of the Programme of Action of the International Conference on Population and Development (E/CN.9/1999/PC/3), there has been a noticeable momentum in policy and programme development in reproductive rights and health, with significant progress in the understanding of a human rights-based approach to reproductive health, including family planning and sexual health; in moving away from vertical service provision, demographic targets and quotas; and in promoting adolescent reproductive health. In particular, progress was noted in providing universal access to a full range of safe and reliable family planning methods, a greater awareness of the risks of maternal mortality and morbidity, and a recognition that maternal mortality and morbidity is both a developmental and a human rights issue.

The implementation of reproductive health programmes has, however, been constrained by operational bottlenecks, especially difficulties in integrating reproductive health services into primary health care in a manner that would make such services accessible and affordable to all. In particular, programmes have been uneven with respect to their success in reaching adolescents. The sexual and reproductive health needs of young adults are not yet adequately addressed under many primary health care systems, and many do not have access to information and services to protect their health and make choices freely and responsibly. Young women are particularly vulnerable to unwanted pregnancy and sexual violence and are susceptible to infection with sexually transmitted infections, including HIV/AIDS. Young women, especially those under age 18, are also at the highest risk of maternal mortality and morbidity (E/CN.9/1999/PC/3).

Although the attainment of reproductive health goals is challenged by a wide variety of factors, perhaps none is more threatening than the global epidemic of HIV/AIDS. The twenty-sixth special session of the General Assembly on HIV/AIDS, held in New York from 25 to 27 June 2001, recognized, by its Declaration of Commitment on HIV/AIDS, that the epidemic constitutes a global emergency and that it is one of the most formidable challenges to human life and dignity, as well as to the effective enjoyment of human rights. Although sub-Saharan Africa is the worst-affected region, other regions confront similar threats, and the potential exists for a rapid escalation of the epidemic and its impact throughout the world if no specific measures are taken (see General Assembly resolution S-26/2, annex).

HIV/AIDS adds to the high reproductive health burden that many, especially women, carry from diseases related to sexually transmitted infections and reproduction. Infants and young children are also affected by the epidemic, through vertical transmission from their mothers, through breastfeeding or through orphanhood resulting from the death of infected parents. It should be noted that although HIV/AIDS poses a major challenge to the reproductive health approach, the impetus to provide reproductive health services has also been reinforced by the severity of the epidemic. The HIV/AIDS epidemic has made it imperative to respond to the consequences of sexual activity other than pregnancy, in particular sexually transmitted infections (AbouZahr, 1999).

In view of the range of issues covered by reproductive health, the data requirements for evaluating progress made are large and diverse. Considerable progress has been made in meeting some of these data needs since the concepts of reproductive rights and reproductive health were articulated at the International Conference on Population and Development. For example, a large volume of data now exists on aspects of sexual and reproductive health that were previously excluded from investigation. Various population and health surveys have now collected information on aspects of reproductive rights, including data on gender roles and expectations, prevalence of female genital mutilation and other forms of violence against women. Surveys have also collected information from respondents on the presence of symptoms of sexually transmitted infections and knowledge and practices regarding HIV/AIDS. As a result of the continued monitoring by the Joint United Nations Programme on HIV/AIDS (UNAIDS), substantial data exist on the levels and trends of HIV prevalence and AIDS mortality worldwide. Greater attention is also being paid to collecting data on male sexual behaviour and on male knowledge, attitudes and practices concerning reproductive health issues.

In many respects, however, the monitoring of progress with the reproductive health agenda is still limited by the dearth of data with which to provide valid, reliable, timely, culturally relevant and internationally comparable analyses. In contrast to the marked increase in the volume of data on fertility preferences, behaviour and contraception for both men and women of reproductive age, there is an almost complete absence of similar information on young adolescents. Monitoring the levels and trends in the prevalence of sexually transmitted infections, of maternal mortality and morbidity and of neonatal mortality remains a challenge. Data are also lacking for both men and women on reproductive health beyond the childbearing ages.

Within the context of these data limitations, the present report presents an overview of selected aspects of reproductive rights and reproductive health, with special reference to the HIV/AIDS epidemic. The report updates the findings of *World Population Monitoring 1996: Selected Aspects of Reproductive Rights and Reproductive Health* (United Nations, 1998) and adds a specific emphasis on the HIV/AIDS epidemic. *World Population Monitoring 1996* was the first report monitoring progress in the implementation of the Programme of Action with respect to reproductive rights and reproductive health. The present report covers reproductive rights and reproductive health issues related to entry into reproductive life; reproductive behaviour; family planning; abortion; maternal mortality and morbidity; sexually transmitted infections; HIV/AIDS; and policy issues related to reproductive rights.

BOX 2. GOALS AND BENCHMARKS RELATED TO REPRODUCTIVE HEALTH

International Conference on Population and Development[a]

"All countries should strive to make accessible through the primary health-care system, reproductive health to all individuals of appropriate ages as soon as possible and no later than the year 2015" (chap. VII, sect. A, para. 7.6).

"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 which are not against the law" (chap. VII, sect. B, para. 7.16).

"It should be the goal of public, private and non-governmental family-planning organizations to remove all programme-related barriers to family-planning use by the year 2005 through the redesign or expansion of information and services and other ways to increase the ability of couples and individuals to make free and informed decisions about the number, spacing and timing of births and protect themselves from sexually transmitted diseases" (chap. VII, sect. B, para. 7.19).

"Countries should strive to effect significant reductions in maternal mortality by the year 2015: a reduction in maternal mortality by one half of the 1990 levels by the year 2000 and a further one half by 2015. The realization of these goals will have different implications for countries with different 1990 levels of maternal mortality. Countries with intermediate levels of mortality should aim to achieve by the year 2005 a maternal mortality rate below 100 per 100,000 live births and by the year 2015 a maternal mortality rate below 60 per 100,000 live births. Countries with the highest levels of mortality should aim to achieve by 2005 a maternal mortality rate below 125 per 100,000 live births and by 2015 a maternal mortality rate below 75 per 100,000 live births" (chapter VIII, sect. C, para. 8.21).

Twenty-first special session of the General Assembly for an overall review and appraisal of the implementation of the Programme of Action of the International Conference on Population and Development[b]

"Governments should strive to ensure that by 2015 all primary health-care and family planning facilities are able to provide, directly or through referral, the widest achievable range of safe and effective family planning and contraceptive methods; essential obstetric care; prevention and management of reproductive tract infections, including sexually transmitted diseases; and barrier methods, such as male and female condoms and microbicides if available, to prevent infection. By 2005, 60 per cent of such facilities should be able to offer this range of services, and by 2010, 80 per cent of them should be able to offer such services" (sect. IV, para. 53).

"Where there is a gap between contraceptive use and the proportion of individuals expressing a desire to space or limit their families, countries should attempt to close this gap by at least 50 per cent by 2005, 75 per cent by 2010 and 100 per cent by 2050" (sect. IV, para. 58).

"By 2005, where the maternal mortality rate is very high, at least 40 per cent of all births should be assisted by skilled attendants; by 2010 this figure should be at least 50 per cent and by 2015, at least 60 per cent. All countries should continue their efforts so that globally, by 2005, 80 per cent of all births should be assisted by skilled attendants, by 2010, 85 per cent, and by 2015, 90 per cent" (sect. IV, para. 64).

"Governments, with assistance from the Joint and Co-sponsored United Nations Programme on Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome and donors, should, by 2005, ensure that at least 90 per cent, and by 2010 at least 95 per cent, of young men and women aged 15 to 24 have access to the information, education and services necessary to develop the life skills required to reduce their vulnerability to HIV infection. Services should include access to preventive methods such as female and male condoms, voluntary testing, counselling and follow-up. Governments should use, as a benchmark indicator, HIV infection rates in persons 15 to 24 years of age, with the goal of ensuring that by 2005 prevalence in this age group is reduced globally, and by 25 per cent in the most affected countries, and that by 2010 prevalence in this age group is reduced globally by 25 per cent." (sect. IV, para. 70).

[a] *Report of the International Conference on Population and Development, Cairo, 5-13 September 1994* (United Nations publication, Sales No. E.95.XIII.18), chap. I, resolution 1, annex.

[b] General Assembly resolution S-21/2, chap. III, annex.

NOTE

[1]Unsafe abortion is defined as a procedure for terminating an unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards or both (based on World Health Organization, *The Prevention and Management of Unsafe Abortion*, *Report of a Technical Working Group* [WHO/MSM/92.5]).

REFERENCES

AbouZahr, Carla (1999). Some thoughts on ICPD+5. *Bulletin of the World Health Organization,* vol. 77, No. 9.

United Nations (1995). *Report of the International Conference on Population and Development, Cairo, 5-13 September 1994.* Sales No. E.95.XIII.18.

——— (1998). *World Population Monitoring, 1996: Selected Aspects of Reproductive Rights and Reproductive Health*. Sales No.E.97.XIII.5.

——— (1999). *Review and Appraisal of the Progress Made in Achieving the Goals and Objectives of the Programme of Action of the International Conference on Population and Development: 1999 Report.* Sales No. E.99.XIII.16.

UNAIDS (2000). *Report on the Global HIV/AIDS Epidemic,* June 2000. UNAIDS/00.13E. Geneva.

World Health Organization (1998). Maternal mortality and morbidity. In *World Population Monitoring, 1996: Selected Aspects of Reproductive Rights and Reproductive Health*. New York: United Nations. Sales No. E.97.XIII.5.

I. ENTRY INTO REPRODUCTIVE LIFE

Entry into reproductive life is a key transition in a person's life and the choices and behavioural patterns acquired during this early stage will typically shape the subsequent life course (United Nations, 1998). This transition is marked by critical life events: puberty, sexual initiation, marriage and the onset of childbearing. The timing, sequence and context in which these events take place have immediate and long-term repercussions for individuals' sexual and reproductive health. A recent review of research has documented the health risks of premature sexual initiation and the adverse consequences of early marriage and childbearing (Alan Guttmacher Institute, 1998).

International concern about the reproductive health needs of adolescents dates back to the International Conference on Population held at Mexico City in 1984. Among the recommendations adopted at the Conference (United Nations, 1984, chap. I, sect. B) was one that urged Governments to ensure that adolescents receive adequate education, including family-life and sex education, and that suitable family planning information and services be available to adolescents (United Nations, 1984, chap. I, sect. B.III, recommendation 29). A subsequent United Nations study (United Nations, 1988 and 1989) provided a comprehensive review of worldwide patterns of adolescent reproductive behaviour. At the International Conference on Population and Development held in Cairo in 1994, adolescents were identified as a particularly vulnerable group and their reproductive health rights and needs were given special attention in a separate section of the Programme of Action (United Nations, 1995a, chap. I, resolution I, annex, paras. 7.41-7.48). In 1999, during the review and appraisal of the implementation of the Programme of Action of the International Conference on Population and Development, the importance of addressing effectively the reproductive and sexual health needs of adolescents was further emphasized (see General Assembly resolution S-21/2, annex, sect. IV.E).

The present chapter draws on recent census and survey data to review levels and trends of selected indicators that describe the timing and context of entry into reproductive life, for both women and men. Since many of the life events that mark the entry into reproductive life, such as sexual initiation or marriage, usually take place during the late teens or early twenties, the chapter focuses mainly on the age group 15 to 24, categorized as "youth" by the World Health Organization (World Health Organization, 1989).[1] Although the concept of youth varies across cultures and times, it is increasingly recognized as a crucial life stage, a period of physical, emotional, sexual and social maturing which typically ends with the assumption of adult roles and responsibilities (Caldwell and others, 1998).

The growing concern about the reproductive health of adolescents and youth derives in part from the sheer size of their cohorts. According to *World Population Prospects: The 2000 Revision* (United Nations, 2001a), nearly half of the world population—and 63 per cent in the least developed countries—is currently under age 25, meaning that a large contingent of people will be entering reproductive life in the near future. The population classified as "youth", between ages 15 and 24, is estimated to be 1 billion, and it constitutes nearly 18 per cent of the world population. This represents approximately 14 per cent of the population in the more developed regions and nearly 19 per cent of the population in the less developed regions (table 1). A large majority of the world's youth lives in less developed regions: 61 per cent in Asia, 15 per cent in Africa and 10 per cent in Latin America and the Caribbean. In the coming decades, the relative weight of this age group in the global population will generally decline, but by 2030 the absolute number of men and women aged 15 to 24 is projected to increase by 17 per cent worldwide, reaching 1.2 billion. The largest increase (84 per cent) will occur in Africa, and only in Europe is this age segment of the population expected to decrease.

TABLE 1. ESTIMATED AND PROJECTED POPULATION AGED 15-24 YEARS, 2000 AND 2030

Region	Sex	2000		2030		Percentage change 2000 - 2030
		Population aged 15-24	Percentage of total population	Population aged 15-24	Percentage of total population	
World	Total	1 062 283	17.5	1 247 438	15.1	17.4
	Male	543 745	17.8	638 259	15.4	17.4
	Female	518 538	17.3	609 179	14.8	17.5
More developed regions[a]	Total	162 467	13.6	126 725	10.4	-22.0
	Male	82 902	14.3	64 973	11.0	-21.6
	Female	79 565	13.0	61 753	9.9	-22.4
Less developed regions[b]	Total	899 816	18.5	1 120 712	15.9	24.5
	Male	460 843	18.6	573 286	16.1	24.4
	Female	438 973	18.3	547 426	15.6	24.7
Least developed countries	Total	130 300	19.8	260 100	19.8	99.6
	Male	65 890	20.0	131 596	19.9	99.7
	Female	64 410	19.6	128 504	19.7	99.5
Africa	Male	81 035	20.4	149 481	20.0	84.5
	Female	79 890	20.1	146 753	19.8	83.7
Asia	Male	336 119	17.9	373 168	14.9	11.0
	Female	316 018	17.6	351 630	14.4	11.3
Europe	Male	51 331	14.6	33 404	10.3	-34.9
	Female	49 353	13.1	31 667	9.1	-35.8
Latin America and the Caribbean	Male	51 117	19.9	55 100	15.5	7.8
	Female	50 206	19.2	53 306	14.5	6.2
Northern America	Male	21 682	14.0	24 119	12.4	11.2
	Female	20 784	13.1	23 001	11.4	10.7
Oceania	Male	2 461	16.0	2 986	14.3	21.3
	Female	2 287	15.1	2 823	13.5	23.4

Source: World Population Prospects: The 2000 Revision vol. I, *Comprehensive Tables* (United Nations publication Sales No. E.01.XIII.8).

NOTE: The projected population for 2030 is based on the medium variant of the United Nations population estimates and projections.

[a] Comprising all regions of Europe, as well as Northern America, Australia, New Zealand and Japan.

[b] Comprising all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean, as well as Melanesia, Micronesia and Polynesia.

The current and upcoming generations of young people entering reproductive life face important new challenges, particularly the threat posed by HIV/AIDS (UNAIDS, 2001). The size, health and prosperity of the world's future population will largely depend on the success of meeting their educational and reproductive health needs (Hughes and McCauley, 1998; United Nations Population Fund, 1998). Since adolescents and youth often face the transition to adulthood with insufficient knowledge, experience and guidance, there is a growing awareness of the urgent need to invest in education and in effective prevention and health promotion programmes so that their participation in building society's future is not jeopardized by lack of skills or health prob-

lems (Pan American Health Organization, 2000; Brown, Larson and Saraswathi, 2002).

A. PUBERTY

Puberty signals the onset of sexual maturation. During this developmental stage, the adolescent experiences physical, hormonal, psychological and sexual changes and becomes capable of reproduction. In some societies, a culture of silence and a series of taboos surround menarche, and girls confront it with little information (Mensch, Bruce and Greene, 1998). Although menarche is but one part of the maturation process, in some societies it remains an important cultural marker defining girls' exit from childhood and readiness for marriage and childbearing. According to the 1997 Bangladesh Demographic and Health Survey (Mitra and others, 1997), 5 per cent of women currently aged 20 to 24 entered marriage before age 12 and 47 per cent before age 15, suggesting that a large proportion of marriages cluster around the onset of menarche. In most of the world, however, educational expansion has led to an increasing dissociation between sexual maturity and marriage, and several years separate puberty and the onset of sexual activity and family formation. Although there is no consistent association between age at puberty and age at sexual initiation, it is important to recognize the cultural, social and epidemiological implications of the timing of puberty (Kipke, 1999).

The average age at menarche varies considerably across societies (Becker, 1993; Morabia and Costanza, 1998). A recent review of 67 countries (Thomas and others, 2001) documents that age at menarche is lower in the more developed regions than in the less developed regions and that it is inversely associated with socio-economic conditions, nutrition and literacy rates. According to this review, the average age at menarche is 13.1 in Europe and Northern America, 13.2 in Latin America and the Caribbean, 13.6 in Oceania, 13.8 in Asia and 14.1 in Africa. These regional averages conceal significant heterogeneity across countries. For instance, in Latin America and the Caribbean, the average age at menarche ranges from 12.6 in Argentina to 15.4 in Haiti. Although the precise determinants of age at menarche remain poorly understood, it is generally agreed upon that, among the variety of genetic, environmental and socio-economic factors that have an influence, nutrition and health play a major role (Gray, 1983).

Over the past century, age at menarche has fallen significantly in the more developed regions—a rate of two to three months per decade, resulting in an overall secular decline of about three years (Wyshak and Frisch, 1982)—but this trend seems to have reached a plateau (Whincup and others, 2001). In the less developed regions, age at menarche continues to decline, concomitantly with improvements in nutrition and health conditions (Chowdhury and others, 2000).

Although it is documented that boys enter puberty about two years later than girls, there is a shortage of trend studies and international comparisons on the timing of puberty for boys. This is partly due to the lack of standardization regarding the biological markers of the onset of male puberty, a process that may span up to five years. There is, however, scattered evidence on a general trend towards earlier puberty also among boys (McCauley and Salter, 1995). Earlier puberty combined with later completion of schooling and later marriage means an increasing separation of the biological and socio-economic landmarks bracketing the transition to adulthood. This increase of the "biosocial" gap has raised awareness of the need to prevent health risks during this critical life stage, which, although it constitutes a period of exposure to unwanted pregnancy and sexually transmitted infections, is also a period of opportunities if devoted to education and training before assuming family responsibilities.

B. INITIATION OF SEXUAL ACTIVITY

Although age at marriage has been traditionally used as an indicator of the onset of sexual activity and exposure to pregnancy, in a large number of societies marriage is no longer an accurate marker of entry into reproductive life (Stover, 1998). The increasing dissociation between sexual initiation and marriage and the recognized implications of sexual initiation for reproductive health, fertility and youth development (Dixon-Mueller, 1993) have contributed to a growing body of research that focuses on the timing and

context of sexual initiation as a transition that deserves attention on its own (Blanc and Way, 1998; United Nations, 1998).

The onset of sexual activity typically takes place during adolescence, a period of growth, experimentation and identity search, during which individuals are particularly vulnerable and in many cases ill-informed with respect to making responsible choices that would not compromise their sexual and reproductive health (Zabin and Kiragu, 1998). Limited access to reproductive health information and services—owing to social, cultural and in some cases legal barriers—increases their susceptibility to unwanted pregnancy, unsafe abortion and sexually transmitted infections, including HIV/AIDS (Dowsett and Aggleton, 1999). The highest reported rates of sexually transmitted infections are observed among people under age 25, both in more developed regions (Panchaud, 2000) and in less developed regions (Cates and McPheeters, 1997). Sexually transmitted infections have a particularly large impact on young women, who are often asymptomatic, more difficult to diagnose and face greater barriers to seeking treatment. Young people also suffer a disproportionate share of HIV infections. According to the Joint United Nations Programme on HIV/AIDS (UNAIDS, 2001), about half of all new HIV infections occur in the age range 15 to 24, providing another major reason to focus on the sexual health of youth. Young women are particularly vulnerable to HIV infection for biological, behavioural and cultural reasons, in particular the unequal gender norms that prevent them from having control over their sexual lives and adopting protective measures (Mason, 1994). HIV prevalence levels among young women are significantly higher than among young men, and in sub-Saharan Africa HIV infection rates are five times higher among adolescent women than among adolescent men (UNAIDS, 2000).

Harmful traditional practices such as female genital mutilation pose an additional health threat to young women (Althus, 1997; Carr, 1997; Mohamud, Ali and Yinger, 1999). The Programme of Action adopted by the International Conference on Population and Development (United Nations, 1995a) specifically addressed female genital mutilation as a violation of basic rights and a major lifelong risk to women's health, and called for an end to this practice, which affects nearly 2 million girls worldwide each year. A recent study (Population Reference Bureau, 2001a) documents the practice of female genital mutilation in at least 28 countries in sub-Saharan Africa and North-eastern Africa, although it has spread to other regions of the world through migration. According to recent Demographic and Health Surveys, national prevalence rates range from nearly universal (90 per cent or more) in Egypt, Eritrea, Mali and Sudan to 18 per cent in the United Republic of Tanzania. In recent years, communities and countries have begun to make progress towards the internationally agreed-upon goal of eradicating female genital mutilation. There is evidence of a change in attitudes and a decline in the practice among younger women in Burkina Faso, Central African Republic, Eritrea, Kenya and the United Republic of Tanzania (Population Reference Bureau, 2001a).

Data on young people's sexual behaviour have traditionally been scarce, particularly for men. However, in the past decade, the seriousness and scale of the global HIV/AIDS epidemic have moved the issue of sexual health to the forefront of the research and policy agenda, promoting increased efforts of data collection. While until the early 1980s practically all fertility surveys focused only on women, during the 1990s most fertility and reproductive health surveys included both women and men. International survey programmes that have contributed to advancing our knowledge of young women's and young men's patterns of sexual behaviour include the following: Demographic and Health Surveys (DHS); Young Adult Reproductive Health Surveys (YARHS) conducted by the Centers for Disease Control and Prevention, mostly in Latin America and the Caribbean and in Eastern Europe; and Partner Relations (PR) surveys carried out by the World Health Organization Global Programme on AIDS, mostly in sub-Saharan Africa (Caräel, 1995). Data on young people's sexual behaviour in Asia have traditionally been scarce because most surveys conducted in this region interviewed only ever-married women, but the Asian Young Adult Reproductive Health Surveys (YARHS) have made it possible to overcome this limitation

(Xenos and others, 2001a). Demographic surveys in developed countries, such as the Fertility and Family Surveys (FFS), have also collected information relevant to sexual health for both women and men. As a result of this important data collection effort, there is a growing body of literature that documents existing worldwide patterns of young people's timing and context of sexual initiation (Alan Guttmacher Institute, 1998; Blanc and Way, 1998; Singh and others, 2000; Population Reference Bureau, 2001b; World Health Organization, 2001).

Table 2 summarizes survey data for selected regions on the age and marital status of young women and young men at sexual initiation. Although regional averages could be misleading, since they are based only on the countries for which recent survey data are available, some broad patterns of entry into sexual life can be noted. In all regions shown, sexual initiation during adolescence is the predominant pattern among women. The proportion of young women sexually active before age 20 is highest in Africa and in the more developed countries (79 per cent and 72 per cent respectively) and lowest in Latin American and the Caribbean (58 per cent). Sexual initiation during the teen years is also the dominant pattern among men. The average proportion of young men who started their sexual activity before age 20 is 69 per cent in Africa and 82 per cent in Latin America and the Caribbean.

TABLE 2. TIMING AND MARITAL CONTEXT OF THE INITIATION OF SEXUAL ACTIVITY AMONG MEN AND WOMEN AGED 20-24, SELECTED REGIONS

Region	*Number of countries with available data*	*Percentage of men and women sexually active by age 20*						
		All	*Before age 18*			*Ages 18-19*		
			Total	*Before marriage*	*Within marriage*		*Before marriage*	*Within marriage*
Men								
Africa	18	69	48	45	3	21	17	4
Latin America and the Caribbean	6	82	65	63	2	17	15	3
Women								
Africa	25	79	61	31	29	18	9	9
Latin America and the Caribbean	13	58	38	17	21	20	9	11
More developed regions	5	72	50	44	6	22	15	7

Sources: Alan Guttmacher Institute, *Into a New World: Young Women's Sexual and Reproductive Lives* (New York, 1998), appendix table 3, p. 51; and various Demographic and Health Survey country reports.

NOTE: Regional averages are unweighted and based only upon available data for that region.

Tables 3 and 4 provide country-level data on the timing of sexual initiation for young women and men respectively. In 40 of the 47 countries examined, the proportion of women currently aged 20 to 24 who had their sexual initiation before age 20 exceeds one half. The proportion of young men aged 20 to 24 sexually active by age 20 also exceeds one half in 23 of the 25 countries examined. There is, however, broad variation across countries, presumably attributable to divergences in marriage patterns and cultural norms. Among women, the proportion who initiated their sexual activity before age 20 ranges from 29 per cent in the Philippines to 98 per cent in Liberia. Among men, the corresponding proportion ranges from 47 per cent in the Niger to 92 per cent in Nicaragua.

TABLE 3. TIMING AND MARITAL CONTEXT OF THE INITIATION OF SEXUAL ACTIVITY AMONG WOMEN AGED 20-24

Region and country	Survey year	Percentage of women sexually active by age 20: All	Before age 18: Total	Before age 18: Before marriage	Before age 18: Within marriage	Age 18-19: Total	Age 18-19: Before marriage	Age 18-19: Within marriage
Africa								
Benin	1996	86	63	37	25	24	12	12
Botswana	1988	91	66	59	7	25	22	3
Burkina Faso	1999	87	69	23	46	18	6	12
Burundi	1987	47	17	4	13	30	6	24
Cameroon	1998	91	76	45	31	15	9	6
Central African Republic	1994/95	95	80	41	39	15	6	9
Chad	1997	91	77	15	62	13	3	11
Comoros	1996	46	33	9	24	13	4	8
Côte d'Ivoire	1994	94	82	56	26	12	8	4
Ghana	1998	81	57	35	22	25	14	10
Kenya	1998	78	57	46	11	21	15	6
Liberia	1986	98	92	63	29	6	4	2
Madagascar	1992	81	61	37	24	20	14	6
Mali	1996	91	80	22	58	11	3	8
Mozambique	1997	91	78	38	40	14	6	7
Namibia	1992	67	41	33	8	26	23	3
Niger	1998	88	79	5	74	9	1	7
Nigeria	1999	67	49	18	32	18	11	7
Rwanda	1992	43	19	6	13	24	6	18
Senegal	1997	54	41	9	31	14	3	10
Togo	1998	87	63	46	16	24	18	6
Uganda	1995	92	73	40	33	19	8	11
United Rep. of Tanzania	1999	86	65	41	24	20	11	9
Zambia	1996	86	69	42	27	17	9	9
Zimbabwe	1999	63	35	16	19	28	10	18
Asia								
Kazakhstan	1999	50	25	15	10	25	6	18
Kyrgyzstan	1997	59	22	3	19	37	3	35
Philippines	1998	29	15	3	12	14	3	11
Uzbekistan	1996	56	16	1	15	40	1	39
Latin America and the Caribbean								
Bolivia	1998	53	32	20	12	21	12	9
Brazil	1996	61	42	29	14	19	12	7
Colombia	2000	69	45	31	13	24	18	6
Dominican Republic	1996	59	42	11	31	17	5	12
Ecuador	1987	52	33	13	20	19	6	13
El Salvador	1985	48	33	10	23	15	4	11
Guatemala	1999	61	40	16	24	20	5	15
Haiti	1994	62	41	27	13	21	13	8
Mexico	1987	46	28	7	21	18	4	14
Nicaragua	1997	65	49	11	38	16	2	13
Paraguay	1990	62	39	21	18	23	13	10
Peru	1996	53	34	21	13	19	12	8
Trinidad and Tobago	1987	58	35	8	27	23	6	17
Developed countries								
France	1994	73	53	30	23	20	8	12
Germany	1992	81	58	56	2	23	15	8
Poland	1991	39	11	9	2	28	16	12
United Kingdom	1991	87	64	64	0	23	22	1
United States of America	1995	81	63	60	3	18	15	3

Sources: Alan Guttmacher Institute, *Into a New World: Young Women's Sexual and Reproductive Lives* (New York, 1998), appendix table 3, p. 51; and various Demographic and Health Survey country reports.

TABLE 4. TIMING AND MARITAL CONTEXT OF THE INITIATION OF SEXUAL ACTIVITY AMONG MEN AGED 20-24

Region and country	Survey year	Percentage of men sexually active by age 20						
		All	Before age 18			Ages 18-19		
			Total	Before marriage	Within marriage	Total	Before marriage	Within marriage
Africa								
Benin	1996	75	55	53	2	21	18	3
Burkina Faso	1999	50	31	31	0	19	18	1
Cameroon	1998	85	62	58	4	22	19	3
Central African Republic	1994/95	88	65	58	7	23	18	5
Chad	1997	67	45	36	9	21	14	7
Comoros	1996	61	50	47	2	12	9	2
Ghana	1998	55	30	28	2	25	21	5
Kenya	1998	80	67	67	0	13	12	1
Mali	1996	64	38	35	3	26	20	6
Mozambique	1997	86	60	54	5	26	18	8
Niger	1998	47	26	20	6	21	12	9
Nigeria	1999	54	36	32	4	18	15	3
Senegal	1997	51	35	34	1	17	16	1
Togo	1998	76	50	48	2	26	24	2
Uganda	1995	80	58	53	5	22	17	6
United Rep. of Tanzania	1999	81	57	55	1	25	22	2
Zambia	1996	83	70	70	1	12	11	2
Zimbabwe	1999	57	31	30	1	26	24	2
Asia								
Kazakhstan	1999	69	40	38	2	29	27	2
Latin America and the Caribbean								
Bolivia	1998	79	63	60	2	16	13	3
Brazil	1996	88	75	74	1	13	12	1
Dominican Republic	1996	82	61	57	4	21	18	3
Haiti	1994	74	53	52	1	21	20	1
Nicaragua	1997	92	80	74	5	12	8	4
Peru	1996	80	60	59	1	20	16	4

Sources: Demographic and Health Surveys (Calverton, Maryland; Macro International, Inc.).

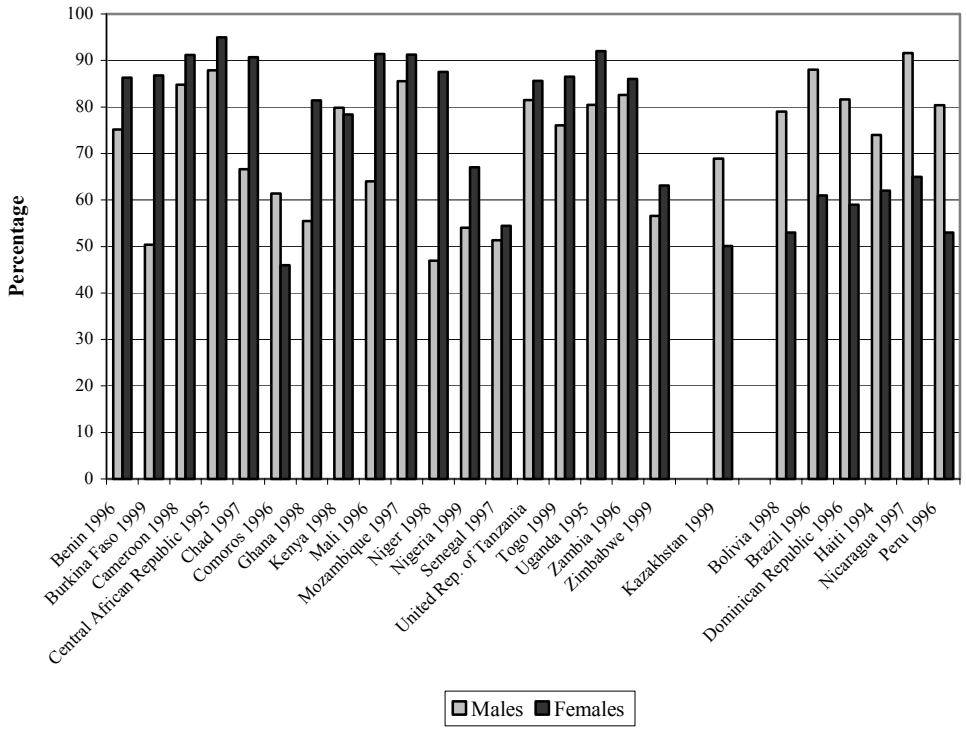
For many adolescents, sexual initiation occurs before having adequate information on potential health risks, self-protection skills or full access to reproductive health services. This situation is exacerbated when sexual initiation takes place at a very early age. An additional concern is that sexual activity at very early ages is often involuntary or coerced (Heise, Moore and Toubia, 1995; Abma, Driscoll and Moore, 1998; World Health Organization, 2001). According to recent Demographic and Health Surveys, over one fourth of women currently aged 20 to 24 had their sexual initiation before age 15 in several African countries including Cameroon, Central African Republic, Chad, Côte d'Ivoire, Guinea, Liberia, Mali, Mozambique, the Niger and Uganda. In Asia, most reproductive health surveys are based on ever-married samples and hence there is little information on sexual behaviour prior to marriage. However, the proportion of young women sexually active by age 15 within marriage is nearly one fifth in India and Nepal, and almost one half in Bangladesh. In Latin America and the Caribbean, sexual initiation before age 15 is relatively uncommon, although 10 to 15 per cent of young women started their sexual activity before that age in the Dominican Republic, Guatemala and Nicaragua. In the more developed regions,

the United States of America has an earlier pattern of sexual initiation than many other countries: 15 per cent of young women and 34 per cent of young men experienced their first sexual relationship before age 15 (Singh and others, 2000).

Although the relatively high prevalence of sexual initiation before age 15 in some societies constitutes a special cause for concern because of the risks derived from physical immaturity, the prevalence of sexual initiation before age 18 is also a relevant indicator of reproductive health, since psychological and emotional immaturity are often associated with risk-taking behaviour. According to table 3, the proportion of young women sexually active by age 18 ranges from 11 per cent in Poland to 92 per cent in Liberia. In Africa, the proportion of young women who initiated their sexual activity before age 18 is over one half in 18 of the 25 countries examined, and it exceeds 75 per cent in Cameroon, Central African Republic, Chad, Côte d'Ivoire, Liberia, Mali, Mozambique and the Niger. In Latin America and the Caribbean, the proportion of young women sexually active before age 18 ranges from 28 per cent in Mexico to 49 per cent in Nicaragua. In all developed countries with available data, the proportion of young women sexually active by age 18 exceeds one half except in Poland. Sexual initiation before age 18 is also common among men worldwide. According to table 4, the proportion of young men sexually active before that age is one half or above in 10 of the 18 African countries and in all Latin American countries with available data.

Figure 1 illustrates existing gender differentials in the timing of sexual initiation. As other studies have previously shown (Singh and others, 2000), the data contradict the long-held view that men

Figure 1. Percentage of men and women whose initiation of sexual activity occurred before age 20



Sources: Based on Alan Guttmacher Institute, *Into a New World: Young Women's Sexual and Reproductive Lives* (New York 1998), appendix table 3, p. 51; and various Demographic and Health Surveys (Calverton, Maryland, Macro International, Inc.).

NOTE: Percentages reflect both premarital and marital sexual experience.

are generally more sexually precocious than females. The pattern of gender differentials in the onset of sexual activity varies from region to region. In Africa, women tend to have an earlier sexual initiation than men: in 16 of the 18 countries surveyed, a higher proportion of young women than young men are sexually active before age 20. By contrast, in all Latin American and Caribbean countries examined, the proportion of young women sexually active by age 20 is significantly lower than men.

1. The context of sexual initiation

Besides the timing of sexual initiation, the social and personal context within which it takes place also has important repercussions for sexual and reproductive health. One important contextual factor is whether sexual initiation occurs within or outside of marriage. Unmarried adolescents and youth face particular social and health risks, especially in countries where their access to reproductive health services is restricted (Center for Reproductive Law and Policy, 1999).

Whereas gender differentials in the timing of sexual initiation are relatively modest and do not follow a consistent pattern across regions, gender differentials in the marital context of sexual initiation are generally large and uniform. Regional averages in table 2 indicate that among those young women sexually active by age 20, 40 per cent in Africa and 26 per cent in Latin America and the Caribbean experienced this transition within a premarital context. By contrast, the corresponding proportion for males is 62 per cent in Africa and 78 per cent in Latin America and the Caribbean. In the more developed countries, gender differentials in the marital context of sexual initiation tend to be smaller, since in many countries the onset of sexual activity takes place predominantly prior to marriage for both women and men.

Regional averages often conceal wide diversity regarding the marital context of sexual initiation across countries, particularly among women. According to table 3, in Africa the proportion of young women who had their first sexual relationship before age 20 and prior to marriage ranges from less than 15 per cent in Burundi, Comoros, the Niger, Rwanda and Senegal to over 60 per cent in Botswana, Côte d'Ivoire, Kenya, Liberia and Togo. Although the fact that marriage is generally regarded as a lengthy process rather than a discrete event could affect the reporting of premarital sexual activity (Meekers, 1992), in 13 of the 25 countries examined, sexual initiation before age 20 was more likely to take place in a premarital than in a marital context. In Latin America and the Caribbean, the proportion of young women who had their sexual initiation before age 20 and prior to marriage ranges from 11 per cent in Mexico to over 40 per cent in Brazil, Colombia and Haiti, and in 6 of the 13 countries examined sexual initiation before age 20 was more likely to take place before marriage than after marriage.

In Asia, the onset of sexual activity has traditionally been assumed to take place largely within the context of marriage although, since most demographic surveys have focused on ever-married women, few empirical data are available on the incidence of premarital sexual activity. Recent studies based on the Asian Young Adult Reproductive Health Surveys (AYARH) confirm that the level of premarital sexual activity is low among young women in that region, as compared with other world regions, although high among young men (Xenos and others, 2001b). For the four Asian countries examined in table 3, the proportion of young women sexually active before marriage by age 20 is 6 per cent or lower in the Philippines, Kyrgyzstan and Uzbekistan, although it reaches 21 per cent in Kazakhstan.

In the developed countries, premarital sexual initiation is often the norm. Approximately three fourths of young women have experienced premarital sexual relationships by age 20 in Germany, the United Kingdom of Great Britain and Northern Ireland and the United States of America.

According to table 4, the marital context of male sexual initiation is more homogeneous across countries than it is for females. In all countries examined except the Niger, the proportion of young men sexually active prior to marriage by age 20 is over 40 per cent, and it exceeds 75 per cent in Brazil, Cameroon, the Central African Republic, the Dominican Republic, Kenya, Nica-

ragua, Peru, the United Republic of Tanzania and Zambia. Furthermore, in all countries examined, men's sexual initiation before age 20 is much more likely to take place outside marriage than within marriage. Gender differentials in the marital context of sexual initiation are particularly large in some countries in Latin American and the Caribbean. In the Dominican Republic and Nicaragua, for instance, less than 20 per cent of young women but more than 75 per cent of young men experienced their sexual initiation prior to marriage by age 20.

A number of studies have documented that education plays an influential role in the timing and context of young people's sexual initiation (Blanc, 2000). The association between women's higher educational level and later onset of sexual activity is well established in sub-Saharan Africa, although the association between education and premarital sexual behaviour varies across countries (Gage and Meekers, 1994). There are fewer studies that focus on men, but there is some evidence suggesting that socio-economic factors may affect male and female sexual behaviour differently. A recent study on Botswana, for instance, has shown that secondary education delays the onset of sexual activity for women but increases the odds of young males being sexually active (Meekers and Ahmed, 2000).

Table 5 presents the proportion of young women sexually active by age 18 for various educational groups. The prevailing pattern is one of later sexual initiation among women with higher educational attainment. Since a large proportion of women initiate their sexual activity within marriage, this association is partly explained by the postponement of marriage among better educated women. In general, the largest differentials among educational groups are observed between women with a primary education and women with a secondary education. In 11 of the 28 countries examined, the proportion of women with a secondary education sexually active by age 18 is only one half the corresponding proportion for women with primary education. The association between higher education and later sexual initiation, however, is not observed among men. According to table 6, in most countries examined young men with a secondary education are as likely or more likely to be sexually active by age 18 than men with lower educational attainment.

Along with a formal education, it is equally important to provide young people with specific education on sexual and reproductive health matters. Despite initial concerns that sexual education programmes would encourage early sexual activity among adolescents, a recent assessment by the Joint United Nations Programme on HIV/AIDS (UNAIDS, 1997) provides evidence that sexual health education, imparted by schools or through broader community channels, actually has the effect of delaying sexual initiation and promoting safer sexual behaviour.

The influence of the family environment on the timing and context of young people's transition to sexual activity is also increasingly acknowledged (Gage, 1998; Miller, 1998). Parents and other family members usually play a central role in shaping young persons, knowledge, values and attitudes, including those related to gender roles and sexual and reproductive health. The important role of parents and other family members in guiding adolescents towards responsible sexual behaviour and promoting gender equality has been acknowledged in the Programme of Action of the International Conference on Population and Development (United Nations, 1995a). Several studies have documented the influence of family stability (Gomez, 1993), father's presence in the household (Dittus, Jaccard and Gordon, 1997) and parent-teen communication (Hutchinson and Cooney, 1998) on the timing of sexual initiation and the reduction of risk-taking behaviour.

There is also a growing recognition that understanding gender-based power dynamics is fundamental to improving the sexual and reproductive health of youth (Gage, 2000; Blanc, 2001; United Nations, 2001b). Gender-based violence, the most compelling manifestation of unequal power relationships between men and women, has obvious negative consequences for women's sexual and reproductive health, and there is increasing evidence that young women are particularly vulnerable to sexual coercion (Heise, Ellsberg and Gottemoeller 1999; Kapoor, 2000). Young women's vulnerability to HIV/AIDS and other STIs is also strongly influenced by gender power

TABLE 5. PERCENTAGE OF WOMEN AGED 20-24 SEXUALLY ACTIVE BEFORE AGE 18 BY EDUCATIONAL LEVEL, SELECTED COUNTRIES

Country	Year of survey	Percentage sexually active before age 18 — Highest educational level: No education	Primary	Secondary or higher
Africa				
Benin	1996	64.8	64.7	41.0
Burkina Faso	1999	74.3	59.5	30.3
Cameroon	1998	81.0	81.9	68.6
Central African Republic	1994	80.5	83.6	73.4
Chad	1997	80.4	74.5	50.7
Comoros	1996	39.3	39.3	20.1
Ghana	1998	63.1	63.1	52.3
Guinea	1999	77.2	70.6	43.5
Kenya	1998	64.7	68.8	37.9
Mali	1996	84.2	75.6	47.6
Mozambique	1997	80.6	77.7	56.5
Niger	1998	87.2	64.3	25.8
Nigeria	1999	77.1	50.6	29.9
Senegal	1997	51.6	31.3	11.7
Togo	1998	68.7	62.6	50.5
Uganda	1995	76.8	73.3	49.9
United Republic of Tanzania	1999	71.1	67.2	28.3
Zambia	1996	71.1	78.6	51.2
Zimbabwe	1999	77.5	53.7	24.7
Asia				
Philippines	1998	..	35.4	10.4
Latin America and the Caribbean				
Bolivia	1998	43.7	52.8	23.7
Brazil	1996	71.8	50.0	38.9
Colombia	2000	53.1	66.0	37.8
Dominican Republic	1996	80.0	62.4	22.6
Guatemala	1999	62.8	45.0	17.4
Haiti	1994	55.3	44.5	28.6
Nicaragua	1997	69.0	66.6	31.1
Peru	1996	55.3	59.2	25.7

Source: Demographic and Health Surveys (Calverton, Maryland, Macro International, Inc.).

NOTE: Two dots (..) indicate that the data are missing or the sample size was less than 20 in that education category.

inequality (Mason, 1994). Lower education, economic disadvantage and some cultural values regarding gender roles and sexuality reduce their ability to protect themselves from infection. Since attitudes towards gender and power are formed by early experience, the promotion of gender equality and shared male-female responsibility for health are increasingly recognized as integral components of sexual and reproductive health programmes (Weiss and Gupta, 1998).

TABLE 6. PERCENTAGE OF MEN AGED 20-24 SEXUALLY ACTIVE BEFORE AGE 18 BY EDUCATIONAL LEVEL, SELECTED COUNTRIES

Country	Year of survey	Percentage sexually active before age 18		
		Highest educational level		
		No education	Primary	Secondary or higher
Africa				
Benin	1996	56.4	51.5	57.0
Burkina Faso	1999	30.1	30.0	36.2
Cameroon	1998	27.9	56.9	69.9
Central African Republic	1994	61.8	64.7	65.6
Chad	1997	43.4	37.9	56.4
Comoros	1996	53.3	46.8	52.0
Ghana	1998	16.6	35.4	31.2
Guinea	1999	48.6	62.6	62.3
Kenya	1998	..	69.6	64.4
Mali	1996	28.5	37.0	66.7
Mozambique	1997	62.7	57.7	69.6
Niger	1998	26.5	28.0	22.9
Nigeria	1999	31.3	33.7	38.3
Senegal	1997	29.0	41.3	35.4
Togo	1998	46.8	49.6	51.2
Uganda	1995	61.5	58.4	56.4
United Republic of Tanzania	1999	58.9	58.0	38.2
Zambia	1996	4.3	70.2	67.5
Zimbabwe	1999	..	39.4	27.5
Asia				
Kazakhstan	1999	..	34.3	46.0
Latin America and the Caribbean				
Bolivia	1998	..	64.4	62.8
Brazil	1996	..	70.3	77.6
Dominican Republic	1996	45.4	61.4	63.2
Haiti	1994	50.7	42.7	61.5
Nicaragua	1997	67.7	81.5	82.2
Peru	1996	..	55.6	61.2

Source: Demographic and Health Surveys (Calverton, Maryland, Macro International, Inc.).

NOTE: Two dots (..) indicate that the data are missing or the sample size was less than 20 in that education category.

2. Trends in sexual initiation

Previous studies have documented a postponement of the onset of sexual activity in several countries (Blanc and Way, 1998). Expanded education, delayed marriage and increased awareness of the health and social risks of early sexual initiation are some of the factors presumably linked to this trend. Table 7, which includes those countries with Demographic and Health Survey data available at two points in time, shows that, although there is no uniform pattern across countries, the prevailing trend is towards later sexual initiation. In 13 of the 17 countries examined, there has been a recent decline in the proportion of young women sexually active by age 20, although four countries—Colombia, the Dominican Republic, Peru and the United Republic of Tanza-

nia—experienced an increase. In most of the countries where a trend towards delayed sexual initiation has been observed, the extent of change has been small, but in some African countries recent changes have been substantial. In Nigeria and Senegal, for instance, the proportion of young women sexually active before age 20 decreased during the 1990s, by 19 per cent and 23 per cent respectively. There is also recent evidence that in Uganda, one of the African countries most severely affected by the HIV/AIDS epidemic and where a vigorous prevention programme has been implemented, delayed sexual initiation among both women and men has contributed significantly to the recent drop in youth HIV infection rates (UNAIDS, 1998). In the more developed regions, a stable pattern prevails. In a review of survey data on sexual behaviour for 12 European countries, Bozon and Kontula (1998) showed that after two decades of decline in women's age at sexual initiation and narrowing gender differentials, the timing of sexual initiation stabilized in most countries in the early 1980s.

TABLE 7. TRENDS IN INITIATION OF SEXUAL ACTIVITY BY MARITAL CONTEXT AMONG WOMEN AGED 20-24

		Percentage of women sexually active by age 20		
Region and country	*Survey year*	*All*	*Before marriage*	*Within marriage*
Africa				
Burkina Faso	1992/93	92	25	67
	1999	87	29	58
Cameroon	1991	94	40	54
	1998	91	55	37
Ghana	1993	88	59	29
	1998	81	50	32
Kenya	1993	80	61	19
	1998	78	61	18
Mali	1987	95	20	75
	1996	91	25	66
Niger	1992	92	5	88
	1998	88	6	82
Nigeria	1990	83	27	57
	1999	67	29	38
Senegal	1992/93	70	14	56
	1997	54	13	42
Togo	1988	92	68	24
	1998	87	65	22
United Rep. of Tanzania	1991/92	83	45	39
	1999	86	52	33
Zambia	1992	87	50	37
	1996	86	51	36
Zimbabwe	1994	66	28	38
	1999	63	27	37
Latin America and the Caribbean				
Bolivia	1994	58	28	29
	1998	53	32	22
Colombia	1995	62	35	28
	2000	69	49	19
Dominican Republic	1991	50	10	40
	1996	59	17	43
Guatemala	1987	64	16	48
	1999	61	21	39
Peru	1991/92	45	27	18
	1996	53	33	20

Sources: Alan Guttmacher Institute, *Into a New World: Young Women's Sexual and Reproductive Lives* (New York, 1998), appendix table 3, p. 51; and Demographic *and Health Surveys* (Calverton, Maryland: Macro International, Inc.).

Although age at sexual initiation is rising in several countries, increases in age at marriage are generally greater, resulting in a widening gap. As a consequence, the prevalence of premarital sexual activity has generally increased, in both more and less developed regions (Carr, Way and Smith, 2001). Table 7 shows that the proportion of young women who had their sexual initiation prior to marriage by age 20 has increased in 7 of the 12 African countries and in all Latin American countries examined. In Colombia, for instance, the proportion of young women sexually active prior to marriage by age 20 increased from 35 per cent in 1995 to 49 per cent in 2000. Data on premarital sexual activity in Asia are generally scarce, but there is some indication of a recent increase in sexual initiation prior to marriage, particularly in those countries undergoing rapid economic and social change (Roque and Gubhaju, 2001). However, overall levels remain considerably lower than in other world regions (Xenos and others, 2001b). In the more developed countries, the marked postponement of first marriage has contributed significantly to the increase in premarital sexual activity. The average interval between sexual initiation and entry into marriage exceeds 10 years in several developed countries.

C. MARRIAGE

1. The timing of marriage

In all societies, marriage marks an important transition in a person's life and is generally contemplated as the initial stage of the family building process. Although in many settings entry into marriage no longer coincides with the onset of sexual activity, marital unions remain the predominant context within which childbearing and child-rearing take place. The timing of marriage has been receiving increasing attention from researchers and policy makers because of its long-lasting implications for a person's life course, reproductive health and family well-being (United Nations, 1990; Singh and Samara, 1996; United Nations, 2000a).

International human rights conventions provide that marriage shall be entered into only with the free and full consent of each spouse, but many women enter marriage without exercising their right to choose or are simply too young to make an informed decision (United Nations Children's Fund, 2001). Early marriage usually deprives a girl of her adolescence, reduces her educational opportunities and limits her level of autonomy within the family, including her decision-making power in matters regarding sexual and reproductive health (Kishor and Neitzel, 1996). In addition, early marriage often entails premature childbearing and increases the risk of divorce (Tilson and Larsen, 2000), contributing to the feminization of poverty and its resulting impact on children. Although most countries have enacted laws that regulate marriage, in terms of both minimum age and consent, the laws are not always enforced and often apply only to unions lacking parental consent. According to recent Demographic and Health Surveys, the proportion of young women married before age 15 exceeds one fourth in Bangladesh, Chad, Guinea and the Niger. Poverty is one of the major factors underpinning child marriages. There is also increasing concern that the fear of HIV infection might be encouraging men in countries severely affected by the epidemic to seek very young partners (United Nations Children's Fund, 2001).

Table 8 and figure 2 display regional averages for age at marriage for women and men,[2] based on information collected from censuses and surveys.[3] The regional average of women's age at marriage is 21.9 in Africa, 23.4 in Asia and Oceania, 25.5 in Latin America and the Caribbean and 26.1 in Europe and Northern America. Those averages conceal considerable variation across countries (United Nations, 2000b). Table A.1 (see annex) provides the average age at marriage[4] and the proportion ever married in several age groups for all countries. In Africa, women's mean age at marriage ranges from 17.6 in the Niger to over 26 in Botswana, the Libyan Arab Jamahiriya, Namibia, South Africa and Tunisia. Asia also displays a wide diversity in women's mean age at marriage, which ranges from approximately 18 in Afghanistan and Bangladesh to over 26 in Japan, Myanmar, the Republic of Korea and Singapore. In Latin American and the Caribbean, marriage generally takes place at a later age than in other less developed regions. Only in Cuba, Honduras and Nicaragua is women's mean age at marriage under 21. In Europe and Northern America,

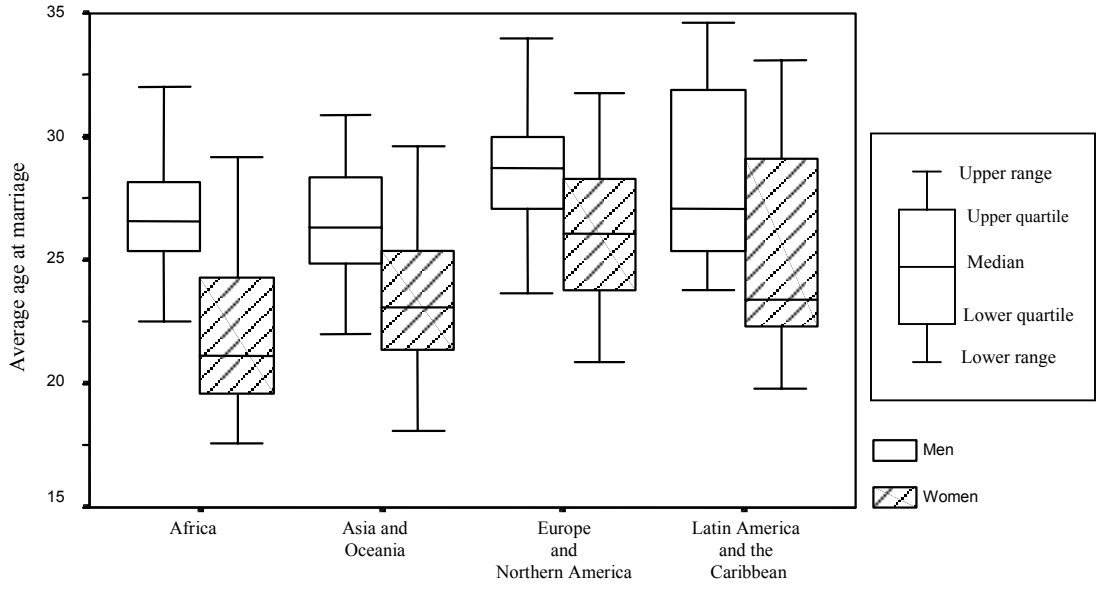
the predominant pattern is one of late marriage, although Eastern European countries usually have an earlier marriage pattern than the rest of the European countries. The female mean age at marriage is 30 years or over in Finland, France, Iceland, Ireland, Norway and Sweden.

TABLE 8. AVERAGE AGE AT MARRIAGE AND PERCENTAGE OF MEN AND WOMEN AGED 15-19 AND 20-24 WHO ARE EVER MARRIED

	Average age at marriage		*Difference in average age at marriage*	*Percentage ever married in age group 15-19*		*Percentage ever married in age group 20-24*	
Region	*Males*	*Females*	*(Males - Females)*	*Males*	*Females*	*Males*	*Females*
World	27.6	24.1	3.3	2.3	13.3	21.2	46.1
Africa	26.8	21.9	5.0	3.3	24.8	24.8	63.1
Asia and Oceania	26.6	23.4	3.2	2.7	13.0	24.9	51.0
Europe and Northern America	28.8	26.1	2.8	0.6	3.6	13.9	30.7
Latin America and the Caribbean	28.5	25.5	2.8	2.7	10.9	19.6	36.2

Sources: Population Division and Statistics Division of the United Nations Secretariat; and United States Bureau of the Census. See Annex table A. 1.
NOTE: Regional averages are unweighted.

Figure 2. Distribution of countries by region according to average age at marriage for men and women, most recent data



Sources: Population Division of the United Nations Secretariat; Statistics Division of the United Nations Secretariat; and United States Bureau of the Census. See Annex table A. 1.

Men have a later pattern of entry into marriage than women in all countries with available data. Regional averages of men's age at marriage range from 26.6 in Asia and Oceania to 28.8 in Europe and Northern America (table 8). At the country level, men's mean age at marriage ranges from 22 in Nepal to above 33 in Norway, Sweden and several Caribbean countries (see annex table A.1). Gender differentials in age at marriage are largest in Africa, where they average 5 years, as compared with 3.2 years in Asia and Oceania and 2.8 years in Europe, Northern America and Latin America and the Caribbean (table 8). In several African countries, such as Burkina Faso, the Congo, Côte d'Ivoire, the Gambia, Guinea, Mali and Mauritania, the average gap between male and female mean age at marriage is over 7 years. Large age differentials between spouses contribute to unequal power relations, reinforce women's dependency and often constrain women's decision-making in issues concerning their sexual and reproductive health (Mensch, Bruce and Greene, 1998).

Regional averages of the proportion of ever-married women and men in the age group 15 to 19 corroborate the patterns previously shown with the mean age at marriage (table 8). The highest proportion of ever-married women aged 15 to 19 is observed in Africa (25 per cent), followed by Asia and Oceania (13 per cent) and Latin America and the Caribbean (11 per cent), and the lowest proportion is observed in Europe and Northern America (4 per cent). By contrast, in all regions the proportion of men aged 15 to 19 who have entered marriage is below 4 per cent. Country-level data in annex table A.1 confirm that early marriage remains common among women in many parts of the world. In at least 30 countries with data available for the 1990s, over one fourth of women aged 15 to 19 have already entered marriage. The proportion of ever-married women in the 15 to 19 age group is over 40 per cent in several African countries, such as the Central African Republic, Chad, the Gambia, Guinea, Malawi, Mali, Mozambique, the Niger and Uganda, and in some Asian countries, such as Afghanistan, Bangladesh and Nepal. Table 8 shows similar regional patterns for the proportion of ever-married women and men aged 20 to 24. This proportion ranges from 63 per cent in Africa to 31 per cent in Europe and Northern America among women, and from 25 per cent in Africa, Asia and Oceania to 14 per cent in Europe and Northern America among men.

With respect to the recent evolution of marriage patterns, a general trend towards marriage postponement has been documented for most world regions (Singh and Samara, 1996). The growing emphasis on education is generally acknowledged to have played a significant role in this trend (Jejeebhoy, 1995; United Nations, 1995b; Lloyd and Mensch, 1999). Worldwide, the mean age at first marriage has increased 1.6 years among women and 1.2 years among men over the past decade (table 9). The shift towards later marriage was most pronounced in Europe and Northern America, where the mean age at marriage increased by approximately 2.5 years for both women and men, partly owing to the growing prevalence of non-marital unions at young ages (Klijzing and Macura, 1997). In addition to the delayed pattern of entry into marriage, the rising rate of marital disruption has increased the amount of time women and men spend outside marriage in this region (Goode, 1993), as well as the amount of time children live in a one-parent family (Andersson, 2001). A recent study also documents a significant rise in age at marriage since the early 1990s in European countries with economies in transition, which have been traditionally characterized by a relatively early marriage pattern (United Nations Children's Fund, 1999). In Africa, the mean age at marriage increased, on average, 1.6 years among females and 0.8 years among males. The shift towards later marriage has been substantial in several countries, particularly in Northern Africa. Women's mean age at marriage increased by more than 2 years in Benin, Cape Verde, Côte d'Ivoire, the Sudan and Tunisia and by more than 3 years in Algeria, Ethiopia and Morocco. In Asia, the overall increase in age at marriage has been 1.2 years among women and 0.9 years among men, although in some countries, such as Indonesia, Japan, Myanmar and the Philippines, the female mean age at marriage rose nearly 2 years. In Latin American and the Caribbean, both women's and men's mean age at marriage increased, on average, 1.2 years, although in some countries, such as Chile, Colombia, the Dominican Republic, El Salvador, Haiti, Honduras and Paraguay, women's mean age at marriage actually experienced a slight reduction.

TABLE 9. TRENDS IN AVERAGE AGE AT MARRIAGE, 1980S TO 1990S

Region	Average age at first marriage			
	Men		Women	
	Earlier period	Later period	Earlier period	Later period
World	26.7	27.9	23.0	24.6
Africa	25.9	26.7	20.5	22.1
Asia and Oceanía	25.8	26.7	22.2	23.4
Europe and Northern America	27.1	29.5	24.2	26.7
Latin America and the Caribbean	28.1	29.3	25.2	26.4

Source: Population Division of the United Nations Secretariat, database on marriage.
NOTE: Mean is unweighted.

Polygyny is common in some countries of sub-Saharan Africa (Timæus and Reynar, 1998; Blanc and Gage, 2000) and to a lesser extent in Northern Africa and in some countries of Southern and Western Asia. According to recent Demographic and Health Surveys, over one-third of currently married women aged 20 to 24 are in a polygynous union in Benin, Burkina Faso, Guinea, Liberia, Nigeria and Senegal. Polygynous marriage systems are usually associated with women's young age at marriage and large age gaps between spouses as well as between fathers and children (Goldman and Pebley, 1989). These patterns have wide-ranging implications for gender, generational and kinship relationships (Agadjanian and Ezeh, 2000), although the status of women in polygynous unions differs significantly across societies and also according to their rank within the polygynous marriage (Bledsoe and Pison, 1994). Trend data indicate a general decline in the prevalence of polygyny, presumably linked to broader social changes, notably the increase in women's education and urbanization. In sub-Saharan African countries with Demographic Health Survey data available at two points in time, a decline was observed during the past decade in the proportion of women aged 20 to 24 in a polygynous marriage, a decline amounting to approximately 20 per cent in Cameroon, Madagascar, Mali, Togo and Uganda, and nearly 50 per cent in Ghana and Kenya.

2. Consensual unions

Marriage customs vary considerably across societies, and the type of marital arrangement may have a significant influence on the legal rights, obligations and societal protection granted to spouses and children.[5] In some parts of the world, consensual unions are socially recognized as an acceptable context for bearing and rearing children. Although consensual unions are usually excluded from civil registration systems, censuses and surveys are increasingly incorporating them as an additional marital status category in countries where their prevalence is high.

The rise in cohabitation has become one of the most salient features of the second demographic transition in more developed countries (Klijzing and Macura, 1997; Kiernan, 1999; Bumpass and Lu, 2000). Although in many societies cohabitation constitutes a childless stage that serves as a trial period prior to marriage, in

others, like the Scandinavian countries or France, consensual unions and marital unions are becoming increasingly alike in terms of reproductive behaviour (Brown and Dittgen, 2000). Data in annex table A.2 show that at least one fifth of women aged 20 to 24 live in a consensual union in Denmark, Finland and France. In Sweden, a survey in 1992 showed that among men and women aged 28 years at the time of the survey, 64 per cent of the men and 74 per cent of the women had entered first partnerships that were consensual unions by the time they were 24 years old (United Nations, 1997). During the 1990s, several European countries passed partnership laws that equate some of the rights, benefits and obligations of married couples with those of registered unmarried couples (Bradley, 2001).

Consensual unions are not a phenomenon exclusive to the developed world. The coexistence of formal marriages and consensual unions has long been a distinctive feature of nuptiality patterns in Latin America and the Caribbean (De Vos, 2000). According to annex table A.2, the proportion of consensual unions among women aged 15 to 19 and 20 to 24 actually surpasses that of legal marriages in Colombia, the Dominican Republic, El Salvador, Haiti, Honduras, Jamaica, Nicaragua, Panama and Peru. Adolescent men aged 15 to 19 are much less likely to be in a consensual union than women of the same age group. However, among men aged 20 to 24, consensual unions outnumber marital unions in 7 countries of the region, and exceed three fourths of all unions in the Dominican Republic, Haiti and Peru. Although some couples eventually legalize their union (Pebley and Goldman, 1986), a large proportion of unions are never formalized, implying that a considerable proportion of families are built outside the traditional marriage framework. Several studies have shown that consensual unions in this region are very similar to marital unions with regard to childbearing patterns (Castro Martín, forthcoming). However, some important differences remain: consensual unions are more prevalent among women with little education and poor economic prospects, have higher instability and in general offer less legal protection and financial support to women and children in case of dissolution than legal unions (Quilodrán, 1999 and 2001).

Consensual unions are also relatively common in many countries of sub-Saharan Africa (Thiriat, 1999), although in those societies where marriage is a lengthy process that entails several phases rather than a discrete event marked by a ceremony, the distinction between marital and consensual unions might not be clear-cut (Meekers, 1992). According to annex table A.2, the proportion of consensual unions among women aged 15 to 24 surpasses that of legal marriages in Botswana, Cape Verde, the Central African Republic, Liberia, Mozambique, Rwanda and Sao Tome and Principal.

NOTES

[1]In 1989, the World Health Organization, the United Nations Children's Fund, and the United Nations Population Fund issued a joint statement defining adolescence as the period of life between 10 and 19 years and youth as the period of life between 15 and 24 years; young people constitute a combination of these two overlapping groups covering the age group 10 to 24 years (World Health Organization, 1989). These definitions have been widely adopted, although it is generally acknowledged that the meaning of the terms varies in different societies and changes in response to institutional, economic and sociocultural circumstances.

[2]The box plots in figure 2 show the spread of the distribution of age at marriage and display the first quartile, the median and the third quartile.

[3]Although most surveys and an increasing number of censuses, particularly in Latin America and the Caribbean, use a broad definition of marriage that includes socially recognized consensual unions, this is not always so. Therefore, in countries where persons in a non-legalized union are classified as single, the estimated mean age at marriage will be overestimated.

[4] Since many countries have inaccurate or incomplete civil registration systems, annex table A.1 presents the singulate mean age at marriage (SMAM) estimated from census or survey data, which is the mean age at first marriage among those who have ever been married in the age group 15 to 49. Since the SMAM is a synthetic measure, it might underestimate the current mean age at marriage if there has been a recent trend toward later marriage. Consensual unions are included in the ever-married category whenever they are reported separately.

[5]The *Multilingual Demographic Dictionary* of the International Union for the Scientific Study of Population defines marriage as a union between persons of opposite sexes that involves rights and obligations fixed by law or custom (IUSSP, 1982).

REFERENCES

Abma, Joyce, Anne Driscoll and Kristin Moore (1998). Young women's degree of control over first intercourse: an exploratory analysis. *Family Planning Perspectives* (New York), vol. 30, No. 1 (January/February).

Agadjanian, Victor, and Alex Chika Ezeh (2000). Polygyny, gender relations, and reproduction in Ghana. *Journal of Comparative Family Studies* (Calgary, Canada), vol. 31, No. 4 (Autumn).

Alan Guttmacher Institute (1998). *Into a New World: Young Women's Sexual and Reproductive Lives*. New York.

Althus, Frances (1997). Female circumcision: rite of passage or violation of rights? *International Family Planning Perspectives* (New York), vol. 23, No. 3 (September).

Andersson, Gunnar (2001). Children's experience of family disruption and family formation: evidence from 16 FFS countries. Max Planck Institute for Demographic Research, Working Paper 2001-028. Rostock, Germany: Max Planck Institute for Demographic Research.

Becker, Stan (1993). The determinants of adolescent fertility with special reference to biological variables. In *Biomedical and Demographic Determinants of Reproduction*, Ronald Gray, Henri Leridon and Alfred Spira, eds. Oxford, United Kingdom: Clarendon Press.

Blanc, Ann K. (2000). *The Relationship Between Sexual Behavior and Level of Education in Developing Countries*. Geneva: UNAIDS.

Blanc, Ann K., and Anastasia Gage (2000). Men, polygyny and fertility over the life course in sub-Saharan Africa. In *Fertility and the Male Life-Cycle in the Era of Fertility Decline*, Caroline Bledsoe, Susana Lerner and Jane I. Guyer, eds. Oxford, United Kingdom: Oxford University Press.

——— (2001). The effect of power in sexual relationships on sexual and reproductive health: an examination of the evidence. *Studies in Family Planning* (New York), vol. 32, No. 3 (September).

Blanc, Ann K., and Ann Way (1998). Sexual behaviour and contraceptive knowledge and use among adolescents in developing countries. *Studies in Family Planning* (New York), vol. 29, No. 2 (June).

Bledsoe, Caroline H., and Gilles Pison, eds. (1994). *Nuptiality in Sub-Saharan Africa: Contemporary Anthropological and Demographic Perspectives*. Oxford, United Kingdom: Clarendon Press.

Bozon, Michel, and Osmo Kontula (1998). Sexual initiation and gender in Europe: a cross-cultural analysis of trends in the twentieth century. In *Sexual Behaviour and HIV/AIDS in Europe*, M. Hubert, Nathalie Bajos and Theo Sandfort, eds. London: UCL Press.

Bradley, David (2001). Regulation of unmarried cohabitation in west-European jurisdictions-determinants of legal policy. *International Journal of Law, Policy and the Family,* vol. 15, No. 1 (April).

Brown, Bradford, Reed W. Larson and T.S. Saraswathi, eds. (2002). *The World's Youth: Adolescence in Eight Regions of the Globe*. London: Cambridge University Press.

Brown, Elisabeth, and Alfred Dittgen (2000). Fertility of married and unmarried couples in Europe. Paper presented at Partnership and Fertility-A Revolution? Fertility and Family Surveys Flagship Conference, Brussels, 29-31 May 2000.

Bumpass, Larry L., and Hsien-Hen Lu (2000). Trends in cohabitation and implications for children's family contexts in the United States. *Population Studies* (London), vol. 54, No. 1 (March).

Caldwell, John C., and others (1998). The construction of adolescence in a changing world: implications for sexuality, reproduction and marriage. *Studies in Family Planning,* vol. 29, No. 2 (June).

Caräel, Michel (1995). Sexual behaviour. In *Sexual Behaviour and Knowledge of AIDS in the Developing World*, John Cleland and Benoit Ferry, eds. London: Taylor and Francis.

Carr, Dara (1997). *Female Genital Cutting: Findings from the Demographic and Health Surveys*. Calverton, Maryland: Macro International, Inc.

Carr, Dara, Ann Way and Rhonda Smith (2001). *Youth in Sub-Saharan Africa: A Chartbook on Sexual Experience and Reproductive Health*. Washington D.C.: Population Reference Bureau.

Castro Martín, Teresa (2002). Consensual unions in Latin America: persistence of a dual nuptiality system. *Journal of Comparative Family Studies* (Calgary, Canada), vol. XXXIII, No. 1 (Winter), pp. 35-55.

Cates, Wilard, and Melissa McPheeters (1997). Adolescents and sexually transmitted diseases: current risks and future consequences. Paper presented at the Workshop on Adolescent Sexuality and Reproductive Health in Developing Countries: Trends and Interventions. National Research Council, Washington, D.C., 25 March 1997.

Center for Reproductive Law and Policy (1999). *Adolescent Reproductive Rights: Laws and Policies to Improve Their Health and Lives*. New York.

Chowdhury, Sameena, and others (2000). Nutritional status and age at menarche in a rural area of Bangladesh. *Annals of Human Biology,* vol. 27, No. 3 (May-June).

De Vos, Susan (2000). Nuptiality in Latin America. In *Till Death Do Us Part: A Multicultural Anthology on Marriage,* Sandra L. Browning and Robin R. Miller, eds. Stamford, Connecticut: JAI Press.

Dittus, Patricia J., James Jaccard and Vivian V. Gordon (1997). The impact of African-American fathers on adolescent sexual behavior. *Journal of Youth and Adolescence,* vol. 26, No. 4 (August).

Dixon-Mueller, Ruth (1993). The sexuality connection in reproductive health. *Studies in Family Planning,* vol. 24, No. 5 (September/October).

Dowsett, Gary, and Peter Aggleton (1999). *Sex and Youth: Contextual Factors Affecting Risk for HIV/AIDS, A Comparative Analysis of Multi-Site Studies in Developing Countries*. Geneva: UNAIDS.

Gage, Anastasia J. (1998). Sexual activity and contraceptive use: the components of the decision-making process. *Studies in Family Planning*, vol. 29, No. 2 (June).

——— (2000). Female empowerment and adolescents. In *Women's Empowerment and Demographic Processes: Moving Beyond Cairo*, Harriet B. Presser and Gita Sen, eds. Oxford, United Kingdom: Oxford University Press.

Gage, Anastasia J., and Dominique Meekers (1994). Sexual activity before marriage in sub-Saharan Africa. *Social Biology*, vol. 41, No. 1-2 (Spring/Summer).

Goldman, Noreen, and Ann Pebley (1989). The demography of polygyny in sub-Saharan Africa. In *Reproduction and Social Organization in Sub-Saharan Africa*, Ron Lesthaeghe, ed. Berkeley, California: University of California Press.

Gómez, Victor M. (1993). Los padres, la educación y las relaciones sexuales premaritales de los hijos. *Encuesta Nacional de Salud Reproductiva de Adultos Jóvenes*. San José, Costa Rica: Caja Costarricense de Seguro Social, Departamento de Medicina Preventiva, Programa de Salud Reproductiva.

Goode, William J. (1993). *World Changes in Divorce Patterns*. London: Yale University Press.

Gray, Ronald (1983). The impact of health and nutrition on natural fertility. In *Determinants of Fertility in Developing Countries*, Rodolfo Bulatao and Ronald Lee, eds. New York: Academic Press.

Heise, Lori, Kirsten Moore and Nahid Toubia (1995). *Sexual Coercion and Reproductive Health: A Focus on Research*. New York: Population Council.

Heise, Lori, Mary Ellsberg and Megan Gottemoeller (1999). *Ending Violence Against Women*. Population Reports, Series L, No. 11. Baltimore, Maryland: Johns Hopkins University School of Public Health, Population Information Program.

Hughes, Jane, and Ann McCauley (1998). Improving the fit: adolescents' needs and future programs for sexual and reproductive health in developing countries. *Studies in Family Planning*, vol. 29, No. 2 (June).

Hutchinson, M. Katherine, and Teresa M. Cooney (1998). Patterns of parent-teen sexual risk communication: implications for intervention. *Family Relations*, vol. 47, No. 2 (April).

International Union for the Scientific Study of Population (1982). *Multilingual Demographic Dictionary: English Section.* 2nd edition. Adapted by E. van de Walle. Liège, Belgium: Ordina Editions.

Jejeebhoy, Shireen J. (1995). *Women's Education, Autonomy and Reproductive Behaviour: Experience from Developing Countries*. Oxford, United Kingdom: Clarendon Press.

Kapoor, Sushma (2000). *Domestic Violence Against Women and Girls*. Innocenti Digest No. 6. Florence, Italy: United Nations Children's Fund (UNICEF) and Innocenti Research Centre.

Kiernan, Kathleen E. (1999). Cohabitation in Western Europe. *Population Trends*, No. 96 (Summer).

Kipke, Michele D., ed. (1999). *Adolescent Development and the Biology of Puberty: Summary of a Workshop on New Research*. Washington, D.C.: National Academy Press.

Kishor, Sunita, and Katherine Neitzel (1996). *The Status of Women: Indicators for Twenty-Five Countries*. Demographic and Health Surveys, Comparative Studies No. 21. Calverton, Maryland: Macro International, Inc.

Klijzing, Erik, and Miroslav Macura (1997). Cohabitation and extramarital childbearing: early FFS evidence. In *Proceedings of the International Population Conference, Beijing, 11-17 October 1997*, vol. 2. Liège, Belgium: International Union for the Scientific Study of Population.

Lloyd, Cynthia, and Barbara Mensch (1999). Implications of formal schooling for girls' transitions to adulthood in developing countries. In *Critical Perspectives on Schooling and Fertility in the Developing World,* Caroline H. Bledsoe and others, eds. Washington D.C.: National Academy Press.

Mason, Karen Oppenheim (1994). HIV transmission and the balance of power between men and women: a global view. *Health Transition Review,* vol. 4 (Supplement).

McCauley, Ann P., and Cynthia Salter (1995). *Meeting the Needs of Young Adults*. Population Reports, Series J, No. 41. Baltimore, Maryland: Johns Hopkins School of Public Health, Population Information Program.

Meekers, Dominique (1992). The process of marriage in African societies: a multiple indicator approach. *Population and Development Review*, vol. 18, No. 1 (March).

Meekers, Dominique, and Ghyasuddin Ahmed (2000). Contemporary patterns of adolescent sexuality in urban Botswana. *Journal of Biosocial Science*, vol. 32, No. 4 (October).

Mensch, Barbara S., Judith Bruce and Margaret E. Greene (1998). *The Uncharted Passage: Girls' Adolescence in the Developing World*. New York: The Population Council.

Miller, Brent C. (1998). *Families Matter: A Research Synthesis of Family Influences on Adolescent Pregnancy*. Washington D.C.: National Campaign to Prevent Teen Pregnancy.

Mitra, S. N., and others (1997) *Bangladesh: Demographic and Health Survey 1996-1997*. Calverton, Maryland: Macro International, Inc.

Mohamud, Asha, Nancy Ali and Nancy Yinger (1999). *Female Genital Mutilation, Programmes to Date: What Works and What Doesn't*. WHO/CHS/WMH/99.5. Geneva: World Health Organization.

Morabia, Alfredo, and Michael C. Costanza (1998). International variability in ages at menarche, first live birth, and menopause. *American Journal of Epidemiology*, vol. 148, No. 12 (December).

Pan American Health Organization (2000). *Why Should We Invest in Adolescents?* OP 127. Washington, D.C.

Panchaud, Christine, and others (2000). Sexually transmitted diseases among adolescents in developed countries. *Family Planning Perspectives,* vol. 32, No. 1 (January/February).

Pebley, Ann, and Noreen Goldman (1986). Legalization of consensual unions in Latin America. *Social Biology*, vol. 33, No. 3-4 (Fall/Winter).

Population Reference Bureau (2001a). *Abandoning Female Genital Cutting: Prevalence, Attitudes, and Efforts to End the Practice*. Washington, D.C.: Population Reference Bureau.

———(2001b). *The World's Youth 2000.* Washington, D.C.: Population Reference Bureau.

Quilodrán, Julieta (1999). Quand l'union libre n'est pas un phénomène nouveau. *Cahiers Québecois de Démographie,* vol. 28, No. 1-2 (Spring/Autumn).

———(2001). L'union consensuelle latinoaméricaine a-t-elle changé de nature? Paper presented at the XXIV General Conference of the International Union for the Scientific Study of Population. Salvador, Brazil, 18-24 August 2001.

Roque, Francisco H., and Bhakta B. Gubhaju (2001). Situation of the sexual and reproductive health of young people in the Asian and Pacific region. Paper presented at the Third Asia-Pacific Intergovernmental Meeting on Human Resources Development for Youth, Bangkok, 4-8 June 2001.

Singh, Susheela, and Renee Samara (1996). Early marriage among women in developing countries. *International Family Planning Perspectives*, vol. 22, No. 4 (December).

Singh, Susheela, and others (2000). Gender differences in the timing of first intercourse: data from 14 countries. *International Family Planning,* vol. 26, No. 1 (March).

Stover, John (1998). Revising the proximate determinants of fertility framework: what have we learned in the past 20 years? *Studies in Family Planning,* vol. 29, No. 3 (September).

Thiriat, Marie-Paul. (1999). Les unions libres en Afrique subsaharienne. *Cahiers Québécois de Démographie,* vol. 28, No. 1-2 (Spring /Fall).

Thomas, Frederic, and others (2001). International variability of ages at menarche and menopause: patterns and main determinants. *Human Biology,* vol. 73, No. 2 (April).

Tilson, Dara, and Ulla Larsen (2000). Divorce in Ethiopia: the impact of early marriage and childlessness. *Journal of Biosocial Science,* vol. 32, No. 3 (July).

Timæus, Ian M., and Angela Reynar (1998). Polygynists and their wives in sub-Saharan Africa: an analysis of five Demographic and Health Surveys. *Population Studies,* vol. 52, No. 2 (July).

United Nations (1984). *Report of the International Conference on Population, 1984. Mexico City, 6-14 August 1984*. Sales No. E.84.XIII.8 and corrigenda.

———(1988). *Adolescent Reproductive Behaviour,* vol. 1, *Evidence from Developed Countries*. Population Studies, No. 109. Sales No. E.88.XIII.8.

———(1989). *Adolescent Reproductive Behaviour,* vol. 2, *Evidence from Developing Countries*. Population Studies No. 109/Add.1. Sales No. E.89.XIII.10.

——— (1990). *Patterns of First Marriage: Timing and Prevalence*. Sales No. E.91.XIII.6.

———(1995a). *Report of the International Conference on Population and Development, Cairo, 5-13 September 1994*. Sales No. E.95.XIII.18.

———(1995b). *Women's Education and Fertility Behaviour: Recent Evidence from the Demographic and Health Surveys*. Sales No. E.95.XIII.23.

——— (1998). *World Population Monitoring 1996: Selected Aspects of Reproductive Rights and Reproductive Health*. Sales No. E.97.XIII.5.

——— (2000a). *The World's Women 2000: Trends and Statistics*. Sales No. E.00.XVII.14.

——— (2000b). *World Marriage Patterns 2000.* Wall Chart. Sales No. E.00.XIII.7.

——— (2001a). *World Population Prospects: The 2000 Revision,* vol. I, *Comprehensive Tables*, and corrigendum. Sales No.E.01.XIII.8.

——— (2001b). *World Population Monitoring 2000: Population, Gender and Development*. Sales No. E.01.XIII.14.

United Nations Economic Commission for Europe (1997). *Fertility and Family Surveys in Countries of the ECE Region: Standard Country Report, Sweden*. Sales No. GV.E.97.0.21.

UNAIDS (1997). *Impact of HIV and Sexual Health Education on the Sexual Behaviour of Young People: A Review Update*. UNAIDS/97.4.

——— (1998). *A Measure of Success in Uganda: The Value of Monitoring both HIV Prevalence and Sexual Behaviour*. Best Practice Collection 98.8.

———(2000). *Report on the Global HIV/AIDS Epidemic,* June 2000*,* UNAIDS/00.13E.

——— (2001) *Children and Young People in a World of AIDS*. UNAIDS/ 01.56E.

United Nations Children's Fund (1999). *Women in Transition*. The UNICEF Regional Monitoring Project (MONEE) for Central and Eastern Europe/Commonwealth of Independent States/Baltics. Regional Monitoring Report, No. 6, Florence, Italy: International Child Development Centre.

——— (2001). *Early Marriage: Child Spouses*. Innocenti Digest No. 7 (March). Florence, Italy: UNICEF and Innocenti Research Centre.

United Nations Population Fund (1998*). Report of the Round Table on Adolescent Sexual and Reproductive Health: Key Future Actions*, New York, 14-17 April 1998.

Weiss, Ellen, and Geeta Rao Gupta (1998). *Bridging the Gap: Addressing Gender and Sexuality in HIV Prevention*. Washington, D.C.: International Center for Research on Women.

Whincup, P. H., and others (2001). Age of menarche in contemporary British teenagers: survey of girls born between 1982 and 1986. *British Medical Journal,* vol. 322, No. 7294 (May).

World Health Organization (1989). *The Reproductive Health of Adolescents: A Strategy for Action*. A joint WHO/UNFPA/UNICEF statement. Geneva.

———(2001). *Sexual Relations among Young People in Developing Countries: Evidence from WHO Case Studies*. WHO/RHR/01.08.

Wyshak, G., and R. Frisch (1982). Evidence for a secular trend in age at menarche. *The New England Journal of Medicine*, vol. 306, No. 17 (April).

Xenos, Peter, and others (2001a). Surveying adolescent sexuality: the Asian experience. East-West Center Working Paper No. 108-1, Population Series. Honolulu: East-West Center.

———(2001b). The timing of union formation and sexual onset: Asian evidence from the Young Adult Reproductive Health Surveys. East-West Center Working Paper No. 108-4, Population Series. Honolulu: East-West Center.

Zabin, Laurie, and Karungari Kiragu (1998). The health consequences of adolescent sexuality and fertility behaviour in sub-Saharan Africa. *Studies in Family Planning,* vol. 29, No. 2 (June).

II. REPRODUCTIVE BEHAVIOUR

The notion of reproductive health encompasses the rights of men and women to make informed choices concerning the number, timing and spacing of their children and to fulfil their reproductive aspirations, ensuring that women's sexuality and childbearing pose no risk to their health and well-being. Reproductive health is the prerequisite for and the result of reproductive behaviour. The present chapter reviews, based on recent available data, general patterns and trends of several key aspects of reproductive behaviour: family size, onset and duration of childbearing, adolescent childbearing and prevalence of infertility.

A. FERTILITY LEVELS AND TRENDS

During the past decade, fertility continued to decline in most countries. In the more developed regions total fertility declined from 1.8 children per woman in 1985-1990 to 1.6 children per woman in 1995-2000, both levels far below replacement (table 10). The average total fertility rate (TFR) for less developed regions as a whole declined from 3.8 children per woman in 1985-1990 to 3.1 children per woman in 1995-2000. Those average declines conceal large differences across regions. Fertility decline was particularly rapid in Northern Africa where the total fertility rate fell by 1.2 children per woman from 1985-1990 to 1995-2000. In other less developed regions, the decline over that decade ranged from 0.2 children per woman in Middle Africa to 0.9 children per woman in South-eastern Asia and Central America. In the more developed regions, fertility declined from already low levels in Europe to 1.4 children per woman in 1995-2000, while in Northern America fertility increased from 1.9 children per woman in 1985-1990 to 2.0 children per woman in 1995-2000.

The majority of developing countries are advancing in the transition to low fertility. Table 11, based on annex table A.3, shows the distribution of countries according to the level of total fertility in the late 1990s, a distribution that is markedly different from that in the 1970s. In 1995-2000, only 50 countries, the majority located in sub-Saharan Africa, had a total fertility above 5 children per woman. Of those, 15 countries, all in sub-Saharan Africa, had not yet shown signs of any fertility decline[1]. In the other 35 countries with fertility level above 5 children per woman, some reductions of fertility had already occurred.

Fertility levels in almost all countries of Latin America and the Caribbean were below 5 children per woman by the late 1990s and so were those of the majority of countries in Asia. In Europe, all countries except Albania had fertility below replacement level. Below-replacement fertility was also evident in 2 African countries, 14 Asian countries and 8 Latin American countries.

The 15 countries of sub-Saharan Africa with a high and unchanging level of fertility had a combined population of 150 million in 2000. All of them but the Congo belong to the group of least developed countries as defined by the United Nations. They experience levels of infant and child mortality that are more than twice the average for the less developed regions. They also differ considerably from other developing countries with respect to other development indicators (table 12). Economic output per capita in the 15 high-fertility countries (except Equatorial Guinea) is well below the average for all 48 least developed countries but varies almost tenfold between Sierra Leone and oil-producing Equatorial Guinea. Enrolment of girls in elementary and secondary schools in most of those 15 countries is below the average for the less developed regions but ranges from about 15 per cent in Burkina Faso and Niger to around 80 per cent in the Congo and Equatorial Guinea. Urbanization levels range from less than 10 per cent in Burundi to more than 60 per cent in the Congo.

Despite the exceptions noted above, most developing countries are far advanced in the transition to low fertility. By the late 1990s, total fertility had fallen below five children per woman in most of Asia, Latin America and the Caribbean, and Oceania. Total fertility was between 3 and 5 children per woman and declining in 46 develop-

TABLE 10. TOTAL FERTILITY RATE BY MAJOR AREA AND REGION, 1970-1975 AND 1985-2000

Major area, region or group	*1970-1975*	*1985-1990*	*1990-1995*	*1995-2000*
World	4.5	3.4	3.0	2.8
More developed regions[a]	2.1	1.8	1.7	1.6
Less developed regions[b]	5.4	3.8	3.4	3.1
Least developed countries	6.6	6.0	5.7	5.5
Africa	6.7	6.0	5.6	5.3
Eastern Africa	7.0	6.7	6.3	6.1
Middle Africa	6.3	6.6	6.5	6.4
Northern Africa	6.3	4.8	4.1	3.6
Southern Africa	5.5	4.1	3.5	3.3
Western Africa	7.0	6.7	6.4	5.9
Sub-Saharan Africa	6.8	6.4	6.1	5.8
Asia	5.1	3.4	2.9	2.7
Eastern Asia	4.5	2.4	1.9	1.8
South-central Asia	5.6	4.4	4.0	3.6
South-eastern Asia	5.5	3.7	3.2	2.8
Western Asia	5.6	4.7	4.2	3.9
Europe	2.2	1.8	1.6	1.4
Eastern Europe	2.2	2.1	1.6	1.3
Northern Europe	2.1	1.8	1.8	1.7
Southern Europe	2.5	1.6	1.4	1.3
Western Europe	1.9	1.6	1.6	1.5
Latin America and Caribbean	5.0	3.4	3.0	2.7
Caribbean	4.4	3.1	2.7	2.5
Central America	6.4	3.9	3.4	3.0
South America	4.7	3.2	2.8	2.6
Northern America	2.0	1.9	2.0	2.0
Oceania	3.2	2.5	2.5	2.4
Australia/New Zealand	2.6	1.9	1.9	1.8
Melanesia	5.8	4.9	4.8	4.4
Micronesia	4.8	3.8	4.1	4.3
Polynesia	5.5	4.1	3.7	3.2

Source: *World Population Prospects: The 2000 Revision,* vol. I, *Comprehensive Tables* (United Nations publication, Sales No. E.01.XIII.8, and corrigendum).

[a]Comprising all regions of Europe, Northern America, Australia, New Zealand and Japan.

[b]Comprising all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean, as well as Melanesia, Micronesia and Polynesia.

ing countries. However, recent fertility declines in those countries appear to have slowed down, often when fertility levels approach 3 children per woman.

Bangladesh and India are two populous countries where the pace of decline has slowed down. In India, fertility stalled at about 5.5 to 5.7 children per woman between the 1960s and early 1970s but declined subsequently to about 4 children per woman by the end of the 1980s. During the 1990s however, fertility decline slowed down again, with total fertility reaching 3.3 children per woman at the end of the 1990s. In Bangladesh, total fertility dropped from 6.3 children per woman in 1971-1975 to 3.4 children per woman

TABLE 11. DISTRIBUTION OF COUNTRIES BY LEVEL OF TOTAL FERTILITY RATE, LATE 1990S

Major area	TFR higher than 5		TFR between 3 and 5	TFR between 2.1 and 3	TFR below 2.1
	Stable	Declining			
Africa	15	23	15	2	2
Asia	0	10	16	10	14
Europe	0	0	0	1	35
Latin America and the Caribbean	0	1	10	12	8
Northern America	0	0	0	0	2
Oceania	0	1	5	2	2
World	15	35	46	27	63

Sources: Population Division of the United Nations Secretariat, database on fertility; and *World Population Prospects: The 2000 Revision,* vol. I, *Comprehensive Tables* (United Nations publication, Sales No. E.01.XIII.8, and corrigendum), see annex table A.3.

TABLE 12. COUNTRIES WHERE THE TOTAL FERTILITY RATE REMAINS ABOVE FIVE CHILDREN PER WOMAN AND DID NOT DECREASE SINCE 1960, SELECTED CHARACTERISTICS, LATE 1990S

Country	Under-five mortality 1995-2000	Percentage urban 1999	Female gross enrolment ratio in primary and secondary education		Gross national income per capita at purchasing power parity (international dollars) 2000	Total fertility rate, late 1990s
			Year	Ratio		
Angola	218	34	1990	..	1 230	7.2
Burkina Faso	170	19	1990	16	1 020	6.8
Burundi	211	9	1994	32	580	6.8
Chad	212	24	1996	23	860	6.6
Congo	135	63	1995	78	590	6.3
Democratic Republic of the Congo	151	30	1994	41	680	6.7
Equatorial Guinea	177	48	1992	82	4 770	5.9
Guinea	207	33	1997	25	1 930	5.5
Liberia	172	45	..	..	..	6.8
Malawi	238	25	1992	60	600	6.3
Mali	261	30	1997	25	790	7.0
Niger	228	21	1996	14	760	7.5
Sierra Leone	287	37	1990	29	460	6.5
Somalia	204	28	..	..	..	7.3
Uganda	186	14	1995	44	1 230	7.1
Least developed countries	167	26	..	..	..	5.5
Less developed regions	95	40	..	..	..	3.1

Sources: Population Division of the United Nations Secretariat, database on fertility; *World Population Prospects: The 2000 Revision*, vol. I, *Comprehensive Tables* (United Nations publication, Sales No. E.01.XIII, 8, and corrigendum), see annex table A.3; *World Population Prospects: The 1999 Revision* (United Nations publication, Sales No. E.01.XIII.11); UNESCO Institute for Statistics database; and the World Development Indicators database (Washington, D.C., the World Bank).

in 1991-1993 (an average decline of 0.8 children per woman every five years) but has held fairly steady at about 3.3 children per woman since then. Fertility decline also appears to have stalled in two other Asian countries, Malaysia and Myanmar, where total fertility remained unchanged at about 3.3 to 3.5 children per woman throughout the 1990s. The pace of fertility decline was also slow in a number of Latin American and Caribbean countries that still have relatively high fertility levels (above 3.5 children per woman), such as El Salvador, Haiti, Paraguay and Peru. In contrast, several developing countries experienced rapid fertility declines in the 1990s. In the Libyan Arab Jamahiriya, total fertility decreased from more than 7 children per woman in the early 1980s to 3.5 children per woman in the mid-1990s. Fertility also decreased rapidly in Algeria and Jordan.

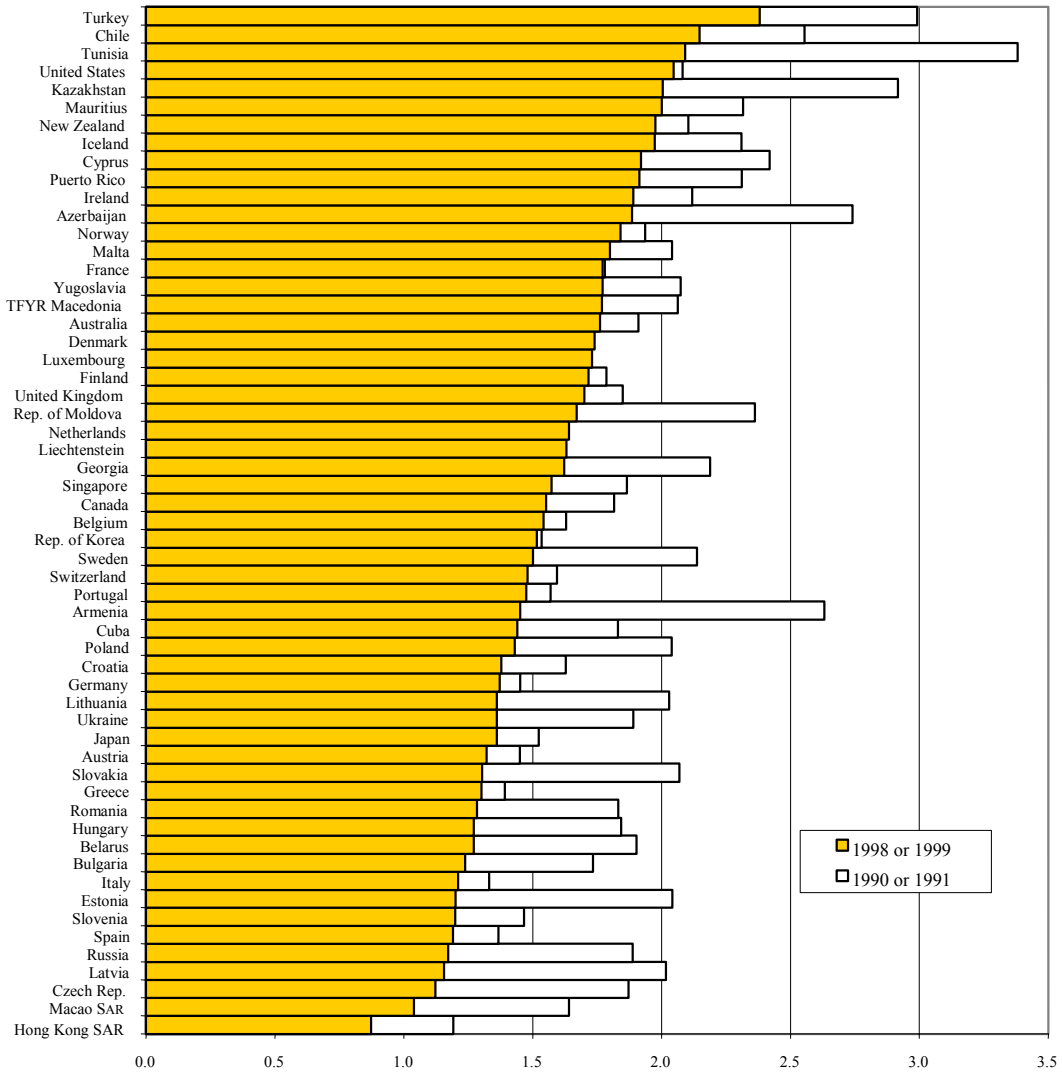
During the late 1990s, total fertility was below 3 children per woman but above 2.1 children per woman in 26 developing countries, including Brazil, Colombia, Indonesia, the Islamic Republic of Iran, Mexico, South Africa, Turkey and Viet Nam. Over the decade trends in fertility were quite diverse in that group of countries. In Israel and Panama total fertility has stabilized at 2.9 to 3.1 children per woman. In the Islamic Republic of Iran, total fertility fell sharply, from 6.6 children per woman in 1984 to 2.5 children per woman in 1996, the decline having been particularly fast in the 1990s (Abbasi-Shavazi, 2001). In Viet Nam, total fertility dropped from above 7 children per woman in the 1960s to about 4 children per woman in the late 1980s and to 2.3 children per woman in the mid-1990s. Brazil experienced an uninterrupted and fast decline: total fertility decreased from 5.7 children per woman in 1965 to 3.7 children per woman in 1989-1991 and to 2.3 children per women in 1996 (Bozon and Enoch, 1999). In Argentina and Uruguay, fertility started to decrease early in the twentieth century from relatively low levels, but from the 1960s onward it has stabilized at levels close to 3 children per woman and even rebounded temporarily; however, in the 1990s, a slow decline has resumed.

These trends have led to further diversification of fertility levels within and across developing regions. Africa has been particularly heterogeneous in terms of fertility levels. Since the 1980s, total fertility has declined very fast in Northern Africa, while most of sub-Saharan Africa has yet to experience fertility declines of the magnitude experienced in other regions. Low fertility levels now characterize large parts of Asia. Populous Eastern Asia became a low-fertility region, but pockets of high fertility remain in parts of Western and Southern Asia. The average level and cross-country variation of total fertility in Latin America and the Caribbean are not as large as in other major areas.

In the early 1970s, total fertility rates in the more developed regions averaged 2.1 births per woman implying that population size would eventually stabilize. By 1990, however, the total fertility rate in more developed regions had fallen below replacement level, a level which, if sustained into the future, would result in a shrinking population. In the 1990s, total fertility rates in the more developed regions declined to levels averaging 1.6 children per woman. During that period, Eastern Asia also began experiencing below-replacement fertility.

In 1995-2000, approximately 44 per cent of the world's population lived in countries with below-replacement fertility. Since China belongs to that group, the population of developing countries with below-replacement fertility (1.5 billion) was larger than that of developed countries with below-replacement fertility (1.2 billion). In many countries fertility has fallen to lower levels than anticipated. In 23 European countries as well as in Armenia, Cuba, Hong Kong Special Administrative Region (SAR) of China, Japan, Macao Special Administrative Region (SAR) of China and the Republic of Korea, the total fertility rate is currently at or below 1.5 children per woman (see figure 3 and annex table A.4).

Figure 3. Total fertility rates in low-fertility countries, 1990-1991 and 1998-1999



Sources: Council of Europe, *Recent Demographic Developments in Europe*, 1999 (Strasbourg, France, Council of Europe, 1999); EUROSTAT, demographic database; Australian Bureau of Statistics, available from http://www.abs.gov.au (accessed 8 May 2001); Statistics New Zealand, available from http://www.stats.gov.nz (accessed 8 May 2001); CIS Interstate Statistical Committee, *Population and Living Conditions in the Countries of the Commonwealth of Independent States* (Moscow, 1998); Tunisia, Institut National de la Statistique, available from http://www.ins.nat.tn (accessed 23 April 2001); Goskomstat Russia, *Demographic Yearbook 2000* (Moscow, 2000); United States Bureau of the Census, available from http://www.census.gov (accessed 28 April 2001); Georgian Centre of Population Research, www.mmc.net.ge/geopopin/centre.htm (accessed 9 May 2001); and United Nations Statistics Division, *Demographic Yearbook* database. See annex table A.4.

B. AGE PATTERNS OF FERTILITY

During the early stages of fertility decline, fertility often decreases more at older ages than at younger ages, resulting in the lowering of the mean age at childbearing. This happened in most developed countries until the 1970s. A similar pattern of change has been typical of developing countries where initial declines in fertility at the young ages due to increasing age at marriage have been smaller than declines among high-parity older women. There are, however, exceptions to this rule. In several African countries, fertility decline has been evenly distributed across the

prime childbearing ages. The use of contraception in those countries appears to be as much to space of births as to stop childbearing altogether (see chapter III). Despite these generalizations, changes in the age pattern of fertility are varied across major areas and most regions.

Table 13 shows the percentage of total fertility contributed by women in two broad age groups, 15 to 29 and 30 to 49, averaged by region for those countries with data for two points in time during the 1990s. In Africa, childbearing appears to be evenly spread between older and younger women, but in most other major areas of the world nearly two-thirds of childbearing takes place before age 30. The variation in age patterns of childbearing is particularly large among the regions of Europe. In Eastern Europe, women below age 30 contribute more than three-quarters of total fertility (79 per cent), whereas in Western Europe, the corresponding percentage is 56 per cent. The decade of the 1990s did not see much change in childbearing patterns in Africa and Latin America. Ageing of the pattern of childbearing is evident in all regions of Europe, particularly in Southern Europe, and in Eastern Asia.

In the developed countries, a decline in the number of third and fourth order births in the 1960s and 1970s produced a decline in the period age-specific fertility rates of older women, which in turn resulted in a total fertility drop to replacement level. The faster decrease of fertility at older ages outweighed the effect of steadily increasing age at first birth and the widening of birth intervals that were occurring at the same time. As a result, the age pattern of childbearing became younger. In several Eastern European countries the age at first birth remained young and period age-specific fertility rates of women aged 15 to 29 increased between 1965 and 1980. The trend toward a younger age pattern of fertility in the developed countries reversed since 1980 and ageing has been especially pronounced in the 1990s.

Below-replacement age patterns of fertility are characterized by decreasing fertility of young women (in their twenties) because of the postponement of childbearing until the early and even the late thirties (tempo effect) and an increasing number of women stopping childbearing at parities 1 or 2 (quantum effect). Thus, the average age at childbearing is rising steadily. In most countries with established market economies (except those in Southern Europe) fertility at older ages have increased, including a few countries (Denmark, Finland, Norway and the United Sates) where increases in fertility at older ages have more than offset decreases at younger ages (Lesthaeghe and Moors, 1996). Massive postponement of births may cause rapidly falling period fertility rates but the subsequent recuperation of cohort fertility would bring temporary increases in period fertility (Bongaarts and Feeney, 1998). The extent of the recuperation at older ages (past age 30) of the fertility forgone at younger ages is therefore a crucial element in determining future trends in period total fertility (Lesthaeghe and Willems, 1999).

A shortening of the childbearing period in women's life has become an important determinant of persistent below-replacement fertility in many developed and an increasing number of developing countries. In fact, although earlier menarche lengthens the fecund lifespan, postponement of first births until age 30 and beyond shortens the effectively used childbearing period. Figure 4 illustrates the reproductive life spans typical of developed and developing countries today.

Men's physiological capabilities to reproduce last longer than women's. Men also marry later and become fathers at an older age than women. As a result, the age structure of male fertility follows a similar pattern as for women, but is "older". The male total fertility rate is also typically higher than the female total fertility rate.

Closely spaced births and births to mothers who are younger than 18 years of age or older than 34 years of age pose health and mortality risks for both the mother and the child. Studies have shown that reproductive morbidity and mortality are more common among women who become pregnant at the very beginning and at the end of the reproductive span, the cause of that relationship being traced either directly to biodemographic factors or indirectly to socio-economic

TABLE 13. PERCENTAGE OF TOTAL FERTILITY CONTRIBUTED BY WOMEN IN AGE GROUPS 15-29 AND 30-49, 1990-2000

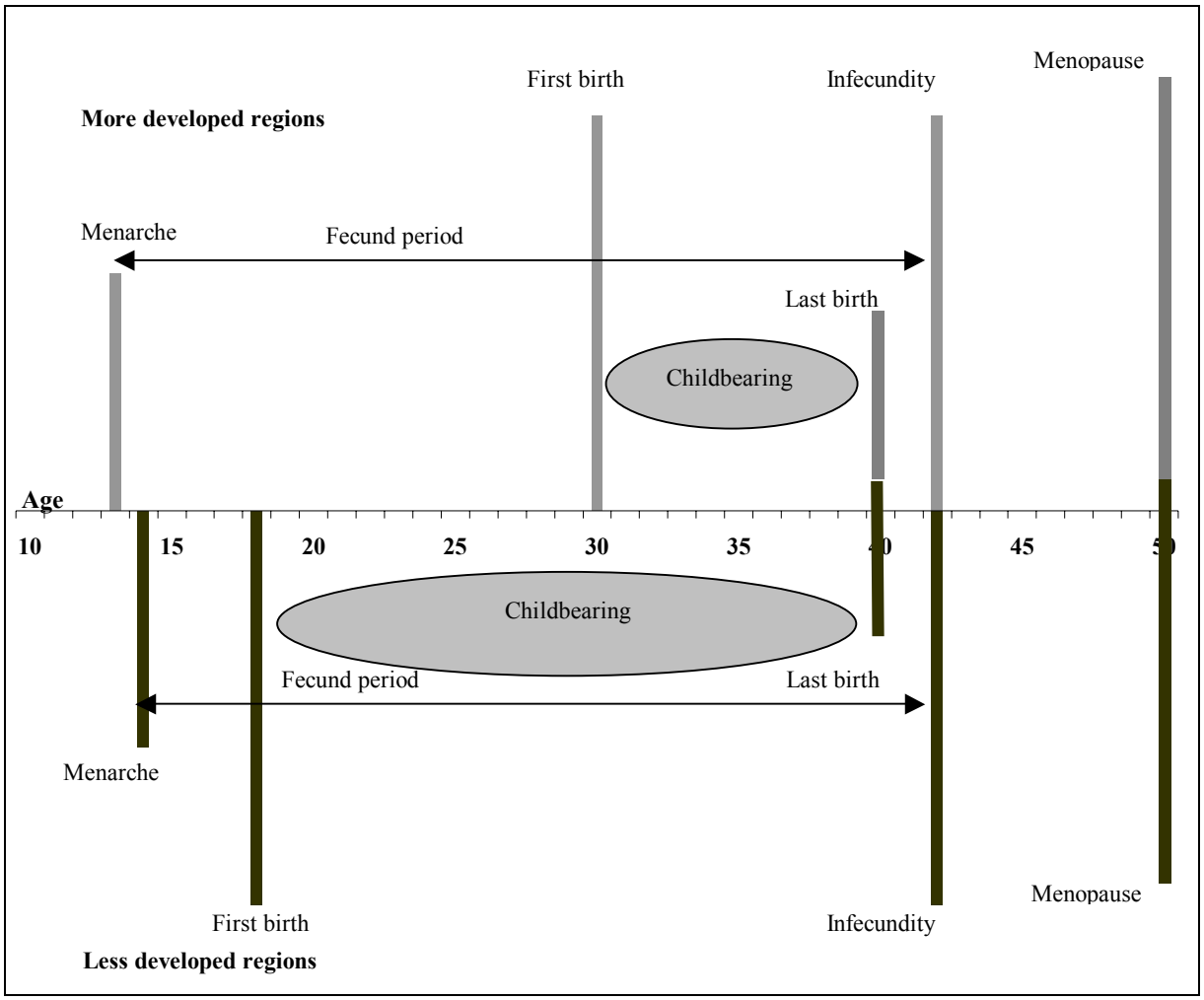
	Percentage of total fertility contributed by women aged			
	15-29	*30-49*	*15-29*	*30-49*
Major area or region	*1990-1995*		*1995-2000*	
Africa	56	44	57	43
Eastern Africa	57	43	58	42
Middle Africa	58	42	61	39
Northern Africa	54	46	55	45
Western Africa	56	44	55	45
Asia	65	35	65	35
Eastern Asia	66	34	60	40
South-central Asia	72	28	72	28
South-eastern Asia	62	38	69	31
Western Asia	61	39	61	39
Europe	72	28	65	35
Eastern Europe	83	17	79	21
Northern Europe	69	31	61	39
Southern Europe	72	28	64	36
Western Europe	63	37	56	44
Latin America and the Caribbean	66	34	66	34
Caribbean	69	31	68	32
Central America	66	34	67	33
South America	64	36	65	35
Northern America	69	31	65	35
Australia/New Zealand	63	37	57	43

Source: Population Division of the United Nations Secretariat, database on fertility; and *World Population Prospects: The 2000 Revision*, vol. I, *Comprehensive Tables* (United Nations publication, Sales No. E.01.XIII.8, and corrigendum), see annex table A.3.

conditions that favour early and frequent childbearing (United Nations, 1998). Table 14 shows the proportion of births that fall within at least one risk category for selected developing countries in the late 1990s. In all the developing countries considered, a considerable proportion of births occur less than two years after the previous delivery. The incidence of short birth intervals is particularly high in Asia: the share of birth intervals of less than 24 months ranges from 10 per cent in Indonesia to 35 per cent in Jordan. Close spacing of births is also widespread in Latin America and the Caribbean, where in most countries surveyed about 20 to 25 per cent of births occur less than two years after a previous birth. Reproductive behaviour in many sub-Saharan African countries, specially prolonged breastfeeding, limit the incidence of short birth intervals: in 13 out of 19 countries considered in that region the proportion of births at intervals of less than 24 months was less than 20 per cent, and in the rest that proportion ranges from 20 per cent in Eritrea and Niger, to 28 per cent in the Comoros. Childbearing at very young ages appears to be less prevalent than short birth intervals. In most of the countries shown in table 14, less than 10 per cent of births are to mothers younger than 18 except in some countries of Africa; in Bangladesh and India in Asia; and in the Dominican Republic and Nicaragua in Latin America and the Caribbean.

Birth-spacing does not seem to be correlated to socio-economic factors. Unpublished tabulations of data from the Demographic and Health Surveys show that rural-urban differentials are not large and their sign varies among countries. With regard to education, while in some countries (Brazil, Cameroon, Madagascar and Viet Nam) female education seems to promote longer birth-spacing, in many others getting a secondary or higher education is associated with shorter rather than longer birth intervals.

Figure 4. Reproductive lifespan, more developed and less developed regions



Source: Based on Frank, Bianchi and Campana, "The end of fertility: age, fecundity and fecundability in women", *Journal of Biosocial Sciences,* vol. 26 (1994), pp. 349-368.

C. FACTORS AFFECTING FERTILITY DECLINE

Industrialization, urbanization and modernization of societies, including wider access to education, improved child survival and increased adoption of contraception, are the major driving forces of fertility decline. Different combinations of particular components of these broad social transformations affect the pace of fertility decline, and thereby the current levels of fertility.

The decisive role of education in fostering fertility decline has been documented extensively. Education, especially of women, provides knowledge, increases exposure to information and media, builds skills for gainful employment, increases female participation in family decision-making and raises the opportunity costs of women's time. The empowerment and autonomy of women transforms reproductive behaviour, mainly through women's ability to control their own fertility. Education is also a major underlying factor of age at first marriage and contraceptive use—two important proximate determinants of fertility. Even a few years of formal education make a difference: in most countries, women with a primary education have fewer children than uneducated women (United Nations, 1995a).

TABLE 14. PERCENTAGE OF BIRTHS IN THE FIVE YEARS PRECEDING THE SURVEY THAT FALL WITHIN AT LEAST ONE RISK CATEGORY

Region and country	Year	Mother's age		Birth interval
		<18	> 34	<24 months
Africa				
Benin	1996	5.0	17.6	13.5
Burkina Faso	1999	6.5	17.8	14.1
Cameroon	1998	11.0	12.1	19.3
Chad	1997	10.9	10.7	19.2
Comoros	1996	4.9	16.2	28.1
Egypt	2000	3.1	10.4	17.4
Eritrea	1995	7.1	22.6	20.3
Ghana	1998	4.3	18.1	10.2
Guinea	1999	11.2	13.9	13.8
Kenya	1998	6.4	10.7	17.1
Madagascar	1997	10.7	14.0	24.4
Mali	1996	9.2	15.2	21.9
Mozambique	1997	10.9	13.0	14.4
Niger	1998	11.6	14.2	20.4
Senegal	1997	6.0	18.4	14.6
Togo	1998	4.8	16.9	11.6
Uganda	1995	10.0	10.6	22.1
United Rep. of Tanzania	1996	6.0	14.2	13.8
Zambia	1996	8.5	11.4	15.0
Asia				
Bangladesh	1997	19.0	5.5	13.0
India	1999	10.6	4.1	20.3
Indonesia	1997	5.0	12.4	10.4
Jordan	1997	2.2	13.3	35.4
Kazakhstan	1995	3.9	7.5	20.6
Kyrgyzstan	1997	1.3	6.5	20.3
Nepal	1996	7.2	10.0	18.6
Philippines	1998	2.6	15.4	26.7
Turkey	1998	4.9	7.3	17.0
Uzbekistan	1996	1.5	5.7	20.5
Viet Nam	1997	1.8	10.6	12.5
Yemen	1997	5.5	16.3	30.7
Latin America and the Caribbean				
Bolivia	1998	5.5	16.6	21.7
Brazil	1996	9.5	9.9	19.0
Colombia	1995	7.4	10.8	19.1
Dominican Republic	1996	10.7	5.8	23.9
Guatemala	1999	7.7	13.3	24.6
Nicaragua	1997	13.0	10.0	23.5
Peru	1996	5.4	15.5	17.6

Sources: Demographic and Health Surveys (Calverton, Maryland, Macro International, Inc.).

Table 15 presents fertility levels for women in various educational categories for 51 developing countries. The average total fertility rate for women with secondary or higher education in these countries was, in the late 1990s, 2.7 children lower than for women with no education. However, national fertility differentials by education are not uniform within or across regions. In Africa and Asia, the difference between the total fertility of women with no schooling and that of women with at least a secondary education varied from 0.1 children per woman in Indonesia and Jordan to 4 or more children per woman in Bahrain, Burkina Faso, Cape Verde, Oman and the United Arab Emirates.

Earlier studies have found a few exceptions to the inverse relationship between female education and fertility (United Nations, 1987 and 1995a). Women with complete or incomplete primary education have slightly higher fertility than women with no schooling, presumably because education tends to increase fecundity through improved maternal health as well as to reduce foetal deaths and diminish the protection against short birth intervals traditionally provided by prolonged breastfeeding and post-partum sexual abstinence. In the absence of deliberate fertility regulation, reductions in breastfeeding and post-partum abstinence may increase fertility. Nevertheless, the exceptions to the standard inverse relationship between educational attainment and fertility have become increasingly rare since 1980. The recent data presented in table 15 display no exceptions.

A striking feature of table 15 is the low level of fertility among women with secondary or higher education. In nearly half the countries shown in table 15, the total fertility rate among women with secondary or higher education was below 3 children per woman. In Latin America in particular, in all 10 countries considered the total fertility rate was 3 children or less per woman, and in Brazil it was just 1.5 births per woman among the most highly educated women. Comparisons with earlier data show that fertility has fallen among all education groups, including among women with no education. For example, in Ghana fertility among women with no education declined from 7.1 births per woman in 1988 to 5.8 births per woman in 1998. Among women with a secondary education or higher, fertility fell from above 4.9 births per woman in 1988 to just 2.8 births per woman in 1998. Reductions in fertility through educational attainment are reinforced by reductions caused by other factors, such as increases in age at marriage and in contraceptive use.

Fertility decline in countries of Europe and Northern America has been associated with rising age at marriage, increasing divorce rates and widespread cohabitation. The relationships between these trends are complex and varied. For instance, in Eastern Europe and the United States, births to unmarried women often result in single motherhood, whereas in Northern Europe they often occur within relatively stable consensual unions that are not legalized. Separations and divorces *per se* do not necessarily have a serious negative impact on subsequent childbearing; however, the same events not followed by another stable relationship depress considerably the ultimate family size (Schoenmaeckers and Lodewijckx, 2000).

The factors underlying different patterns of below-replacement reproductive behaviour are complex. Shifts in value orientation resulting from greater individual autonomy in all domains are consistent with a lifestyle in which people make their own choices about marriage and cohabitation; in which they are free to have children within or outside marriage and to raise them alone or with a partner; and in which they can have children early or late in life or not at all (McDonald, 1994; Lesthaeghe and Willems, 1999; van de Kaa, 1999; Goldscheider, 2000). Particular components of these societal changes are likely to have different impacts on reproductive behaviour. Since relatively modest variations in reproductive behaviour in societies with below-replacement fertility change the sign of population growth and make a difference between slow or rapid population ageing, it is particularly important to further the understanding of trends and patterns of below-replacement fertility.

TABLE 15. TOTAL FERTILITY RATES ACCORDING TO WOMEN'S LEVEL OF EDUCATION, SELECTED DEVELOPING COUNTRIES

Country	Survey year	Total	Level of education			Difference (No education - secondary or higher)
			No education	Primary	Secondary or higher	
Africa						
Benin	1996	6.3	7.0	5.0	3.2	3.8
Burkina Faso	1999	6.8	7.1	5.4	2.9	4.2
Cameroon	1998	5.2	6.6	5.3	3.6	3.0
Cape Verde	1998	4.0	6.9	3.5	2.2	4.7
Comoros	1996	5.1	5.8	5.3	3.6	2.2
Egypt	2000	3.5	4.1	3.4	3.2	0.9
Eritrea	1995	6.1	6.9	5.5	3.0	3.9
Ethiopia	2000	5.9	6.2	5.1	3.1	3.1
Ghana	1998	4.6	5.8	4.9	2.8	3.0
Guinea	1999	5.5	5.9	4.8	3.5	2.4
Kenya	1998	4.7	5.8	4.8	3.5	2.3
Libyan Arab Jamahiriya	1995	4.1	5.2	3.9	3.3	1.9
Madagascar	1997	6.0	6.8	6.5	4.2	2.6
Mali	1996	6.7	7.1	6.5	4.1	3.0
Morocco	1995	3.3	4.0	2.4	1.9	2.1
Mozambique	1997	5.6	5.8	5.7	3.7	2.1
Niger	1998	7.5	7.8	6.7	4.6	3.2
Nigeria	1999	5.2	6.1	5.6	4.9	1.2
Senegal	1997	5.7	6.3	5.2	3.1	3.2
Sudan	1993	4.6	5.4	5.2	3.6	1.8
Togo	1998	5.4	6.5	4.8	2.7	3.8
Tunisia	1995	3.2	4.2	2.7	1.6	2.6
Uganda	1995	6.9	7.0	7.1	5.2	1.8
United Republic of Tanzania	1996	5.6	6.5	5.1	4.9	1.6
Zambia	1996	6.1	6.8	6.7	4.5	2.3
Zimbabwe	1999	4.0	5.2	4.5	3.4	1.8
Asia						
Bahrain	1995	3.2	7.0	3.7	3.0	4.0
Bangladesh	1997	3.4	3.8	3.3	2.6	1.2
India	1999	2.9	3.5	2.6	2.0	1.5
Indonesia	1997	2.8	2.7	3.0	2.6	0.1
Jordan	1997	4.4	4.6	4.5	4.5	0.1
Kuwait	1996	4.1	5.7	5.1	3.4	2.3
Lebanon	1996	2.4	3.6	2.7	1.7	1.9
Oman	1995	7.1	8.6	7.5	3.8	4.8
Philippines	1998	3.7	5.0	5.0	3.3	1.7
Qatar	1998	3.9	6.5	4.0	3.7	2.8
Saudi Arabia	1996	5.7	7.4	5.6	4.6	2.8
Syrian Arab Republic	1993	4.2	5.3	3.8	2.8	2.5
Turkey	1998	2.6	3.9	2.6	1.6	2.3
United Arab Emirates	1995	4.9	7.3	5.3	3.3	4.0
Yemen	1997	6.5	6.9	4.7	3.1	3.8

Table 15 *(continued)*

Country	Survey year	Total	Level of education			Difference
			No education	Primary	Secondary or higher	(No education - secondary or higher)
Latin America and the Caribbean						
Bolivia	1998	4.2	7.1	5.8	2.7	4.4
Brazil	1996	2.5	5.0	3.0	1.5	3.5
Colombia	2000	2.6	4.0	3.6	2.4	1.6
Dominican Republic	1996	3.2	5.0	4.3	2.6	2.4
Ecuador	1999	3.4	5.6	4.2	2.9	2.7
El Salvador	1998	3.6	5.0	3.6	2.4	2.6
Guatemala	1999	5.0	6.8	5.2	2.9	3.9
Nicaragua	1998	3.9	6.1	4.1	2.7	3.4
Paraguay	1996	4.4	6.9	4.7	2.4	4.5
Peru	1996	3.5	6.9	5.0	3.0	3.9

Source: Demographic and Health Surveys (Calverton, Maryland, Macro International, Inc.).

D. ADOLESCENT CHILDBEARING

Early childbearing entails a risk of maternal death that is much greater than average, and the children of young mothers have higher levels of morbidity and mortality. Early childbearing may also truncate a young woman's educational career and threaten her economic prospects, earning capacity and overall well-being. Young mothers may pass on to their children a legacy of poor health, deficient education and subsistence living, creating a hard-to-break cycle of poverty (United Nations, 1998). Adolescent childbearing is also an issue of concern since it jeopardizes the efforts to improve the status of women.

It is estimated that about 14 million women aged 15 to 19 worldwide gave birth each year during 1995-2000; and 12.8 million births occurred to adolescents in the developing regions (see annex table A.5). In 1995-2000 the adolescent fertility rate was 54 births per 1,000 women for the world as a whole (table 16). In the more developed regions, the rate was 29 births per 1,000 women, while in the less developed regions, the adolescent fertility rate was nearly twice as high, at 58 births per 1,000 women aged 15-19. Among the least developed countries, however, the average rate was as high as 133 births per 1,000 women aged 15-19. On average, adolescent childbearing is highest in Africa (115 births per 1,000 women) and lowest in Europe (25 births per 1,000 women). As shown in figure 6, current levels of adolescent fertility vary widely in all major areas and groups of countries.

The countries of Africa have the highest levels of adolescent fertility and also the largest variation in rates compared with other major areas (figure 5). In the late 1990s, the fertility rate for women aged 15 to 19 ranged from more than 200 births per 1,000 women in Angola, the Democratic Republic of the Congo, Liberia, Niger, Sierra Leone and Somalia to less than 50 in the Libyan Arab Jamahiriya, Mauritius, Morocco and Réunion (see annex table A.3). Of the 20 countries with data from censuses or surveys for two points in time in the 1990s, adolescent fertility rates increased in 6 countries: Chad, Guinea, Kenya, Madagascar, Niger and Zimbabwe. In the remaining 14 countries adolescent fertility rates fell in the 1990s, with declines of over 20 births per 1,000 women aged 15-19 in the Comoros, Cameroon, Côte d'Ivoire, Ghana, Nigeria and Senegal. Despite the large declines in Cameroon, Côte d'Ivoire, Nigeria and Senegal, age-specific

fertility rates among women aged 15-19 remained above 100 births per 1,000 women in the late 1990s.

In many countries of Asia, increases in age at marriage and low incidence of premarital childbearing have resulted in low levels of childbearing among women aged 15-19. In 28 Asian countries, the adolescent fertility rates were less than 50 per 1,000 women aged 15-19. In six countries in Eastern Asia, the fertility rate among women aged 15 to 19 was below 10 births per 1,000 women. Bangladesh had the highest level of fertility among adolescents, with 144 births per 1,000 women. Of the 25 Asian countries with data for two points in time in the 1990s, five (Armenia, Cyprus, India, Mongolia and Viet Nam) recorded declines of more than 20 births per 1,000 women. Estimates from surveys conducted in 1993 and in 1998 in India show a small decline in adolescent fertility, from 116 to 107 births per 1,000 women. However, it is possible that those estimates may be affected by reporting errors leading to a displacement of reported births. Estimates from the Sample Registration System, that are less likely to be affected by such reporting errors, show a decline in age-specific fertility rates for 15 to 19 year-olds, from 88 births per 1,000 women in 1987 to just 54 births per 1,000 in 1997.

Adolescent fertility rates in Latin America and the Caribbean continue to be relatively high even though in most countries of the continent total fertility had reached relatively low levels by the end of the 1990s. In most of Latin America and the Caribbean adolescent fertility is in the range of 50 to 100 births per 1,000 women aged 15-19. Only 5 countries have achieved levels below 50 per 1,000, while in the Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua and Panama, fertility rates for ages 15 to 19 exceed 100 births per 1,000 women (annex table A.3). The trends in teenage fertility in Latin America vary widely, without any direct relationship to levels or trends in total fertility (Guzmán and others, 2001). For instance, in Brazil, while teenage fertility increased from 76 to 88 births per 1,000 women aged 15-19 between 1990 and 1995, total fertility declined from 3.7 to 2.6 children per woman.

TABLE 16. AGE-SPECIFIC FERTILITY RATES FOR WOMEN AGED 15-19 BY MAJOR AREA, 1995-2000

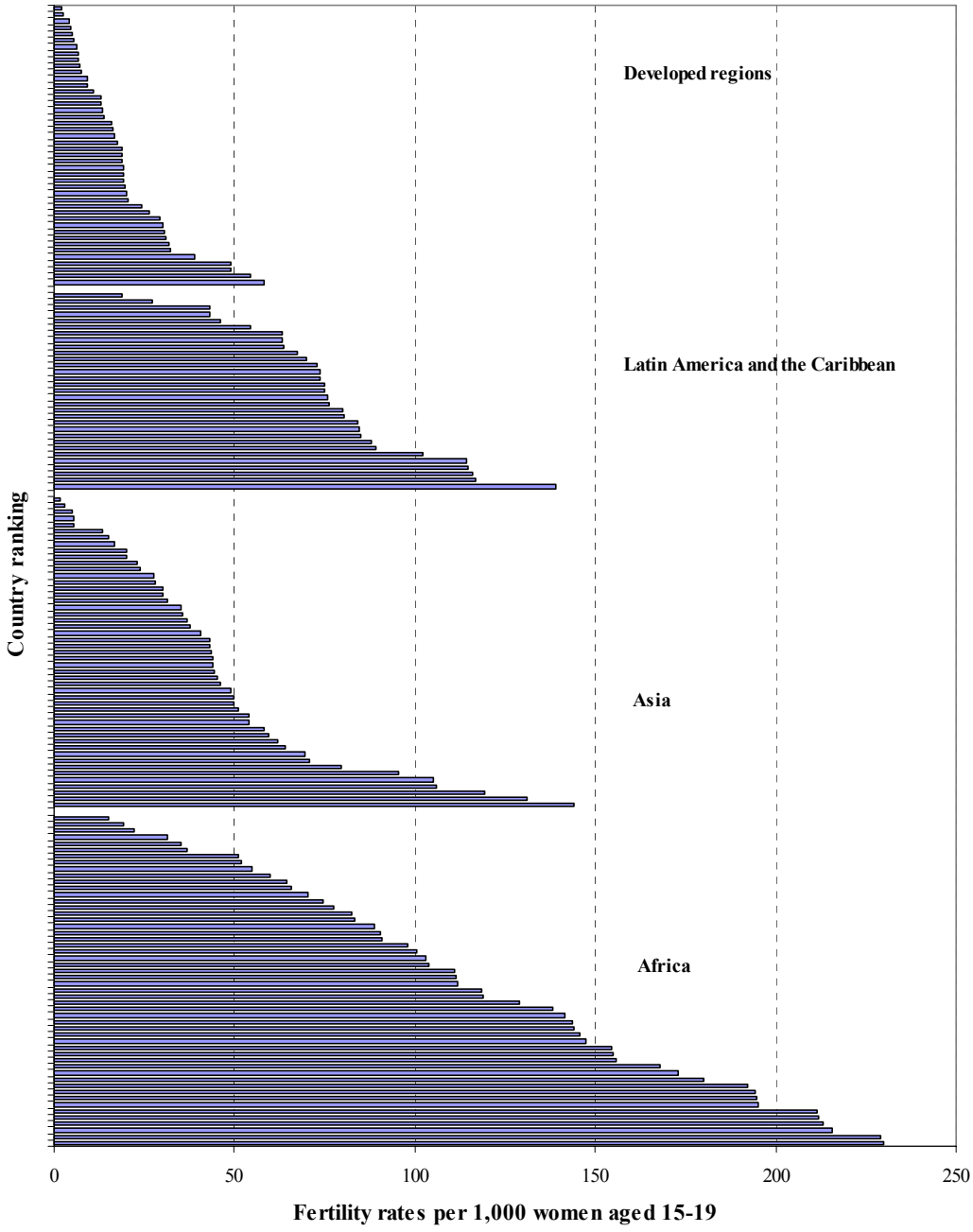
Major area	*Fertility rate per 1,000 women aged 15-19*
World	54
More developed regions[a]	29
Less developed regions[b]	58
Least developed countries	133
Africa	115
Asia	39
Europe	25
Latin America and the Caribbean	75
Northern America	51
Oceania	39

Source: World Population Prospects: The 2000 Revision, vol. I, *Comprehensive Tables* (United Nations publication, Sales No. E. 01.XIII.8, and corrigendum from table 10).

[a]Comprising all regions of Europe, Northern America, Australia, New Zealand and Japan.

[b]Comprising all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean, as well as Melanesia, Micronesia and Polynesia.

Figure 5. Fertility of women aged 15-19, 1995-2000



Sources: Population Division of the United Nations Secretariat, database on fertility; and *World Population Prospects: The 2000 Revision*, vol. I, *Comprehensive Tables* (United Nations publication, Sales No. E.01XIII.8, and corrigendum). See annex table A.3.

Table 17 shows fertility rates for women aged 15 to 19 in the developed countries where estimates from civil registration data were available for 1990 and the late 1990s. Adolescent fertility is currently below 50 births per 1,000 women aged 15-19 in all but two countries, Ukraine and the Republic of Moldova. In Bulgaria and the United States, adolescent fertility decreased re-

spectively from 70 and 61 births per 1,000 women aged 15-19 in 1990 to 49 births per 1,000 in 2000. Fertility rates are below 20 births per 1,000 women aged 15-19 in the majority of countries and are as low as 5 or less births per 1000 in Japan, Slovenia and a few Western European countries. A study comparing adolescent sexual and reproductive behaviour in the United States with that of four other developed countries showed that the high adolescent fertility rates in the United States arise primarily because of less and, possibly less effective, contraceptive use by sexually active teenagers (Darroch and others, 2001).

Many of the countries of Eastern Europe and the Baltic States experienced rapid declines in adolescent fertility during the 1990s. Part of the decline is associated with increasing enrolment in educational institutions. For instance, in the Russian Federation the proportion of junior high-school graduates going on to high school increased from 48 per cent in 1989 to 60 per cent in 1999, and the proportion of high school graduates going on to college increased from 40 to 45 per cent over the same period. Concomitantly, adolescent fertility rates dropped from 56 births per 1,000 women aged 15-19 in 1990 to 30 births per 1,000 in 1999. More generally, the decrease in adolescent fertility is related to rising aspirations among young people as documented in a series of surveys carried out in Moscow and the Russian provinces (Magun, 1998).

TABLE 17. TRENDS IN FERTILITY RATES (PER 1,000) FOR WOMEN AGED 15-19, DEVELOPED COUNTRIES, 1990S

Region and country	*1990*	*Most recent estimate in 1997-2000*
Eastern Asia		
Japan	3.6	4.6
Eastern Europe		
Belarus	43.8	39.5
Bulgaria	69.9	49.1
Czech Republic	44.7	10.7
Hungary	39.5	19.4
Poland	31.5	19.5
Republic of Moldova	58.7	53.2
Romania	51.5	24.3
Russian Federation	55.6	29.5
Slovakia	45.5	19.4
Ukraine	57.4	54.3
Northern Europe		
Denmark	9.1	7.7
Estonia	53.6	19.0
Finland	12.4	6.7
Iceland	30.6	19.1
Ireland	16.8	19.8
Latvia	50.0	18.7
Lithuania	41.6	32.2
Norway	17.1	12.7
Sweden	14.1	7.2
United Kingdom	33.1	30.1
Southern Europe		
Croatia	27.4	16.1
Greece	21.6	12.5
Italy	9.0	6.9
Malta	11.2	16.5
Portugal	24.1	17.6
Slovenia	24.6	5.4
Spain	11.9	6.4
The former Yugoslav Rep. of Macedonia	43.1	30.8
Yugoslavia a	41.0	30.1
Western Europe		
Austria	20.2	13.1
Belgium	11.3	9.1
France	12.2	9.4
Germany	17.8	12.8
Liechtenstein	4.8	2.0
Luxembourg	14.1	2.3
Netherlands	6.4	5.1
Switzerland	4.6	4.2
Northern America		
Canada	23.1	25.0
United States	61.3	48.7
Oceania		
Australia	20.6	18.1
New Zealand	30.0	25.0

Source: Population Division of the United Nations Secretariat, database on fertility.

[a] Former Socialist Federal Republic of Yugoslavia. As of 4 February 2004, the official name of Yugoslavia has been changed to Serbia and Montenegro.

E. INFERTILITY

According to the World Health Organization, between 8 and 12 per cent of all couples worldwide experience some form of infertility during their reproductive life (World Health Organization, 1991). Infertility is defined as a failure either to conceive through normal sexual activity without contraception or to carry a pregnancy to full term. Infertility affects both men and women of reproductive age. In contrast to intentional childlessness, which may be determined by social, cultural, economic or psychological factors, the causes of infertility are biological. Infertility is an impediment to the realization of full reproductive health for men and women. Accordingly, the Programme of Action of the International Conference on Population and Development called for reproductive health care programmes to include the prevention and appropriate treatment of infertility (United Nations, 1995b). The Programme of Action also stressed the need for research on infertility.

Infertility is termed "primary" when a woman has never been able to bear live children, or "secondary" when a woman becomes infertile after the birth of one or a few children (postpartum amenorrhoea is a form of temporary infecundity, but not of infertility). Infertility may be caused by innate conditions or acquired through behaviours such as early sexual activity and multiple partners with attendant exposure to sexually transmitted infections. A 3 to 10 per cent level of primary infertility due to genetic, anatomical, endocrinological or immunological factors is recognized to be a universal biological reality (Toulemon, 1996).

Comprehensive measurements of infertility are impeded by lack of data. It may be easier to assess the prevalence of infertility in developing countries than in developed countries, since in many developing countries, particularly in sub-Saharan Africa and South Asia, the prevalence of intentional childlessness is statistically insignificant. Therefore, the number of childless women adequately approximates the number of infertile women.

Such indirectly assessed infertility levels often range from 1 to 3 per cent, exceeding 5 per cent in some developing countries. Census data for other developing countries with a low prevalence of voluntary childlessness, including China, the Republic of Korea, Singapore and Thailand (Atoh, Kandiah and Ivanov, 2001), suggest a similar underlying level of biological infertility. However, census and survey estimates are inherently prone to self-selection biases because infertile women of reproductive age are more likely to be affected by other serious illnesses and therefore be subject to higher risks of dying before they can be included in the survey. In many developed countries, widespread intentional childlessness prevents the approximation of infertility levels by the proportions of childless women in the age groups that have completed childbearing. Regional estimates of primary and secondary infertility among women aged 40 to 44 or 45 to 49 are presented in table 18.

Primary infertility, common in several developing countries in the 1950s and earlier, is likely to have been associated with a very early onset of sexual intercourse, often prior to menarche (White and others, 2001). Secondary infertility has been shown to be associated with a greater marital instability (Larsen, 1996). However, the major immediate causes of female infertility in developing countries are untreated sexually transmitted infections. The prevalence of infertility is high in several sub-Saharan countries, in particular countries in Middle Africa, as a result of widespread reproductive tract infections due to sexually transmitted infections, notably gonorrhoea (White and others, 2001). HIV infection also appears to have fertility-reducing effects (Favot and others, 1997; Boerma and Urassa, 2001).

In the countries with economies in transition, primary infertility rates are estimated to be within biological levels. However, the prevalence of secondary infertility is high, sometimes exceeding 20 per cent, an outcome presumably due to the high incidence and frequency of unsafe abortions (Khachikian, 1997; Sadauskas, 1997).

TABLE 18. ESTIMATES OF PREVALENCE OF PRIMARY AND SECONDARY INFERTILITY, WOMEN AGED 40-44 OR 45-49 YEARS

Region	*Primary infertility (percentage)*	*Estimated range of secondary infertility (percentage)*
Northern America	6.0	7-17
Caribbean	6.5	7-19
Europe	5.4	7-15
Latin America	3.1	4-9
Northern Africa and Western Asia	3.0	4-9
Sub-Saharan Africa	10.1	12-29
Asia and Oceania	4.8	6-14

Source: C. AbouZahr, E. Ahman and R. Guidotti, "Puerperal sepsis and other puerperal infections", in *Health Dimensions of Sex and Reproduction: The Global Burden of Sexually Transmitted Diseases, HIV, Maternal Conditions, Perinatal Disorders and Congenital Anomalies,* Global Burden of Diseases and Injury Series, vol. III, C.J.L. Murray and A.D. Lopez, eds. (Cambridge, Massachusetts, Harvard School of Public Health; Geneva, World Health Organization; and Washington, D.C., World Bank, 1998), p. 205.

In developed countries with established market economies, the prevalence of infertility is higher than expected in view of the quality of prevention and treatment of sexually transmitted infections, and the relatively low incidence of unsafe abortions. In the United States, infertility affects more than 6 million women and their partners, and the proportion of women aged 15 to 44 reporting some form of fecundity impairment rose from 8 per cent in 1988 to 10 per cent in 1995 (Chandra and Stephen, 1998). A similar prevalence of female infertility was reported for Finland (Notkola, 1996).

Infertility often results from intentional postponement of childbearing. The likelihood of becoming pregnant decreases with age. Therefore, if young women postpone births and subsequently try to make up for these postponed births over the next decade or two, they will be confronted with an increasing likelihood of failure to conceive. In the absence of infertility therapy, 4 per cent of women who try for a pregnancy when they are 20 do not succeed; this proportion rises to 8 per cent for women who start at age 25, 12 per cent at age 30, and 20 per cent at age 35 (Toulemon, 1996).

The prevalence of infertility appears to be evolving in opposite directions in developing and developed countries. In developing countries, improvements in the prevention and treatment of sexually transmitted infections and increasing availability and accessibility of antibiotics have been contributing to a reduction of infertility (manifested, notably, in temporary increases of period fertility rates prior to the onset of fertility decline), whereas in developed countries, increasing postponement of childbearing coupled with a high propensity to seek infertility treatment is leading to a rise in reported infertility.

Infertility is painful in all social settings as it can negatively affect family life and self-fulfillment, and cause distress, social exclusion and stigma. In developing countries, infertile women pay a heavy price for not being able to fulfill the reproductive expectations of their husbands, family and community at large, as well as the terms of a contracted marriage. This can lead to divorce, neglect by the husband or withdrawal of economic support (Gijsels, Mgalla and Wambura, 2001) and nearly always implies low social status for the women (Mgalla and Boerma, 2001; Sundby and Jacobus, 2001). In developed countries, infertility, whether innate or resulting from an individual's own reproductive behaviour, may be the source of serious psychological stress.

Given the different root causes of infertility, addressing them requires different mixes of strategies. In developing countries, controlling sexually transmitted infections and encouraging sex education would decrease the incidence of infertility and thus strengthen the reproductive rights of couples and individuals. In low-fertility countries with limited contraceptive use, reorienting sexual and reproductive behaviour from widespread reliance on abortions towards well-informed use of effective and safe contraceptives represents the most promising approach to reducing infertility. Where the major issue is innate sterility or infecundity related to age, human assisted reproduction is becoming a popular solution to infertility problems. In recent decades, important developments have occurred in human assisted reproduction. In vitro fertilization has an average success rate of 23 per cent (American Society for Reproductive Medicine, 2001).

NOTE

[1] The absence of fertility decline was documented for Burkina Faso, Chad, Guinea and Niger by two demographic surveys implemented in each country during the 1990s. For Mali and Uganda the stability of the total fertility rate at a high level of 7 children for women is inferred from a single survey carried out in the first half of the decade. For Angola, Burundi, the Congo, the Democratic Republic of the Congo, Equatorial Guinea, Liberia, Sierra Leone and Somalia, data do not exist for the 1990s; population estimates by the United Nations are based on the assumption that fertility in those countries is stable (see annex table A.3).

REFERENCES

Abbasi-Shavazi, J. (2001). Below-replacement fertility in Iran: progress and prospects. Paper presented at the Seminar on International Perspectives on Low Fertility: Trends, Theories and Policies, Tokyo, 21-23 March 2001, organized by the IUSSP Working Group on Low Fertility and the National Institute for Population and Social Security Research, Japan.

AbouZahr, C., E. Ahman and C. Guidotti (1998). Puerperal sepsis and other puerperal infections. In *Health Dimensions of Sex and Reproduction: The Global Burden of Sexually Transmitted Diseases, HIV, Maternal Conditions, Perinatal Disorders and Congenital Anomalies, Global Burden of Disease and Injury Series,* vol. III, C. J. L. Murray and A. D. Lopez, eds., Geneva: World Health Organization; Cambridge, Massachusetts: Harvard School of Public Health; and Washington, D.C.: World Bank.

American Society for Reproductive Medicine (2002). *Fact Sheet: In vitro Fertilization (IVF)*. Available from http://www.asrm.org/Patients/Fact/Sheets/invitro.html.

Atoh, M., V. Kandiah and S. Ivanov (2001). The second demographic transition in Asia: is it similar or different from that in Western Europe? Paper presented at the Seminar on International Perspectives on Low Fertility: Trends, Theories and Policies, Tokyo, Japan, 21-23 March, organized by the IUSSP Working Group on Low Fertility and the National Institute for Population and Social Security Research, Japan.

Boerma, J. T. and M. Urassa (2001). Associations between female infertility, HIV and sexual behaviour in rural Tanzania. In *Women and Infertility in Sub-Saharan Africa: A Multidisciplinary Perspective,* J. T. Boerma and Z. Mgalla, eds. Amsterdam: Royal Tropical Institute (KIT).

Bongaarts, J. and G. Feeney (1998). On the quantum and tempo of fertility. *Population and Development Review*, vol. 24, No. 2 (June).

Bongaarts, J. and S. Watkins (1996). Social interactions and contemporary fertility transitions. *Population and Development Review,* vol. 22, No. 4 (December).

Bozon, M., and E. Enoch (1999). Brésil: la transition démographique rapide d'un pays hétérogène. *Population et Sociétés*, No. 345.

Chandra, Anjani and Elizabeth H. Stephen (1998). Impaired fecundity in the United States: 1982-1995. *Family Planning Perspectives,* vol. 30, No. 1, (January-February).

Darroch, Jacqueline E., and others (2001). *Teenage Sexual Reproductive Behavior in Developed Countries: Can More Progress Be Made?* Occasional Report No. 3 (November). New York and Washington: Alan Guttmacher Institute.

Favot, I., and others (1997). HIV infection and sexual behaviour among women with infertility in Tanzania: Hospital-based study. *International Journal of Epidemiology,* vol. 26.

Frank, O. (1992). Sexual behaviour and disease transmission in sub-Saharan Africa: past trends and future prospects. In *Sexual Behaviour and Networking: Anthropological and Sociocultural Studies on the Transmission of HIV,* T. Dyson, ed., Liège, Belgium: Derouaux-Ordina.

——— (1993). The demography of fertility and infertility. *Reproductive Health*, A. Camapana and others, eds. Ares-Serono Symposia Series - Frontiers in Endocrinology, vol. 2. Rome: Ares-Serono Symposia Publications.

Frank, O., P. G. Bianchi and A. Campana (1994). The end of fertility: age, fecundity and fecundability in women. *Journal of Biosocial Sciences*, vol. 26.

Gijsels, M., Z. Mgalla and L.Wambura (2001). "No child to send": context and consequences of female infertility in north-west Tanzania. In *Women and Infertility in Sub-Saharan Africa: A Multidisciplinary Perspective,* J. T. Boerma and Z. Mgalla, eds. Amsterdam: Royal Tropical Institute (KIT).

Goldscheider, F. K. (2000). Realizing the potential of FFS1 with contextual data. Paper presented at the Family and Fertility Surveys Flagship Conference: Partnership and Fertility – A Revolution? Brussels, 29-31 May 2000.

Guzmán, J. M., and others (2001). Diagnóstico sobre salud sexual y reproductiva de adolescentes en América Latina y el Caribe. México, D. F.: United Nations Population Fund.

Khachikian, M. A. (1997). Reproductive health in Armenia: the service and research needs. In Assessment of research and service needs in reproductive health in Eastern Europe – concerns and commitments, E. Johannisson and others, eds. Proceedings of a workshop organized by the International Committee for Research on Reproduction and the World Health Organization Collaborating Centre on Research in Human Reproduction, Szeged, Hungary, 25-27 October 1993. New York: Parthenon Publishing Group.

Larsen, Ulla (1996). Childlessness, subfertility and infertility in Tanzania. *Studies in Family Planning*, vol. 27.

Lesthaeghe, R., and G. Moors (1996). Living arrangements, socio-economic position and values among young adults: a pattern description for France, West Germany, Belgium and the Netherlands, 1990. In *Europe's Population in the 1990s*, D. Coleman, ed. New York: Oxford University Press.

Lesthaeghe, R, and P. Willems (1999). Is low fertility a temporary phenomenon in the European Union? *Population and Development Review*, vol. 25, No.2.

Magun, V. S. (1998). *Revolution of Aspirations and Changing Youth Life Strategies*. Moscow: Institute of Sociology of the Russian Academy of Sciences.

McDonald, Peter (1994). Marriage, family formation, living arrangements and household composition in low fertility countries. In *Low Fertility in East and Southeast Asia: Issues and Policies*. Seoul: Korea Institute for Health and Social Affairs.

Mgalla, Z., and J. T. Boerma (2001). The discourse of infertility in Tanzania. In *Women and Infertility in Sub-Saharan Africa: A Multidisciplinary Perspective,* J. T. Boerma and Z. Mgalla, eds. Amsterdam: Royal Tropical Institute (KIT).

Notkola, I. L. (1996). Occurrence of infertility in Finland with comparisons to other Western countries. Paper presented at the annual meeting of the Population Association of America.

Sadauskas, V. (1997). Research and service needs in reproductive health in Lithuania. In *Assessment of Research and Service Needs in Reproductive Health in Eastern Europe: Concerns and Commitments*, E. Johannisson and others, eds. Proceedings of a workshop organized by the International Committee for Research on Reproduction and the World Health Organization Collaborating Centre on Research in Human Reproduction, Szeged, Hungary, 25-27 October 1993. New York: Parthenon Publishing Group.

Schoenmaeckers, R. C., and E. Lodewijckx (2000). Postponement of age at first birth and total number of children in Europe. Paper presented at the Fertility and Family Survey Flagship Conference: Partnership and Fertility – A Revolution? Brussels, 29-31 May 2000.

Sundby, J., and A. Jacobus (2001). Health and traditional care for infertility in the Gambia and Zimbabwe. In *Women and Infertility in Sub-Saharan Africa: A Multidisciplinary Perspective,* J. T. Boerma and Z. Mgalla, eds. Amsterdam: Royal Tropical Institute (KIT).

Toulemon, L. (1996). Very few couples remain voluntarily childless. *Population: An English Selection*, vol. 8.

United Nations (1987). *Fertility Behaviour in the Context of Development*. Sales No. E.86.XIII.5.

——— (1995a). *Women's Education and Fertility Behaviour: Recent Evidence from the Demographic and Health Surveys.* Sales No. E.95.XIII.23.

——— (1995b). *Report of the International Conference on Population and Development, Cairo, 5-13 September 1994*. Sales No. E.95.XIII.18.

——— (1998). *World Population Monitoring 1996: Selected Aspects of Reproductive Rights and Reproductive Health*. Sales No. E.97.XIII.5.

——— (2001). *World Population Prospects. The 2000 Revision*, vol. I, *Comprehensive Tables*. Sales No. E.01.XIII.8, and corrigendum.

Van de Kaa, D. J. (1999). Europe and its population: the long view. In *European Populations: Unity in Diversity,* D. van de Kaa and others eds. European Studies of Population, vol. 6. Dordrecht, Netherlands: Kluwer Academic Publishers.

White, R. G., and others (2001). Modelling the dramatic decline of primary infertility in sub-Saharan Africa. In *Women and Infertility in Sub-Saharan Africa: A Multidisciplinary Perspective*, J.T. Boerma and Z. Mgalla, eds. Amsterdam: Royal Tropical Institute (KIT).

World Health Organization (1991). Infertility: A tabulation of available data on prevalence of primary and secondary infertility. Unpublished. WHO/MCH/91.9.

III. FAMILY PLANNING

Family planning has long been a central component of population policies and programmes and is an integral part of reproductive health. It allows couples and individuals to realize the basic right of deciding freely and responsibly the number, spacing and timing of their children, a right well established at the United Nations World Population Conference in 1974 and reaffirmed at the International Conference on Population and Development held in Cairo in 1994 (United Nations, 1975 and 1995). By allowing couples to limit and/or space their pregnancies, family planning allows couples and individuals to control their own reproductive process, which is central to the quality of their lives. Indeed, it has been widely shown that both women's and children's health are at high risk if women have pregnancies too soon, too late, too often or too close to each other.

The use of family planning has been steadily increasing. More than 60 per cent of couples residing in the less developed world use family planning today, compared with about 10 per cent in the 1960s. This rapid rise in family planning use has caused fertility to decline much faster in less developed regions than it did in the more developed regions. While it took Europe and the United States over a century to shift their average family size from around 6 children to 3, it took the less developed regions only four decades to make the same shift, from a total fertility of about 6 children per woman in the early 1960s to about 3 per woman in the late 1990s.

The increase in family planning use and the related smaller family sizes reflect the growing desire of couples and individuals to choose the number and timing of the children they want to have. In the great majority of the developing countries, recent surveys show that there have been considerable reductions in the average number of children desired by women over the past 30 years (Bankole and Westoff, 1995). An extreme example is Kenya, where women reported wanting 7.2 children in the 1970s and just 3.9 children on average in the 1990s. The percentage of women of reproductive age who currently want no more children has also increased since the 1970s in nearly all developing countries (United Nations, 1998). At the same time, there have been significant increases in the preferred length of birth intervals since 1980. (Rafalimanana and Westoff, 2000). Increasing urbanization, female education and exposure to mass media have been found to be closely associated with changes in wanted fertility. In addition, women's knowledge, approval and use of contraception (particularly of modern methods) as well as husbands' education have been shown to be significantly related to longer preferred birth intervals.

The growing availability of modern contraceptive methods and organized family planning programmes (whether governmental or non-governmental) has been responsible for the rise in family planning use and the related decline in fertility in the less developed countries. In the more developed countries, where the overall level of contraceptive use has long been at a relatively high level, the introduction of modern methods has also had an impact by allowing couples and individuals to diversify their choice of specific contraceptive methods.

Despite such advances, many women—about one fifth of the currently married women in the less developed world—have an "unmet need" for family planning (United Nations, 2000). These women express a desire to space or limit their families and yet are not using any contraceptive method. At the twenty-first special session of the General Assembly for an overall review and appraisal of the implementation of the Programme of Action of the International Conference on Population and Development, it was agreed that if a gap existed between contraceptive use and fertility preferences, countries should attempt to close the gap by at least 50 per cent by 2005, 75 per cent by 2010 and 100 per cent by 2050 (see General Assembly resolution S-21/2, chap. III, annex, para. 58).

The present chapter provides a comparative review of recent levels and trends in contraceptive practice in the world and analyses the gap between fertility preferences and contraceptive use (the so-called unmet need for family planning) in the developing world. Such a review can be helpful for updating knowledge and evaluating the progress made in the provision of family planning services since the International Conference on Population and Development. It is based primarily on data pertaining to currently married women because comparative information is more widely available for married populations than for unmarried ones, and is more available for women than for men owing to women's reproductive role and unique health needs. The term "currently married" used throughout this chapter includes women in both formal and informal unions. The last section of this chapter focuses on the contraceptive behaviour of adolescents. Previous studies have shown that adolescents are among the groups of persons whose needs for family planning are most likely not to be met (United Nations, 2000).

A. Levels of contraceptive use

It is estimated that contraceptive prevalence—the proportion of couples with women of reproductive age currently using contraception—was 62 per cent at the world level in 1997 (table 19). The average level of use was 70 per cent in the more developed regions and 60 per cent in the less developed regions.[1] Given the pace at which contraceptive use has been increasing in the less developed regions, it is likely that by 2000, 65 per cent of couples in the world were practising contraception.

Table 19 also shows that modern methods[2] account for most of the contraceptive practice worldwide. Nine out of ten contraceptive users rely on a modern method. Modern methods account for a larger share of contraceptive use in the less developed regions (91 per cent of users) than in the more developed regions (84 per cent). This difference reflects the greater reliance on traditional methods—primarily withdrawal, various forms of periodic abstinence and contraceptive douching—in some parts of Europe and in successor States of the former Union of Soviet Socialist Republics (Popov, Visser and Ketting, 1993). Although in decline, this greater use of traditional methods in the more developed regions accounts for more than half of the difference in average prevalence of modern methods between the more and less developed regions (United Nations, 2000).

As is usually the case, the global averages in contraceptive prevalence mask wide disparities among the major areas of the world and this is particularly true in the less developed regions, where prevalence ranges from only 25 per cent in Africa to over 65 per cent in Asia and Latin America and the Caribbean. There are also substantial regional differences within some of these major areas, as discussed below, and much larger differences between countries (figure 6 and annex table A.6).

1. Africa

Africa has the lowest contraceptive prevalence in the world, with on average a quarter of couples using family planning. As shown in figure 7, Africa is also unique among the major areas of the world in having the majority of its countries at the lowest end of the scale (contraceptive prevalence lower than 20 per cent). Moreover, use of modern contraceptive methods is lower than 10 per cent in over half of the countries of Africa. However, regional disparities are pronounced. With the exception the islands of Mauritius and Réunion, where over two thirds of couples use contraception, the average contraceptive prevalence in Northern and Southern Africa, at 48 and 52 per cent respectively, is three to five times higher than that of the three other African regions. In the latter, Cape Verde and Zimbabwe have the highest contraceptive use levels: 53 per cent and 54 per cent, respectively.

2. *Asia and Oceania*

In the developing countries of Asia, 66 per cent of couples are using family planning. However, this average figure is heavily influenced by the high level of use in China. Average contraceptive prevalence in Eastern Asia, the region containing China, is the highest among all regions of the world (83 per cent), surpassing even the

TABLE 19. AVERAGE PREVALENCE OF SPECIFIC CONTRACEPTIVE METHODS, BY MAJOR AREA AND REGION
(Based on the most recent available survey data, average date 1997)

Major area and region	*All methods* (1)	*Modern methods* [a] (2)	*Sterilization* Female (3)	Male (4)	*Pill* (5)	*Inject-ables* (6)	*IUD* (7)	*Condom* (8)	*Vaginal barrier methods* (9)	*Other modern methods* (10)	*Rhythm* (11)	*With-drawal* (12)	*Other traditional methods* (13)
A. Percentage of couples with the woman of reproductive age using contraception													
World	61.9	55.6	20.1	4.1	7.8	2.6	14.9	5.1	0.4	0.6	2.6	3.1	0.6
Less developed regions	60.2	54.9	22.0	3.6	5.9	3.1	16.3	3.1	0.2	0.6	2.5	2.3	0.6
Africa	25.2	19.8	2.2	0.1	7.1	4.2	4.9	1.1	0.1	0.1	3.2	1.1	1.0
Eastern Africa	20.6	15.2	2.0	0.0	5.6	5.4	0.7	1.2	0.0	0.2	2.7	1.4	1.3
Middle Africa	10.0	3.2	0.5	0.1	0.9	0.5	0.2	0.9	0.2	0.0	4.9	0.8	1.1
Northern Africa	47.7	44.1	2.7	0.0	18.0	3.0	19.2	0.9	0.2	0.1	2.4	0.9	0.2
Southern Africa	51.9	50.4	14.0	1.8	10.3	20.7	2.0	1.6	0.0	0.0	0.4	0.8	0.4
Western Africa	14.4	7.8	0.4	0.0	2.5	1.9	1.4	1.2	0.2	0.2	4.2	1.0	1.4
Asia [b]	65.8	60.8	24.8	4.4	4.8	2.9	19.6	3.4	0.2	0.8	2.0	2.5	0.5
Eastern Asia[b]	83.4	82.4	32.8	7.7	1.7	0.0	35.8	3.8	0.2	0.4	0.9	0.0	0.1
South-central Asia	48.0	40.9	23.3	1.6	5.3	3.5	3.7	3.2	0.0	0.4	3.4	2.7	1.0
South-eastern Asia	57.9	49.6	7.7	0.8	13.0	13.0	10.4	2.0	0.0	2.7	3.3	3.8	1.2
Western Asia	47.8	29.3	3.0	0.0	6.1	0.6	13.7	5.0	0.5	0.3	2.1	14.3	2.0
Latin America and the Caribbean	68.8	59.9	29.5	1.6	13.8	3.0	7.4	4.2	0.3	0.1	4.9	3.4	0.6
Caribbean	58.7	55.8	22.6	0.5	10.5	5.6	11.2	4.3	0.4	0.6	1.3	1.4	0.2
Central America	62.9	54.5	23.6	0.7	9.1	4.0	13.0	3.9	0.1	0.0	5.3	3.0	0.1
South America	72.8	62.9	31.9	1.9	16.9	2.4	4.8	4.6	0.3	0.1	5.4	3.8	0.7
Oceania [c]	27.7	21.5	8.6	0.2	4.9	6.1	0.6	1.1	0.0	0.0	2.8	0.9	2.6
More developed regions[d]	70.4	59.2	10.4	7.2	17.3	0.1	7.6	15.0	1.1	0.5	3.6	6.8	0.8
Asia: Japan	58.6	52.8	3.4	0.7	0.4	0.0	2.2	45.5	0.6	0.0	3.3	1.7	0.8
Europe	70.1	55.3	4.8	4.9	22.0	0.2	11.9	10.5	1.1	0.0	4.3	10.0	0.6
Eastern Europe	63.2	35.1	1.5	0.0	6.8	0.0	14.2	11.1	1.3	0.2	10.1	17.9	0.1
Northern Europe	78.4	75.8	12.2	13.4	19.7	0.2	11.1	17.0	2.2	0.0	0.9	1.6	0.1
Southern Europe	66.9	45.2	6.3	2.4	11.4	0.3	11.4	12.8	0.6	0.0	3.1	17.8	0.8
Western Europe	74.5	70.6	3.3	7.1	43.7	0.3	10.0	5.3	0.9	0.0	1.3	1.7	1.0
Northern America	76.2	70.8	24.5	13.4	15.5	0.0	0.9	12.9	1.7	1.9	2.1	2.1	1.2
Oceania Australia/New Zealand	75.9	72.2	33.3	15.3	6.4	2.6	6.0	7.6	1.0	0.0	2.0	1.5	0.2
B. Percentage distribution of couples with the woman of reproductive age using contraception													
World	100.0	89.8	32.5	6.6	12.7	4.2	24.0	8.3	0.6	0.9	4.3	5.0	0.9
Less developed regions	100.0	91.2	36.6	6.0	9.8	5.2	27.1	5.2	0.3	1.0	4.1	3.8	0.9
Africa	100.0	78.6	8.6	0.5	28.1	16.7	19.5	4.3	0.4	0.4	12.5	4.4	4.0
Eastern Africa	100.0	73.8	9.7	0.1	27.3	26.3	3.4	5.9	0.0	1.0	13.1	6.8	6.3
Middle Africa	100.0	32.0	4.8	0.7	8.8	4.9	2.0	8.8	2.0	0.0	49.1	7.7	11.2
Northern Africa	100.0	92.5	5.7	0.0	37.8	6.2	40.3	1.9	0.4	0.2	5.1	1.9	0.5
Southern Africa	100.0	97.1	26.9	3.5	19.8	39.9	3.9	3.1	0.0	0.0	0.7	1.4	0.7
Western Africa	100.0	54.2	2.9	0.0	17.5	13.5	9.4	8.1	1.3	1.3	29.2	6.9	9.7

TABLE 19 *(continued)*

Major area and region	All methods (1)	Modern methods (2)	Sterilization Female (3)	Sterilization Male (4)	Pill (5)	Injectables (6)	IUD (7)	Condom (8)	Vaginal barrier methods (9)	Other modern methods (10)	Rhythm (11)	Withdrawal (12)	Other traditional methods (13)
Asia[b]	100.0	92.4	37.6	6.6	7.3	4.5	29.7	5.2	0.3	1.2	3.1	3.8	0.7
Eastern Asia[b]	100.0	98.8	39.3	9.3	2.0	0.0	42.9	4.6	0.2	0.5	1.1	0.0	0.1
South-central Asia	100.0	85.2	48.6	3.4	10.9	7.2	7.6	6.6	0.0	0.8	7.1	5.6	2.1
South-eastern Asia	100.0	85.7	13.3	1.3	22.5	22.5	17.9	3.4	0.0	4.6	5.7	6.6	2.1
Western Asia	100.0	61.3	6.3	0.0	12.8	1.2	28.7	10.5	1.0	0.6	4.5	29.9	4.3
Latin America and the Caribbean	100.0	87.1	42.9	2.4	20.0	4.3	10.7	6.2	0.4	0.1	7.1	5.0	0.9
Caribbean	100.0	95.1	38.6	0.9	17.9	9.5	19.1	7.3	0.7	1.0	2.2	2.4	0.4
Central America	100.0	86.6	37.6	1.1	14.5	6.4	20.6	6.3	0.2	0.0	8.4	4.7	0.2
South America	100.0	86.4	43.8	2.6	23.2	3.3	6.6	6.3	0.4	0.1	7.5	5.2	1.0
Oceania[c]	100.0	77.6	30.9	0.7	17.8	22.1	2.2	4.0	0.0	0.0	9.9	3.2	9.2
More developed regions[d]	100.0	84.1	14.8	10.2	24.5	0.1	10.8	21.3	1.6	0.7	5.1	9.7	1.1
Asia: Japan	100.0	90.1	5.8	1.2	0.7	0.0	3.8	77.6	1.0	0.0	5.6	2.9	1.4
Europe	100.0	78.9	6.8	7.0	31.3	0.3	16.9	14.9	1.6	0.0	6.1	14.3	0.8
Eastern Europe	100.0	55.5	2.4	0.0	10.8	0.0	22.5	17.5	2.1	0.3	15.9	28.4	0.2
Northern Europe	100.0	96.7	15.5	17.0	25.2	0.2	14.2	21.7	2.8	0.0	1.2	2.0	0.1
Southern Europe	100.0	67.6	9.4	3.6	17.0	0.5	17.0	19.2	0.9	0.0	4.6	26.6	1.2
Western Europe	100.0	94.8	4.4	9.6	58.7	0.4	13.5	7.1	1.1	0.0	1.7	2.2	1.3
Northern America	100.0	92.9	32.1	17.6	20.3	0.0	1.2	16.9	2.2	2.5	2.8	2.8	1.6
Oceania Australia/New Zealand	100.0	95.1	43.9	20.1	8.4	3.4	7.9	10.0	1.4	0.0	2.6	2.0	0.3

Source: Database on contraceptive use maintained by the Population Division of the United Nations Secretariat.

NOTE: These estimates reflect assumptions about contraceptive use in countries with no data. Data pertain to women who are formally married or in a consensual union.

[a] Including methods in columns (3) through (10).

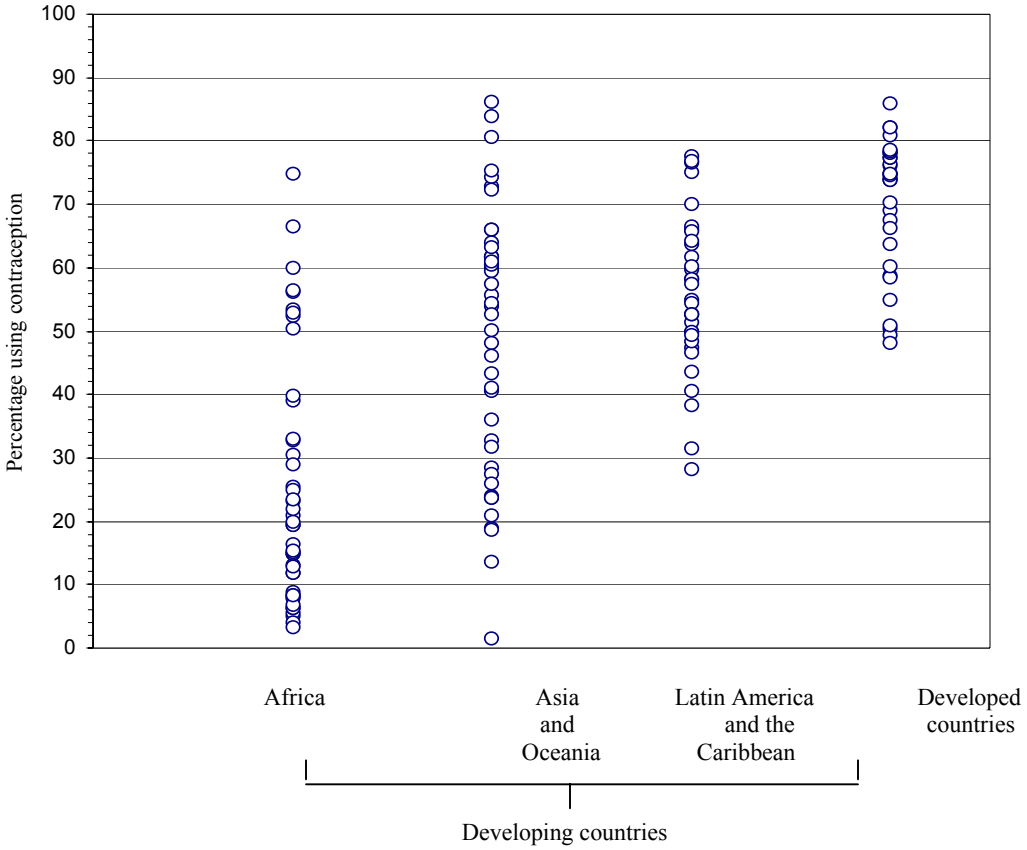
[b] Excluding Japan.

[c] Excluding Australia/New Zealand.

[d] Australia/New Zealand, Europe, Japan and Northern America.

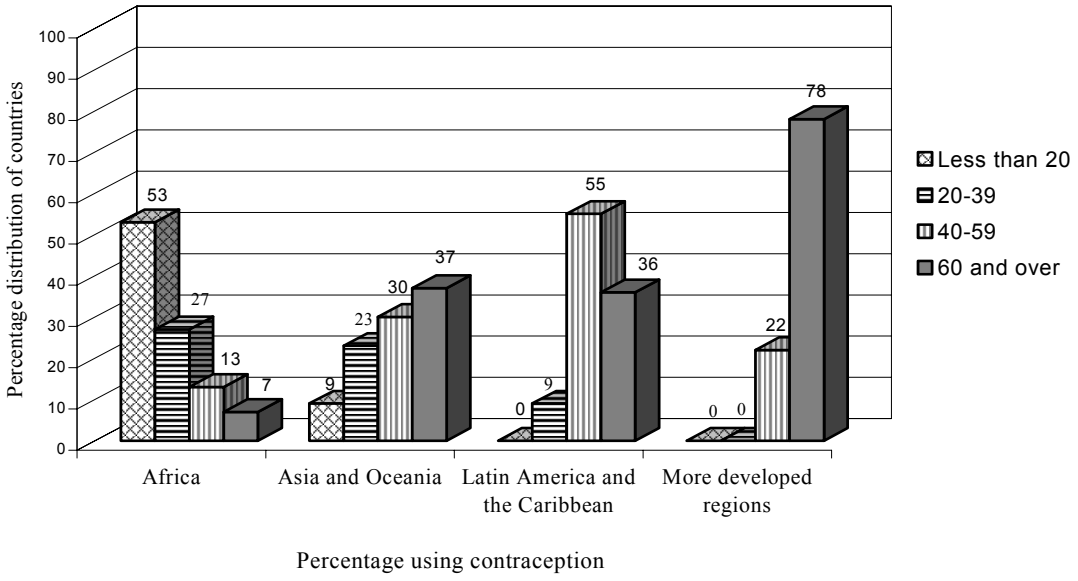
maximum level recorded in the more developed regions (78 per cent in Northern Europe). Contraceptive use levels in the other regions of Asia are more comparable with those of Northern and Southern Africa. At the country level, as is the case of Africa, there are some strikingly large disparities. China and Hong Kong, with 84 per cent and 86 per cent of couples using contraception respectively, have achieved the world's highest levels of contraceptive use. The Islamic Republic of Iran, the Republic of Korea, Singapore, Thailand and Viet Nam are also among the leading countries in terms of contraceptive prevalence, with levels above 70 per cent. Four large Asian countries—Bangladesh, India, Indonesia and Sri Lanka—have achieved relatively high levels of contraceptive use (above 48 per cent) given their state of economic development. In contrast, prevalence is still below 20 per cent in Afghanistan, Bhutan, the Lao People's Democratic Republic and Iraq. In the developing countries of Oceania, 28 per cent of couples are using family planning, with levels at 63 per cent in the Cook Islands, 41 per cent in Fiji and 26 per cent in

Figure 6. Contraceptive prevalence in developed and developing countries, by major area



Source: Database on contraceptive use maintained by the Population Division of the United Nations Secretariat. See annex table A.6.

Figure 7. Percentage distribution of countries by major area and by national level of contraceptive use



Source: Database on contraceptive use maintained by the Population Division of the United Nations Secretariat. See annex table A.6.

Papua New Guinea. It is worth noting that only those three countries had data on contraceptive use among all the developing countries of Oceania. Contrary to the situation in Africa, the picture in Asia and Oceania is that of a steadily ascending level of contraceptive use (figure 7). Nine per cent of Asian countries report a contraceptive prevalence of less than 20 per cent, and about one-third report a prevalence exceeding 60 per cent.

3. Latin America and the Caribbean

In Latin America and the Caribbean, the average prevalence is fairly high (69 per cent) and, as in the more developed regions, variation at the regional level is quite modest. Prevalence levels range from 59 per cent of couples using family planning in the Caribbean to 73 per cent in South America. In this major area, two-thirds of the countries report a contraceptive prevalence that exceeds 50 per cent, which is an indication that contraceptive use is already very widespread. At the country level, the lowest level of use, 28 per cent, was found in Haiti in 2000, although that level represents a large increase from the level reported in 1994 (18 per cent). Brazil, Colombia, Costa Rica, Cuba and Puerto Rico have achieved the highest prevalence levels, above 70 per cent. The majority of the countries of Latin America and the Caribbean have levels of contraceptive use varying between 40 and 60 per cent of couples (figure 7).

4. More developed regions

In the more developed regions, seven out of every ten couples, on average, are using family planning. Variation at the regional level falls within a relatively narrow range, from 59 per cent in Japan to 78 per cent in Northern Europe (table 19), but regional disparities in the use of modern methods are more pronounced. Prevalence of modern methods ranges from 35 per cent in Eastern Europe to between 71 and 77 per cent in Northern and Western Europe. At the country level, contraceptive prevalence has reached at least 50 per cent in the great majority of countries (30 out of the 32 with available data) and has reached or exceeded 60 per cent in more than three-quarters of those countries (figure 7). Prevalence is lowest in Latvia and Poland (48 and 49 per cent respectively) and highest in Bulgaria, Spain, Switzerland and the United Kingdom (varying from 81 to 86 per cent) (annex table A.1). The prevalence of modern methods is lowest in Poland and Yugoslavia[3] (19 per cent and 12 per cent, respectively) and highest in the United Kingdom (82 per cent).[4]

To date, no nationwide surveys on reproductive health (including contraceptive use) have been conducted in the Russian Federation. Surveys in the mid-1980s in Moscow and several other cities indicated that family planning was still dominated by traditional methods (Avdeyev and Troitskaya, 1991; Popov, Visser and Ketting, 1993). Recent surveys in three locations, however, seem to indicate that this pattern has changed. The Russia Women's Reproductive Health Survey, carried out in 1996 and followed up in 1999, collected information from representative samples of women aged 15 to 44 in three sites: Ivanovo Oblast (including Ivanovo City), Yekaterinburg City and Perm City. The results of this survey show that in 1999, contraceptive prevalence among married women was high (70-75 per cent), with modern methods used by 49 to 58 per cent of these women. Those methods included intrauterine devices, 23 to 29 per cent; condoms, 14 to 17 per cent; pills, 5 to 10 per cent; female sterilization, 1 to 3 per cent; and other modern methods, 1 to 5 per cent (Russian Centre for Public Opinion and Market Research, Centers for Disease Control and Prevention and United States Agency for International Development, 2000). Those results are compatible with recent contraceptive prevalence figures reported by different Ministries of the Russian Federation. According to the latter figures, the prevalence of IUDs, pills and female sterilization were 18 per cent, 7 per cent and 0-1 per cent respectively among all women aged 15 to 49 in 1997 (Centre for Demography and Human Ecology, 1999).

B. Recent trends in contraceptive use

For countries where trend data are available, figure 8 shows estimates of contraceptive prevalence for 1990, 1995 and 2000. The estimates were computed by linear interpolation from the two or three most recent measurements collected

Figure 8. Trends in contraceptive prevalence among currently married women of reproductive age by country

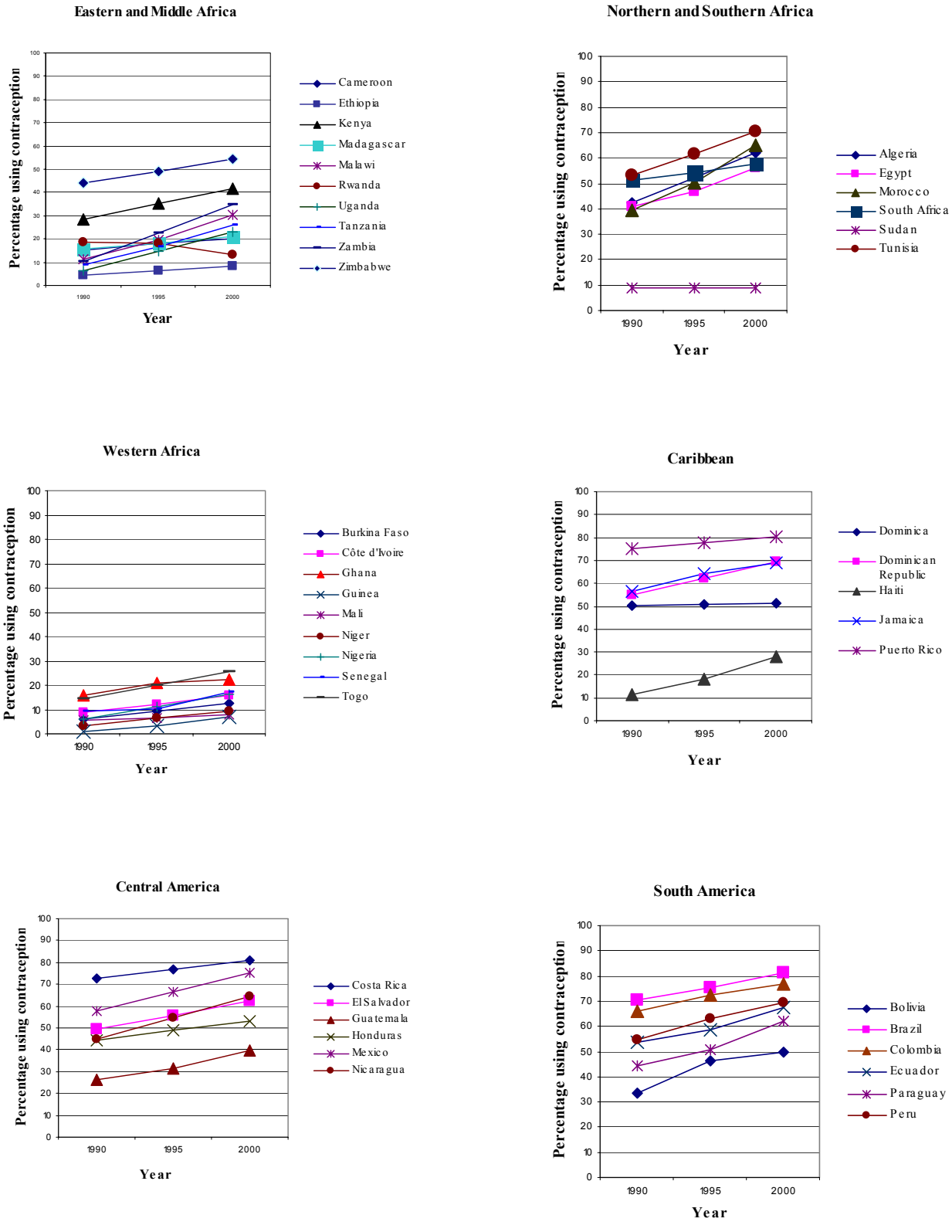
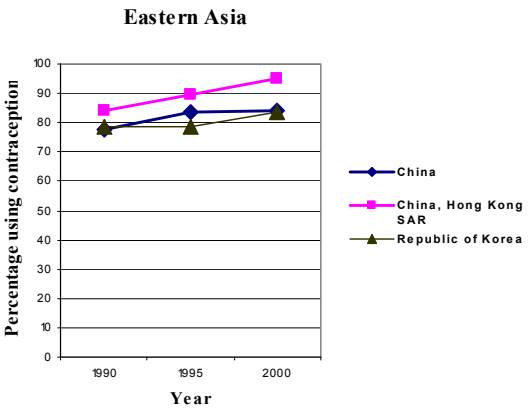
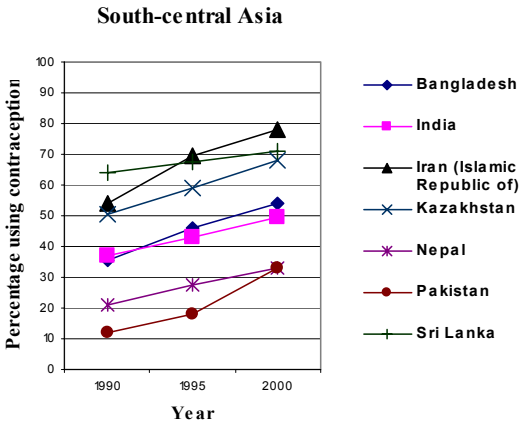
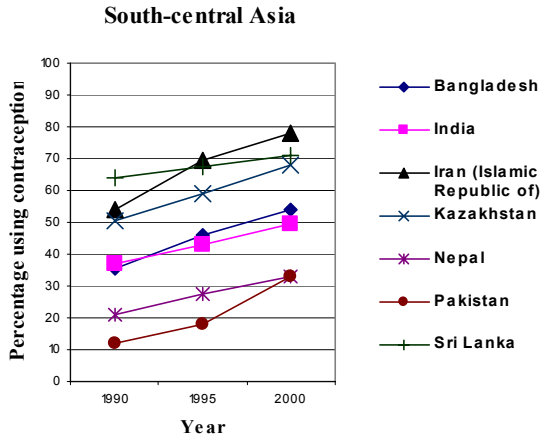
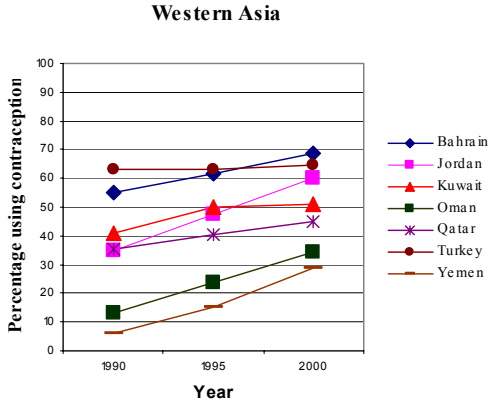


Figure 8 (*continued*)









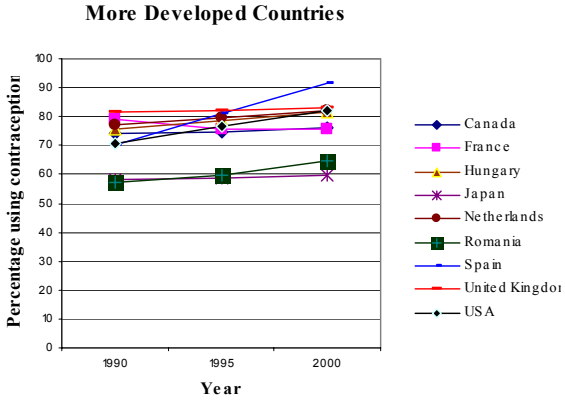


TABLE 20. TRENDS IN CONTRACEPTIVE PREVALENCE, BY COUNTRY, 1990, 1995 AND 2000
(Percentage)

Major area, region and country or area	*All methods prevalence*			*Modern methods[a] prevalence*			*Annual change 1990-2000 (percentage points)*	
	1990	*1995*	*2000*	*1990*	*1995*	*2000*	*All methods*	*Modern methods[a]*
				A. Developing countries				
Africa								
Eastern Africa								
Ethiopia	4.3	6.2	8.1	2.6	4.5	6.3	0.4	0.4
Kenya	28.4	35.2	41.5	20.2	29.0	33.2	1.3	1.3
Madagascar	15.6	18.3	21.0	3.3	7.9	12.5	0.5	0.9
Malawi	11.5	19.7	30.6	5.8	12.7	26.1	1.9	2.0
Rwanda	18.7	18.2	13.2	10.2	9.7	4.3	-0.6	-0.6
Uganda	6.6	14.8	23.1	3.4	7.8	12.2	1.7	0.9
United Rep. of Tanzania	8.8	16.8	28.4	5.3	12.0	18.1	1.9	1.3
Zambia	10.3	22.6	34.8	6.2	13.0	19.9	2.5	1.4
Zimbabwe	44.1	49.2	54.6	37.3	43.8	52.0	1.1	1.5
Middle Africa								
Cameroon	15.0	17.9	20.2	4.0	5.9	7.9	0.5	0.4
Northern Africa								
Algeria	42.2	52.4	61.9	38.3	52.4	60.2	2.0	2.2
Egypt	41.1	46.9	56.1	39.9	45.5	53.9	1.5	1.4
Morocco	39.3	50.3	65.0	32.9	42.4	53.9	2.6	2.1
Sudan (North)	8.7	8.7	8.7	5.6	7.8	7.8	0.0	0.2
Tunisia	53.2	61.7	70.2	43.9	52.8	61.6	1.7	1.8
Southern Africa								
South Africa	51.0	54.3	57.6	49.7	53.1	56.4	0.7	0.7
Western Africa								
Burkina Faso	5.9	9.2	12.6	3.9	4.4	4.9	0.7	0.1
Côte d'Ivoire	8.8	12.1	15.7	3.1	4.8	7.9	0.7	0.5
Ghana	15.9	20.9	22.3	7.2	11.2	13.8	0.6	0.7
Guinea	0.9	3.2	7.0	0.5	2.1	4.7	0.6	0.4
Mali	5.5	6.7	8.0	2.5	6.7	6.5	0.3	0.4
Niger	3.1	6.3	9.5	1.5	3.5	5.4	0.6	0.4
Nigeria	6.0	11.2	16.3	3.5	6.3	9.2	1.0	0.6
Senegal	9.1	10.2	17.0	3.8	6.5	10.6	0.8	0.7
Togo	14.4	20.1	25.8	3.8	5.8	7.8	1.1	0.4
Eastern Asia								
China	77.8	83.6	84.0	77.2	83.3	83.4	0.6	0.6
China, Hong Kong SAR[b]	84.0	89.4	94.8	77.8	82.5	87.2	1.1	0.9
Republic of Korea	78.7	78.4	83.6	69.7	66.8	67.0	0.5	-0.3
South-central Asia								
Bangladesh	35.7	46.1	53.8	27.8	38.0	43.4	1.8	1.6
India	36.8	43.1	49.5	43.4	38.4	43.9	1.3	0.1
Iran (Islamic Republic of)	54.2	69.6	77.9	33.3	51.4	62.8	2.4	3.0
Kazakhstan	50.4	59.1	67.9	37.9	46.1	54.4	1.8	1.7
Nepal	20.9	27.3	33.1	20.2	25.2	29.4	1.2	0.9
Pakistan	11.8	17.8	33.1	9.0	12.6	23.4	2.1	1.4
Sri Lanka	64.1	67.5	70.9	42.1	44.6	47.2	0.7	0.5
South-eastern Asia								
Cambodia	6.6	12.5	23.8	2.5	6.8	18.5	1.7	1.6

TABLE 20 (*continued*)

Major area, region and country or area	*All methods prevalence*			*Modern methods[a] prevalence*			*Annual change 1990-2000 (percentage points)*	
	1990	*1995*	*2000*	*1990*	*1995*	*2000*	*All methods*	*Modern methods[a]*
Indonesia	49.2	55.6	60.1	46.3	53.0	57.3	1.1	1.1
Malaysia	50.4	55.5	60.7	30.9	29.5	28.2	1.0	-0.3
Myanmar	10.4	26.3	42.2	7.7	22.5	37.3	3.2	3.0
Philippines	36.4	42.4	48.4	22.9	26.2	29.5	1.2	0.7
Thailand	70.7	73.1	72.2	68.9	71.0	68.0	0.2	-0.1
Viet Nam	57.1	68.4	85.6	38.1	39.3	67.8	2.9	3.0
Western Asia								
Bahrain[c]	54.8	61.8	68.8	30.4	30.6	30.9	1.4	0.1
Jordan	35.0	47.6	60.1	26.9	34.6	42.3	2.5	1.5
Kuwait[c]	41.1	50.0	51.0	38.4	44.1	49.8	1.0	1.1
Oman[c]	12.9	23.7	34.5	10.6	18.2	25.8	2.2	1.5
Qatar[c]	35.3	40.2	45.2	29.8	31.4	32.9	1.0	0.3
Turkey	63.0	63.1	64.4	32.5	35.8	39.0	0.1	0.7
Yemen	6.3	15.4	29.0	5.3	8.3	12.0	2.3	0.7
Latin America and the Caribbean								
Caribbean								
Dominica[d]	50.2	50.9	51.5	48.7	49.5	50.4	0.1	0.2
Dominican Republic	55.1	62.2	69.5	50.7	57.7	65.2	1.4	1.5
Haiti	11.5	18.0	28.1	10.4	13.2	22.3	1.7	1.2
Jamaica[d]	56.5	64.0	68.8	53.1	60.5	65.8	1.2	1.3
Puerto Rico	74.9	77.7	80.5	65.5	67.6	69.7	0.6	0.4
Central America								
Costa Rica	72.6	76.6	80.7	62.0	66.3	70.7	0.8	0.9
El Salvador	49.6	55.9	62.3	45.5	50.7	56.4	1.3	1.1
Guatemala	26.3	31.4	39.9	22.0	26.9	31.9	1.4	1.0
Honduras	44.3	49.2	53.3	34.0	39.4	47.3	0.9	1.3
Mexico	57.9	66.5	75.1	49.4	57.5	65.6	1.7	1.6
Nicaragua	44.8	54.5	64.2	40.9	51.2	61.6	1.9	2.1
South America								
Bolivia	33.3	46.1	49.8	13.3	19.7	28.9	1.7	1.6
Brazil	70.2	75.6	81.1	62.1	68.9	75.7	1.1	1.4
Colombia	66.1	72.2	76.9	54.7	59.3	64.0	1.1	0.9
Ecuador	53.7	58.6	67.6	42.3	46.6	51.0	1.4	0.9
Paraguay	44.1	50.7	61.9	35.2	41.3	52.0	1.8	1.7
Peru	54.6	62.9	69.4	29.5	39.2	49.8	1.5	2.0
B. Developed countries								
Asia								
Japan	58.0	58.8	59.5	51.9	53.0	54.2	0.2	0.2
Europe								
Eastern Europe								
Hungary	75.6	78.6	81.7	65.8	70.1	74.5	0.6	0.9
Romania	57.4	59.5	64.9	12.6	19.5	32.0	0.8	1.9
Northern Europe								
United Kingdom	81.6	82.3	83.0	80.3	82.3	83.0	0.1	0.3
Southern Europe								
Spain	70.2	80.9	91.7	52.7	67.4	82.1	2.2	2.9

TABLE 20 (*continued*)

Major area, region and country or area	*All methods prevalence*			*Modern methods[a] prevalence*			*Annual change 1990-2000 (percentage points)*	
	1990	*1995*	*2000*	*1990*	*1995*	*2000*	*All methods*	*Modern methods[a]*
Western Europe								
France	79.0	75.6	75.6	67.5	70.8	70.8	-0.3	0.3
Netherlands	77.0	79.5	82.0	72.8	77.4	82.0	0.5	0.9
Northern America								
Canada	74.0	74.7	75.9	71.7	73.3	74.9	0.2	0.3
United States	70.7	76.4	82.1	67.0	70.5	74.0	1.1	0.7

Source: Database on contraceptive use maintained by the Population Division of the United Nations Secretariat.

NOTE: Data were estimated from the two or three most recent measurements collected in each country from the late 1980s to 2000 among women of reproductive age who were formally married or in a consensual union.

[a] Modern methods include female and male sterilization, pills, intrauterine devices, condoms, injectables, implants and vaginal barrier methods.

[b] As of 1 July 1997, Hong Kong became a Special Administrative Region (SAR) of China.

[c] Households of nationals of the country.

[d] Including women in a visiting union.

in each country from the late 1980s to 2000. It should be noted that countries with trend data are not representative of their regions since they make up only half of all developing countries and a third of developed countries. Consequently, no regional estimates can be reasonably inferred from the individual country trend estimates. The last two columns of table 20 show the annual percentage increase in contraceptive prevalence between 1990 and 2000.

1. Developing countries

Most developing countries with available trend data show a substantial increase in contraceptive use over the past 10 years. Prevalence increased by at least 1 percentage point per annum in 68 per cent of the countries and by at least 2 percentage points per annum in 15 per cent of the countries (table 21). The majority of the countries with the lowest increase in prevalence (less than 1 percentage point per annum) are in sub-Saharan Africa, particularly in Western Africa, where prevalence in 1990 was very low, and in Eastern Asia, where prevalence in 1990 was very high. Morocco and Zambia in Africa, and Jordan, Myanmar and Viet Nam in Asia experienced the largest increase in prevalence (2.5 percentage points per annum or more). By contrast, Rwanda is the only developing country where overall contraceptive use declined recently: its prevalence decreased by 0.6 percentage points per year between 1990 and 2000. Since modern methods account for most of the growth in contraceptive use in developing countries, the pace of growth for all methods and for modern methods is very similar. Algeria, Malawi and Morocco in Africa, the Islamic Republic of Iran, Myanmar and Viet Nam in Asia, and Nicaragua and Peru in Latin America and the Caribbean had the highest annual increase in the use of modern methods (2 percentage points per annum or more). However, the prevalence of modern methods decreased slightly in Malaysia, the Republic of Korea and Thailand between 1990 and 2000 (table 20).

Rapid rates of growth are most common in countries with prevalence levels in the medium range (between 35 and 64 per cent) in 1990. Nevertheless, remarkably, contraceptive prevalence continued to increase by more than 1 per cent per year in Brazil, Colombia and Hong Kong, where prevalence in 1990 exceeded 65 per cent. Also, for the first time, recent data have revealed annual increases of that magnitude in some ten countries where prevalence in 1990 was well below 15 per cent (table 21).

TABLE 21. ANNUAL INCREASE IN CONTRACEPTIVE PREVALENCE BY LEVEL OF USE IN 1990, SELECTED DEVELOPING COUNTRIES

Prevalence in 1990	*Annual percentage point increase in contraceptive prevalence*		
	< 1.0	*1.0-1.9*	*2.0 or more*
Less than 15 per cent.....	Burkina Faso	Cambodia	Myanmar
	Côte d'Ivoire	Haiti	Oman
	Ethiopia	Malawi	Pakistan
	Guinea	Nigeria	Yemen
	Mali	Togo	Zambia
	Niger	Uganda	
	Senegal	United Rep. of Tanzania	
	Sudan		
15-34 per cent.....	Cameroon	Bolivia	Haiti
	Ghana	Guatemala	Myanmar
	Madagascar	Kenya	Zambia
	Rwanda	Nepal	
35-49 per cent.....	Honduras	Bangladesh	Algeria
		El Salvador	Jordan
		Egypt	Morocco
		India	
		Indonesia	
		Kuwait	
		Nicaragua	
		Paraguay	
		Philippines	
		Qatar	
50-64 per cent.....	Dominica	Bahrain	Iran (Islamic Rep. of)
	South Africa	Dominican Republic	Viet Nam
	Sri Lanka	Ecuador	
	Turkey	Jamaica	
		Kazakhstan	
		Malaysia	
		Mexico	
		Peru	
		Tunisia	
65 per cent or more	China	Brazil	
	Costa Rica	China, Hong Kong SAR	
	Puerto Rico	Colombia	
	Republic of Korea		
	Thailand		

Source: Database on contraceptive use maintained by the Population Division of the United Nations Secretariat. See table 20.
NOTE: Annual percentage-point increases are calculated for the period 1990-2000. Data pertain to women of reproductive age who are formally married or in a consensual union.

2. Developed countries

In contrast to developing countries (excluding Eastern Asia countries), developed countries have shown little growth or diversity in levels of contraceptive use during the past 10 years. The exceptions are Spain and the United States, where contraceptive prevalence grew by 2.2 per cent and 1.1 per cent per annum, respectively, from 1990 to 2000. The developed countries, already character-

ized by very high levels of contraceptive use, have little room for growth. In France, prevalence figures have declined, but this is probably due to methodological differences between the surveys. In general, modern methods increased at a somewhat faster pace, a development indicating that the main trend in developed countries involves shifts in method mix,[5] toward greater use of modern methods.

C. CONTRACEPTIVE METHODS USED

Two major features characterize global use of specific contraceptive methods, as table 19 shows. First, modern methods predominate, accounting for 90 per cent of contraceptive use worldwide. In particular, three female-oriented methods are most commonly used: female sterilization, IUDs and the pill. Those three methods account for 69 per cent of all methods used worldwide and 74 per cent of methods used in the less developed regions. On average, more contraceptive users use modern methods in the less developed regions (91 per cent) than in the more developed regions (84 per cent).

The other feature is the use of specific methods, which differs markedly between the more and the less developed regions. One striking contrast between the two involves the use of traditional methods.[6] The prevalence of traditional methods in the more developed regions is twice as high as in the less developed regions (11 per cent and 5 per cent of couples, respectively). The prevalence of modern methods, on the other hand, is almost the same: 59 per cent of couples in the more developed regions use modern methods compared to 55 per cent of couples in the less developed regions. Historical reasons explain the higher popularity of traditional methods in the developed world. The transition from high to relatively low levels of marital fertility occurred in most developed countries before modern contraceptives were invented, so that reliance on traditional methods, such as withdrawal, become firmly established by the 1940s and 1950s. In some of the European countries, particularly in Eastern and Southern Europe, current levels of use of traditional methods also reflect a limited availability of modern methods (Popov, Visser and Ketting, 1993). Surveys conducted in the 1990s show that the popularity of traditional methods has decreased in Western Europe but not in Eastern and Southern Europe (except in Spain).

A second contrast between the more and less developed regions is evidenced by the types of methods currently dominant in the two areas and their associated characteristics. In the more developed regions, modern method mix is heavily dominated by two temporary and short-acting supply methods—oral pills and condoms—which together and on average account for 46 per cent of all contraceptive use. In total, over 6 out of every 10 contraceptive users in the more developed regions rely on short-acting and reversible methods (including traditional methods), while only a quarter are sterilized and 1 out of every 10 uses an IUD. In the less developed regions, by contrast, method mix is mainly comprised of longer-acting and highly effective clinical methods—on average, 7 out of every 10 users currently rely on sterilization or the IUD. A major factor contributing to this result is the high reliance on female sterilization and IUDs in Asia. In particular, over 30 per cent of female users are sterilized in China and India, and over 30 per cent have an IUD in China.

A third difference between the more and less developed regions is the importance of male-oriented methods in the method mix. Worldwide, less than a quarter of couples using contraception rely on a method that requires male participation (condom or male sterilization) or cooperation (rhythm and withdrawal). However, reliance on male-oriented methods is much greater in the more developed regions (about 50 per cent of overall contraceptive use) than in less developed regions (about 20 per cent).

The heightened focus on quality of care and on the new reproductive health agenda that followed the International Conference on Population and Development highlighted the importance of providing couples with a wide range of methods and the need to ensure that the choice of method be governed by the individual client's needs and preferences. Usually, an expanded choice of methods is associated with rising contraceptive prevalence. Nonetheless, in as many as one third

of the countries considered, a single method, usually sterilization or the pill, still accounts for at least half of all contraceptive use (United Nations, 2000). At the same time, method use patterns have not remained fixed over time, even in the developed countries where the overall prevalence of contraceptive use has remained more or less stable within the past three decades. In general, rising use of female sterilization continues to be the most important trend in both the less and more developed regions. However, there are many countries where other methods are playing a prominent role in method mix changes. While there is a general tendency for modern methods as a group to become more predominant over time, there is little evidence that widely varying national patterns of use are converging towards a similar method mix.

1. *Sterilization*

Female sterilization ranks first in terms of method prevalence (20 per cent of currently married women) in the world. Globally, 1 out of every 3 currently married women using a contraceptive method is sterilized. The prevalence of female sterilization in the less developed regions is twice that of the more developed regions (22 per cent and 10 per cent, respectively). At the regional level, the method is relatively common—prevalence of over 10 per cent—in Eastern Asia, South-central Asia, Latin America and the Caribbean, Northern Europe, Northern America and Australia/New Zealand, but it is rarely used in Africa, Eastern Europe, Southern Europe, Western Europe or Japan. At the country level, the prevalence of female sterilization is highest in Brazil, the Dominican Republic and Puerto Rico (40-49 per cent), followed by Canada, China, El Salvador, India and Panama (31-39 per cent). In most countries where trends can be traced, prevalence of female sterilization has increased more rapidly than use of other methods. In some countries, particularly developed countries where contraceptive prevalence has reached high levels, further growth in the practice of female sterilization has meant a decrease in the proportion of couples using other methods. Declines in the use of female sterilization are rare, but small declines have been observed in recent years in a few high-prevalence Asian countries (China, Hong Kong SAR and the Republic of Korea).

Male sterilization is much less common than female sterilization. At the world level, only 4 per cent of women reported that their partner was sterilized. In contrast to the pattern of female sterilization, the prevalence of male sterilization in the more developed regions is twice that of the less developed regions (7 per cent and 3 per cent respectively). At the regional level, prevalence of male sterilization is over 10 per cent in Northern Europe, Northern America and Australia/New Zealand. At the country level, the prevalence of male sterilization is highest in Australia, Canada, New Zealand and the United States (10-19 per cent).

2. *Intrauterine devices*

The intrauterine device, used by 15 per cent of currently married women and by 1 out of every 4 contraceptive users worldwide, ranks behind female sterilization as the second most widely used contraceptive method. The prevalence of the IUD in the less developed regions is twice that of the more developed regions (16 per cent and 8 per cent, respectively). At the regional level, the method is relatively common, with a prevalence of over 10 per cent in Northern Africa, Asia (except South-central Asia), Central America, the Caribbean and Europe. At the country level, the prevalence of the IUD is extremely high in the Democratic People's Republic of Korea, Kazakhstan and Uzbekistan (40–49 per cent). In China, Cuba, Estonia, Mongolia, the Republic of Moldova and Viet Nam, 30 to 39 per cent of married women use the IUD, and in Belarus, Bulgaria, Finland, Norway and Tunisia, 20 to 29 per cent do. In general, most developing countries with trend data show a modest increase in IUD prevalence over the most recent interval. In contrast, IUD use has been declining in most developed countries.

3. *Oral contraceptive pills*

Oral contraceptive pills, used by 8 per cent of currently married women and by 13 per cent of contraceptive users worldwide, rank behind female sterilization and the IUD as the third most used method. Oral pill prevalence is about three times higher in the more developed regions than in the less developed regions (17 per cent vs. 6 per cent). The concentration of pill use is also higher

in the more developed regions, where the method is selected, on average, by 1 out of every 4 contraceptive users, as compared with 1 out of every 10 in the less developed regions. At the regional level, the method is relatively common (prevalence of over 10 per cent) in Northern Africa, South-eastern Asia, the Caribbean, South America, Europe (except Eastern Europe) and Northern America. The pill enjoys the widest geographical distribution of use of any method. Its popularity is especially evident at the country level. This method is used by 30 to 59 per cent of married women in Algeria, Morocco, Réunion and Zimbabwe in Africa; in Austria, Belgium, France, Germany, Hungary, the Netherlands and Switzerland in Europe; and in the Bahamas in the Caribbean. At the global level, average figures indicate little or no change in pill use in recent years. However, those averages mask a mixture of increases and decreases at the country level. Among developing countries, well over half report an increase in pill prevalence during the recent past. The majority of developed countries have shown little change in patterns of pill use from the 1980s to the 1990s. The exceptions are Belgium, France, Germany, the Netherlands and Norway, where pill use increased by 5 percentage points or more, and Hungary, where it decreased by 6 percentage points.

4. *Condom*

Condoms are used on average by 5 per cent of couples and by 8 per cent of contraceptive users worldwide. As in the case of the pill, condom prevalence is much higher in more developed regions than in less developed regions (15 per cent vs. 3 per cent). At the level of major areas, condom prevalence is lowest in Africa, where it averages 1 per cent, but is only slightly higher in Asia and Latin America and the Caribbean (2-5 per cent). Among the more developed regions, Northern Europe reports the highest condom prevalence (17 per cent), followed by Eastern Europe, Southern Europe and Northern America (11-13 per cent). At the country level, Japan, where 46 per cent of couples (and three-fourths of Japanese contraceptive users) rely on condoms, has by far the highest use of condoms. Other countries with high levels of condom use include Denmark, Finland, Grenada, Hong Kong SAR, Singapore, Slovakia, Spain and Sweden (20-35 per cent).

Owing to the HIV/AIDS epidemic, promotion of condom use has been growing, as it is the only method currently available (alone or in conjunction with other contraceptive methods) to prevent both pregnancy and sexually transmitted infections, including HIV infection. Trend data comparing the late 1980s or early 1990s to the late 1990s or 2000 show that condom use has increased in the great majority of the developing countries of Africa, Asia and Latin America and the Caribbean, probably as a result of such promotional campaigns. Thus, among the countries highly affected by HIV/AIDS, the following increases in condom prevalence have been observed: from 1.7 per cent in 1986 to 4.4 per cent in 1996 in Brazil; from 0.9 per cent in 1991 to 2.1 per cent in 1998 in Cameroon; from 0.3 per cent in 1988 to 2.7 per cent in 1999 in Ghana; from 0.5 per cent in 1989 to 2.9 per cent in 2000 in Haiti; from 1.8 per cent in 1987 to 3.2 per cent in 1996 in Honduras; from 0.7 per cent in 1991 to 2.4 per cent in 1999 in the United Republic of Tanzania; and from 1.8 per cent in 1992 to 3.5 per cent in 1996 in Zambia. Among the other developing countries, the largest increase has been observed in Hong Kong SAR, where condom use rose by 20 percentage points between 1982 and 1992, from 15 per cent to 35 per cent. In the developed world, condom use has increased in Northern America, New Zealand and some European countries (particularly in Spain, where it rose by 12 percentage points between 1985 and 1995, from 12 per cent to 24 per cent). However, condom use has decreased in other European countries.

This review of condom use is limited to women's reports of method use for contraceptive purposes within recognized marital unions. It is clear that such information excludes a substantial portion of condom use. For instance, results from surveys that interviewed both men and women show that men report higher levels of condom use than do women, in both developing and developed countries. Statistics relating to the supply of contraceptives distributed through various sources routinely imply much greater use of condoms than is reported in contraceptive prevalence data (Smith, 1992). In addition, the reported level of

condom use would be higher if respondents were asked about use for either pregnancy prevention or STI prevention, rather than for contraceptive purposes only. Likewise, reported condom use would be considerably higher if the survey enquired explicitly about use with any sexual partner, as opposed to suggesting that use with the spouse or primary partner was the main concern (McFarlane, Friedman and Morris, 1994). Current use of condoms can also be understated if the respondents used condoms in conjunction with other methods (especially more effective methods) because in the great majority of surveys, only the most effective method was registered if a combination of methods was being used. Finally, the use of condoms reviewed here refers only to the male condom because it is the only type reported in surveys up to now.

5. Other methods

Injectables and Norplant. Injectable hormonal methods and the Norplant sub-dermal implant are not as widely available as most other modern methods and are currently used by only 3 per cent of currently married women worldwide. Most of the users of injectables and Norplant live in the less developed regions, where, on average, 3 per cent of married women use them, as compared with less than 1 per cent in the more developed regions. At the regional level, the prevalence of injectables exceeds 5 per cent only in Southern Africa (21 per cent), South-eastern Asia (13 per cent) and the Caribbean (6 per cent). At the country level, the prevalence of injectables is highest—over 10 per cent—in Malawi and South Africa in Africa, in Indonesia and Thailand in Asia, in Dominica, Haiti and Jamaica in the Caribbean, and in the Cook Islands in Oceania. Although an expanded selection among types of injectables is relatively recent, most countries where the method has been introduced exhibit modest but steady gains in its prevalence over the past decade. Prevalence increases from low levels of 0 to 4 per cent in the 1980s to levels of 4 to 9 per cent by the mid-1990s have been observed in a number of countries.

Vaginal barrier methods. Vaginal barrier methods such as the diaphragm, the cervical cap and spermicides (including the contraceptive sponge, foams, jellies and cream) are used by less than 1 per cent of currently married women worldwide and account for less than one half per cent of contraceptive users. Current use of vaginal barrier methods is likely to be understated, however, to the extent that they are usually used in combination with other methods (particularly condoms). Most of the users of these methods live in the more developed regions, where on average 1 per cent of currently married women use them, as compared with 0.2 per cent in the less developed regions.

Traditional methods. Traditional methods are used by 6 per cent of currently married women worldwide and by 10 per cent of all contraceptive users. As noted above, traditional methods are more widely used in the more developed regions than in the less developed regions (11 per cent vs. 5 per cent). The most important among the traditional methods are withdrawal and rhythm (mainly the periodic abstinence method). Withdrawal is used by 3 per cent of couples worldwide. It is the main method used in Eastern and Southern Europe, where its prevalence reaches 18 per cent, and in Western Asia, where its prevalence reaches 14 per cent. At the country level, Armenia, Bulgaria and Yugoslavia[3] have the highest prevalence of withdrawal (30-39 per cent) followed by Bahrain, the Czech Republic, Portugal, the Republic of Moldova, Romania and Turkey (20-29 per cent). Rhythm is also used by 3 per cent of couples worldwide, and in regions other than Eastern Europe and Western Asia, rhythm is in general more widely reported than withdrawal. Countries reporting a high prevalence of rhythm include Bolivia, Gabon, Peru and Poland (15-20 per cent).

D. UNMET NEED FOR FAMILY PLANNING

As mentioned at the beginning of this chapter, many women, especially in less developed countries, are still unable to control their fertility effectively. Consequently, they get pregnant before they expect to or when they want no more children. In other words, those women are unable to translate their fertility preferences into contraceptive practice since, in general, women who get pregnant are those who were not using family

planning. Demographers define women who would like to postpone or terminate childbearing but are not practising contraception—women who are experiencing a gap between their fertility preferences and their contraceptive practice—as having an "unmet need for family planning". The latest estimate is that 105 million married or cohabiting women of reproductive age in the developing world have an unmet need for family planning (Ross, 2001). There are a host of reasons for the unmet need for family planning. In many countries, the lack of accessibility to family planning services of acceptable quality and the lack of information about the services available remain pervasive obstacles to family planning use (Robey, Ross and Bushan, 1996). In sub-Saharan Africa, this is evidenced by the fact that substantial proportions of women are simply not aware of any modern form of contraception (Westoff and Bankole, 1995). Other reasons commonly evoked include weakly held preferences and low perceived risk of conceiving, lack of necessary knowledge of family planning and, finally, cultural, social, health and economic concerns, such as opposition from husbands and other members of the extended family, fear of side-effects of contraceptive methods, high cost of contraception and fatalism, associated with adopting and/or continuing to use contraception (Bongaarts and Bruce, 1995). Two recent in-depth investigations show that in Pakistan and the Philippines, the most important factor for unmet need was husbands' disapproval of family planning (Casterline, Perez and Biddlecom, 1997; Casterline, Sathar and ul-Haque, 1999).

Recent estimates of unmet need are reviewed in the following paragraphs by looking at non-users of family planning among married women. Non-users are classified according to whether they want to avoid pregnancy and, if so, whether they want to postpone the next birth (unmet need for birth spacing) or to terminate childbearing (unmet need to limit childbearing). Since the proportion of individuals with an unmet need for family planning is very low in most developed countries—below 10 percent in Europe, for example—the review focuses on developing countries (Klijzing, 2000).

For purposes of illustration, regional differences in the motivation for using contraception among users are presented prior to the review of estimated unmet need. In table 22, users of contraception are divided into those who want to postpone the next birth (birth–spacing behaviour) and those who want to terminate childbearing (limiting behaviour). As can be seen from the far right column of the table, the percentage of contraceptive use that is for limiting purposes ranges from a low of 15.9 per cent in Niger in 1998 to a high of 91.6 per cent in India in 1993. In most countries, limiting behaviour dominates, except in sub-Saharan Africa, where in only a few countries—Kenya, Madagascar, Namibia, Rwanda and Uganda—are those who express a desire to have no further births in the majority among contraceptive users. Among other things, this pattern may suggest that the fertility impact of a given level of contraceptive prevalence is somewhat less in sub-Saharan Africa than in the other regions. At the regional level, the percentages of women using family planning for birth-spacing vary within a narrow range: 10.1 per cent in sub-Saharan Africa, 13.4 per cent in Northern Africa and Asia, and 14.7 per cent in Latin America and the Caribbean (figure 9). Contraceptive use for limiting purposes, in contrast, ranges from 7.9 per cent in sub-Saharan Africa to 31.1 per cent in Northern Africa and Asia, and to 40.3 per cent in Latin America and the Caribbean. The average proportion of currently married women in sub-Saharan Africa using family planning for limiting purposes is more than 20 percentage points lower than the average in other developing regions, and it is this differential that leads to the lower overall contraceptive prevalence in sub-Saharan Africa.

Estimates of unmet need calculated from Demographic and Health Survey data collected in the 1990s and 2000 show that total unmet need ranges from a low of 4.4 per cent in Burkina Faso in 1999 to a high of 47.8 per cent in Haiti in 1995 (table 23). Unmet need for birth–spacing ranges from a low of 2.6 per cent in Brazil in 1996 to a high of 34.0 per cent in Côte d'Ivoire in 1994 while unmet need for limiting purposes ranges from a low of 0.2 per cent in Burkina Faso in 1999 to a high of 30.1 per cent in Haiti in 1995.

TABLE 22. REASON FOR USING CONTRACEPTION, SELECTED DEVELOPING COUNTRIES
(Percentage)

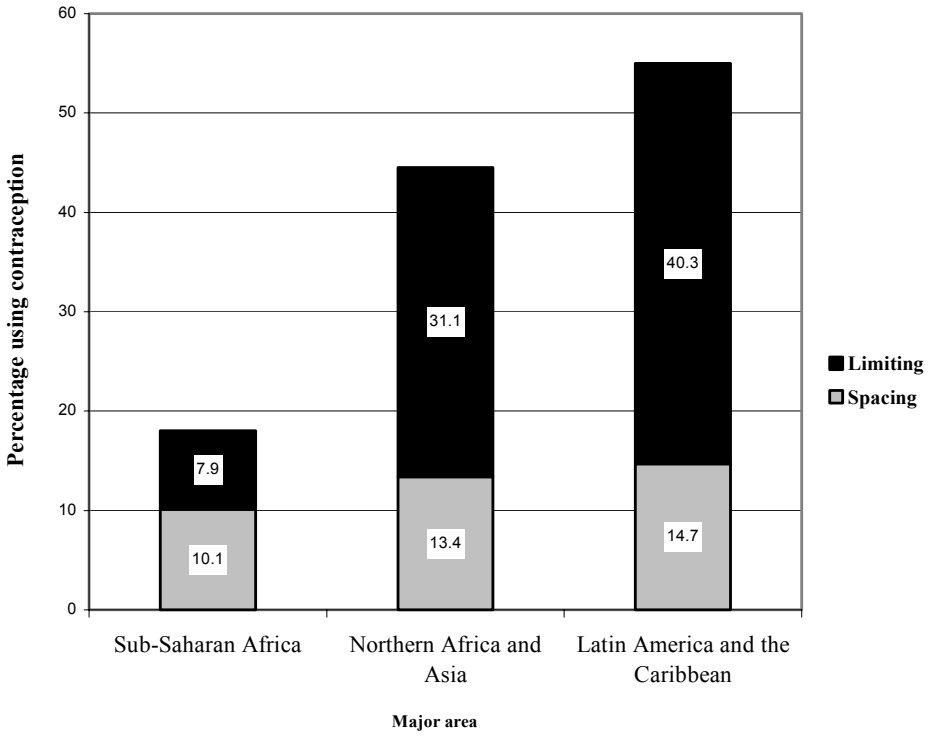
Major area and country	*Year*	*Current use of contraception*			*Percentage of use for limiting*
		Total	*Spacing*	*Limiting*	
Africa					
Northern Africa					
Egypt	2000	56.1	11.4	44.7	79.7
Morocco	1995	50.3	17.2	33.1	65.8
Sudan (North)	1990	8.7	5.0	3.6	41.4
MEAN		38.4	11.2	27.1	70.7
Sub-Saharan Africa					
Benin	1996	16.4	11.3	5.1	31.1
Burkina Faso	1999	11.9	9.0	2.8	23.5
Cameroon	1998	19.3	12.1	7.3	37.8
Central African Republic	1995	14.8	11.9	2.9	19.6
Chad	1997	4.1	3.1	1.0	24.4
Comoros	1996	21.0	11.8	9.2	43.8
Côte d'Ivoire	1994	11.4	8.0	3.4	29.8
Eritrea	1996	8.0	5.7	2.2	27.5
Ghana	1999	22.0	12.3	9.7	44.1
Guinea	1999	6.2	3.6	2.6	41.9
Kenya	1998	39.0	13.4	25.6	65.6
Madagascar	1997	19.4	7.9	11.6	59.8
Malawi	1992	13.0	7.3	5.7	43.8
Mali	1996	6.7	4.3	2.5	37.3
Mozambique	1997	7.3	4.4	2.8	38.4
Namibia	1992	28.9	11.2	17.7	61.2
Niger	1998	8.2	6.9	1.3	15.9
Nigeria	1999	15.3	9.1	6.2	40.5
Rwanda	1992	21.1	10.3	10.7	50.7
Senegal	1997	12.9	8.0	4.9	38.0
Togo	1998	23.5	14.6	8.9	37.9
Uganda	1995	14.8	6.9	7.9	53.4
United Republic of Tanzania	1999	25.4	15.1	10.3	40.6
Zambia	1997	25.9	15.8	10.0	38.6
Zimbabwe	1999	53.5	29.4	24.1	45.0
MEAN		18.0	10.1	7.9	43.6
Asia					
Bangladesh	1997	49.2	13.0	36.3	73.8
India	1993	40.6	3.4	37.2	91.6
Indonesia	1997	57.4	25.2	32.1	55.9
Jordan	1997	52.6	18.2	34.3	65.2
Kazakhstan	1999	66.1	23.0	43.0	65.1
Kyrgystan	1997	59.5	26.3	33.3	56.0
Nepal	1996	28.5	2.6	25.9	90.9
Pakistan	1991	11.9	2.1	9.8	82.4
Philippines	1998	46.5	12.6	34.0	73.1
Turkey	1998	63.9	14.3	49.6	77.6
Uzbekistan	1996	55.6	20.2	35.4	63.7
Yemen	1997	20.8	7.2	13.6	65.4
MEAN		46.1	14.0	32.0	69.6
MEAN (Northern Africa and Asia)		44.5	13.4	31.1	69.8

TABLE 22 (*continued*)

Major area and country	*Year*	*Current use of contraception*			*Percentage of use for limiting*
		Total	*Spacing*	*Limiting*	
Latin America and the Caribbean					
Bolivia	1998	48.3	13.3	35.0	72.5
Brazil	1996	76.7	14.0	62.8	81.9
Colombia	2000	76.9	18.4	58.6	76.2
Dominican Republic	1996	63.7	14.0	49.7	78.0
Guatemala	1999	38.2	8.5	29.7	77.7
Haiti	1995	18.0	6.3	11.6	64.4
Nicaragua	1998	60.3	15.9	44.4	73.6
Paraguay	1990	48.4	23.7	24.7	51.0
Peru	1996	64.2	18.2	46.0	71.7
MEAN		55.0	14.7	40.3	73.3

Source: Demographic and Health Surveys, various country reports.
Note: Data pertain to women of reproductive age who are formally married or in a consensual union.

Figure 9. Percentage of currently married women using contraception by major area, according to whether the use is for spacing or limiting



Source: Demographic and Health Survey, various country reports. See table 22.

TABLE 23. TOTAL NEED AND UNMET NEED FOR FAMILY PLANNING, SELECTED DEVELOPING COUNTRIES

Major area and country	Year	Percentage of currently married women with unmet need for			Percentage with total need for			Percentage of total satisfied need for		
		Total	Spacing	Limiting	Total	Spacing	Limiting	Total	Spacing	Limiting
Africa										
Northern Africa										
Egypt	2000	11.2	3.6	7.6	68.2	15.4	52.9	83.6	76.6	85.6
Morocco	1995	16.1	6.3	9.8	69.4	25.1	44.3	76.8	74.9	77.9
Sudan (North)	1990	26.0	18.0	7.0	34.0	23.0	11.0	23.5	21.7	36.4
MEAN		17.8	9.3	8.1	57.2	21.2	36.1	61.3	57.8	66.6
Sub-Saharan Africa										
Benin	1996	25.7	17.2	8.6	42.1	28.5	13.7	39.0	39.6	37.2
Burkina Faso	1999	4.4	4.3	0.2	16.9	16.0	0.9	74.0	73.1	77.8
Cameroon	1998	13.0	6.6	6.4	32.4	18.7	13.7	59.9	64.7	53.3
Central African Republic	1995	16.2	11.6	4.6	31.0	23.5	7.5	47.7	50.6	38.7
Chad	1997	9.4	6.6	2.8	13.5	9.7	3.8	30.4	32.0	26.3
Comoros	1996	34.6	21.8	12.9	55.6	33.6	22.0	37.8	35.1	41.4
Côte d'Ivoire	1994	43.4	34.0	9.4	54.9	42.1	12.8	20.9	19.2	26.6
Eritrea	1996	27.5	21.4	6.1	35.4	27.1	8.3	22.3	21.0	26.5
Ethiopia	2000	35.8	21.8	13.9	43.8	25.6	18.3	18.3	14.8	24.0
Ghana	1999	23.0	11.2	11.8	45.0	23.5	21.5	48.9	52.3	45.1
Guinea	1999	24.2	16.0	8.2	30.4	19.6	10.8	20.4	18.4	24.1
Kenya	1998	23.9	14.0	9.9	64.8	28.9	35.9	63.1	51.6	72.4
Madagascar	1997	25.6	14.1	11.4	45.0	22.0	23.0	43.1	35.9	50.4
Malawi	1992	36.0	26.0	9.0	49.0	34.0	15.0	26.5	23.5	40.0
Mali	1996	25.7	20.1	5.7	32.5	24.3	8.1	20.9	17.3	29.6
Mozambique	1997	6.7	5.3	1.5	14.0	9.7	4.3	52.1	45.4	65.1
Namibia	1992	22.0	15.0	7.0	51.0	26.0	24.0	56.9	42.3	70.8
Niger	1998	16.6	14.0	2.7	24.9	20.9	4.0	33.3	33.0	32.5
Nigeria	1999	17.5	12.9	4.6	32.8	22.0	10.8	46.6	41.4	57.4
Rwanda	1992	37.0	24.0	13.0	58.0	34.0	24.0	36.2	29.4	45.8
Senegal	1997	32.6	21.7	10.9	45.6	29.7	15.9	28.5	26.9	31.4
Togo	1998	32.3	21.4	10.9	55.8	36.0	19.8	42.1	40.6	44.9
Uganda	1995	29.0	18.3	10.7	43.9	25.2	18.7	33.9	27.4	42.8
United Republic of Tanzania	1999	21.8	13.8	8.0	47.2	28.9	18.3	53.8	52.2	56.3
Zambia	1997	26.5	18.7	7.8	52.4	34.5	17.9	49.4	45.8	56.4
Zimbabwe	1999	12.9	7.3	5.6	68.2	38.0	30.2	81.1	80.8	81.5
MEAN		24.0	16.1	7.8	41.8	26.2	15.5	41.8	39.0	46.1
Asia										
Bangladesh	1997	15.8	7.9	7.9	66.6	21.8	44.8	76.3	63.8	82.4
India	1993	19.5	11.0	8.5	60.1	14.4	45.7	67.6	23.6	81.4
Indonesia	1997	9.2	4.2	5.0	67.4	30.0	37.4	86.4	86.0	86.6
Jordan	1997	14.2	7.4	6.8	71.3	28.9	42.3	80.1	74.4	83.9
Kazakhstan	1999	8.7	3.6	5.1	75.2	26.9	48.3	88.4	86.6	89.4
Kyrgystan	1997	11.6	4.5	7.2	71.2	30.7	40.5	83.7	85.3	82.2
Nepal	1996	31.4	14.3	17.1	59.9	16.9	43.0	47.6	15.4	60.2
Pakistan	1991	32.0	17.0	15.0	44.0	19.0	25.0	27.3	10.5	40.0
Philippines	1998	19.8	8.6	11.2	69.5	23.6	45.9	71.5	63.6	75.6
Turkey	1998	10.1	3.8	6.3	75.6	19.0	56.6	86.6	80.0	88.9
Uzbekistan	1996	13.7	6.6	7.0	69.3	26.8	42.4	80.2	75.4	83.5
Yemen	1997	38.6	17.2	21.4	59.4	24.4	35.0	35.0	29.5	38.9
MEAN		18.7	8.8	9.9	65.8	23.5	42.2	69.2	57.8	74.4
MEAN (Northern Africa and Asia)		18.5	8.9	9.5	64.1	23.1	41.0	67.6	57.8	72.9

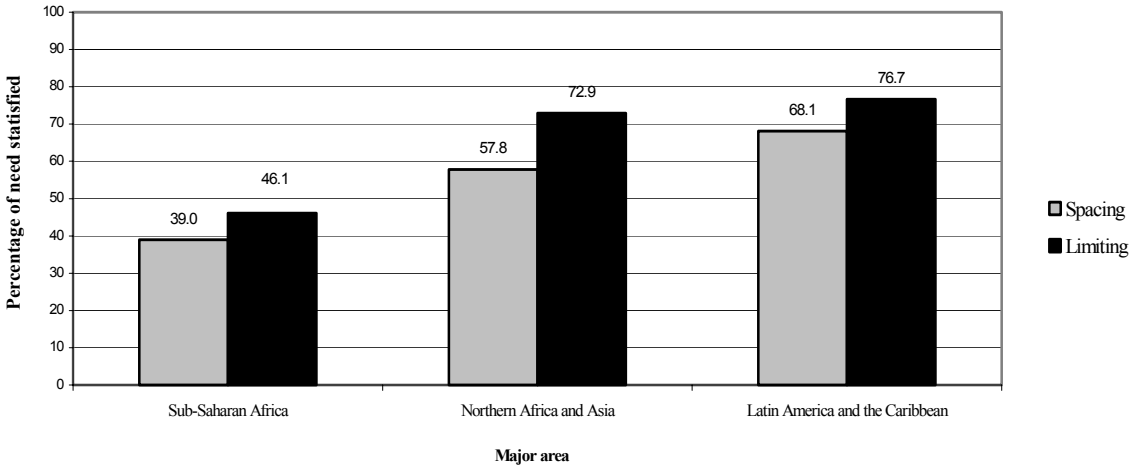
Table 23 (*continued*)

Major area and country	Year	Percentage of currently married women with unmet need for: Total	Spacing	Limiting	Percentage of currently married women with total need for: Total	Spacing	Limiting	Percentage of total need satisfied for: Total	Spacing	Limiting
Latin America and the Caribbean										
Bolivia	1998	26.1	6.8	19.3	74.4	20.1	54.3	64.9	66.2	64.5
Brazil	1996	7.3	2.6	4.7	85.8	17.6	68.3	91.5	85.2	93.1
Colombia	2000	6.2	2.7	3.5	86.3	22.9	63.3	92.8	88.2	94.5
Dominican Republic	1996	12.5	7.1	5.3	77.7	22.6	55.2	83.9	68.6	90.4
Guatemala	1999	23.1	11.8	11.3	62.2	21.0	41.2	62.9	43.8	72.6
Haiti	1995	47.8	17.7	30.1	65.7	24.0	41.7	27.2	26.3	27.8
Nicaragua	1998	14.7	6.3	8.4	76.4	23.2	53.2	80.8	72.8	84.2
Paraguay	1990	15.0	8.0	7.0	67.0	34.0	32.0	77.6	76.5	78.1
Peru	1996	12.1	3.5	8.6	81.4	24.4	57.0	85.1	85.7	84.9
MEAN		18.3	7.4	10.9	75.2	23.3	51.8	74.1	68.1	76.7

Source: Demographic and Health Surveys country reports.

NOTE: Data pertain to women of reproductive age. Currently married women include women who are formally married and those in a consensual union. Women with an unmet need are those who were fecund but not using contraception at the time of the survey, and yet wanted no more children or wanted the next child with a delay of two years or more. Among women who, at the time of the survey, were pregnant or amenorrhoeic following a birth, those who were using contraception at the time they became pregnant or who stated that the pregnancy was not intentional are also considered to have unmet need. Total need includes those with unmet need, plus those who were using contraception at the time of the survey, plus pregnant or amenorrhoeic women whose pregnancy resulted from contraceptive failure (where the information on such failure was available).

Figure 10. Percentage of currently married women whose family planning need for spacing or limiting births is satisfied, by major area



Source: Demographic and Health Survey, various country reports. See table 23.

The regional patterns in unmet need are in agreement with the regional patterns in con traceptive use discussed earlier. Total unmet need isdistinctly higher in sub-Saharan Africa, where on average 24 per cent of currently married women have an unmet need for family planning. The mean percentage falls to 18.5 per cent in Northern Africa and Asia, and to 18.3 per

cent in Latin America and the Caribbean. The mean percentages of married women with an unmet need for spacing purposes are 16.1 per cent, 8.9 per cent and 7.4 per cent in each of the above regions, respectively. Thus, unmet need for birth–spacing constitutes two-thirds of the total unmet need in sub-Saharan Africa, whereas unmet need for limiting purposes exceeds unmet need for birth–spacing in the other regions.

By adding together the percentage of women using contraception and the percentage of women with unmet need for family planning, one can derive an estimate of "total need for family planning". The right-hand columns of table 23 present the percentage of total need for family planning satisfied through contraceptive use. The percentage of overall need (for birth-spacing and limiting combined) satisfied ranges from a low of 18.3 per cent in Ethiopia in 2000 to a high of 92.8 per cent in Colombia in 2000. For birth-spacing purposes, the extremes in the need satisfied are 10.5 per cent in Pakistan in 1991 and 88.2 per cent in Colombia in 2000; for limiting purposes, they are 24 per cent in Ethiopia in 2000 and 94.5 in Colombia in 2000. At the regional level, the largest differential is once again between sub-Saharan Africa and the other regions (figure 10). In sub-Saharan Africa, less than half of the women who need family planning for spacing or limiting purposes are using contraception, whereas in the other developing regions more than 60 per cent of the need is satisfied. In all the developing regions, however, those who wish to terminate childbearing are substantially more likely to be using contraception than those who wish to delay the next birth. This suggests that the desire to limit family size is more strongly felt—perhaps because the consequences of failure to achieve this goal are viewed as more costly—than the desire to space births.

E. CURRENT CONTRACEPTIVE USE AND NEED AMONG ADOLESCENTS

Adolescence is the period of transition from childhood to adulthood during the second decade of life. It is one of the most critical life-cycle stages because what happens to the individual during this period shapes his or her entire future life. The Programme of Action of the International Conference on Population and Development recognized the special reproductive health needs of adolescents, due in part to their changing demographic and sexual behaviour, and called for the substantive reduction of all adolescent pregnancies. Indeed, early childbearing, usually unplanned and unwanted, has negative consequences not only on the health of the adolescents, but also on their potential educational, career and economic opportunities. The increased concern for the health and welfare of young people has led numerous organizations and Governments in many countries to create a wide range of programmes, including family planning, to respond to the reproductive health needs of adolescents. This section reviews current contraceptive use and need among female adolescents as a tool to evaluate the global impact of those programmes. The focus is on women aged 15 to 19 since few national surveys collect information on younger female adolescents or among male adolescents.

Where data are available, table 24 provides contraceptive prevalence among adolescent women as reported by the latest surveys conducted in the 1990s and 2000. In developing countries, most married adolescents do not use family planning. Contraceptive prevalence among adolescent women is in general lowest in sub-Saharan Africa (less than 20 per cent), reaches a medium level in Asia and Northern Africa (between 20 and 40 per cent) and is highest in Latin America and the Caribbean (over 30 per cent). Interestingly, there are a few countries in sub-Saharan Africa where reported prevalence among married women aged 15-19 exceeds 30 per cent: Cape Verde, Gabon, South Africa and Zimbabwe. As in the case of all currently married women of reproductive age, modern methods account for the majority—although at a lower percentage—of contraceptive use among currently married adolescents. However, when the figures in table 24 and annex table A.6 are compared, most of the countries show a contraceptive prevalence among married adolescents approximately half that of older married women. This finding is probably the result of higher desire for children among younger women.

TABLE 24. CONTRACEPTIVE PREVALENCE AMONG FEMALE ADOLESCENTS
(Percentage)

Major area or region and country	Year	Currently married adolescents [a]			Adolescents not married [a] and sexually active		
		All methods	Modern methods	Condom	All methods	Modern methods	Condom
Africa							
Sub-Saharan Africa							
Benin	1996	9.4	2.5	1.7	47.2	12.6	8.7
Burkina Faso	1999	7.8	3.5	2.4	..	..	..
Cameroon	1998	15.4	2.5	1.3	72.6	19.7	17.6
Cape Verde	1998	33.7	31.0	3.5	55.0	47.4	21.0
Central African Republic	1995	12.5	1.5	1.5	25.2	10.1	9.4
Chad	1997	3.1	0.8	0.2	..	..	..
Comoros	1996	10.5	4.7	3.5	..	..	..
Côte d'Ivoire	1999	10.7	4.3	2.2	..	..	..
Eritrea	1995	3.3	0.6	0.0	..	..	..
Ethiopia	2000	3.9	3.0	0.0	..	..	..
Gabon	2000	40.1	12.2	10.4	..	..	..
Gambia	1990	4.3	1.4	0.0	..	..	..
Ghana	1999	19.2	12.6	5.8	..	..	..
Guinea	1999	3.4	2.3	1.3	..	..	..
Kenya	1998	18.0	10.1	2.3	30.4	20.4	11.3
Madagascar	1997	5.5	2.5	0.0	18.0	5.5	2.7
Malawi	2000	15.2	12.9	2.8	..	..	..
Mali	1996	4.6	2.4	0.6	..	..	..
Mozambique	1997	0.6	0.6	0.1	7.0	5.0	1.7
Namibia	1992	20.5	16.5	0.0	..	..	..
Niger	1998	6.1	2.0	0.1	..	..	..
Nigeria	1999	4.2	1.2	0.2	46.6	23.0	15.1
Rwanda	2000	5.0	0.8	0.2	..	..	..
Senegal	1997	5.5	1.5	0.6	..	..	..
South Africa	1998	66.4	64.4	4.0	..	..	..
Togo	1998	15.0	4.2	2.2	56.2	25.3	22.4
Uganda	1995	9.9	3.8	0.7	..	..	..
United Rep. of Tanzania	1999	10.6	6.5	1.4	..	..	..
Zambia	1996	16.9	8.8	5.7	..	..	..
Zimbabwe	1999	42.1	38.6	2.3	34.7	34.7	29.6
Northern Africa							
Egypt	2000	23.4	22.0	0.1	..	..	..
Morocco	1995	32.4	30.4	0.0	..	..	..
Sudan	1993	5.0	..	..	..	..	..
Tunisia	1994	20.0	..	..	..	..	..
Asia							
Bahrain	1995	32.6	11.7	4.4	..	..	..
Bangladesh	2000	38.1	31.2	4.3	..	..	..
Cambodia	2000	8.9	6.0	0.6	..	..	..
Georgia	2000	15.2	9.9	3.0	..	..	..
India	1999	8.0	4.7	1.4	..	..	..
Indonesia	1997	44.6	44.3	0.0	..	..	..
Jordan	1997	19.0	12.4	0.5	..	..	..
Kazakhstan	1999	39.2	16.0	2.2	60.3	49.4	38.3
Kuwait	1996	21.0	17.3	1.2	..	..	..
Kyrgystan	1997	29.3	20.5	5.4	..	..	..
Lebanon	1996	35.0	..	..	..	..	..

TABLE 24 *(continued)*

Major area or region and country	Year	Currently married adolescents [a]			Adolescents not married [a] and sexually active		
		All methods	Modern methods	Condom	All methods	Modern methods	Condom
Mongolia	1998	23.5	18.8	3.5	..	..	..
Myanmar	1997	21.3	18.0	0.0	..	..	..
Nepal	1996	6.5	4.4	2.2	..	..	..
Oman	1995	14.6	9.8	0.7	..	..	..
Philippines	1998	18.3	11.4	0.0	..	..	..
Qatar	1998	9.1	9.1	0.0	..	..	..
Saudi Arabia	1996	17.0	15.3	0.2	..	..	..
Turkey	1998	33.6	15.7	6.0	..	..	..
Turkmenistan	2000	26.6	20.9	2.0	..	..	..
United Arab Emirates	1995	10.4	9.3	0.7	..	..	..
Uzbekistan	1996	15.8	15.0	0.6	..	..	..
Viet Nam	1997	18.1	14.9	1.9	..	..	..
Yemen	1997	8.6	2.7	0.1	..	..	..
Latin America and the Caribbean							
Dominican Republic	1996	34.9	28.8	0.9	60.0	..	..
Haiti	2000	16.4	7.1	3.7	..	..	..
Belize	1991	26.2	22.7	0.6	..	..	..
Costa Rica	1993	53.0	30.0	13.0	66.0	..	..
El Salvador	1998	33.4	25.6	3.0	..	..	..
Guatemala	1999	14.6	11.7	3.2	..	..	..
Honduras	1996	27.6	17.8	2.0	..	..	..
Mexico	1995	43.5	36.0	4.0	..	..	..
Nicaragua	1998	39.8	38.2	3.1	22.3	..	..
Bolivia	1998	30.7	9.8	1.5	63.5	22.6	15.0
Brazil	1996	54.1	47.2	6.4	66.0	61.0	19.7
Colombia	2000	57.2	45.0	4.5	81.3	49.6	28.3
Ecuador	1999	37.1	26.4	1.5	..	..	..
Paraguay	1998	37.2	30.5	2.2	..	..	..
Peru	1996	46.0	31.0	4.0	69.8	32.7	19.7
Oceania							
Cook Islands	1996	55.0	55.0	..	18.0	14.0	..
Papua New Guinea	1996	9.0	5.4	1.2	..	..	..
Europe							
Bulgaria	1995	65.0	17.5	7.5	30.4	16.3	9.7
Czech Republic	1993	51.0	27.1	18.7	..	..	..
Hungary	1993	77.7	62.9	11.1	..	..	..
Latvia	1995	42.9	37.2	20.0	..	..	..
Lithuania	1995	43.2	29.7	18.9	..	..	..
Netherlands	1993	92.0	92.0	4.0	..	..	..
Spain	1995	85.7	64.1	12.1	..	..	..
Ukraine	1999	47.4	27.2	20.8	..	..	..
Northern America							
Canada	1995	62.7	62.7	15.7	..	..	..
United States	1995	..	..	..	71.0	71.0	38.0

Sources: Demographic and Health Surveys; European Fertility and Family Survey, Gulf Family Health Survey and United States Centers for Disease Control and Prevention surveys, country reports.

Notes: Two dots (..) in the table indicate that the figures were not reported.

Data pertain to women aged 15-19, except in Hungary, Latvia, Lithuania, Spain and the Netherlands where the age group of adolescents is 18-19.

[a] Married adolescents include those in a formal marriage or a consensual union.

In the developing countries that also collected data on contraceptive prevalence among unmarried but sexually active adolescents, a much higher use of family planning is reported among that group than among its married counterparts, except in Zimbabwe. Reported contraceptive prevalence among sexually active unmarried adolescents is, in general, over 30 per cent in sub-Saharan Africa and over 60 per cent in Asia and Latin America and the Caribbean. In particular, condom use is much higher among unmarried adolescents than among married adolescents. The higher use of family planning among unmarried adolescents reflects the higher social costs of unwanted pregnancies among them than for their married counterparts and their determination to avoid them (Contreras, Guzmán and Hakkert, 2001).

Data available for developed countries show that, in general, contraceptive prevalence is high (over 40 per cent) among married adolescents. It is almost as high as among older currently married women and in Hungary, the Netherlands and Spain it is even higher. In Northern America, modern methods account for all contraceptive use among adolescents, but in Europe, they account for a lower portion, except in Hungary, the Netherlands and Spain. Condoms account for a much higher portion of all adolescent contraceptive use in developed countries (27 per cent on average among the countries considered) than in developing countries (14 per cent in sub-Saharan Africa, 9 per cent in Asia and 10 per cent in Latin America and the Caribbean, on average, among the countries considered). This result suggests that the campaigns promoting condom use as a way of preventing both STIs and HIV infection as well as unwanted pregnancies have had a higher impact among adolescents living in the developed world than among those living in the developing world.

Table 25 presents levels of unmet need for family planning among married adolescent women in 38 developing countries. High proportions (over 15 per cent) of currently married adolescents have an unmet need for family planning in the majority of countries, and unmet need levels are usually higher among adolescents than among older women. Moreover, in all the countries but one, the percentage of need satisfied is lower among adolescents than among all women of reproductive age. Those results confirm earlier findings (United Nations, 1998 and 2000) and point to the fact that married adolescents are less protected against unwanted pregnancies than older women in union. Young women are probably less knowledgeable about methods and services. They may also face greater barriers to gaining access to family planning services. Lastly, young women, whose family planning needs are usually for birth–spacing rather than for the limitation of childbearing, may be faced with restricted choices in terms of methods available that meet their requirements.

TABLE 25. UNMET NEED FOR FAMILY PLANNING AMONG FEMALE ADOLESCENTS, SELECTED DEVELOPING COUNTRIES

Major area and country	*Year*	*Unmet need* [a]	*Percentage of total need* [a] *satisfied*
Africa			
Benin	1996	27.6	25.3
Burkina Faso	1999	18.7	29.5
Cameroon	1998	11.5	57.3
Chad	1997	7.6	29.0
Comoros	1996	51.2	61.6
Egypt	2000	10.1	70.2
Eritrea	1995	34.8	8.7
Ethiopia	2000	40.4	8.8
Ghana	1999	26.7	41.9
Guinea	1999	19.9	14.7
Kenya	1998	26.7	44.2
Madagascar	1997	21.8	20.3
Mali	1996	30.0	13.3
Morocco	1995	11.8	73.9
Mozambique	1997	8.5	22.9
Namibia	1992	31.9	39.1
Niger	1998	17.3	26.1
Nigeria	1999	14.8	21.9
Senegal	1997	27.0	17.0
Togo	1998	38.9	27.9
Uganda	1995	24.9	28.4
United Republic of Tanzania	1999	10.7	42.0
Zambia	1996	25.2	40.1
Zimbabwe	1999	12.4	77.6
Asia			
India	1999	27.1	22.8
Indonesia	1997	13.7	73.4
Jordan	1997	18.3	54.1
Kazakhstan	1999	13.0	75.6
Kyrgystan	1997	11.5	71.8
Philippines	1998	32.1	41.4
Turkey	1998	20.0	65.4
Uzbekistan	1996	15.7	50.0
Yemen	1997	32.3	21.1
Latin America and the Caribbean			
Bolivia	1998	33.9	47.6
Brazil	1996	19.1	75.9
Colombia	2000	17.5	78.7
Dominican Republic	1996	26.3	58.8
Guatemala	1999	25.4	36.8
Nicaragua	1998	27.4	59.9
Peru	1996	21.8	72.3

Source: Demographic and Health Surveys, country reports.

NOTE: Data pertain to women aged 15-19 who are formally married or in a consensual union.

[a] Women with an unmet need are those who were fecund but not using contraception at the time of the survey, and yet wanted no more children or wanted the next child with a delay of two years or more. Among women who, at the time of the survey, were pregnant or amenorrhoeic following a birth, those who were using contraception at the time they became pregnant or who stated that the pregnancy was not intentional are also considered to have unmet need. Total need includes those with unmet need, plus those who were using contraception at the time of the survey, plus pregnant or amenorrhoeic women whose pregnancy resulted from contraceptive failure (where the information on such failure was available).

NOTES

[1]The world and regional contraceptive prevalence estimates in this chapter are based on the most recent levels of contraceptive use among women of reproductive age and in a union for countries with data and on assumed prevalence levels for countries lacking data. The most recent measure of contraceptive prevalence was made in the 1990s in almost three-quarters of the countries considered, with the average date falling in 1997 for the less developed regions and in 1994 for the more developed regions. Countries lacking data were assumed to have the same level and pattern of use as the observed average for the region they belonged to. That assumption is believed to hold because survey data are available for 97 per cent of the world's female population. Global and regional estimates (of contraceptive prevalence and dates) are obtained by weighting individual survey data by the estimated number of women aged 15-49 who are married or in a consensual union in the country at the corresponding date.

[2]Modern methods are considered to be more effective at preventing pregnancy than other methods. They usually require access to family planning services or supplies. They include female and male sterilization, oral contraceptive pills, intrauterine devices, condoms, injectables or implants, and vaginal barrier methods (including diaphragm, cervical cap and spermicidal foams, jelly, cream and sponges).

[3]As of 4 February 2003, the official name of Yugoslavia has been changed to Serbia and Montenegro.

[4] In the United Kingdom, women using a combination of methods were counted for more than one method.

[5]The term "method mix" as used herein refers to the distribution of contraceptive users who are in a union by method type (section B of table 19) or, more specifically, to the patterns of method use in a geographic area or within a population of contraceptive users.

[6] Traditional methods include periodic abstinence or rhythm, withdrawal (coitus interruptus), abstinence, douching and various folk methods.

REFERENCES

Avdeyev, Alexandre A., and Irina A. Troitskaya (1991). Contraception and abortion in the USSR: experience of the 1980s. Paper presented at the European Population Conference. Paris, 21-25 October.

Bankole, Akinrinola, and Charles F. Westoff (1995). *Childbearing Attitudes and Intentions*. Demographic and Health Surveys Comparative Studies, No. 17. Calverton, Maryland: Macro International, Inc.

Bongaarts, John, and Judith Bruce (1995). The causes of unmet need for contraception and the social content of services. *Studies in Family Planning,* vol. 26, No. 2 (March/April).

Casterline, John B., Aurora E. Perez and Ann E. Biddlecom (1997). Factors underlying unmet need for family planning in the Philippines. *Studies in Family Planning,* vol. 28, No. 3 (September).

Casterline, John B., Zeba Sathar and Minhaq ul Haque (1999). Preferences and behaviors: a study of contraceptive intentions in Pakistan. Paper presented at the Annual Meeting of the Population Association of America, New York, 25-27 March.

Centre for Demography and Human Ecology (1999). *Population of Russia 1998. Sixth Annual Demographic Report*. Moscow.

Contreras, Juan M., José M. Guzmán and Ralph Hakkert (2001). Uso de anticonceptivos en adolescentes. In *Diagnóstico sobre Salud Sexual y Reproductiva de Adolescentes en América Latina y el Caribe*, José M. Guzmán, and others, eds. Mexico: United Nations Population Fund.

Klijzing, Erik (2000). Are there unmet family planning needs in Europe? *Family Planning Perspectives,* vol. 32, No. 2 (March/April).

McFarlane, Carmen P., Jay S. Friedman and Leo Morris (1994). *Contraceptive Prevalence Survey, Jamaica, 1993: Executive Summary, Main Findings of the Survey*. Atlanta: United States Department of Health and Human Services.

Popov, Andrej A., Adriaan Ph. Visser and Evert Ketting (1993). Contraceptive knowledge, attitudes and practices in Russia during the 1980s. *Studies in Family Planning*, vol. 24, No. 4 (July/August).

Rafalimanana, Hantamalala, and Charles F. Westoff (2000). Potential effects on fertility and child health and survival of birth-spacing preferences in sub-Saharan Africa. *Studies in Family Planning*, vol. 31, No. 2 (June).

Robey, Bryant, John Ross and Indu Bhushan (1996). Meeting unmet need: new strategies. *Population Reports*, Series J, No. 43. Baltimore, Maryland: The Johns Hopkins University School of Public Health.

Ross, John A. (2001). Contraceptive and reproductive health commodity needs to the year 2015: developing world. Paper presented at the technical consultation on ensuring essential health commodity security through South-South collaboration, Kerala, India, 12-15 June.

Russian Centre for Public Opinion and Market Research, Centers for Disease Control and Prevention and United States Agency for International Development (2000). *1999 Russia Women's Reproductive Health Survey: Follow-up Study of Three Sites*. *Preliminary Report*. Atlanta: Centers for Disease Control and Prevention; and Washington, D.C.: United States Agency for International Development.

Smith, Susan (1992). Calculation of couple-year protection factors from DHS survey data and CPT Data. Evaluation Project Working Paper, No. IM-02-01. Chapel Hill, North Carolina: Carolina Population Center.

United Nations (1975). *Report of the United Nations World Population Conference, 1974, Bucharest, 19-30 August 1974.* Sales No. E.75.XIII.3.

——— (1995) *Report of the International Conference on Population and Development, Cairo, 5-13 September 1994.* Sales No. E.95.XIII.18.

——— (1998). *World Population Monitoring 1996: Selected Aspects of Reproductive Rights and Reproductive Health*. Sales No. E.97.XIII.5.

——— (2000). *Levels and Trends of Contraceptive Use as Assessed in 1998*. Sales No. E.01.XIII.4.

Westoff, Charles F., and Akinrinola Bankole (1995). *Unmet Need: 1990-1994*. Demographic and Health Surveys Comparative Studies, No. 16. Calverton, Maryland: Macro International, Inc.

IV. ABORTION

At the International Conference on Population and Development in 1994, although the question of abortion proved to be one of the most contentious, there was nonetheless a consensus among Governments on the view that unsafe abortion is "a major public-health concern", on making a commitment to deal with the health impact of unsafe abortion[1] and "to reduce the recourse to abortion through expanded and improved family-planning services" as an integral part of their commitment to women's health (United Nations, 1995, chap. I, resolution 1, annex, sect. VIII, para. 8.25).

Replies to the Eighth United Nations Inquiry among Governments on Population and Development carried out by the Population Division of the United Nations Secretariat (United Nations, 2001) suggest that, beyond the issue of unsafe abortion, abortion as a whole has become a matter of concern to a significant number of Governments. Out of 90 Governments that initially replied to the Inquiry, 59—including many Governments of countries where abortion is highly legally restricted—recognized the salience of abortion within the realm of public health policy, 12 expressed no concern, 9 had no official position and 10 did not reply to the question (table 26).

Governments' continued concern with the health impact of unsafe abortion was reflected in the key actions for the further implementation of the Programme of Action of the International Conference on Population and Development.[2] The key actions called upon Governments to "take appropriate steps to help women to avoid abortion"[3] and "provide for the humane treatment and counselling of women who have had recourse to abortion".[4] Furthermore, "in circumstances where abortion is not against the law, health systems should train and equip health-service providers and should take other measures to ensure that such abortion is safe and accessible".[5]

The past decade witnessed significant developments in abortion trends and laws. The present chapter aims at providing a concise and comprehensive overview of the incidence of abortion and related policy changes in the 1990s.

A. DATA ON ABORTION

1. Abortion statistics: sources and issues

The availability of abortion statistics is linked to the legal status of abortion. Countries with laws permitting abortion generally require that all performed abortions be reported to health authorities. Where abortion is illegal, the incidence of abortion can be assessed only indirectly. Hospital admission records on women admitted for abortion complications and household surveys containing information on women's pregnancy history are the most commonly employed sources for estimating the incidence of abortion. In a few countries, surveys of abortion service providers serve as a basis for estimating the number of abortions.

Currently, the number of reported legal abortions is available for approximately 45 countries (table 27 and annex tables A.7 and A.8). Reporting is believed to be reasonably complete in only half of these countries. A number of countries where abortion is legal, such as Cape Verde, Cuba, Guyana, Tunisia and Turkey, have not released abortion statistics for the most recent years.

Reporting is clearly influenced by the breadth of conditions under which abortion is legal: the broader the grounds for granting abortion, the more complete the reporting. The availability of medical insurance coverage is another factor that significantly affects the reporting of abortion. If patients have to cover the cost of abortion, a number of privately performed procedures often go unreported.

In several countries where abortion is legal, the devolution of health authority to subnational entities has to some extent hindered abortion data collection on a national level. Limitations on abortion surveillance concern the nature of the data subnational institutions provide: detailed data or only aggregate counts of abortions. However, in a few cases, reporting itself may be hampered. In the United States, four states have no reporting requirements, and two states, California and Alaska,do not currently collect data on induced termination of pregnancy.

TABLE 26. GOVERNMENT VIEWS ON WHETHER INDUCED ABORTION IS A MATTER OF CONCERN

No	*Yes*	*Yes*	*No official position*	*No response*
Austria	Argentina	Latvia	Algeria	Australia
Djibouti	Armenia	Lithuania	Bahamas	Belarus
Finland	Azerbaijan	Malawi	Denmark	Canada
France	Bangladesh	Mauritius	Dominican Republic	Croatia
Greece	Belgium	Mongolia	Estonia	Cyprus
Israel	Belize	Myanmar	Ethiopia	Kuwait
Monaco	Bolivia	Namibia	Guinea	Kyrgyzstan
Morocco	Botswana	Netherlands	Malaysia	Malta
Pakistan	Brazil	New Zealand	United States	Mexico
Saudi Arabia	Burkina Faso	Norway		Niger
Sweden	Central African Republic	Panama		
Turkey	Chile	Papua New Guinea		
	China	Paraguay		
	Colombia	Peru		
	Costa Rica	Philippines		
	Cuba	Poland		
	Czech Republic	Republic of Korea		
	Dominica	Romania		
	Fiji	Russian Federation		
	Germany	San Marino		
	Ghana	Singapore		
	Hungary	Slovakia		
	India	Spain		
	Indonesia	Thailand		
	Iraq	Trinidad and Tobago		
	Italy	Ukraine		
	Japan	United Kingdom		
	Kazakhstan	United Rep. Tanzania		
	Kenya	Yugoslavia [a]		
		Zambia		

Source: Replies to the Eighth United Nations Inquiry among Governments on Population and Development.
[a] As of 4 February 2003, the official name of Yugoslavia has been changed to Serbia and Montenegro.

Lack of consolidation of abortion data has also been a problem in many countries of the former Soviet Union as statistics from their ministries of health do not include abortions performed in the medical facilities of other ministries and public agencies.

With medical abortion becoming increasingly available, abortion surveillance faces a new challenge. Conventionally, legal abortion data are collected within the framework of surgical procedures. Arrangements for the reporting of medical procedures have, so far, been lagging behind. More importantly, an increase in the number of non-surgical abortions is likely to result in an overall loss of accountability, as fewer procedures will be performed within hospitals and/or public facilities and more abortions will be performed in private practices.

2. *Incidence and trends*

Approximately 26 million legal abortions and 20 million unsafe abortions were estimated to have been performed worldwide in 1995 (Henshaw, Singh and Haas, 1999a, and World Health Organization, 1998). While the figures provide a

TABLE 27. REPORTED NUMBER OF LEGAL ABORTIONS AND ABORTION RATE, MOST RECENT YEAR

Country	*Year*	*Number of abortions (thousands)*	*Abortions per 1,000 women aged 15-44*
Albania	1999	16	22
Armenia	1999	14	15
Australia	1996	76	18
Azerbaijan	1999	21	11
Belarus	1999	135	58
Belgium	1997	13	6
Bulgaria	1999	72	43
Canada	1998	110	16
China	1998	7 380	24
Croatia	1999	15	15
Czech Republic	1999	37	17
Denmark	1998	17	15
Estonia	1999	15	48
Finland	1999	11	11
France	1997	164	13
Georgia	1999	18	15
Germany	1999	130	8
Hungary	1999	66	31
Iceland.	1998	1	15
Israel	1999	19	15
Italy	1998	138	11
Japan	1999	337	13
Kazakhstan	1999	138	35
Kyrgyzstan	1999	18	16
Latvia	1999	18	34
Lithuania	1999	19	23
Netherlands	1998	24	7
New Zealand	1999	16	19
Norway	1998	14	15
Republic of Moldova	1999	28	27
Romania	1999	260	52
Russian Federation	1999	2 030	62
Singapore	1999	14	17
Slovakia	1998	21	21
Slovenia	1999	9	20
Spain	1998	54	6
Sweden	1999	31	18
Tajikistan	1999	21	15
TFYR of Macedonia [a]	1999	8	19
Turkmenistan	1997	33	32
Ukraine	1998	499	45
United Kingdom	1997	192	15
United States	1997	1 186	20
Uzbekistan	1999	58	10
Viet Nam	1999	1 200	63

Source: The population policy databank maintained by the Population Division of the United Nations Secretariat.
[a] The former Yugoslav Republic of Macedonia.

Table 28. REPORTED INCIDENCE OF LEGAL ABORTIONS PER 100 KNOWN PREGNANCIES, 1999 OR MOST RECENT YEAR AVAILABLE

Incidence group	*Country*	*Incidence (percentage)*
Over 60 per cent	Russian Federation	63
	Belarus	59
	Ukraine	54
50 to 59 per cent	Estonia	54
	Romania	53
	Bulgaria	50
	Latvia	48
40 to 49 per cent	Republic of Moldova	24
	Viet Nam	41
	Hungary	41
	Kazakhstan	39
30 to 39 per cent	Lithuania	34
	Slovenia	33
	Czech Republic	29
	Armenia	28
	Georgia	28
	China	27
	Slovakia	27
	Sweden	26
	Croatia	25
	Turkmenistan	24
	Canada	24
20 to 29 per cent	TFYR of Macedonia[a]	24
	Singapore	24
	Australia	23
	United States	23
	Albania	22
	Japan	22
	New Zealand	21
	United Kingdom	21
	Italy	21
	Denmark	20
	Norway	20
	France	18
	Iceland	18
	Finland	16
	Azerbaijan	15
	Kyrgyzstan	15
10 to 19 per cent	Germany	14
	Spain	13
	Israel	12
	Tajikistan	12
	Netherlands	11
	Belgium	10
	Uzbekistan	10

Source: The population policy databank maintained by the Population Division of the United Nations Secretariat.
Note: Pregnancies have been estimated as the sum of births and abortions for a given calendar year.
[a] The former Yugoslav Republic of Macedonia.

sense of the magnitude of the abortion issue, they remain quite speculative since hard data are missing for the large majority of countries.

Countries where abortion is legal

According to the latest data, reported legal abortions total around 15 million annually. Eighty per cent of legal abortions are performed in four countries: China (7.4 million), the Russian Federation (2 million), and the United States and Viet Nam (both 1.2 million; see table 27).

The world total of legal abortions should be interpreted as a rough estimate since the completeness of reporting in the three countries with the largest number abortions is not ascertained (China, Russian Federation and Viet Nam). Much uncertainty remains with regard to the actual number of abortions performed in China. In 1998, the Ministry of Health estimated the number of abortions at 7.4 million whereas the State Family Planning Commission reported 2.6 million abortions.

Countries where abortion is legal can be classified into three groups, based on the incidence of abortion. The large majority of countries, including China, fall into a range of 10 to 25 abortions per 1,000 women aged 15 to 44. Four European countries (Belgium, Germany, the Netherlands and Spain) report very low levels of legal abortions (less than 10 per 1,000 women aged 15 to 44). At the other end of the spectrum, the abortion rate reaches about 60 per 1,000 women aged 15 to 44 in countries such as Belarus, the Russian Federation and Viet Nam. Also included in the high abortion group are a number of successor countries of the former Soviet Union, such as Estonia, Kazakhstan, Latvia, Turkmenistan and Ukraine, as well as Eastern and Central European countries such as Bulgaria, Hungary and Romania.

Clearly, in many countries of Eastern Europe and the former Soviet Union, women rely heavily on abortion to control fertility. In six such countries, at least one pregnancy in two is terminated by abortion (table 28).[6] High reliance on abortion to control fertility is also the case in Viet Nam where at least 4 pregnancies in 10 are aborted. Among Western countries, the highest level of pregnancy termination is reported in Sweden—26 abortions per 100 pregnancies—and the lowest level is observed in Belgium (1 abortion per 10 pregnancies).

Abortion is significant in women's reproductive lives. In most countries where abortion is legal, the proportion of women who have one abortion in their lifetime varies between 1 in 3 women and 1 in 2 women (table 29). In countries where the incidence of abortion is high, such as the Russian Federation, women have an average of over two abortions in their lifetime.

The number of reported abortions has essentially remained unchanged in Western countries during the second half of the 1990s. In contrast, a downward trend was observed in the countries of Eastern Europe and the former Soviet Union (see annex tables A.7 and A.8). The most dramatic decrease was recorded in Romania, where abortion rates dropped from 100 per 1,000 women aged 15 to 44 in 1995 to 52 per 1,000 in 1999.

Several demographic and non-demographic factors account for the decrease in the incidence of abortion. During the years of economic hardship and social insecurity immediately preceding and following the collapse of the Union of Soviet Socialist Republics, abortion numbers and rates reached unprecedented levels. Since then, the number of births and marriages has fallen, often sharply, and so has the number of pregnancies. Yet, the number of abortions has usually declined at a much faster pace than the number of births. Newly established programmes aimed at family counselling and planning, an increased supply of contraceptives and the active involvement of various religious groups in combating the "abortion culture" that has outlived the Soviet Union itself have certainly contributed to this development (Popov, 1999). To some extent, an increase in the number of unreported abortions performed by private practitioners may be another contributing factor.

TABLE 29. AVERAGE NUMBER OF REPORTED LEGAL ABORTIONS PER WOMAN DURING HER REPRODUCTIVE LIFE, SELECTED DEVELOPED COUNTRIES

Country	*Year*	*Average number of abortions per woman*
Canada	1999	0.51
Czech Republic	1998	0.51
Denmark	1998	0.44
Finland	1998	0.32
France	1997	0.39
Iceland	1998	0.44
Japan	1998	0.39
Norway	1998	0.47
Russian Federation	1999	2.10
Sweden	1998	0.55
United States	1997	0.54

Source: The population policy databank maintained by the Population Division of the United Nations Secretariat.

Cuba and India, two countries with high rates of abortion, have not released abortion statistics in the recent past. The most recent estimate for Cuba put the proportion of pregnancies terminated at around 60 per cent, based on unpublished data for 1999 (Guzmán and others, 2001). Menstrual regulation, an early vacuum aspiration abortion performed without a pregnancy test, accounts for the majority of abortions in Cuba. In India, where abortion is permitted on health grounds as well as for the reason of contraceptive failure on the part of a married women or her husband, it is believed that many legal abortions are not reported and that a large number of illegal and unsafe abortions are also performed. According to official statistics, the number of legal abortions was 566,000 in 1995-1996, while the actual number was thought to be several times this figure.

In Singapore, it is estimated that approximately one pregnancy in four is terminated, down from a peak of about one pregnancy in three in the mid-1980s. In 1996, the abortion rate stood at 15 per 1,000 women aged 15 to 44 and the total number of abortions at 14,000.

In the Republic of Korea, abortion has been legal on health grounds since 1973. However, since the early days of the national family planning programme established in 1962, abortions have been performed on a large scale. There is no official reporting on abortion in the Republic of Korea, but according to the annual *National Fertility and Family Survey*, 44 per cent of married women aged 15 to 44 reported having had at least one abortion in 1997 (KIHASA, 1998).

The South African law allowing abortion went into effect in February 1997; however, access to abortion services has remained limited. In 1997, 26,000 abortions were reported.

Countries where abortion is illegal

Only a handful of recent estimates of the number of abortions in countries where abortion is legally restricted or illegal—namely, most countries of the developing world—can be found in the literature. Two such estimates are available for a South Asian country and a Southeastern Asian country: Bangladesh and the Philippines. Whereas in Bangladesh, abortion is illegal, except when necessary to save the life of a woman, menstrual regulation has been available on request since 1979. The procedure is allowed up to 10 weeks since the last menstrual period and practised up to 12 weeks. About 100,000 procedures were officially reported in 1995-1996. However, data about women hospitalized for abortion complications suggest that a much larger number of

women obtained abortions. Using indirect estimation techniques, Singh and others (1997) came up with a best estimate of 730,000 abortions, a figure that translates into an abortion rate of 28 per 1,000 women aged 15 to 44. According to the same authors, the level of abortion would be quite similar in the Philippines, based on a best estimate of about 400,000 abortions in 1994.

The most recent estimates for Latin American and Caribbean countries date back to 1989-1991 (Henshaw, Singh and Haas, 1999b; Singh and Wulf, 1994). Such estimates are available for six countries—Brazil, Chile, Colombia, the Dominican Republic, Mexico and Peru—and are based on abortion-related hospitalization data. About 2.8 million abortions were estimated to occur in these countries annually. Estimated abortion rates are quite high in five countries: in Brazil (41 per 1,000 women aged 15-44), Chile (50 per 1,000 women aged 15-44), Colombia (36 per 1,000 women aged 15- 44), Dominican Republic (47 per 1,000 women aged 15-44) and Peru (56 per 1,000 women aged 15- 44). In those countries, the proportion of pregnancies terminated would therefore range from 1 pregnancy in 4 to 1 pregnancy in 3. In Mexico, the abortion rate was lower and stood at 25 per 1,000 women aged 15-44.

Egypt is the only Northern African country for which indirect estimates of the abortion level exist. An analysis of medical abstracts on admissions to the obstetrics and gynaecology departments conducted in 1995 showed that 1 of every 5 patients was a woman admitted for treatment of an induced or spontaneous abortion (Huntington and others, 1998). That figure yielded an estimated total number of induced abortions of over 300,000.

Information on induced abortions in sub-Saharan Africa is extremely fragmentary. In 1996, a survey conducted on a nationally representative sample of 672 health facilities in Nigeria that were considered potential providers of abortion services led to an estimate of 610,000 abortions and an abortion rate of 25 per 1,000 women aged 15 to 44 (Henshaw and others, 1998). In 1998, in Bamako (Mali), 1 in 5 female patients interviewed at health care centres declared that they had had at least 1 abortion, whereas the corresponding figure for Abidjan (Côte d'Ivoire) was 1 in 3 patients (Konaté and others, 1999; Guillaume and others, 1999). Surveys in both Nigeria and Côte d'Ivoire clearly showed that abortion rates tended to be much lower in rural and poorer areas.

3. *Demographic characteristics*

Marital status

Data on the social and demographic characteristics of women having abortions vary greatly in detail, completeness, accuracy and availability. Yet, however incomplete the information, distinctive regional patterns of abortion emerge. In Northern America and Western Europe, as well as in Australia and New Zealand, unmarried women account for the largest proportions of abortions in 10 out of 13 countries for which data are available, ranging from 61 per cent in Norway to 81 per cent in the United States (table 30). Survey data also suggest that in Africa the majority of women having abortions are unmarried.

In contrast, in Eastern European countries and countries of the former Soviet Union, most women having abortions are married, ranging from 61 per cent in the Czech Republic to over 95 per cent in three predominantly Muslim countries, Albania, Kyrgyzstan and Uzbekistan. All Asian and Latin American countries for which data are available display a similar pattern, with the exception of Brazil, where the majority of women having abortions are unmarried.

In a few countries that depart from regional patterns, such as Germany, Hungary, Israel, Italy and the Netherlands, the number of abortions is approximately equally divided between married and unmarried women.

Interpretations of the regional patterns of abortion according to marital status remain speculative. However, when the large majority of women having abortions are married, it is clear that the society relies upon abortion as a method—sometimes as the primary method—of family planning.

TABLE 30. DISTRIBUTION OF ABORTIONS BY WOMEN'S MARITAL STATUS (PERCENTAGE)

Country	Year	Marital status		Total
		Married	Unmarried	
Albania	1995	97	3	100
Bangladesh	1991	97	3	100
Belgium	1995	34	66	100
Benin	1993	80	20	100
Brazil	1992-1993	39	62	100
Bulgaria	1996	75	25	100
Canada	1995	27	73	100
Colombia	1990	72	28	100
Czech Republic	1995	61	39	100
Dominican Republic	1999	88	12	100
England and Wales	1996	21	79	100
Estonia	1996	70	30	100
Finland	1993	27	74	100
France	1995	30	71	100
Germany	1995	53	48	100
Guinea	1991	21	80	100
Hungary	1996	52	48	100
Israel	1995	46	54	100
Italy	1995	57	43	100
Kazakhstan	1995	88	12	100
Kenya	1988-1989	20	80	100
Kyrgyzstan	1997	96	4	100
Malaysia	1981	91	9	100
Mozambique	1994	34	66	100
Netherlands	1992	50	50	100
New Zealand	1995	29	71	100
Norway	1993	39	61	100
Peru	1990	88	12	100
Philippines	1993	91	9	100
Singapore	1993	68	32	100
Slovakia	1995	74	26	100
Spain	1995	32	68	100
Sri Lanka	1991-1992	98	2	100
United States	1997	19	81	100
Uzbekistan	1996	98	2	100
Viet Nam	1991	98	2	100

Source: The population policy databank maintained by the Population Division of the United Nations Secretariat.

TABLE 31. ADOLESCENT PREGNANCY AND ABORTION RATES IN COUNTRIES WHERE ABORTION IS LEGAL, 1999 OR MOST RECENT YEAR

Country	*Pregnancy rate (per 1,000 women aged 15-19)*	*Percentage of pregnancies terminated*	*Abortion rate (per 1,000 women aged 15-19)*	*Abortions under age 20 as a percentage of all abortions performed*
Armenia	34	12	4	4
Australia	44	55	24	..
Azerbaijan	37	5	2	3
Belarus	61	53	32	10
Belgium	13	45	6	15
Bulgaria	76	35	26	10
Canada	41	51	21	20
Croatia	18	16	3	3
Czech Republic	25	40	10	10
Denmark	24	62	15	13
Estonia	62	59	36	13
Finland	24	59	14	21
France	17	60	11	3
Georgia	..	..	4	5
Germany	17	39	6	11
Hungary	50	52	26	13
Iceland	51	49	25	29
Israel	28	36	10	14
Italy	40	17	7	8
Japan	13	68	9	10
Kazakhstan	41	29	12	7
Kyrgyzstan	46	15	7	9
Latvia	43	47	20	10
Lithuania	35	27	9	7
New Zealand	52	42	22	19
Norway	32	59	19	17
Republic of Moldova	49	31	15	10
Romania	66	38	25	8
Russian Federation	70	50	35	10
Slovakia	37	29	11	9
Slovenia	21	61	13	10
Spain	..	..	6	14
Sweden	26	75	19	15
Tajikistan	..	..	5	8
TFYR of Macedonia[a]	35	13	4	4
Turkmenistan	..	..	7	5
United Kingdom	27	78	21	20
United States	84	35	29	19
Uzbekistan	27	10	3	6

Source: The population policy databank maintained by the Population Division of the United Nations Secretariat.
Note: Pregnancies have been estimated as the sum of births and abortions for a given calendar year.
[a] The former Yugoslav Republic of Macedonia.

Age

Available data point to the existence of a strong relation between the age pattern of fertility and the age pattern of abortion. In most countries, women in their twenties have the highest pregnancy rates and account for the largest number of abortions. However, the proportion of pregnancies that are terminated is typically highest among adolescents and women aged 40 and older. A few Eastern European countries and countries of the former Soviet Union depart from this pattern, with the percentage of pregnancies ending in abortion increasing with age.

Concerns over adolescent pregnancy and adolescent abortion have moved the overall issue of adolescent sexual and reproductive behaviour to the top of the international agenda. By and large, in most countries where abortion is legal, statistics provide evidence that the incidence of abortion among adolescents is in line with the overall level of abortion. According to the most recent official figures, abortion among adolescents accounts for 3 to 20 per cent of the total reported legal abortions in 39 out of 40 countries for which data are available (table 31). Iceland is an exception, with 29 per cent of abortions obtained by adolescents in 1999, a figure close to that observed in Cuba in 1990 (33 per cent). In fact, Cuba has the highest reported incidence of both adolescent pregnancy—one pregnancy for every 6 women aged 15 to 19—and adolescent abortion—one adolescent women in 10 gets an abortion (Guzmán and others, 2001).

Hospital and clinic-based surveys also suggest that in some African countries abortion has become common among adolescent girls, particularly schoolgirls living in urban areas. In Abidjan (Côte d'Ivoire), for example, 20 per cent of women aged 15 to 19 declared that they had an abortion in 1998 (Guillaume and others, 1999).

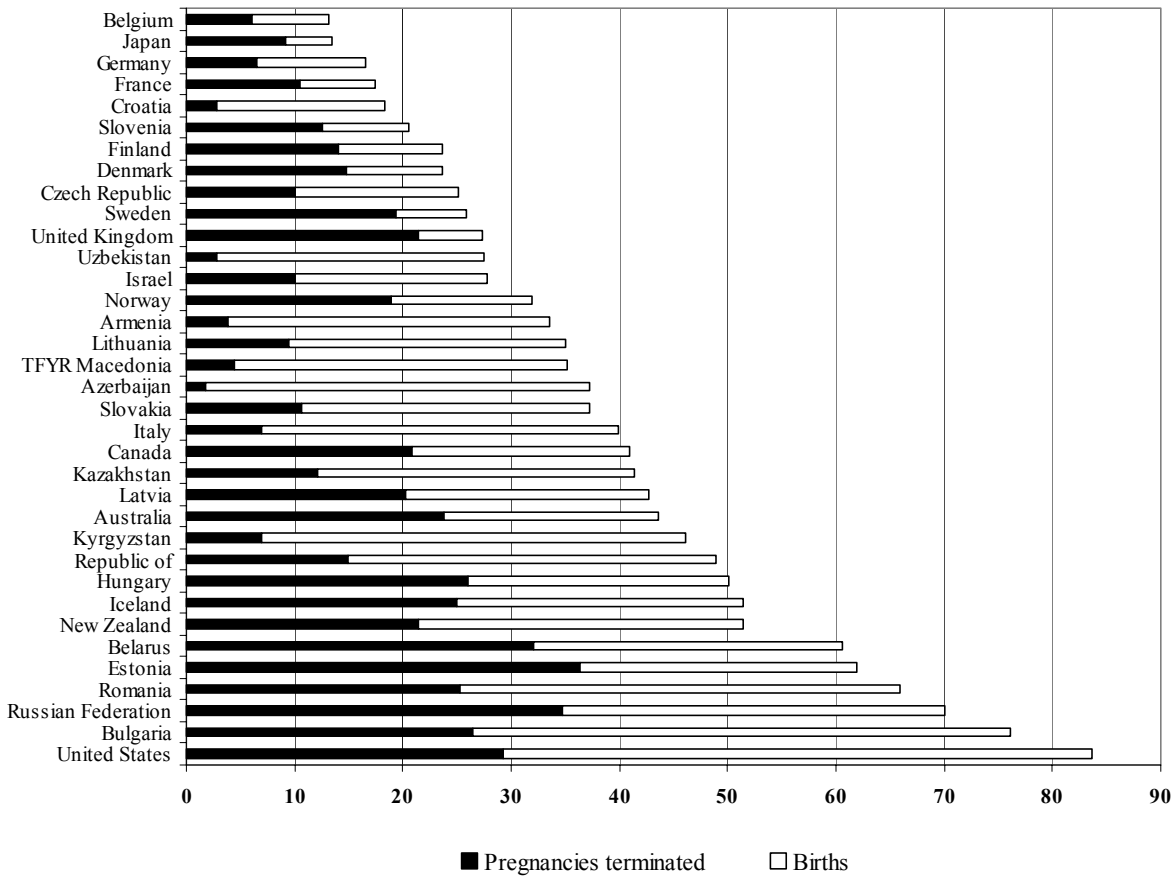
With regard to adolescent abortion, countries where abortion is legal on broad grounds can be classified into three groups (see figure 11). The first group comprises the countries where the incidence of adolescent pregnancy is relatively low, ranging from 13 per 1,000 women aged 15 to 19 in Belgium to 32 per 1,000 per women aged 15 to 19 in Norway, and where the greatest proportion of teenage pregnancies are terminated, up to 78 per cent in the United Kingdom. The group includes several Western and Northern European countries and Japan.

The second group encompasses countries with low-to-medium rates of adolescent pregnancy where few pregnancies—less than 1 in 3—are terminated. At least 10 countries with economies in transition belong to this group, as do Israel and Italy.

The third category consists of countries with medium-to-high levels of adolescent pregnancy, up to 1 pregnancy for every 12 women aged 15 to 19 in the United States, and where significant proportions, albeit usually not the majority, of adolescent pregnancies are terminated. Half a dozen Eastern European countries, including Romania and the Russian Federation, fall into this category, as well Australia, Canada, Iceland, New Zealand and the United States.

Scattered estimates suggest that despite high adolescent pregnancy rates in Latin American and Caribbean countries where abortion is highly legally restricted—over 1 pregnancy for every 11 women aged 15 to 19–less than 1 in 3 pregnancies is terminated (Guzmán and others, 2001, Singh, 1998). In Chile, adolescent teenage abortion was one of the 16 health priorities of the Ministry of Health for the period 1997 to 2000.

Figure 11. Adolescent pregnancy outcomes, 1999 or most recent year (per 1,000 women aged 15-19)



Source: The population policy databank maintained by the Population Division of the United Nations Secretariat.
Notes: Pregnancies have been estimated as the sum of births and abortions for a given calendar year.
TFYR Macedonia = The former Yugoslav Republic of Macedonia.

B. RECENT CHANGES IN ABORTION LAWS

In a narrow sense, abortion is legal in much of the world. The overwhelming majority of countries or areas (189 out of 193) permit abortions to be performed to save the pregnant woman's life (United Nations, 2001b, 2001c and 2002). Chile, El Salvador, the Holy See and Malta prohibit abortion. However, the breadth of conditions under which abortion may legally be performed varies greatly among countries. National abortion laws and policies are significantly more restrictive in the developing world than in the developed world (see table 32 and annex table A.9). In developed countries, abortion is permitted upon request in 31 countries, about two-thirds of all developed countries, and for economic or social reasons in 3 out of every 4 developed countries. In contrast, only 1 in 7 developing countries (21 countries) allows abortion upon request and only 1 in 6 developing countries allows abortion for economic or social reasons.

Since 1990, 29 countries have modified their laws or regulations concerning abortion (table 33): 8 developed countries, 15 developing countries and 6 countries with economies in transition. In addition, health authorities have approved use of mifepristone (RU-486) for pregnancy termination in 18 countries, while clinical trials have been authorized in another 6 countries (table 34).

TABLE 32. GROUNDS ON WHICH ABORTION IS PERMITTED

Region	To save the woman's life	To preserve physical health	To preserve mental health	Rape or incest	Foetal Impairment	Economic or social reasons	On request	Abortion prohibited
				Number of countries				
World	189	122	120	83	76	63	52	4
Developed countries	46	42	41	39	39	36	31	2
Developing countries	143	80	79	44	37	27	21	2
				Percentage of countries				
World	98	63	62	42	39	32	26	2
Developed countries	96	88	85	81	81	75	65	4
Developing countries	99	54	54	30	25	18	14	1

Source: World Abortion Policies 1999 (United Nations publication, Sales No. E.99.XIII.5).

TABLE 33. CHANGES SINCE 1990 IN THE LAWS OR REGULATIONS CONCERNING INDUCED ABORTION

Country or area	Year of change
Australia (Western Australia only)	1998
Albania	1995
Argentina	1994
Belgium	1990
Botswana	1991
Bulgaria	1990
Burkina Faso	1996
Cambodia	1997
El Salvador	1997
France	2001
Germany	1992
Germany	1995
Guyana	1995
Hungary	1992
Hungary	2000
India	1994
Indonesia	1992
Iran, Islamic Republic of	1991
Japan	1996
Pakistan	1989
Peru	1997
Poland	1993
Romania	1996
Russian Federation	1996
Seychelles	1994
Singapore	1997
Sudan	1991
South Africa	1996
Sweden	1995
Switzerland	2001
Viet Nam	1991

Source: The population policy databank maintained by the Population Division of the United Nations Secretariat.

TABLE 34. LEGAL STATUS OF MIFEPRISTONE (RU-486)

Mifepristone approved by national health authorities		*Clinical trials of mifepristone authorized*
Country	*Year approved*	
Austria	1999	Canada
Belgium	1999	Cuba
China	1992	India
Denmark	1999	Italy
Finland	1999	Tunisia
France	1989	Viet Nam
Germany	1999	
Greece	1999	
Israel	1999	
Luxembourg	1999	
Netherlands	1999	
Norway	2000	
Russian Federation	2000	
Spain	2000	
Switzerland	2000	
Ukraine	2000	
United Kingdom	1991	
United States	2000	

Source: The population policy databank maintained by the Population Division of the United Nations Secretariat.

1. Developed countries

In developed countries, abortion has been legal to varying degrees and generally accepted for decades. The first liberalization of abortion law dates from as far back as 1938, when Sweden enacted legislation allowing abortions to be performed for reasons of rape, health and foetal impairment. In the mid-1950s, the former Soviet Union and many of the countries of Eastern Europe followed suit, approving laws essentially permitting abortion on request. The most active period of liberal reform dates from the late 1960s and early 1970s.

In the past decade, as a consequence of the major political, social and economic changes that have occurred in Eastern Europe, several countries have experienced significant legislative, judicial and regulatory activity in the sphere of abortion policies. In the late 1980s and early 1990s, concern with the health impact of unsafe abortion grew among national health authorities and prompted decisions to broaden the grounds for permitting abortion, sometimes including abortion upon request as in Albania, Bulgaria and Romania. In Albania, comprehensive abortion legislation was enacted in 1995, drawing that country closer to the abortion policy and practice of most of Europe.

A number of legislative developments seeking to broaden the grounds for permitting abortion also echo the difficult economic and social conditions experienced by women. In the Russian Federation, the 1996 order issued by the Ministry of Health significantly broadened the social grounds on which abortion can be performed. In 1992, the Parliament of Hungary passed an act on the protection of foetal life and on abortion allowing women in a state of a crisis to obtain an abortion after undergoing counselling. A debate followed that led the Constitutional Court to direct Parliament to provide a precise definition of the notion of "state of crisis" in 1998. In 2000, the definition was incorporated in an amendment to the 1992 act that also included restrictions aimed at preventing "abortion tourism".

In 2001, Switzerland became the latest European country to adopt a law legalizing abortion, 11 years after Belgium. Whereas therapeutic abortion could previously be performed on medical grounds, the new Swiss law authorizes abortion upon request, as well as in the case of personal distress, and introduces a time limit during pregnancy within which an abortion may be performed.

Two European countries also amended their legislation in order to remove some restrictions. In 1995, the abortion law of Sweden was amended to remove the requirement that a woman desiring to obtain an abortion between 12 and 18 weeks of pregnancy discuss the abortion with a social worker. In 2001, the French Parliament approved a new law extending the period permissible for abortions from 10 to 12 weeks of pregnancy, bringing France into line with most of its European Union partners. Under the new provisions, a pregnant girl under the age of 16 may request an abortion without her parents' consent. The law also authorizes procedures to be performed in private practices.

In contrast, two European countries have adopted more restrictive abortion legislation. In Poland, legislation was enacted in 1993 that restricted abortions to cases justified on medical, juridical and eugenic grounds and banned the performance of the procedure in private clinics. In Germany, following reunification, a new abortion law was passed in 1992. It was subsequently declared unconstitutional by the Constitutional Court who ruled that all abortions, except those performed for therapeutic reasons, were unlawful. In 1995, Parliament enacted new legislation under which a woman could obtain an abortion if she was in a state of distress provided that she received proper counselling. Such an abortion was illegal but not punishable.

In Asia, Singapore amended in 1997 the regulations issued under the 1974 Abortion Act so as to increase from one to two days the mandatory waiting period between counselling and the procedure. Owing in part to the requests of organizations representing the disabled, as well as to modern scientific knowledge about inherited diseases, Japan adopted the Maternal Protection Law in 1996, a significantly amended version of the 1948 Eugenic Protection Law. Legislators dropped from that Law the list of medical conditions appended to it that served as grounds for sterilization and abortion on eugenic grounds. Thus, abortions are now permitted only when the health of the mother may be affected from the physical or economic point of view and in cases of sexual offences.

Canada has been without a federal abortion law since 1988 when the Supreme Court declared unconstitutional the provisions of Section 251 of the Criminal Code governing the procedures of therapeutic abortion committees and the requirement that all abortions be performed in approved or accredited hospitals. However, a number of provinces have tried to step into the void left by the Supreme Court's ruling by putting into place their own restrictions on the performance of abortions.

In the United States, intense legal activity has been devoted to restricting the ability of minors to obtain abortions at the state level. As of March 2001, such restrictions had been introduced in 41 states. On the other hand, restrictions have been enacted, at both the Federal and state levels, covering various aspects of the picketing of abortion clinics by pro-life protesters.

In 1998, Western Australia enacted legislation repealing restrictions on the performance of abortions in early pregnancy. The legislation was prompted by two events: (a) the arrest and prosecution of two physicians who performed abortions in a free-standing clinic; and (b) the subsequent decision of many physicians performing abortions in Western Australia to stop their practice until the legal situation was clarified.

2. Developing countries

In Latin America, abortion is permitted on request in only two countries: Cuba and Guyana; for socio-economic reasons, only in the Mexican state of Yucatan; on grounds of foetal impairment, only in a number of other Mexican states and in Panama; in cases of pregnancy as a result of a crime, in seven countries or areas (including the Federal District of Mexico), two of which require that the victim be mentally incompetent. Of the remaining Latin American countries, two allow abortion for health reasons and eight to save the life of the pregnant woman.

In recent years, there have been numerous proposals for reform in Latin American countries, very few of which have been successful. In 1995,

Guyana legalized abortion on broad grounds. In contrast, on the eve of the International Conference on Population and Development, Argentina modified its Constitution to include the defense of life from the time of conception. In El Salvador, the abortion provisions of the new Penal Code adopted in 1997 removed all exceptions to the prohibition against abortion that existed previously and thus bans abortions completely.

Abortion law in Africa has long been based on colonial models, which generally were very restrictive in their view of abortion. As a result, in most of sub-Saharan Africa the performance of abortion remains largely prohibited except to save the life of the pregnant woman. However, several of the most significant recent laws liberalizing the performance of abortion have been enacted in sub-Saharan Africa. A first round of liberalization occurred in the 1970s—Zambia (1972), South Africa and Namibia (1975), Liberia and Zimbabwe (1977)—followed in the 1980s by Seychelles (1981), Ghana (1985) and Cape Verde (1986).

More recently, Botswana (1991), Seychelles (1994), Burkina Faso and South Africa (1996) significantly amended their existing legislation or enacted new abortion laws along more liberal lines, while Equatorial Guinea adopted more restrictive abortion legislation in 1991. Currently, abortion is permitted on request in only 3 out of the 53 African countries: Cape Verde, South Africa and Tunisia. One country, Zambia, permits abortion for economic and social reasons. In 1991, the Sudan modified its Penal Code to allow abortion to be performed in case of rape or if the unborn child had died in the mother's womb. Eleven African countries permit abortion on grounds of foetal impairment and 12 countries when pregnancy has resulted from rape or incest. Twenty-seven African countries permit abortion on mental health grounds and 28 countries to preserve the woman's physical health.

The cultural, social and economic diversity of Asia is reflected in the diversity of abortion laws and policies. The region is divided into three categories of countries according to their abortion laws: 17 countries permit abortion only to save the woman's life; 16 countries permit abortion upon request; and 13 permit abortion under certain circumstances. Recent developments include the enactment of abortion legislation that conforms to Islamic law in the Islamic Republic of Iran (1991 Penal Code) and Pakistan (1989) as well as new legislation legalizing abortion in Cambodia in 1997. Both Indonesia (1992) and Malaysia (1989) amended their legislation to allow abortion to be performed on medical grounds. In 1989, Mongolia also amended its health law to provide that becoming a mother was a matter of a woman's own decision and that she could obtain an abortion on request during the three first months of pregnancy.

Between 1989 and 1991, the Government of Viet Nam approved a number of laws that regulated abortion in various ways, including the Law on the Protection of Public Health, which provided that women should be entitled to have an abortion if they so desired. It also adopted several decrees making birth control devices and public-health services for abortions free of charge to large segments of the population.

In an attempt to prevent "female foeticide", the Government of India enacted in 1994 country-wide legislation that restricts the performance of prenatal diagnostic tests to cases involving serious diseases and abnormalities, and prohibits practitioners from revealing the sex of a foetus in any manner. The enforcement of this legislation—which came into force in 1996—has reportedly been problematic.

C. UNSAFE ABORTION

Unsafe abortion is defined as a procedure for terminating an unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards or both (World Health Organization, 1992). Included under this definition are induced abortions performed in countries where abortion is illegal or legal but highly restricted, such as in most developing countries; performed using procedures that violate existing regulations (e.g., abortions performed after the gestational limit established by law is reached); or performed using obsolete and dangerous practices.

According to estimates by the World Health Organization for 1995-2000 (table 35), unsafe abortion results in an estimated 78,000 maternal deaths annually and hundreds of thousands of disabilities, the vast majority of which affect women in the developing countries (World Health Organization, 1998). Thus, globally, 1 maternal death in 8 is probably due to abortion-related complications. At the regional level, abortion-

TABLE 35. UNSAFE ABORTION: REGIONAL ESTIMATES OF MORTALITY AND RISK OF DEATH

Region	*Maternal deaths due to unsafe abortion*	*Risk of dying after unsafe abortion*	*Percentage of maternal deaths due to unsafe abortion*
Africa	34 000	1 in 150	13
Asia [a]	38 500	1 in 250	12
Latin America and the Caribbean	5 000	1 in 900	21
Europe	500	1 in 1 900	17

Source: World Health Organization , *Unsafe Abortion: Global and Regional Estimates of Incidence of and Mortality Due to Unsafe Abortion with a Listing of Available Country Data,* 3rd edition (Geneva, 1998).

[a] Japan excluded.

related mortality ranges from 1 maternal death in 8 in Africa and Asia to 1 maternal death in 6 in Europe and 1 maternal death in 5 in Latin America and the Caribbean.

The risk of death from an unsafe abortion is by far the highest in Africa, where the case fatality rate reaches 7 deaths per 1,000 unsafe abortions, followed by Asia with a case fatality rate of 4 deaths per 1,000 unsafe abortions. In contrast, the risk of dying after unsafe abortion is only about 1 per 1,000 in Latin America and the Caribbean and 0.5 per 1,000 unsafe abortions in Europe.

It is estimated that between 10 and 50 per cent of all women who undergo unsafe abortions need medical care for complications. The most frequent complications are incomplete abortion, sepsis, haemorrhage and intra-abdominal injury.

Treatment of abortion-related complications often requires several days of hospitalization and medical staff time, as well as blood transfusions, antibiotics and pain control medicines. Providing post-abortion services depletes funds and medical supplies needed for other types of treatment. In Belize, a morbidity study showed that abortion was the third leading cause of hospitalization in 1990 (United Nations, 1996), and in the Dominican Republic the treatment of abortion complications consumes 10 per cent of available maternity beds. In Egypt, abortion complications account for approximately one admission in five to the obstetrics and gynaecology ward (Paiewonsky, 1999; and Huntington and others, 1998).

In most countries where the incidence of unsafe abortion or induced abortion is high, family planning information, services and contraception are unavailable or largely inadequate. Such a context is typical of several countries with economies in transition and many developing countries, particularly those where society has embraced smaller family size ideals and the postponement of marriage. It has been suggested that abortion incidence might rise along the path of the transition to low fertility as both women's years of exposure to potential unintended pregnancy and the incidence of contraceptive failure increase (Mundigo, 2000).

All studies show that a large proportion of abortion-seekers were not using any contraceptive method prior to experiencing the unintended pregnancy. However, findings from a major research project carried out under the auspices of the World Health Organization's Special Programme of Research, Development and Research Training in Human Reproduction point to the complexity of the relationship between abortion and contraceptive behaviour in developing countries (Indriso and Mundigo, 1999). Negligence, ignorance, fear of the method's side effects, the presence of a breast-feeding baby, opposition from or reliance on the husband, unanticipated or infrequent sexual relations, and a woman's belief that she cannot become pregnant are major reasons for women not to be using contraception. In addition, a significant proportion of women who had abortions had discontinued using a contraceptive method for health or other reasons (Westoff,

2000). For adolescents, critical elements in deciding whether and how to have an abortion include the boyfriend's willingness to accept paternity and its financial implications, the desire to stay in school and the stigma attached to an out-of-wedlock pregnancy.

Whatever the complexities of the relationship between contraception and abortion, the quality of reproductive health services needs to be improved in order to increase the acceptability of contraceptive methods. Abortion prevention rests, indeed, on the availability of family planning information, counselling and services. During the 1990s, increased concern with teenage pregnancy and abortion led to a shift in policy emphasis, reaching out beyond the married population—the primary and often the only target of family planning programmes—to young women and young men. However, it is too early to assess the impact of such programmes.

Family planning counselling and services have been offered within the framework of post-abortion care in a number of countries with a view to preventing repeated abortions. After such services were introduced in selected hospitals, the proportion of patients who received family planning counselling reached 97 per cent in Bolivia, 94 per cent in Burkina Faso, 68 per cent in Kenya, 86 per cent in Mexico, and 78 per cent in Peru (Huntington, 2000). The programme was less successful in Senegal, where only about a third of the patients were counselled. In Kenya, it was found that having ward staff provide family planning information and services was far more effective than having wards visited by providers of maternal and child health and family planning services.

The second type of intervention aimed at reducing abortion-related morbidity and mortality lies in making abortion safer. From a medical point of view, abortion safety primarily depends on the gestational age at abortion—the earlier the abortion, the safer—and the method used, as well as on the prompt and appropriate management of complications (Grimes, 2000).

It is generally agreed that legalization of abortion in developed countries together with the use of new technology and the training of providers rapidly resulted in a reduction of abortion-related mortality. Making abortion services widely available and affordable was critical to this development. In contrast, in a number of developing countries that have legalized abortion, the procedure is neither broadly available nor uniformly safe.

In Africa, difficulties arise from a number of social, cultural and institutional forces. In Zambia, for instance, complicated procedural requirements, in addition to inadequate services, have perpetuated a reliance on illegal abortion. Formal services tend to be rejected by young people because of the lack of confidentiality of the procedure and the prevalent stigma on abortion (Webb, 2000). In South Africa, most nurses and doctors have not been supportive of the new Termination of Pregnancy Act, and a significant proportion of them have claimed conscientious objection to exempt themselves from involvement in abortion-related care (Harrison and others, 2000). As a result, abortion services remain unavailable in most of the country.

In India, large disparities in the geographical distribution of services have left sizeable segments of the population with little access to abortion services. Four large northern states—Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh—accounting for over 40 per cent of the country's population, are host to 16 per cent of all approved centres under the Medical Termination of Pregnancy Act (Barge and others, 1998). In addition, many approved facilities refuse to provide abortion services because equipment is inadequate or doctors are unavailable or inadequately trained. In the public sector, insistence on sterilization or the insertion of an intrauterine device after the abortion has had a deterrent effect on the number of women seeking abortion (Gupte, Bandwar and Pisal, 1999). In view of this situation, the Government has considered amending the law to delegate powers from the state to the district level and has embarked on a programme aimed at training and equipping doctors to conduct legal abortions, both in the public and private sectors.

NOTES

[1]Unsafe abortion is defined as a procedure for terminating an unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards or both (based on World Health Organization, *The Prevention and Management of Unsafe Abortion: Report of a Technical Working Group* [WHO/MSM/92.5]).

[2] General Assembly resolution S-21/2 of 2 July 1999.

[3] Ibid., annex, chap. IV, para, 63(ii).

[4] Ibid., para. 63(i).

[5] Ibid., para. 63(iii).

[6] Pregnancies have been estimated as the sum of births and abortions for a given calendar year. Owing to a lack of reliable information, pregnancies that end in spontaneous foetal loss (miscarriages and still births) are omitted. As a result, the total number of pregnancies, and thus the pregnancy rate, will be underestimated.

REFERENCES

Barge, S., and others (1998). *Availability of Abortion Services in Rural Government Clinics in Four States of India.* Baroda, Gujarat: Centre for Operations Research and Training.

Grimes, David A. (2000). Reducing complications of unsafe abortion: the role of medical technology. Paper presented at the Meeting on Priorities and Needs in the Area of Unsafe Abortion, United Nations Development Programme/United Nations Population Fund/World Health Organization, Geneva, 28 and 29 August 2000.

Guillaume, Agnès, and others (1999). *Le recours à l'avortement: La situation en Côte d'Ivoire,* Études et Recherches No. 27. Abidjan: École nationale supérieure de statistique et d'économie appliquée (ENSEA) and Institut de recherche pour le développement (IRD).

Gupte, M., S. Bandewar and H. Pisal (1999). Women's perspectives on the quality of health care: evidence from rural Maharashtra. In *Quality of Care within the Indian Family Welfare Programme,* M. A. Koenig and M. E. Khan, eds. New York: Population Council.

Guzmán, José Miguel, and others (2001). *Diagnóstico sobre Salud Sexual y Reproductiva de Adolescentes en América Latina y el Caribe*. México: United Nations Population Fund.

Harrison, Abigail, and others (2000). Barriers to implementing South Africa's Termination of Pregnancy Act in rural KwaZulu/Natal. *Health Policy and Planning,* vol. 15, No. 4.

Henshaw, Stanley K., and others (1998). The incidence of abortion in Nigeria. *International Family Planning Perspectives*, vol. 24, No. 4.

Henshaw, Stanley, Susheela Singh and Taylor Haas (1999a). The incidence of abortion worldwide. *International Family Planning Perspectives,* vol. 25, Supplement (January).

——— (1999b). Recent trends in abortion rate worldwide. *International Family Planning Perspectives*, vol. 25, No. 1 (June).

Huntington, Dale (2000). Meeting women's health care needs after abortion. *Programme Brief No. 1*, Washington, D.C.: Population Council/FRONTIERS.

Huntington, Dale, and others (1998). The post-abortion caseload in Egyptian hospitals: a descriptive study. *International Family Planning Perspectives,* vol. 24, No. 1 (March).

Indriso, Cynthia, and Axel I. Mundigo, eds. (1999). *Abortion in the Developing World*. London: Zed Books; and New Delhi: Vistaar Publications.

Korea Institute for Health and Social Affairs (KIHASA) (1998). *1998 Chon'guk Ch'ulsannyok mit Kajok Pogon Silt'ae Chosa (1998 National Fertility and Family Health Survey)*. Seoul: KIHASA.

Konaté, Mamadou Kani, and others (1999). Radioscopie d'une pratique controversée: Les conséquences sanitaires et sociales de l'avortement provoqué dans le district urbain de Bamako. *Pop Sahel*, No. 27 (May).

Mundigo, Axel I. (2000). Determinants of unsafe induced abortion in developing countries. Paper presented at the Meeting on Priorities and Needs in the Area of Unsafe Abortion, United Nations Development Programme/United Nations Population Fund/World Health Organization, Geneva, 28 and 29 August 2000.

Paiewonsky, Denise (1999). Social determinants of induced abortion in the Dominican Republic. In *Abortion in the Developing World,* A. I. Mundigo and C. Indriso, eds. London: Zed Books; and New Delhi: Vistaar Publications.

Popov, Andrej A. (1999). Family planning and induced abortion in post-Soviet Russia of the early 1990s: unmet needs in information supply. In *Russia's Demographic "Crisis",* Julie Da Vanzo, ed. Santa Monica, California: RAND.

Singh, Susheela (1998**).** Adolescent childbearing in developing countries: a global review. *Studies in Family Planning,* vol. 29, No. 2 (June).

Singh, Susheela, and others (1997). Estimating the level of abortion in the Philippines and Bangladesh. *International Family Planning Perspectives,* vol. 23, No. 3 (September).

Singh, Susheela, and Deirdre Wulf (1994). Estimated levels of induced abortion in six Latin American countries. *International Family Planning Perspectives,* vol. 20, No. 1.

United Nations (1995). *Report of the International Conference on Population and Development, Cairo, 5-13 September 1994.* Sales No. E.95.XIII.18.

——— (1996). Consideration of reports submitted by States parties under article 18 of the Convention to Eliminate Discrimination against Women: initial and second periodic reports of States parties: Belize. Committee on the Elimination of All Forms of Discrimination against Women. CEDAW/C/BLZ/1-2.

——— (1999). *World Abortion Policies 1999.* Sales No. E.99.XIII.5.

——— (2001a). *Results of the Eighth United Nations Inquiry among Governments on Population and Development*. Sales No. E.01.XIII.2.

——— (2001b). *Abortion Policies: A Global Review*, vol. I, *Afghanistan to France*. Sales No. E.01.XIII.10.

——— (2001c). *Abortion Policies: A Global Review*, vol. II, *Gabon to Norway*. Sales No. E.01.XIII.18.

——— (2002). *Abortion Policies: A Global Review*, vol. III, *Oman to Zimbabwe*. Sales No. E.02.XIII.5.

Webb, Douglas (2000). Attitudes to "Kaponya Mafumo": the terminators of pregnancy in urban Zambia. *Health Policy and Planning*, vol. 15, No. 2.

Westoff, Charles F. (2000). *The Substitution of Contraception for Abortion in Kazakhstan in the 1990s,* DHS Analytical Studies No. 1. Calverton, Maryland: ORC Macro.

World Health Organization (1992). The Prevention and Management of Unsafe Abortion: Report of a Technical Working Group. WHO/MSM/92.5.

——— (1998). Unsafe Abortion: Global and Regional Estimates of Incidence of and Mortality Due to Unsafe Abortion with a Listing of Available Country Data, 3rd edition. WHO/RHT/MSM/97.16.

V. MATERNAL MORTALITY AND MORBIDITY*

During the 1990s, a number of international conferences set goals for a reduction of maternal mortality. In 1999, at its twenty-first special session for the review and appraisal of the implementation of the Programme of Action of the International Conference on Population and Development, in its resolution S-21/2, the General Assembly reiterated the view that a reduction in maternal mortality was a high priority, and countries agreed to strengthen information systems to permit the regular monitoring of maternal mortality. The reduction in maternal mortality has been adopted as an international development goal by the United Nations, the Organisation for Economic Co-operation and Development, the International Monetary Fund and the World Bank (Organisation for Economic Cooperation and Development, 1996; International Monetary Fund, 2000) and endorsed by 149 heads of State at the Millennium Summit of the United Nations in 2000 (see para. 19 of the United Nations Millennium Declaration contained in General Assembly resolution 55/2). This unprecedented global consensus is indicative of the importance that Governments and the international health and development community give to the health of women and their children and creates an additional impetus for attention to the accurate monitoring of progress in the attainment of this goal, both in individual countries and across the world.

A. DEFINITIONS

A maternal death is defined in the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (World Health Organization, 1992).

Maternal deaths can be divided into two groups:

Direct obstetric deaths are those resulting from obstetric complications of the pregnant state (pregnancy, labour and the puerperium); from interventions, omissions or incorrect treatment; or from a chain of events resulting from any of the above;

Indirect obstetric deaths are those resulting from previous existing disease, or from disease that developed during pregnancy and, while not attributable to direct obstetric causes, was aggravated by the physiological effects of pregnancy.

Direct maternal deaths are usually due to one of five major causes: haemorrhage (most usually occurring post–partum), sepsis, eclampsia, obstructed labour and complications of unsafe abortion. Indirect maternal deaths are mostly associated with malaria, HIV/AIDS or cardiovascular disease. Deaths from accidental or incidental causes have historically been excluded from maternal mortality. However, in practice, the distinction between incidental and indirect causes of death is difficult to make. Some deaths from external causes may be attributable to the pregnancy itself. Furthermore, in many settings death certification is less than optimal, and identifying the precise cause of death is not feasible. To facilitate the identification of maternal deaths for circumstances in which the cause of death cannot be determined accurately, the *Tenth Revision* introduced a new category that is based only on the timing of death in relation to pregnancy:

Pregnancy-related death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death.

This "time of death" definition is generally applied when household surveys are used to estimate maternal mortality.

*Prepared by the World Health Organization, Geneva.

B. MEASURES AND MEASUREMENT

The most commonly used measure of maternal mortality is the number of maternal deaths during a given period per 100,000 live births during the same period, a measure known as the maternal mortality ratio. Another useful indicator is the maternal mortality rate, defined on the number of maternal deaths in a given period per 100,000 women of reproductive age during the same period, reflecting both obstetric risk and the risk of being pregnant. An increasingly popular measure of maternal mortality is "lifetime risk", which measures both the probability of becoming pregnant and the probability of dying as a result of that pregnancy cumulated across a woman's reproductive years. Lifetime risk can be estimated by multiplying the maternal mortality rate by the length of the reproductive period (around 35 years). It can also be approximated by the product of the total fertility rate and the maternal mortality ratio.

Measuring maternal mortality at the national level requires knowledge about deaths of women of reproductive age (15-49 years), including the medical cause of death and whether or not the woman was pregnant at the time of death or had recently been so (AbouZahr, 1998). In practice, however, few countries count deaths; even fewer accurately register the cause of death; and fewer still systematically note pregnancy status on the death form. Where civil registration systems are absent or inadequate, maternal mortality can be estimated by incorporating questions on pregnancy and deaths into large-scale household surveys. The disadvantage is that large sample sizes are required, making this strategy extremely expensive and time-consuming (see, for example, Agoestina and Soejoenoes, 1989). In the sisterhood method (Graham, Brass and Snow, 1989), which was developed with the aim of reducing sample size requirements, a few questions about the survival of respondents' sisters are added on to existing household surveys (Rutenberg and Sullivan, 1991). However, a weakness of the approach is that it does not provide a current estimate, but gives an idea of the level of maternal mortality roughly ten years before the survey. Although the method is relatively simple, a certain amount of caution is needed in its use and in the interpretation of the results. The direct sisterhood method, an alternative way of using information about the survival of respondents' sisters, has been developed for the Demographic and Health Surveys. This technique overcomes some of the problems of retrospectiveness by taking a full birth history of all the respondent's siblings. The resultant maternal mortality ratio usually refers to a period some six years prior to the survey. However, the approach is somewhat complex to administer and analyse. All survey methods for estimating maternal mortality produce results with wide margins of error which cannot, therefore, be used for regular and short-term monitoring.

The difficulty of estimating maternal mortality using survey techniques has led to a resurgence of interest in the possibility of using censuses to generate maternal mortality data. In July 1999 the General Assembly, at its twenty-first special session, recognized the potential of the census to provide good quality information on levels of maternal mortality (see General Assembly resolution S-21/2, annex, para. 38). The existing literature on estimation of overall adult mortality by means of a census in the developing world suggests that data obtained from enquiries into recent deaths in the household in a census require careful evaluation and often require adjustment. Nonetheless, a number of countries have used the census to generate maternal mortality figures, and further analysis is needed to assess the extent to which such approaches may prove of value in measuring maternal mortality (Stanton and others, 2001).

All the evidence suggests that problems with underreporting and misclassification are common to all methods for measuring maternal mortality. For this reason, most experts agree that reliably ascertaining maternal deaths necessitates some form of triangulation, in other words, bringing together data from different sources. The most commonly used triangulation approach involves identifying and investigating all deaths of women of reproductive age through a Reproductive Age Mortality Study (RAMOS) (World Health Organization, 1987; Greenwood and others, 1987). Multiple sources of information, including civil registers, health facility records, community leaders, religious authorities, undertakers, cemetery officials and school children, are used to identify all deaths. Subsequently, interviews with house-

hold members and health-care providers as well as facility record reviews are used to classify deaths as maternal or otherwise (verbal autopsy). Such studies are time-consuming and complex to undertake, particularly on a large scale; consequently, only fourteen developing countries have carried out this type of study to estimate maternal mortality at the national level.

C. LEVELS

Owning to the difficulties inherent in measuring maternal mortality, only a few countries have accurate national-level data. In order to strengthen the information base, the World Health Organization and the United Nations Children's Fund, with the participation of the United Nations Population Fund, have developed an approach to estimating maternal mortality that seeks both to generate estimates for countries with no data and to correct available data for underreporting and misclassification. During the 1990s, nationally reported data on maternal mortality were available from a variety of sources as summarized in table 36. In developing global estimates for 1995, a dual strategy was used, involving adjusting available country data according to the source of the data while developing a simple model to generate estimates for the 55 countries without reliable information.

TABLE 36. SOURCES OF COUNTRY DATA USED IN DEVELOPING THE 1995 ESTIMATES

Source for maternal mortality data	*Number of countries*	*Percentage of global births covered*
Civil registration estimated as complete[a] with good attribution of cause of death	49	13
Civil registration estimated as complete[a] with Uncertain or poor attribution of cause of death	18	2
Direct sisterhood estimates	29	18
Reproductive Age Mortality Studies (RAMOS)	19	42
No national data on maternal mortality	55	26

Source: World Health Organization, *Maternal Mortality in 1995: Estimates developed by WHO, UNICEF and UNFPA* (WHO/RHR/101.9).

NOTE: Percentage does not add to 100 per cent due to rounding.

[a] Data estimated to be virtually complete, i.e. covering at least 90 per cent of events occurring each year.

The estimated number of maternal deaths in 1995 for the world was 515,000 (table 37). Of those deaths, over half (273,000) occurred in Africa, about 42 per cent (217,000) in Asia, about 4 per cent (22,000) in Latin America and the Caribbean, and less than 1 per cent (2,800) in the more developed regions of the world. In terms of the maternal mortality ratio (MMR), the world figure is estimated to be 400 per 100,000 live births. By region, the MMR was highest in Africa (1,000), followed by Asia (280), Oceania (260), Latin America and the Caribbean (190), Europe (28) and Northern America (11).

TABLE 37. ESTIMATES OF MATERNAL MORTALITY BY REGION, 1995[a]

Region	*Maternal mortality ratio (Maternal deaths per 100,000 live births)*	*Number of maternal deaths*	*Lifetime risk of maternal death: one in*
World	400	515 000	75
More developed regions[b]	21	2 800	2 500
Less developed regions	440	512 000	60
Least developed countries	1 000	230 000	16
Africa	1 000	273 000	16
Eastern Africa	1 300	122 000	11
Middle Africa	1 000	39 000	13
Northern Africa	450	20 000	49
Southern Africa	360	4 500	65
Western Africa	1 100	87 000	13
Asia[b]	280	217 000	110
Eastern Asia	55	13 000	840
South-Central Asia	410	158 000	55
South-Eastern Asia	300	35 000	95
Western Asia.	230	11 000	95
Europe	28	2 200	2 000
Eastern Europe	50	1 600	1 100
Northern Europe	12	140	3 900
Southern Europe	12	170	5 000
Western Europe	14	280	4 000
Latin America and the Caribbean	190	22 000	160
Caribbean	400	3 100	85
Central America	110	3 800	240
South America	200	15 000	150
Northern America	11	490	3 500
Oceania[b]	260	560	260
Australia/New Zealand	8	25	5 500
Melanesia	310	560	60
Micronesia	..	..	..
Polynesia	33	5	700

Source: World Health Organization, *Maternal Mortality in 1995: Estimates Developed by WHO, UNICEF and UNFPA* (WHO/RHR/01.9).

[a] Estimates not developed for countries with total population below 300,000.

[b] Australia/New Zealand and Japan are excluded from the regional totals but included in the total for the more developed regions.

The poor health and nutrition of women and the lack of care that contributes to their death in pregnancy and childbirth also compromise the health and survival of their infants. The World Health Organization estimates that every year over 3.5 million such babies die within the first month of life, many of them during the critical first week of life. Most of those deaths are a consequence of the poor health and nutritional status of the mother coupled with the inadequate care

she receives before, during and after delivery. In addition, some 3.9 million infants are stillborn every year. The vast majority of those deaths need not happen if women have appropriate care during pregnancy and delivery and if infants have basic care in the first critical hours.

D. USING CIVIL REGISTRATION DATA TO ASSESS TRENDS

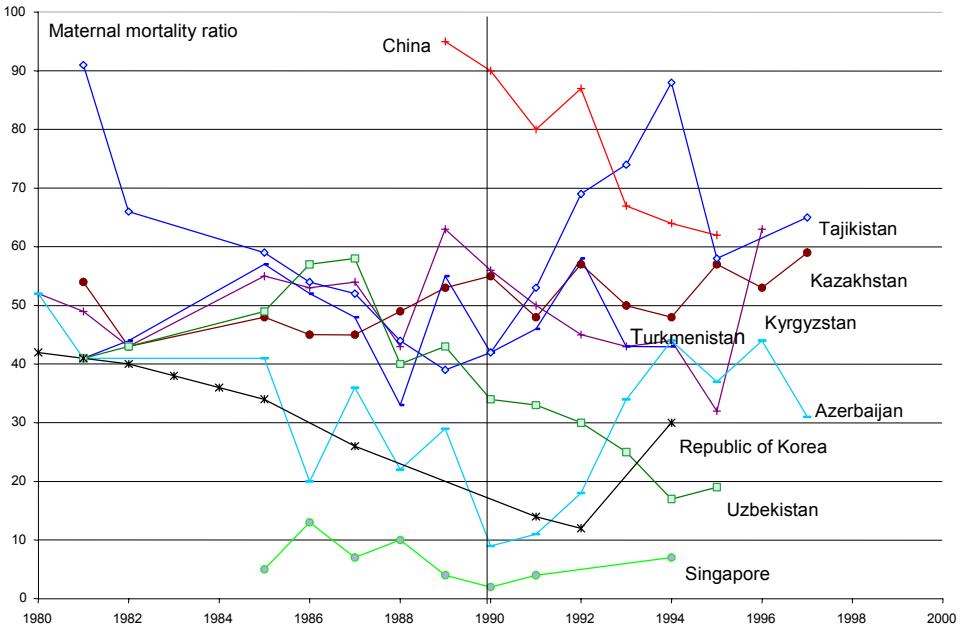
If data on levels of maternal mortality are available on a regular basis from routine civil registration, they can be used for monitoring trends. In practice, however, only a small number of countries, accounting for under one quarter of the world's births (and less than 7 per cent of births if China is excluded), have maternal mortality trend data derived from the civil registration system. All of those countries have relatively low levels of maternal mortality, at under 100 per 100,000 live births since the early 1980s. Furthermore, civil registration systems routinely fail to identify correctly a proportion of maternal deaths (Atrash, Alexander and Berg, 1995). The kinds of deaths most often missed in routine reporting include:

- Those associated with abortion (especially where it is illegal)
- Early pregnancy deaths (ectopic or molar pregnancy) in which the fact of pregnancy may have been unknown to the woman and her family
- Indirect maternal deaths from such illnesses as malaria, anaemia, tuberculosis, hepatitis and cardiovascular disease, which are frequently miscoded to other categories
- Deaths that occur some time after the termination of the pregnancy, especially when the death takes place on a non-obstetric hospital ward, such as an intensive care or specialized unit (Turnbull and others, 1989; Smith and others, 1984; Centres for Disease Control and Prevention, 1991).

Bearing these cautions in mind, and assuming that the proportion of maternal deaths missed due to underreporting or misclassification has remained relatively stable over time, it is possible to examine maternal mortality trends derived from civil registration in some countries in Asia and Latin America (figures 12 and 13). The United Nations has classified those countries as having complete civil registration, and they have trend data on maternal mortality derived from civil registration. Trend data are also available for China, where Reproductive Age Mortality Studies have been used to estimate maternal mortality since 1989. The only African country classified by the United Nations as having complete coverage, Mauritius, is not included because the absolute numbers are very small.

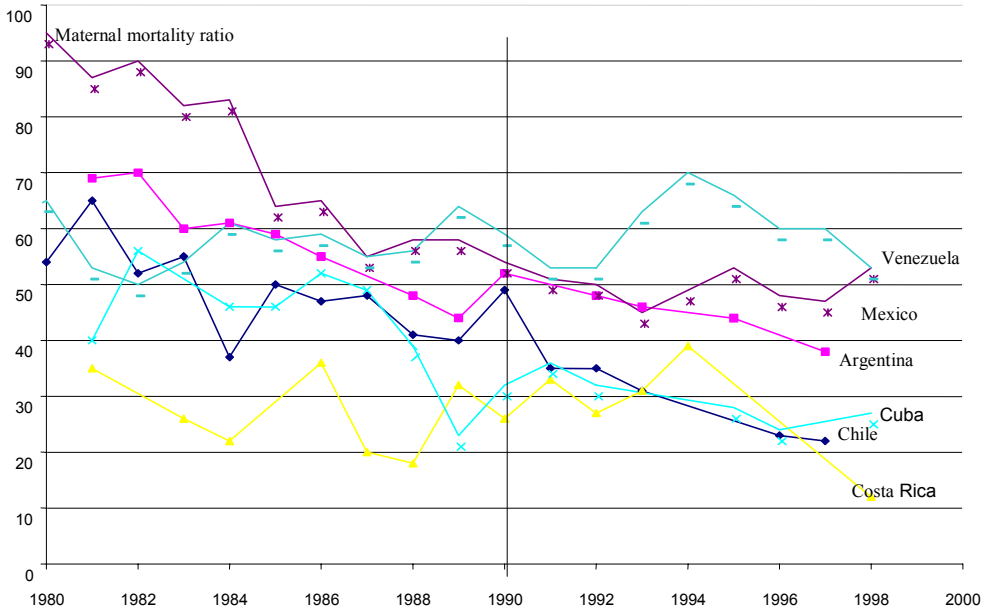
Among developing countries, only Argentina, Chile, China, Costa Rica and Uzbekistan were able to demonstrate sustained reductions in maternal mortality over the past decade. Elsewhere in the developing world, there appears to have been a relative stagnation in maternal mortality since 1990. In some settings there have been apparent increases in levels, but this is thought to be a result of improved reporting. In Malaysia, Sri Lanka and Thailand, for example, data on maternal mortality derived from routine reporting have been complemented by various methods of triangulation in order to reduce misclassification of maternal deaths and improve the completeness of reporting—what is sometimes called active case finding. In Sri Lanka, where maternal mortality fell steeply between 1940 and 1985, the subsequent stagnation in the level of maternal mortality is thought to be due, at least in part, to improved reporting. In Malaysia, maternal mortality in 1994 was reported by the routine reporting system at 19 per 100,000 births in 1994, but at 39 per 100,000 through the active case finding mechanism. In Thailand, in 1995, the routine reporting system registered 17 maternal deaths per 100,000 live births, as compared with 44 per 100,000 using active case finding (World Health Organization, 1998).

Figure 12. Trends in maternal mortality, selected countries in Asia, 1980-1997



Source: World Health Organization/United Nations Children's Fund databases.
NOTE: For China data were derived from Reproductive Age Mortality Studies.

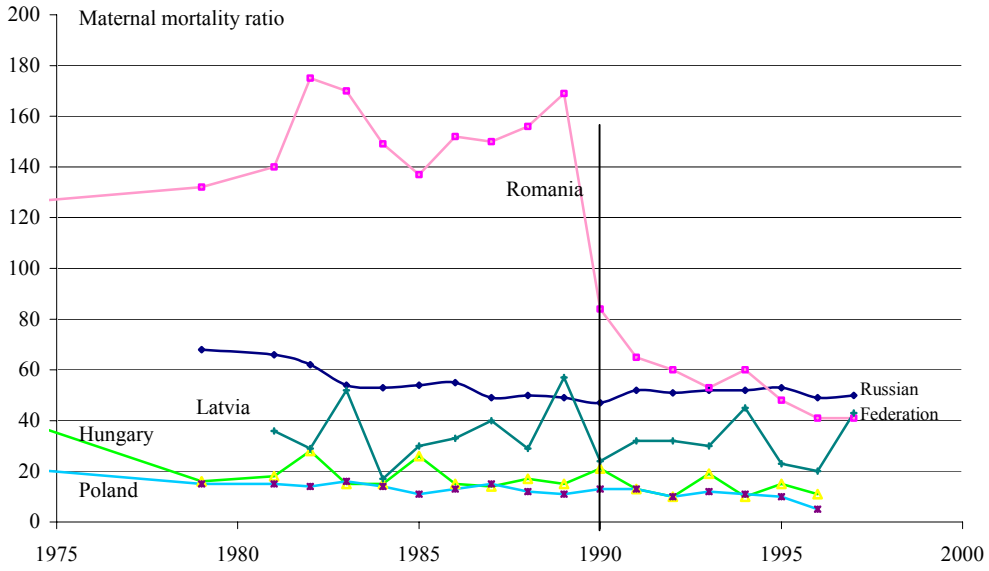
Figure 13. Trends in maternal mortality, selected countries in Latin America and the Caribbean, 1980-1999



Source: World Health Organization/United Nations Children's Fund databases.

The apparent transient increases in maternal mortality in some countries of Eastern Europe (for instance, Latvia) may also be due to improved case-reporting (see figure 14). An exception is Romania, where the precipitous fall in maternal mortality observed in 1989-1990 reflects the liberalization of the law regarding availability of safe abortion. Prior to 1989, strongly pronatalist policies, lack of reliable contraception, prohibition of abortion and economic difficulties produced extremely high levels of abortion-related mortality (Royston and Armstrong, 1989). Although the situation appears to have stabilized somewhat since 1990, the differentials in levels of maternal mortality in countries of Eastern Europe and those of the European Union are marked.

Figure 14. Trends in maternal mortality, selected countries in Eastern Europe, 1974-1997



Source: World Health Organization/United Nations Children's Fund databases.

E. USING PROCESS INDICATORS TO ASSESS TRENDS

In countries where maternal mortality is measured using household surveys, the margins of uncertainty are such that it is not possible to draw firm conclusions about the direction of trends. For assessing progress in these countries, process indicators are needed for regular monitoring. The percentage of births attended by skilled health personnel is one potential process indicator, and there is evidence of a strong association between that indicator and the levels of maternal mortality (World Health Organization, 1999; De Browere, Tonglet and Van Lerberghe, 1998). Despite concerns about definitions and comparability both between countries and over time, the indicator has a number of advantages for monitoring purposes, including the wide availability of data for developing countries up to and including the year 2000. The source of the information is generally the Demographic and Health Surveys, the Pan Arab Project for Child Development (PAPCHILD) or reproductive health surveys that provide a standardized methodology and sampling framework along with strict criteria regarding the maintenance of data quality. For estimates by the World Health Organization and the United Nations Children's Fund, the skilled health-care personnel category comprises only the first two groups,

namely, doctors and nurses/midwives who have the necessary midwifery skills[i] (World Health Organization, 1999).

Trend data on skilled attendants are available for 53 countries that have a minimum of two data points derived from sources using similar estimation methods, generally Demographic and Health Surveys. Overall, these countries account for 76 per cent of live births, although this figure varies considerably by region. Table 38 shows the trend in the proportion of deliveries assisted by skilled attendants for major regional groupings. Because data are available for different years and cover a different period for each country, adjustments to a common ten-year period, 1989 to 1999, have been made. The observed rate of change was used to project data for the end points 1989 and 1999. The regional averages are weighted by the numbers of live births.

TABLE 38. TRENDS IN THE PERCENTAGE OF DELIVERIES ASSISTED BY SKILLED ATTENDANTS FOR 53 COUNTRIES, 1989-1999

Region	*Number of countries with trend data* [a] *1999*	*Percentage of births in the region covered by the data* *1999*	*Percentage of births assisted by skilled attendants* *1989*	*1999*	*Annual average rate of change* [b] *(Percentage)* *1989-1999*
Sub-Saharan Africa.....	17	59	44	44	0.1
Western Asia and Northern Africa.....	9	56	49	63	2.5
Asia.....	7	89	39	48	2.2
Latin America and the Caribbean	18	74	74	81	0.9
Total	53[c]	76 [d]	45 [d]	52 [c]	1.7 [c]

Source: C. AbouZahr and T. Wardlaw, "Maternal mortality at the end of a decade: signs of progress?", *Bulletin of the World Health Organization,* vol. 79, No. 6 (2001).

[a] Data published up to April 2001.

[b] Weighted average of individual country data. Regional averages were weighted by the numbers of live births.

[c] Including two countries from Central and Eastern Europe and the Commonwealth of Independent States.

[d] Data for developing countries only.

The evidence shows that in general only modest improvements in coverage of care at delivery have occurred, with an average annual increase of 1.7 per cent over the period 1989 to 1999. In sub-Saharan Africa, there has been barely any perceptible change over the decade. However, countries of Asia, Western Asia and Northern Africa show significant improvements, with annual average increases of 2.2 per cent and 2.5 per cent respectively.

In Brazil, Jamaica, Jordan, Kuwait, Oman, Panama and South Africa, there are relatively high levels of coverage with modest improvements. By contrast, in Bangladesh, Burkina Faso, Haiti and Mali, very low proportions of deliveries are assisted by skilled attendants; moreover, trends in care at delivery in those countries are stagnant or even declining. Niger and Yemen, though starting from a low baseline, have shown some improvements in coverage over the period. Significant improvements can be observed in Bolivia, Egypt, Indonesia, Morocco and Togo, countries characterized in recent years by a determined and high-level commitment to address maternal mortality. In Egypt, for example, coverage by skilled attendants at delivery increased from 35 per cent to 61 per cent from 1988 to 2000. In Indonesia, coverage by skilled attendants increased from 36 per cent in 1987 to 56 per cent in 1999. In Morocco, coverage increased from 24 per cent in 1984 to 40 per cent in 1995. In Honduras, institutional deliv-

eries increased from 41 per cent in 1987 to 54 per cent in 1996. Significant increases are observed in other countries such as Argentina, Ecuador, Honduras and Mexico (AbouZahr and Wardlaw, 2001).

Countries with already high levels of coverage by skilled attendants at delivery (such as Costa Rica, Cuba, Jordan, and Kuwait) appear to be making continuous progress in terms of the use of skilled birth attendants. Countries with intermediate levels of coverage (such as Guinea, South Africa, Togo, Tunisia and Zimbabwe) show ongoing, slow improvements. However, some countries, such as Burkina, Faso, Cameroon, Kenya, Madagascar, Mali, the United Republic of Tanzania, and Zambia, appear to have lost ground over the period. Of the 17 sub-Saharan countries for which trend data are available, only six—Ghana, Guinea, Niger, Nigeria, Senegal and Togo—have increased levels of coverage significantly since 1988. While acknowledging that the apparent declines may be an artefact of the data collection methods, the apparent fall in coverage recorded in some countries should alert national authorities to the possibility of a problem (AbouZahr and Wardlaw, 2001).

If the validity of using the percentages of births attended by skilled health personnel as a process indicator to monitor trends in maternal mortality is accepted, it can be concluded that while there have been modest improvements in Asia, Western Asia and Northern Africa, it is likely that levels of maternal mortality in sub-Saharan Africa have remained unchanged or even deteriorated.

In 1999, at the twenty-first special session of the General Assembly for an overall review and appraisal of the implementation of the Programme of Action of the International Conference on Population and Development, it was agreed that all countries should strive to ensure that 80 per cent of deliveries be assisted by skilled attendants by 2005 (General Assembly resolution S-21/2, annex, para. 64). Based on current trends, only the countries of Latin American and the Caribbean will attain this goal. Countries in Western Asia and Northern Africa will not attain the goal until around 2010, and Asian countries as a whole will fall short of the goal even in 2015. In sub-Saharan Africa as a whole, no progress towards the goal is currently discernible.

F. CAUSES OF MATERNAL MORTALITY AND RELATED MORBIDITIES

The causes of maternal deaths operate at various levels. The most immediate causes can be classified as direct or indirect complications of pregnancy. There are five major direct causes of death. Haemorrhage accounts for one quarter of all maternal deaths, sepsis for 15 per cent, hypertensive disorders of pregnancy and abortion complications for 13 per cent each, and obstructed labour for 7 per cent. Abortion-related mortality is particularly significant in parts of Latin America and the Caribbean, and may account for up to 30 per cent of all maternal deaths in some settings. Ectopic pregnancy is another direct cause of death; however, since this complication tends to occur very early in pregnancy and diagnosis is difficult in the absence of skilled medical care, such deaths are often wrongly classified as non-maternal. Another significant direct cause of maternal death is embolism. Direct obstetric deaths may also be associated with medical interventions, especially anaesthesia. Indirect causes account for some 20 per cent of all maternal deaths, although the composition of causes varies from region to region, with malaria or HIV/AIDS being particularly significant in parts of sub-Saharan Africa. There is increasing evidence that pregnancy-related deaths may also occur as a result of domestic violence.

For every woman who dies as a result of pregnancy-related complications, many more suffer debilitating sequelae that may be chronic and thus remain with them for the rest of their lives. The currently available epidemiological tools are not sufficiently developed to permit precise estimation of the burden of disease and disability associated with pregnancy-related complications, but it is known to be significant. For example, women who suffer amniotic fluid embolisms or cerebrovascular disorders may suffer residual neurological impairment. Complications such as rupture of the uterus or severe haemorrhage, thought to be a complication in approximately one per cent of deliveries, may necessitate hysterectomy with the consequent loss of fertility and possible psychological effects (Denmissie and others, 2000). The long-term effects of post-partum haemorrhage may include severe anaemia and even loss of pituitary function (Sheehan's syndrome). A wide-

spread and debilitating condition associated with sepsis, particularly post-partum sepsis, is pelvic inflammatory disease and subsequent infertility. The psychological consequences of pregnancy and childbirth also remain poorly measured, but post-partum depression and puerperal psychosis are not uncommon. Post-partum psychosis is a severe disturbance which may occur with a frequency of 1 to 2 per 1,000 births (AbouZahr, 1998).

Underlying the clinical causes of death and disability are the causes related to lack of access to skilled medical care. The majority of obstetric complications are amenable to relatively simple medical interventions if women are able to benefit from the care of a skilled health-care worker, particularly during the critical time of labour and delivery. In developing countries, however, many women are assisted only by relatives or by traditional birth attendants; many deliver unaided and alone. Globally, only 53 per cent of women deliver with the assistance of a professional (a midwife or doctor), and only 40 per cent of women in developing countries give birth in a hospital or health centre (World Health Organization, 1999). Although an estimated 15 per cent of pregnant women will experience serious complications that are potentially life-threatening and require emergency care, there are virtually no data on the proportion of women with access to such care.

At more removed levels, underlying causes associated with high maternal mortality include the low social status of women that limits their access to economic resources and basic education and impedes their ability to make decisions related to their health and nutrition. Lack of decision-making power and alternative opportunities constrains many women to a life of constant childbearing. Excessive physical work coupled with a poor diet also contributes to poor maternal outcomes.

G. Interventions to reduce maternal mortality and morbidity

In 1987, the World Health Organization, the United Nations Children's Fund, the United Nations Population Fund, the World Bank and other organizations directly concerned with maternal health established the Safe Motherhood Initiative. The aim of the Initiative was to bring the issue of maternal mortality to the forefront of the international public health agenda. The Initiative resulted in significant improvements in knowledge, stimulating the identification and implementation of evidence-based practices and leading to a consensus statement by the United Nations agencies on needed actions (World Health Organization, 1999), which can be categorized into three broad areas:

- Prevention and management of unwanted pregnancy and unsafe abortion
- Use of skilled care during pregnancy and childbirth
- Access to referral care when complications arise

Expanding access to and quality of family planning information and services will help reduce the number of unwanted pregnancies and unsafe abortions and associated maternal deaths. Thousands of lives could be saved if women were attended by a skilled attendant during childbirth and were able to access emergency obstetric care for complications. Although traditional birth attendants can play an important role in providing culturally appropriate health education and emotional support to women during pregnancy and childbirth, they cannot provide the essential obstetric care needed to manage complications. If applied worldwide, the above health interventions could reduce substantially the incidence and severity of major complications associated with pregnancy and childbirth.

Addressing the complex challenge of maternal and newborn morbidity and mortality requires a functioning health-care system together with interventions at the community level to ensure that pregnancies are wanted and that women have access to the care they need when they need it. At the policy level, it requires an enabling environment within which maternal health care services can be effectively delivered. Access is dependent both on transport and on a range of important economic, social and cultural factors, including women's ability to decide when and where to seek care.

A body of experience is now available to describe the many interrelated factors that have to be in place if progress in reducing maternal and new-

born morbidity and mortality is to be made. Priorities need to be clearly defined and programme strategies developed that are focused and feasible for Governments in resource-constrained settings. Interventions need to be based on evidence and address all major causes of maternal death, including abortion complications. The particular needs of vulnerable populations, such as adolescents, need to be met, and relevant technical and programming guidelines, training curricula and other tools for effective programmes need to be made widely available. The issue of HIV/AIDS infection among women and their babies must be addressed as must the risks associated with other diseases, such as malaria. Most importantly, there is a need for continuing and sustained commitment on the part of government decision-makers and for ongoing resource allocation at both the national and the international levels.

NOTE

[1] Skilled health personnel or skilled attendant: doctors (specialist or non-specialist) and/or persons with midwifery skills who can handle normal deliveries and diagnose and manage obstetric complications. Person with midwifery skills: a person who has successfully completed the prescribed course in midwifery and is able to give the necessary supervision, care and advice to women during pregnancy, labour and the postpartum period, conduct deliveries alone, provide lifesaving obstetric care and care for the newborn and the infant.

REFERENCES

AbouZahr, Carla (1998). Maternal mortality overview. In *Health Dimensions of Sex and Reproduction: The Global Burden of Sexually Transmitted Diseases, HIV, Maternal Conditions, Perinatal Disorders and Congenital Anomalies*, Global Burden of Disease and Injury Series, vol. III, C. J. L. Murray and A.D. Lopez, eds. Geneva: the World Health Organization; Cambridge, Massachusetts: Harvard School of Public Health; and Washington, D.C.: World Bank.

AbouZahr, Carla, and Tessa Wardlaw (2001). Maternal mortality at the end of a decade: signs of progress? *Bulletin of the World Health Organization,* vol. 79, No. 6.

Agoestina, T., and A. Soejoenoes (1989). *Technical Report on the Study of Maternal and Perinatal Mortality, Central Java Province.* Jakarta: Coordinating Board of Indonesian Fertility Research *(*BKS PENFIN)/Ministry of Health.

Atrash, H., S. Alexander and C. Berg (1995). Maternal mortality in developed countries: not just a concern of the past*. Obstetrics and Gynecology*, vol. 86, No. 4 (February).

Centers for Disease Control and Prevention (1991). Current trends in maternal mortality surveillance - Puerto Rico, 1989. *Morbidity and Mortality Weekly Reports,* vol. 40, No. 30.

De Browere, V., R. Tonglet and W. Van Lerberghe (1998). Strategies for reducing maternal mortality in developing countries: what can we learn from the history of the industrialised West? *Tropical Medicine and International Health,* vol. 3, No.10.

Denmissie, K., and others (2000). *Perinatal Health Indicators for Canada*. Ottawa: Canadian Perinatal Surveillance System.

Graham, Wendy, William Brass and Robert W. Snow (1989). Estimating maternal mortality: the sisterhood method*. Studies in Family Planning,* vol. 20, No. 3 (May-June).

Greenwood, A. M., and others (1987). A prospective study of the outcome of pregnancy in a rural area of the Gambia. *Bulletin of the World Health Organization***,** vol. 65.

Hibbard, B. M., and others (1996). *Report on Confidential Enquiries into Maternal Deaths in the United Kingdom, 1991-1993.* London: Her Majesty's Stationery Office.

International Monetary Fund (2000). *A Better World for All: Progress towards the International Development Goals.* Washington, D.C.: International Monetary Fund and World Bank; Paris: Organisation for Economic Co-operation and Development; New York: United Nations.

Organisation for Economic Co-operation and Development (1996). *Shaping the 21st Century: The Contribution of Development Cooperation.* Paris.

Royston, Erica, and Sue Armstrong, eds. (1989). *Preventing Maternal Deaths*. Geneva: World Health Organization.

Rutenberg, N., and J. M. Sullivan (1991). Direct and indirect estimates of maternal mortality from the sisterhood method. In *Proceedings of the Demographic and Health Surveys World Conference*, Washington, D.C., 5-7 August 1991, vol. III. Columbia, Maryland: International Research Development/Macro International, Inc.

Smith, J. C., and others (1984). An assessment of the incidence of maternal mortality in the United States. *American Journal of Public Health*, vol. 8, No. 74 (August).

Stanton, Cynthia, and others (2001). Every death counts: measurement of maternal mortality via a census. *Bulletin of the World Health Organization,* vol. 79, No. 7.

Turnbull, A., and others (1989)**.** *Report on Confidential Enquiries into Maternal Deaths in England and Wales 1982-84*. London: Her Majesty's Stationery Office.

World Health Organization (1987). *Studying Maternal Mortality in Developing Countries: A Guidebook*. WHO/FHE/87.7.

——— (1992). International Statistical Classification of Diseases and Related Health Problems, Tenth Revision. Geneva.

——— (1998). *WHO/UNICEF/UNFPA Asia Region Consultation on Maternal Mortality Estimates*, Bangkok, Thailand, 8-11 June 1999. WHO/RHT/98.29.

——— (1999). *Reduction of Maternal Mortality: A Joint WHO/UNFPA/UNICEF/World Bank Statement.* Geneva.

——— (2001). *Maternal Mortality in 1995: Estimates Developed by WHO, UNICEF and UNFPA.* WHO/RHR/01.9.

VI. SEXUALLY TRANSMITTED INFECTIONS*

Sexually transmitted infections (STIs)[1] are among the most common causes of illness in the world and have far-reaching health, social and economic consequences for many countries. Not only are they a cause of acute infections in adults, but they may also result in long-term morbidity for both women and men, with a higher burden of disease in women. Long-term sequelae such as infertility occur in both women and men, but women seem to suffer the resultant socio-economic consequences more. Because STI-related pelvic inflammatory disease (PID) damages the fallopian tubes, women with STIs have an increased likelihood of developing ectopic pregnancies than women without STIs. Cervical cancer, the commonest cancer in women in developing countries, is caused by human papilloma virus infection. Infants also bear the consequences of sexually transmitted infections. Some STIs are associated with low birth weight, prematurity, congenital infections and foetal wastage. Infections of the newborn's eyes (ophthalmia neonatorum) can lead to blindness if not treated early and adequately.

The appearance of the human immunodeficiency virus and the acquired immunodeficiency syndrome has further increased the need to control STIs. A strong correlation exists between conventional STI and HIV transmission in which both ulcerative and non-ulcerative STIs have been shown to increase the risk of sexual transmission of HIV. In addition, HIV infection complicates the management and control of other STIs, such as chancroid, genital warts and genital herpes.

A. ESTIMATES OF PREVALENCE

The World Health Organization estimates that 340 million new cases of sexually transmitted infections occurred worldwide in 1999. The largest number of new infections occurred in Asia, followed by sub-Saharan Africa and Latin America and the Caribbean (table 39).

TABLE 39. ESTIMATED PREVALENCE AND ANNUAL INCIDENCE OF CURABLE SEXUALLY TRANSMITTED INFECTIONS BY REGION, 1999[a]

Region	*Population aged 15-49 (Millions)*	*Prevalence (Millions)*	*Prevalence (per 1,000)*	*Annual incidence (Millions)*
Northern America	156	3	19	14
Western Europe	203	4	20	17
North Africa and Western Asia	165	3.5	21	10
Eastern Europe and Central Asia	205	6	29	22
Sub-Saharan Africa	269	32	119	69
South and South-eastern Asia	955	48	50	151
East Asia and the Pacific	815	6	7	18
Australia and New Zealand	11	0.3	27	1
Latin America and the Caribbean	260	18.5	71	38
Total	3 040	116.5	38	340

Source: World Health Organization, *Global prevalence and Incidence of Selected Curable Sexually Transmitted infections: Overview and Estimates* (WHO/HIV_AIDS/2001.02).

[a] Chlamydia, gonorrhoea, syphilis and tricomoniasis.

*Prepared by the World Health Organization, Geneva.

B. Vulnerability of sexually transmitted infections

The highest rates of STI are generally found in urban men and women in their most sexually active years, that is, between the ages of 15 and 35. Age-specific data from many countries indicate that the peak incidence of STIs occurs among those aged 15 to 29 years. Women become infected at a younger age than men.

Adolescents[2] are at a special risk of exposure to STIs and HIV because their sexual relations are often unplanned and sporadic and are sometimes a result of pressure or force (World Health Organization, 1986). Their sexual relations typically occur before they have the experience and skill to protect themselves, and before they have adequate information about STIs or adequate access to STI treatment services and condom supplies. For example, in a number of studies, young age was found to be an independent predictor of chlamydial infection after controlling for behavioural factors (Arno and others, 1994).

Adolescent women are more vulnerable than young men and adults for biological, social and economic reasons. They are especially vulnerable to infections of the cervix because of the inmaturity of that natural barrier against infection. In addition, sexual activity before menarche, as in the case of child brides, is associated with an increase in STI prevalence and pelvic inflammatory disease (Duncan and others, 1990). Furthermore, female adolescents often do not use barrier contraceptives either because of ignorance or because access to supplies is limited for social or economic reasons.

Certain identifiable groups have high or increasing rates of HIV infection and, according to public health information, are the most vulnerable to HIV infection. Vulnerable groups are characterized by such factors as poverty, age, sexual practices, drug-using behaviour, livelihood, institutional location, disrupted social structures and geographical mobility (forced or voluntary). In targeting STI care to vulnerable populations, appropriate, acceptable and accessible health services should be provided, with additional care taken not to stigmatize individuals belonging to the targeted groups.

C. Trends in sexually transmitted infections

The exact magnitude of the STI burden at the national level is frequently unknown. Although passive STI surveillance systems exist in some countries, the data are not always reliable or complete. The quality and completeness of the available data and estimates depend on the quality of STI services, the extent to which patients seek health care, the intensity of case-finding, the accuracy of diagnosis and the quality of reporting.

More than 20 pathogens are transmissible through sexual intercourse, and some of the most frequent ones are listed in table 40. Most of the pathogens that cause increased morbidity are curable with appropriate antimicrobial treatment. However, in spite of the availability of effective treatments, bacterial STIs are still a major public health concern in both the industrialized and developing countries.

Sexually transmitted bacterial and parasitic infections are curable with appropriate antibiotics. Although the viral infections cannot be cured, some can be prevented or controlled using antiviral treatments and vaccines. Additional information on the most frequent types of infection is given below.

1. Syphilis

The two broad stages of syphilis are early syphilis and late syphilis. Early syphilis is infectious and includes primary, secondary and early latent; late syphilis consists primarily of late latent, cardiovascular syphilis and neurosyphilis. Congenital syphilis remains an important cause of foetal and infant loss.

Syphilis is the classic example of a sexually transmitted infection that can be successfully controlled by public health measures because a sensitive diagnostic test and an effective and affordable treatment are available. The testing and treatment of pregnant women for syphilis is the most reliable method of preventing congenital syphilis.

TABLE 40. MOST COMMON SEXUALLY TRANSMISSIBLE PATHOGENS AND CLINICAL PRESENTATION

Disease	*Pathogen*	*Symptoms and signs*
Bacterial infections		
Gonorrhoea	*Neisseria gonorrhoea*	Urethral discharge; cervicitis and lower abdominal pain in women; neonatal conjunctivitis. May be asymptomatic
Chlamydia	*Chlamydia trachomatis*	Urethral discharge; cervicitis and lower abdominal pain in women; neonatal conjunctivitis. May be asymptomatic
Syphilis	*Treponema pallidum*	Anogenital ulcers (chancre); inguinal swelling; generalized skin rash
Chancroid	*Haemophilus ducreyi*	Genital ulcers with inguinal swelling (bubo) in the majority of cases
Granuloma inguinale or Donovanosis	*Calymmatobacterium granulomatis*	Nodular swellings and ulcerative lesions of the inguinal and anogenital areas
Viral infections		
Acquired Immunodeficiency Syndrome (AIDS)	Human Immunodeficiency Virus (HIV)	Asymptomatic; generalized lymph node swelling, persistent fever, skin rash, weight loss, etc.
Herpes genitalis (genital herpes)	Herpes simplex virus type 2 (HSV-2)	Anogenital vesicular lesions and ulcerations
Genital warts	Human papilloma virus (HPV)	Anogenital fleshy warts; cervical warts; cervical cancer
Viral hepatitis	Hepatitis B virus (HBV)	Predominantly asymptomatic; nausea and malaise; enlargement of the liver; jaundice; liver cancer; cirrhosis.
Cytomegalovirus infection	Cytomegalovirus (CMV)	Subclinical; fever; diffuse lymph node swelling
Molluscum contagiosum	Molluscum contagiosum virus (MCV)	Genital or generalized umbilicated, firm skin nodules
Other		
Trichomoniasis	*Trichomonas vaginalis*	Asymptomatic; profuse, frothy vaginal discharge; urethral discharge and painful urination in men.

Source: Based on the World Health Organization; *Guidelines for the Management of Sexually Transmitted Infections* (WHO/HIV_AIDS/2001.01).

The rates for syphilis have been declining in the United States since 1992, although congenital syphilis is still a problem among minority groups. Syphilis rates continue to be low in Western Europe, but there is an epidemic in Eastern Europe and in the successor States of the former Soviet Union. Rates are high in Asia and Africa.

2. Gonorrhoea

Gonorrhoea, a common STI, especially in developing countries, is usually symptomatic in up to 80 per cent of women and 10 per cent or more of men. It is primarily an infection of the genital tract but also infects other organs, such as the eyes, the rectum and the joints. It is a major cause of infertility in women and of blindness in newborns.

In some developing countries, such as, Jamaica in the Caribbean and Malawi in Africa, the prevalence of gonorrhoea is between 15 to 20 per cent of attendees at antenatal clinics. Some countries in Europe, such as Sweden, have achieved a steady decline in prevalence with the introduction of preventive measures based on information, treatment and elimination of risk factors (Cronberg, 1993). However, even Sweden experienced a rise in prevalence in 1997, the first since 1976. The core groups infected with gonorrhoea are heterosexual teenagers and homosexual men (Berglund, Fredlund and Giesecke, 2001). In most of Western Europe gonorrhoea prevalence has been declining, although there has been a steady increase in London since 1997. In Eastern Europe and the successor States of the former Soviet Union, prevalence has been rising following the dramatic socio-economic and political changes in the region and the liberalization of sexual behaviour (Borisenko, Tichonova and Renton, 1999). The expansion of commercial sex work and the fragmentation of STI and related services have contributed significantly to the increase. In Australia, notification of gonorrhoea infection has doubled since 1991.

3. Chlamydia

Chlamydia is a common cause of non-gonococcal urethritis (NGU) in men and of pelvic inflammatory disease in women with subsequent risk of infertility. It also causes infections of the conjunctiva of the eye.

The highest prevalence of chlamydia is observed among female adolescents (Burnell and others, 1999; Burstein and others, 1998), and the association with young age (Cook and others, 1999) highlights the importance of screening sexually active young women in order to prevent infertility. However, resources for screening for chlamydia are not available in most countries. In the United States, chlamydia infection is the most commonly reported infectious disease. The prevalence and incidence of chlamydia remains low in the Nordic countries as a result of wide-scale screening programmes established in the 1970s.

4. Trichomoniasis

Trichomoniasis is a common cause of vaginal discharge in women and is often asymptomatic in men, but may cause non-gonococcal urethritis. In fact, it is the most common curable sexually transmitted infection. In spite of this, data on prevalence and incidence are limited. Trichomoniasis is associated with adverse birth outcomes such as premature rupture of the membranes, premature delivery and low birth weight (Cothc and others, 1997). Though not conclusive, evidence is accumulating that suggests that vaginal trichomoniasis may be associated with the risk of increased HIV seroconversion in women (Laga and others, 1993).

5. Herpes genitalis (genital herpes)

Anogenital herpes is caused mainly by the herpes simplex type 2 virus (HSV2). HSV2 prevalence varies widely, with rates generally higher in developing than in developed countries and in urban than in rural areas. High rates are seen in sub-Saharan Africa and the Caribbean, with a prevalence in adults of about 50 per cent in many countries. Overall, prevalence is higher in women than in men, especially among young people (Kamali and others, 1999; Fleming and others, 1997; Obasi and others, 1999). Among the industrialized countries, prevalence is higher in the United States (22 per cent in adults) (Krone and others, 2000) than in Europe (generally less than 15 per cent). The advent of HIV has brought about an increase in the prevalence of genital herpes, especially in developing countries. HIV and HSV2 manifest a bi-directional interaction: HSV2 increases the efficiency of HIV acquisition and transmission, whereas HIV may increase susceptibility to HSV2 and HSV2 shedding. A growing body of data suggests that HSV2 may be responsible for a substantial proportion of new HIV

infections in some parts of Africa. This change in the epidemiological relationship has altered the aetiology of genital ulcers in recent years (O'Farrell, 1999) and may influence the appropriateness of current management protocols for genital ulcer diseases.

D. SEXUALLY TRANSMITTED INFECTIONS: PREVENTION AND CARE

1. Prevention

The objectives of STI prevention and care are to reduce the prevalence of sexually transmitted infections by interrupting their transmission, reducing the duration of infection and preventing the development of complications in those infected.

Primary prevention stops the acquisition of infection and resulting illness. It can be promoted through health education and involves such practices as safer sex behaviour, including the use of condoms, and abstinence. Primary prevention messages apply equally to HIV infection and other STIs. Secondary prevention involves treating infected people to prevent transmission to others. Except for HIV infection and the other viral STIs, treatment cures the disease and interrupts the chain of transmission by rendering the patient non-infectious. Moreover, secondary prevention can enhance the control of viral infections through counselling (to prevent transmission) and possibly non-curative treatment (which may make a person less infectious).

The prevention of STIs is a cost-effective option for countries to invest in. With a common currency for measuring cost (often United States dollars) and a common unit for measuring health effects (often one year of healthy life saved), different interventions can be compared to one another to see which is most cost-effective. Outcomes (health effects) are commonly measured in the unit of disability-adjusted life years (DALYs) that is used to estimate the burden of disease in other standard costing exercises. For example, curing each case of gonorrhoea in a core group saves 120 DALYs, at a cost well below one dollar per DALY gained if the benefits of fewer secondary cases and reduced risk of HIV transmission are included (World Bank, 1993).

Treatment of sexually transmitted infections is highly cost-effective in its own right. It becomes even more cost-effective when the benefits of reduced HIV transmission are added. This was demonstrated in a trial in Mwanza, Tanzania, where improved STI case management was integrated into an existing primary health care system (Grosskurth and others, 1995).

2. Case management programmes in STI care

Effective management of sexually transmitted infections is one of the cornerstones of STI control, as it interrupts the transmission of infection and prevents the development of complications and sequelae. Appropriate treatment of STI patients at their first encounter with a health-care provider is, therefore, an important public health measure. When this involves adolescent patients, the potential exists to influence future sexual behaviour and treatment-seeking practices at a critical stage of development.

Laboratory diagnosis of STIs is ideal but difficult in many settings, since it increases the time and resources needed to get treatment and may reduce access to such treatment. In settings where laboratory facilities are available there must be suitably qualified personnel with adequate training to perform technically demanding procedures, and the establishment of external quality control is mandatory.

A clinical aetiological diagnosis that is based on a physician's clinical experience has often been shown to be inaccurate even among highly experienced STI specialists. Physicians fail to make the correct diagnosis due either to concurrent infections or to the atypical presentations of some of the conditions.

A third method, the syndromic diagnosis of STI patients, was developed and promoted in a large number of countries in the developing world. It is based on the identification of consistent groups of symptoms and recognized signs (syndromes), and the provision of treatment that will deal with the majority of organisms or the

most serious organisms responsible for producing the syndrome. The advantage of this method is that it is cheap, effective and provides immediate treatment, which in turn decreases transmission of infections and complications. However, the ability to treat as many infected individuals as possible needs to be weighed against the risk of overtreatment. To reduce the latter, the global STI management guidelines recommended by the World Health Organization need to be appropriately adapted to reflect national epidemiological situations.

In sum, sexually transmitted infections cause serious morbidity and mortality in the world. The key components of STI control have been defined for many years. As stated earlier, the treatment of STI is a highly cost-effective intervention. The challenge is to implement these demonstrated effective interventions at the country level.

NOTES

[1] The World Health Organization recommends that the term "sexually transmitted disease" (STD) be replaced by the term "sexually transmitted infections" (STIs). The term "sexually transmitted infection" has been adopted here because it incorporates also asymptomatic infections. In addition, the term has been adopted by a wide range of scientific societies and publications.

[2] The World Health Organization has defined adolescents as persons in age group 10-19, while youth have been defined as persons in age group15-24. Young people constitute a combination of these two overlapping groups, covering age group 10-24.

REFERENCES

Arno, J., and others (1994). Age and clinical immunity to infections with Chlamydia trachomatis**.** *Sexually Transmitted Diseases,* vol. 21, No. 1.

Berglund, T., H. Fredlund and J. Giesecke (2001). Epidemiology of the re-emergence of gonorrhoea in Sweden. *Sexually Transmitted Diseases,* vol. 28, No. 3.

Borisenko, K. K., L. I. Tichonova and A. M. Renton (1999). Syphilis and other sexually transmitted infections in the Russian Federation. *International Journal of STD and AIDS***,** vol. 10, No. 10 (October).

Bunnell, R. E., and others (1999). High prevalence and incidence of sexually transmitted diseases in urban adolescent females despite moderate risk behaviour. *Journal of Infectious Diseases*, vol. 180, No. 5.

Burstein, G. R., and others (1998). Incident Chlamydia trachomatis infections among inner-city adolescent females. *Journal of the American Medical Association,* vol. 280, No. 6.

Cook, R. L., and others (1999). Screening for Chlamydia trachomatis infection in college women with a polymerase chain reaction assay. *Clinical Infectious Diseases,* vol. 28, No. 5.

Cothc, M. F., and others (1997). Trichomonas vaginalis associated with low birth weight and preterm delivery. *Sexually Transmitted Diseases*, vol. 24.

Cronberg, S. (1993). The rise and fall of sexually transmitted disease in Sweden. *Genitourinary Medicine,* vol. 69.

Duncan, E. M., and others (1990). First coitus before menarche and risk of sexually transmitted disease. *The Lancet,* vol. 335.

Fleming, D. T., and others (1997). Herpes simplex virus type 2 in the United States, 1976-1994. *New England Journal of Medicine,* vol. 337, No.16.

Grosskurth, H., and others (1995). Impact of improved treatment of sexually transmitted diseases on HIV infection in rural Tanzania: randomized controlled trial. *The Lancet,* vol. 346.

Kamali, A., and others (1999). Seroprevalence and incidence of genital ulcer infection in a rural Ugandan population. *Sexually Transmitted Infections,* vol. 75.

Krone, M. R., and others (2000). Herpes simplex virus type 2 shedding in human immunodeficiency virus-negative men who have sex with men: frequency, patterns, and risk factors. *Clinical Infectious Diseases,* vol. 30, No. 2.

Laga, M., and others (1993). Non-ulcerative sexually transmitted diseases as risk factors for HIV-1 transmission in women: results from a cohort study. *AIDS,* vol. 7.

Obasi, A., and others (1999). Antibody to herpes simplex virus type 2 as a marker of sexual risk behaviour in rural Tanzania. *Journal of Infectious Diseases,* vol. 179, No. 1.

O'Farrell, N. (1999). Increasing prevalence of genital herpes in developing countries: implications for heterosexual HIV transmission and STI control programmes. *Sexually Transmitted Infections,* vol. 75, No. 6.

UNAIDS (1998). *The Public Health Approach to STD Control.* UNAIDS technical update (May). Geneva.

UNAIDS and World Health Organization (2000). *Consultation on STD Interventions for Preventing HIV: What is the Evidence?* Geneva.

World Bank (1993). *World Development Report*, *1993: Investing in Health*. New York: Oxford University Press.

World Health Organization (1986). *Young People's Health: A Challenge for Society.* Report of a WHO Study Group on Young People and "Health for All by the Year 2000". WHO Technical Report Series, No. 731. Geneva.

——— (2001a). *Global Prevalence and Incidence of Selected Curable Sexually Transmitted Infections: Overview and Estimates. WHO/*HIV*_AIDS/2001.2.*

——— (2001b). *Guidelines for the Management of Sexually Transmitted Infections.* Geneva**.**

World Health Organization, and UNAIDS (1997). *Sexually Transmitted Diseases: Policies and Principles for Prevention and Care.* Geneva

VII. HUMAN IMMUNODEFICIENCY VIRUS/ACQUIRED IMMUNODEFICIENCY SYNDROME (HIV/AIDS)*

Since the first clinical evidence of AIDS was reported in June 1981, HIV has generated an AIDS epidemic that has spread to every part of the world. At the end of 2001, an estimated 40 million people were living with HIV (table 41). The epidemic has proved devastating, AIDS having been the cause of death of about 20 million people to date. The epidemic is reversing important development gains, robbing millions of their lives, widening the gap between rich and poor, and undermining social and economic security. Dozens of countries are already deep in the grip of the HIV/AIDS epidemic, with many more teetering on its brink. The scale of the threat they face is unprecedented, outstripping the worst-case scenarios of a mere decade ago. In 2001, some 5 million people became infected globally, 800,000 of them children. Over the next decade, without effective anti-retroviral treatment and care, they will join the ranks of those who have already died of AIDS.

Prevention campaigns are reaching millions, but they are still missing too many young people. Recent surveys in 17 countries show that more than half the adolescents questioned could not name a single method to protect themselves against HIV/AIDS (United Nations Children's Fund, 2000). Condoms are being used in greater numbers than ever before, but in many HIV-affected countries still less than 50 per cent of young people use condoms in risky relationships, a proportion too low to reduce drastically the incidence of new HIV infections. Every month that the full-scale campaign needed to stop the terrifying epidemic is postponed, 400,000 more people become infected with the virus. More potent anti-retroviral drugs and treatments for opportunistic diseases are being developed, yet they remain out of reach for the vast majority of infected people.

*Prepared by the Joint United Nations Programme on HIV/AIDS.

A. THE TRENDS OF THE EPIDEMIC

1. Sub-Saharan Africa

Sub-Saharan Africa remains by far the worst affected region in the world, but it is also the least able to combat the epidemic because of lack of resources. Approximately 3.4 million new infections occurred in Africa in 2001, bringing to 28.1 million the total number of people living with HIV in that continent. It is estimated that 2.3 million Africans died of AIDS in 2001. About three million more women than men in Africa carry HIV. By the end of 2000, 10.4 million African children under age 15 had lost their mother or both parents to AIDS. The tragedies abstracted in such figures defy description.

Patterns of transmission vary, as do the segments of the population most at risk of infection. In sub-Saharan Africa, the virus spreads mainly through heterosexual intercourse and has spared no social groups. Women's physiological, social and economic vulnerability, contributes to their higher rates of infection than men's in sub-Saharan Africa. Across the continent, an estimated 2.4 million children under age 15 were living with HIV at the end of 2001—evidence that mother-to-child transmission is also affecting increasing numbers of lives. Indeed, in 2001 the region was home to over 90 per cent of all children who acquired the disease from their mothers.

Uganda is the first African country to have contained the spread of the epidemic. Its extraordinary effort of national mobilization reduced adult HIV prevalence in cities from about 28 per cent in the early 1990s to less than 8 per cent in 2000 (the adult prevalence represents the estimated proportion of people aged 15-49 living with HIV/AIDS). In parts of the United Republic of Tanzania and in Zambia, evidence is growing of a similar decline in HIV prevalence among young

TABLE 41. REGIONAL HIV/AIDS STATISTICS AND FEATURES, END OF 2001

Region	*Epidemic started*	*Adults and children living with HIV/AIDS*	*Adults and children with HIV during 2001*	*Adult prevalence rate[a] (Percentage)*	*Percentage of HIV-positive adults who are women*	*Main mode(s) of transmission of HIV among adults*
Sub-Saharan Africa	Late 1970s-Early 1980s	28 100 000	3 400 000	8.4	55	Heterosexual
Northern Africa and Western Africa	Late 1980s	440 000	80 000	0.2	40	Heterosexual, IDU
Southern and South-eastern Asia	Late 1980s	6 100 000	800 000	0.6	35	Heterosexual, IDU
Eastern Asia and the Pacific	Late 1980s	1 000 000	270 000	0.1	20	IDU, heterosexual, MSM
Latin America	Late 1970s-Early 1980s	1 400 000	130 000	0.5	30	MSM, IDU, heterosexual
Caribbean	Late 1970s-Early 1980s	420 000	60 000	2.2	50	Heterosexual, MSM
Eastern Europe and Central Asia	Early 1990s	1 000 000	250 000	0.5	20	IDU
Western Europe	Late 1970s-Eearly 1980s	560 000	30 000	0.3	25	MSM, IDU
Northern America	Late 1970s-Early 1980s	940 000	45 000	0.6	20	MSM, IDU, heterosexual
Australia and New Zealand	Late 1970s-Early 1980s	15 000	500	0.1	10	MSM
Total		40 000 000	5 000 000	1.2	48	

Source: UNAIDS and World Health Organization, *AIDS Epidemic Update*, December 2001 (Geneva, December 2001).
NOTE: "IDU" denotes transmission through injecting drug use; "MSM" denotes sexual transmission among men who have sex with men.
[a]The proportion of adults aged 15 - 49 living with HIV/AIDS by the end of 2001, using 2001 population numbers.

adults. However, HIV prevalence in Kenya remains in the double digits. In Western Africa, whereas Senegal has managed to keep HIV prevalence below 2 per cent, Côte d'Ivoire is one of the 15 worst affected countries in the world, and adult HIV prevalence in populous Nigeria has surpassed 5 per cent.

The high levels of prevalence in Eastern Africa have been overtaken by those in Southern Africa where HIV prevalence has soared and the epidemic is still out of control despite efforts to contain it. In several countries (Lesotho, Namibia, South Africa, Swaziland and Zimbabwe), at least one in five adults is HIV-positive. In Botswana, the adult prevalence rate is approaching 36 per cent, prompting the Government and the public to redouble their efforts to bring the epidemic under control. South Africa has renewed its efforts to contain the epidemic, but it will take years for the results to be seen. In 2000, HIV prevalence among pregnant women in South Africa rose to its highest level ever—24.5 per cent—bringing to 4.7 million the total number of South Africans living with HIV.

In some parts of Africa, the effects of prevention campaigns are becoming more evident among young people, particularly those with a secondary education. Unfortunately, these achievements do not translate rapidly into lower prevalence rates across the population.

2. Latin America and the Caribbean

In Latin America and the Caribbean, there are different patterns for the spread of HIV. In the Caribbean and much of Central America, unsafe sex between men and women, is the main mode of transmission. In Costa Rica and Mexico, however, infection rates are highest among men who have sex with men, and in Argentina, Brazil and Uruguay they are highest among injecting drug users. Nevertheless, heterosexual transmission accounts for an increasing share of infections throughout the region.

In Latin American and the Caribbean, about 1.8 million people are living with HIV/AIDS, including the 190,000 adults and children who became infected in 2001. In several Caribbean countries, HIV/AIDS has become a leading cause of death. The worst affected are Haiti and the Bahamas, where adult HIV prevalence rates are above 4 per cent. Brazil seems to have been successful in containing a potentially major heterosexual epidemic, thanks to its prevention efforts and to its treatment and care programme.

3. Asia and the Pacific

Asia, home to more people than any other region, is seeing alarming increases in the number of HIV infections. Seven million people are estimated to be living with HIV/AIDS in Asia and the Pacific—a figure that may multiply several times unless concerted and determined measures to control the epidemic are taken soon.

In 2001, more than a million people became infected in Asia, with adult HIV prevalence exceeding 2 per cent in Cambodia, Myanmar and Thailand. In Thailand, after an intensive national programme to increase condom use in commercial sex, the condom-use rate for brothel-based sex workers reached more than 90 per cent, cases of sexually transmitted infection declined sharply in number and HIV prevalence among army conscripts dropped by more than half.

Therefore, Thailand made great strides in controlling the spread of the disease. In India, the second most populous country of the world, an HIV prevalence level of under 1 per cent nonetheless translates into 3.9 million people living with HIV/AIDS—more than in any other country except South Africa. Unsafe sex and drug-injecting practices largely account for rising prevalence rates in India.

Although the spread of HIV in Eastern Asia and the Pacific still appears to be slow, the recent steep rise in sexually transmitted infections in China and the high levels of internal migration in that country, spurred by economic growth, could unleash a rapidly rising epidemic.

In Northern Africa and Western Asia, the number of HIV infections is rising from a low base. Localized studies in Algeria and the Libyan Arab Jamahiriya, for instance, reveal prevalence rates of about 1 per cent among pregnant women. Across the region, there were an estimated 80,000 new infections in 2001, bringing to 440,000 the number of people living with HIV/AIDS in the region.

4. Central and Eastern Europe

HIV infection rates are climbing ominously in Eastern Europe and Central Asia, where overlapping epidemics of HIV, injecting drug use, and STIs are swelling the ranks of people living with HIV/AIDS. Most of the quarter of a million people who became infected in 2001 were men—almost all injecting drug users living on the margins of society. In some parts of the region, more infections occurred in 2001 than in all previous years combined.

New epidemics have emerged in Estonia and Uzbekistan, while in Ukraine, 240,000 people were living with HIV/AIDS in 1999. In 1996, only a few cities in the Russian Federation reported HIV cases; in 2001, 82 of its 89 regions harboured the virus. The epidemic in the Russian Federation is still concentrated among injecting drug users and their sexual partners; however, growing prostitution and alarmingly high levels of sexually transmitted infections could cause it to spread rapidly into the general population.

5. *Industrialized countries*

The view that the HIV epidemic is no longer a burden in high-income industrialized countries is mistaken. Approximately 1.5 million people live with HIV in those regions, many of them productively, thanks to antiretroviral therapy. However, that achievement is overshadowed by the fact that prevention efforts are stalling in most industrialized countries and there is evidence that HIV incidence has not declined in the last five years.

In some countries, a new pattern is emerging, with the epidemic shifting towards poorer and younger people—especially ethnic minorities—who face disproportionate risks of infection and are more likely to be missed by prevention campaigns and to have difficulty getting access to treatment. HIV prevalence among injecting drug users gives cause for alarm, being 18 per cent in Chicago and as high as 30 per cent in parts of New York City. By contrast, needle and syringe exchange schemes in Australia have kept HIV prevalence rates low among injecting drug users.

In addition, as safe sex messages fade and complacency sets in, infection rates in some Northern American cities are again rising among men who have sex with men. One study in an urban area of the United States found an HIV prevalence of 7.2 per cent among this group (Valleroy and others, 2000). Also reported are sharp increases in sexually transmitted infections among young men who have sex with men in Amsterdam—an indication that unsafe sex threatens to become the norm again. There are signs that unsafe sex between men might also be a growing factor in Eastern Europe's epidemic.

B. THE IMPACT OF THE EPIDEMIC

The demographic impact of the HIV epidemic is devastating in the countries most affected by HIV. In Southern Africa, life expectancy rose steadily between the 1950s and the late 1980s. Citizens of those countries could, on average, expect to live to their 58th birthday. In combination with other socio-economic reversals, AIDS is erasing those achievements. Now, average life expectancy for a child born between 2005 and 2010 is estimated at 45 years or less. HIV/AIDS is also threatening child survival. Mortality under age 5 in Botswana, Kenya, South Africa, Swaziland and Zimbabwe is expected to be more than double what it would have been in the absence of AIDS if efforts to prevent mother to child transmission in those countries are not strengthened.

AIDS has profoundly affected economic growth and income. It is estimated that the annual per capita growth in half of the countries of sub-Saharan Africa is falling by 0.5 to 1.2 per cent as a direct result of AIDS (Bonnel, 2000). By 2010, per capita gross domestic product (GDP) may drop by 8 per cent. People at all income levels are vulnerable to the economic impact of HIV, but those living in poverty will suffer most acutely. In some countries, conservative estimates indicate that the number of people living in poverty has already increased by 5 per cent as a result of the epidemic.

The effects of the epidemic radiate from the household to all levels of society. To cope, households affected by HIV have cut their food consumption by up to 41 per cent. Rural households facing similar predicaments in Thailand are seeing their agricultural output shrink by half. In 15 per cent of households affected by HIV, children are removed from school to take care of ill family members and to help in generating income. Almost everywhere, the extra burdens of care and work are deflected onto women, especially the young and the elderly.

In some countries, health care systems are losing up to a quarter of their personnel to the epidemic. The education sector is also hard hit. Teachers cannot be trained swiftly enough to replace those who have succumbed to HIV-related illnesses. In 1999 alone, an estimated 860,000 children lost their teachers to AIDS in sub-Saharan Africa. Nevertheless, the right to education and the need for life-saving information about the epidemic remain as undiminished as they are unfulfilled. According to a study of 35 developing countries, uneducated men and women are five times more likely to know nothing about HIV infection than those with post-primary schooling.

C. THE COMMON THREAD: YOUNG PEOPLE AT THE HEART OF THE EPIDEMIC

On a global scale, a common pattern in all regions is the spread of the virus among young people (those aged 15 to 24 years). An estimated 11.8 million young people were living with HIV/AIDS at the end of 2001, 7.3 million (62 per cent) of whom were women and 4.5 million (38 per cent) men. Table 42 presents regional breakdowns according to sex. Approximately 6,000 young people acquire the HIV virus each day, as do another 2,200 children under age 15. In 2001, about 800,000 children became infected with HIV.

TABLE 42. REGIONAL HIV/AIDS PREVALENCE AMONG YOUNG PEOPLE AGED 15-24, END OF 2001

Region	*Young people living with HIV/AIDS*	*Percentage of HIV-positive young people who are women*
Sub-Saharan Africa	8 600 000	67
Northern Africa and Western Asia	160 000	41
South Asia	1 100 000	62
Eastern Asia and the Pacific	740 000	49
Latin America and the Caribbean	560 000	31
Central and Eastern Europe	430 000	35
Industrialized countries	240 000	33
TOTAL	11 800 000	62

Source: Joint United Nations Programme on HIV/AIDS, *Together We Can: Leadership in a World of AIDS* (UNAIDS/01.34E); and United Nations Children's Fund, *The State of the World's Children 2000* (United Nations publication, Sales No. E.00.XX.1).

Prevalence levels differ between young men and women in some of the most affected countries. In a study encompassing 11 African countries, HIV infections were higher among women in 10 of those countries. In many communities in Botswana, Cameroon and Kenya, HIV prevalence among young women could be as much as five to six times higher than among men their own age. In addition to greater biological susceptibility to HIV, young women are more likely to become infected by older than by younger men, because older men have had more sexual partners and are more likely to be HIV-positive. Furthermore, younger women who have relationships with older men are less likely to negotiate condom use or partner fidelity owing to the age difference and economic disparity between themselves and their partners as well as because of gender norms.

By 2001, AIDS had orphaned an estimated 10.4 million children under age 15 (children who had lost their mother or both parents to the epidemic). The total number of children orphaned by the epidemic since it began is expected to more than double by 2010. In 2001, 90 per cent of AIDS orphans lived in sub-Saharan Africa, straining the capacities of health and social systems to respond to the magnitude of the problem. It is estimated that, for each orphaned child, at least another child is caring for a sick relative or is directly affected by the epidemic economically and socially.

D. Challenges to young people's reproductive health and rights in the AIDS era

Reproductive health care plays a central role in AIDS prevention. The entitlement of all women and men to comprehensive, quality reproductive care services, is a right endorsed by 180 countries within the framework of the Programme of Action of the International Conference on Population and Development in 1994 and the review of its implementation at the twenty-first special session of the General Assembly in 1999. The protection and application of this right becomes crucial as the HIV epidemic continues to spread the fastest among young men and women.

Twenty years into the epidemic, a wealth of information has shown complex interactions of many factors that restrict individual and community capacities to protect themselves from HIV infection. These vulnerabilities, particularly demonstrated among young people, are discussed below.

Limited recognition of personal risk of HIV infection. In studies of seven African countries among sexually experienced adolescent women and men aged 15 to 19, between 40 and 87 per cent of respondents believed that they had little or no risk of contracting AIDS. There is a prevalent belief, in most cases, that an individual is not at risk of HIV infection by having only one partner owing to a lack of awareness of the sexual history and multiple partners of that partner. In 17 countries surveyed by UNICEF, over half of the adolescents could not name a single method to protect themselves against HIV.

Inadequate sexual health information and education. In the Caribbean and South America, surveys show that at least one third of young people have received little or no sex education, including information on HIV. In all instances, young women knew less than young men an indication of their lack of access to information and inability to have control over their sexual lives. In addition to having inadequate information, young people are not empowered with life skills that would enable them to act on their knowledge, increase decision-making in sexual encounters and encourage responsible behaviour. Where provided, sexual health information and education are given after initiation of sexual activity or in school settings that do not reach a great proportion of young women and men who may already have withdrawn from the formal education system.

Early sexual activity. Early initiation into sexual activity places adolescents at risk of STIs and HIV infection. In 6 out of 11 countries in Africa, almost 20 per cent of adolescent women had sexual relations before age 15 (Population Reference Bureau, 2001). In some of these countries, young women's early sexual activity occurs within or just before marriage, while young men's sexual experiences take place outside marriage. Global research indicates that sexual interactions of adolescent women under age 15 usually occur under pressure, because they are particularly vulnerable to sexual coercion. Most young people do not use any form of contraception or protection against sexually transmitted infections during their first sexual experience, thus risking unplanned parenthood and sexually transmitted infections. Young women, who are biologically more vulnerable to STIs and HIV infection, will generally not be in a position to negotiate safer sex with their partners. Recent surveys in 5 countries also reveal an increasing difference between the age at first sex and the age at marriage from one generation to the next. Young women are spending a longer time unmarried and exposed to the risk of pregnancy and STIs than their mothers.

Inadequate youth health services. Reproductive health services have largely been oriented towards serving needs of pregnant married women. Consequently, young people, especially sexually active adolescent women and men, do not seek such services for reasons that include inconvenient schedules and locations, lack of privacy and confidentiality, fear of social stigma, judgemental attitudes of service providers and unaffordable fees. Lack of access to health services is a serious threat to adolescent reproductive health, particularly that of young women, owing to their physiological vulnerabilities to STIs. Most STIs are asymptomatic in females, and adolescents are often unaware of differences between normal and abnormal reproductive health conditions. Hence, they do not seek advice and care.

The potential of health services as entry points for offering a package of youth-friendly reproductive health services that include voluntary counselling and testing, AIDS prevention education, STI control, and psychosocial support has not been realized. In many developing countries, primary health care systems are not designed to integrate such services, and service providers are unable to respond to the special needs of young men and women owing to lack of training.

Unequal gender norms and relations. The social expectations of men and women profoundly affect their ability to protect themselves against HIV/AIDS and cope with its impact. For women, their vulnerabilities lie in lack of access to sexual information, restricted access to economic opportunities and autonomy, and multiple household and community roles. Men become vulnerable as well owing to social norms that encourage the double standards of male promiscuity and female monogamy, and support harmful beliefs that promote substance abuse and violence. Across all regions, coerced sex and the practice of exchanging sexual favours for means to meet survival needs are common experiences among young women.

Economic and social marginalization. Young people who are socially and economically disadvantaged are at the highest risk of HIV infection. Lack of education, poor general health, untreated STIs, sex-for-survival interactions, economically driven migration, and labour and sexual exploitation exacerbate the vulnerabilities of young people who live in poverty. Furthermore, the millions of young people who live or work on the streets subsist in extremely risky contexts, as they become easy prey to sexual exploitation, drug use and violence. Young people may also be caught in social and political upheavals, during the course of which large numbers become victims of sexual abuse, are coerced into commercial sex or are forced into military activities.

Impact of HIV/AIDS on family and community systems. Young people have been severely affected by the impact of the epidemic on families and communities. Not only is poverty an enabling environment for the spread of HIV, but HIV/AIDS can also lead to poverty, affecting particularly women and young people. It is estimated that AIDS may cause a drop of 20 per cent in the wealth of some countries of sub-Saharan Africa (British Broadcasting Corporation, 2001). At the microlevel, in Côte d'Ivoire, urban households that have lost at least one family member to AIDS have seen their incomes drop by 52 to 67 per cent, while their health expenditures have risen fourfold. In Zambia, where family disposable income has fallen by more than 80 per cent, children in families affected by HIV are pulled out of school and expected to engage in various income-producing activities. Girls are more likely to be withdrawn from school to act as caregivers for sick family members or to provide economic support, including taking on responsibilities for subsistence production, a key role of women in rural areas. Weakened social support systems provided by families and the decreasing participation of young people in formal education as a result of AIDS in the family, produce a vicious circle in which the vulnerability of young people to infection increases.

E. Acting on AIDS challenges

The development crisis spawned by the epidemic in sub-Saharan Africa—as well as the inroads the epidemic has made in Asia, Latin America and the Caribbean, and Eastern Europe—has spurred national leaders to declare AIDS a global security issue. At the twenty-sixth special session of the General Assembly on HIV/AIDS, held in New York in June 2001 (General Assembly resolution 26-S/2, annex), a number of targets were agreed upon regarding prevention; care, support and treatment; and children orphaned and made vulnerable by HIV/AIDS:

- By 2003, to set time-bound national targets in order to reduce HIV infection among young men and women aged 15 to 24 by 25 per cent in the most affected countries by 2005, and globally by 2010.

- By 2005, to ensure that at least 90 per cent of young men and women aged 15 to 24 have access to the information and services needed to reduce their vulnerability.

- By 2005, to reduce the proportion of infants infected with HIV by 20 per cent, and by 50 per cent by 2010.

- By 2003, to develop national strategies to strengthen health-care systems and address factors affecting the provision of HIV-related drugs, including affordability and pricing. In addition, urgently to make every effort to provide the highest attainable standard of treatment for HIV/AIDS, including anti-retroviral therapy used in a careful and monitored manner to reduce the risk of developing resistance.

- By 2003, to develop, and by 2005 to implement national strategies to provide a supportive environment for orphans and children infected and affected by HIV/AIDS.

Collective experience with AIDS programmes provides assurance that, through an expanded response, the above targets can be achieved (UNAIDS, 2001). Key elements of such a response include the following:

- Reduction of stigma and discrimination
- Multisectoral participation, particularly of civil society
- Coherent national strategies
- Social policy reforms
- Social mobilization and community empowerment
- Involvement of people living with HIV/AIDS
- Equitable access to the full continuum of prevention and care
- Translation of lessons into practices
- Adequate resource mobilization

F. Linkages between reproductive health care and HIV/AIDS programmes

The targets agreed upon at the twenty-sixth special session of the General Assembly on HIV/AIDS clearly highlight that reproductive health care in a core component of AIDS prevention and care. Promoting the reproductive health and rights of young people remains controversial in many countries. Issues related to sexuality, traditions, and parental rights over and duties toward young people in the domain of sexual behaviour are fraught with cultural and political sensitivities. Nevertheless, it has become evident over the last two decades that every aspect of reproductive health care has a strategic role to play in AIDS prevention and treatment. Components of special relevance to AIDS prevention are presented below.

1. Coverage, delivery and content of sexual health education and information

AIDS education is a battle against ignorance, misinformation and widespread myths. Wide-scale information and skills-building programmes that involve both the public and private sectors are needed to match the epidemic's scale. All avenues of education must be used, engaging the strengths of such community institutions as schools, local authorities and churches as well as the mass media. Uganda's success in reducing HIV prevalence in a decade was largely the result of education campaigns that mobilized leaders at all levels and in all sectors. Massive education campaigns also helped to control the epidemic in Brazil and Thailand.

Sexual health education should reach everyone, in particular young people, both in and out of school, and hard-to-reach groups. Reducing social and legal obstacles will require proactive and bold policy decisions at both national and local levels so that broad-based sexual health education programmes may receive legitimacy and support. Framing education programmes around human rights principles encourages the inclusion of ordinarily marginalized groups, such as people living with HIV, women and adolescents. In addition, sexual health education must take into account the local dynamics of the epidemic, to ensure that messages and interventions address both the risk and vulnerability factors of the most affected populations, including any identifiable groups that already have high or increasing HIV prevalence or those that according to public health information are at greatest risk of infection (see General Assembly resolution 26-S/2, annex, para. 64). Though many sexual and reproductive health concerns are shared by both women and men, their needs differ according to local customs and cultures, their marital status, rural or urban residence, age and living circumstances. It is necessary to

target programmes according to those special needs.

Strategies, policies and programmes that recognize the importance of the family in, inter alia, educating and guiding children, and that take into account cultural, religious and ethical factors, can help to reduce the vulnerability of children and young people. In many developing countries, the parents' capacity to carry out their prime responsibility—ensuring the basic education of their children, which is a protective factor against HIV/AIDS—is seriously hampered by financial constraints and the need for assistance in domestic duties. The Declaration of Commitment on HIV/AIDS adopted by the twenty-sixth special session of the General Assembly on HIV/AIDS (see General Assembly resolution S-26/2, annex, para. 63) clearly expressed the need for Governments to develop programmes that will engage the participation and enhance the capacity of families both in providing education and in planning and implementing HIV/AIDS prevention and care programmes. In several countries in Africa and Asia, parents have been willing collaborators in initiatives to improve intergenerational communication on sexuality and HIV/AIDS issues, strengthen the financial and psychosocial support capacities of family members to care for relatives with HIV and for orphans, and reduce fear and stigma in communities. In cultural settings with tightly knit family systems, family members act as important gatekeepers of information on sexuality for young people, particularly for young women. Consequently, enhancing family members' knowledge of HIV/AIDS and engaging them as partners in the education of the young are vital steps in ensuring that adolescents receive relevant information on sexual health. Such programmes have shown that the involvement of parents and family members is key in sustaining an environment that promotes the overall health and well-being of young people, particularly in seeking and receiving information and services on sexual health and HIV/AIDS.

Successful educational programmes for young people in such countries as Thailand have emphasized both the acquisition of skills (e.g., condom use and negotiation) and the modification of social conditions that contribute to increased risk of HIV infection among the young. Programmes must highlight strategies to reduce vulnerability. For example, education regarding alcohol and drug abuse is important for all adolescents, both regarding the effects of such abuse on protected sex (e.g., forgetting to use condoms; greater risk of incorrect use) and the potential for increasing the risk of HIV infection by sharing unsterilized injecting equipment.

2. STI prevention and care

Since the presence of sexually transmitted infections, particularly genital herpes (HSV-2), increases a person's susceptibility to HIV, strengthening STI control can have a dramatic impact on lowering HIV transmission rates. A study in the United Republic of Tanzania showed that treatment of STIs at the primary health-care level, costing as little as US$ 2 per case, could reduce the number of people contracting HIV by over 40 per cent. To improve STI prevention and care for young people, detection and treatment procedures as well as condom promotion must be made essential components of primary health and HIV prevention programmes. Integration of those components would increase service reach to encompass pregnant women attending antenatal clinics, especially women living with HIV; women availing themselves of family planning services; adolescents involved in pregnancy prevention programmes; and women attending maternal and child health clinics. Experiences in STI case management indicate continuing challenges in the following areas: reducing community stigma as a constraint to seek treatment; equipping primary health services with rapid, simple and inexpensive diagnostic tests; making available effective and affordable drugs; and providing services for sex partners, particularly men.

3. Family planning services

Good quality, accessible and gender-sensitive services are an excellent means for providing voluntary counselling and testing programmes for HIV and for promoting AIDS prevention. However, it is necessary to combat traditional attitudes that view contraception as "women's business" or as being needed only by married couples. Provid-

ing family planning services within the broader scope of reproductive health, including AIDS prevention, will provide access to all sexually active young people, male or female, married or single. In addition, HIV counselling in family planning services enables provision of dual protection methods (protection against both pregnancy and HIV/STIs) both for HIV-positive women and all women whose circumstances warrant such protection. Dual protection is an important issue, not only from a family planning perspective, since the more common and effective pregnancy prevention methods (hormonal methods, IUD and sterilization) do not offer protection against HIV/STIs, but also from the perspective of preventing mother-to-child transmission of HIV. It must be recognized that condom use alone may not be effective against pregnancy. Furthermore, studies in Kenya have found that women using more effective contraceptive methods tended to use male or female condoms less consistently for HIV/STI protection, even though they had been diagnosed with at least one sexually transmitted infection or considered themselves at risk of an STI (Kuyoh and Best, 2001). Studies among service providers in the United States showed that most family planning counsellors feared that promoting either the male or female condom instead of a hormonal method would increase risks of pregnancy. Clearly, family planning and HIV counsellors must have the skills to explore the most appropriate dual protection method with their clients, taking account of the sexual practices, means, and social contexts of the latter.

4. Reproductive health needs of women and men living with HIV/AIDS

Policies and programmes, especially in countries with high HIV-infection rates, must acknowledge that large numbers of the adolescent population receiving educational messages are already HIV-positive. This reality requires a reorientation of programme content so that it addresses not only HIV prevention but also the problems faced by those living with HIV, including such issues as reducing transmission from HIV-infected individuals to the uninfected, avoiding reinfection with HIV/STIs, STI treatment, sexual relationships and family planning. Programmes in Cameroon, Kenya and Zimbabwe as well as in the United States have shown the importance of assisting women living with HIV in making the most beneficial choices in relation to their reproductive health. Significant proportions of these women became, or elected to become, pregnant for reasons ranging from motherhood as a source of self-esteem to social pressure or partner pressure. Others wished to prevent or terminate pregnancies, but lacked control over contraception and access to abortion services. A challenge faced by family planning services is that HIV-positive women seldom reveal their HIV status, and consequently providers are unable to extend the appropriate assistance. A number of African studies have shown that counselling HIV-positive women does not substantially increase contraceptive use, often because HIV-infected women—fearing abandonment—hide their status from their partners.

5. Working with men

Engaging men as partners is a critical component in AIDS prevention and care, since in many contexts, men are the decision-makers in matters related to reproductive and sexual health. Efforts among women to increase knowledge, raise awareness and develop new skills related to HIV are unlikely to have an impact on the course of the epidemic so long as men still determine whether or not the women they have sex with can effectively protect themselves. Interventions intended to empower women must be combined with efforts to involve men. Such initiatives need to include men's awareness of their own reproductive and sexual health needs, efforts to build an understanding of gender relations and support to increase health-seeking behaviours. In addition, health professionals and other service providers need to reorient existing forms of service provision to make them more accessible to men.

Male circumcision appears to reduce the risk of HIV infection and STIs in some regions. In studies in four African countries, circumcised men were at a significantly lower risk than uncircumcised men of infection with HIV and other STIs. However, it was found that in some instances, male circumcision might increase HIV transmission owing to the methods used and the practices involved in circumcising men. Challenges related

to male circumcision as a public-health intervention include, among others: a lack of awareness in the public-health community of the association between circumcision and the prevention of HIV transmission; culturally rooted beliefs regarding circumcision, including hostility and discrimination when it is not in conformity with cultural norms; and a lack of feasibility studies that would yield in-depth information on the most effective conditions and ways for introducing circumcision.

6. HIV prevention technologies: condoms and microbicides

Condom provision is a basic element in successful AIDS prevention. While male condoms are being used in greater numbers than ever before, they are still not universally available. It is estimated that six billion male condoms are available each year, but many more (perhaps as many as 24 billion) are needed to fully protect populations from HIV/AIDS. Consistent and correct condom use among sexually active adolescents continues to be a major public health challenge. Despite the condom's high effectiveness in HIV/STI prevention, many people at risk do not use them. Many family planning programmes, such as those in Central America, have promoted condom use among sexually active young adults to prevent disease and pregnancy, the latter being a prevailing concern among the young. However, additional constraints on condom use among young people include a lack of awareness and information, the cost and stigma of using condoms, difficulties in obtaining them and mistaken beliefs about their use, such as the reduction of sexual pleasure. A focus on men in HIV prevention and care, which includes sensitization to gender relations, has been a critical approach in condom promotion. The female condom has provided women with a method that gives them more control over their reproductive health. While feasibility studies indicate increasing acceptance among both men and women, cost and availability of condoms are obstacles to their widespread use.

Topical microbicides are envisioned to expand existing prevention options, particularly those within a woman's control. However, condoms will remain the option of choice, because when used consistently and correctly, condoms will always provide better protection (Heise, 2000). Microbicides will provide an important "fallback" option for women whose partners refuse to use condoms. The search for an effective microbicide to prevent HIV transmission continues, in view of the unsuccessful findings of a UNAIDS and Centers for Disease Control and Prevention study on the effectiveness of the contraceptive spermicide nonoxynol-9 (N-9) in preventing HIV transmission. While these findings have fueled a sense of urgency to test other microbicidal candidates, microbicide research and development efforts are hampered by funding constraints.

G. THE WAY FORWARD

In harrowing ways, the past two decades have taught the world that the HIV/AIDS epidemic is nothing less than a global emergency. Curbing it calls for an extraordinary global response built on increased resources, improved coordination and the unprecedented commitment and initiative of leaders everywhere. The twenty-sixth special session of the General Assembly on HIV/AIDS was a watershed event in the fight against HIV/AIDS and has elicited important political and resource commitments. The Global Fund to Fight AIDS, Tuberculosis and Malaria, an initiative of the United Nations Secretary General to mobilize support at the highest political levels, will provide a mechanism for channelling such commitments into wide-scale programmatic actions to control the epidemic. Success henceforth hinges on how well countries manage to govern their own responses

---

REFERENCES

Bonnel, R. (2000). Economic analysis of HIV/AIDS. Background paper presented at the African Development Forum, Addis Ababa, 3-7 December 2000. Washington, D.C.: The World Bank, AIDS Campaign Team for Africa.

British Broadcasting Corporation (2000). AIDS tops African agenda (12 August). Available from https://news.bbc.co.uk/1/hi/health/878042.stm.

Heise, Lori (2000). Global campaign for STI/HIV prevention alternatives for women. In *Topical Microbicides: New Hope for STI/HIV Prevention.* Takoma Park, Maryland: Center for Health and Gender Equity (CHANGE).

Kuyoh, Maureen, and Best Kim (2001). HIV-Positive women have different needs. *Network: Family Planning and STIs*, vol. 20, No. 4.

Population Reference Bureau (2001). *Youth in Sub-Saharan Africa: A Chartbook on Sexual Experience and Reproductive Health.* Washington, D.C.

UNAIDS (2001). *Together We Can: Leadership in a World of AIDS.* UNAIDS/01.34E.

United Nations Children's Fund (2000). *The State of the World's Children 2000.* Sales No. E.00.XX.1.

Valleroy, L. A., and others (2000). HIV prevalence and associated risks in young men who have sex with men. *Journal of the American Medcal Association,* vol. 284, No.2.

VIII. REPRODUCTIVE RIGHTS

The Programme of Action of the International Conference on Population and Development (United Nations, 1995, chap. I, resolution 1, annex) provides a broad understanding of reproductive health. Paragraph 7.2 states the following:

> "Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so".

The Programme of Action further notes:

> "Bearing in mind the above definition, reproductive rights embrace certain human rights that are already recognized in national laws, international human rights documents and other consensus documents. These rights rest on the recognition of the basic right of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health. It also includes their right to make decisions concerning reproduction free of discrimination, coercion and violence, as expressed in human rights documents… The promotion of the responsible exercise of these rights for all people should be the fundamental basis for government- and community-supported policies and programmes in the area of reproductive health, including family planning. As part of their commitment, full attention should be given to the promotion of mutually respectful and equitable gender relations and particularly to meeting the educational and service needs of adolescents to enable them to deal in a positive and responsible way with their sexuality" (para. 7.3).

A. KEY ISSUES WITH RESPECT TO REPRODUCTIVE RIGHTS

1. Family planning

An important aspect of reproductive rights is the right of access to information and methods of family planning. A number of countries, including Brazil, Colombia, Guatemala, and South Africa, explicitly recognize in their national constitutions a couple's right to freely and responsibly decide the number and spacing of their children. Moreover, over the years, the proportion of Governments providing direct support to family planning services has increased steadily, from 63 per cent in 1976 to 75 per cent in 2001. Currently, 144 countries directly support the provision of contraceptives, and 32 provide indirect support (see table 43).

A number of significant legal and policy developments affecting contraceptive access have taken place in recent years. In 1998, for example, Ethiopia repealed a Penal Code provision prohibiting the advertisement of contraceptives, and in 1999 Japan approved the use of oral contraceptives. Nevertheless, although more people in the world use family planning than ever before, many women still become pregnant before they expect to and have more children than they intend. Experts estimate that some 105 million married or cohabiting women of reproductive age in the less developed regions have an "unmet need" for family planning (Ross, 2001). Moreover, large disparities continue to exist, with the percentage of women of childbearing age using contraception ranging from 16 per cent or less in Eastern, Middle and Western Africa, to 66 per cent in Latin America and the Caribbean, and to 83 per cent in Eastern Asia (United Nations, 2000a).

TABLE 43. GOVERNMENT POLICY TOWARDS ACCESS TO CONTRACEPTIVE METHODS, BY LEVEL OF DEVELOPMENT, 2001
(Number of countries)

	Access limited	*Access not limited*			*Total*
		Direct support	*Indirect support*	*No support*	
World	1	144	32	16	193
More developed regions	1	22	17	8	48
Less developed regions	0	122	15	8	145
Least developed countries	0	43	4	2	49

Source: Population policy databank maintained by the Population Division of the United Nations Secretariat.

Beyond the provision of services, the Programme of Action of the International Conference on Population and Development outlined a needs-based approach to family planning services. The Family Planning Association of Bangladesh, for example, emphasizes a client-centred sexual and reproductive health approach that aims to increase male involvement, and targets such groups as youth, staff, volunteers, and religious and community leaders with sensitization campaigns and information and education programmes. Services also include immunization, oral rehydration, breastfeeding, literacy and nutrition. In some countries, however, such an approach remains a vague goal that has not been translated into policies and programmes.

2. Adolescent issues

Today's adolescents have different opportunities from their parents or even from adolescents of a decade or two ago. School attendance is increasing around the world. As levels of education rise, work and career-development opportunities, particularly in the informational, professional, and technical fields, are expanding. Globalization, changes in the media and the transfer of technology are increasing adolescents' exposure to information, role models, images and ideas that transcend geographic and cultural barriers, expanding their possibilities. Additionally, the increasing age at marriage and childbearing in most developing countries translates into a longer period of time before those events occur, providing an opportunity for individuals to develop skills further, build their social capital and gain school, work and other experience to enhance their adult opportunities.

At the same time, adolescents confront challenges unique to this historical time. In addition to enhancing prospects for personal investment, earlier ages at puberty and later ages at marriage increase adolescents' exposure to the risks of extramarital sex, including pregnancy, sexually transmitted infections and childbearing outside marriage. In certain contexts where HIV/AIDS and other sexually transmitted infections are prevalent, married adolescent girls may be particularly vulnerable because of their regular sexual exposure and their limited negotiating powers. Indeed, this is the first generation of adolescents who have grown up in a world with HIV/AIDS.

Several key issues in regard to the reproductive rights of adolescents pertain to marriage. Laws establishing a minimum age at marriage are nearly universal, with the most common minimum ages being 18 years for males and 16 years for females. However, despite legislation designed to eliminate the practice, girls in many countries marry shortly after puberty and are expected to start having children almost immediately, in part because of a lack of alternative opportunities. Many laws es-

tablish a minimum age at marriage that is too low for women and that is lower for women than for men, suggesting that women need fewer years to prepare for marriage, as their duties are expected to be confined to childbearing and domestic roles. Over the past two decades, more than 50 countries have altered their laws on the minimum legal age for marriage. However, age-at-marriage laws are often not enforced. In some parts of the world, such as Africa, the legal age for marriage is high, reflecting the tendency to adopt European legal standards, while actual age at marriage remains low.

Adolescents' rights to health were first recognized internationally in the Convention on the Rights of the Child (General Assembly resolution 44/25, annex). Although the Programme of Action of the International Conference on Population and Development recognizes the rights of parents and guardians to provide, in a manner consistent with the evolving capacities of the adolescent, appropriate direction and guidance regarding reproductive health matters, it goes on to call for the protection and promotion of the rights of adolescents to reproductive health education, information and care.

3. Reproductive rights and HIV/AIDS

The epidemic of HIV/AIDS continues to gain momentum in many areas of the world, particularly in sub-Saharan Africa and more recently in Asia. HIV/AIDS has become a major health concern for authorities in China, where the Government held its first national AIDS/STD conference in November 2001. About 40 million persons worldwide were thought to be infected with the virus at the end of 2001 (UNAIDS, 2001).

In areas where HIV is spread through heterosexual contact, the HIV/AIDS epidemic is relevant to reproductive rights in a number of ways, including the right to protect oneself from acquiring the disease and the rights of children who may become infected. Protection against sexually transmitted infections is a related and vitally important issue, since such diseases make men and women more susceptible to HIV infection.

The rights of women

The decision about when and under what circumstances to engage in sexual activity is often seen as the right of the husband. In such instances, women may have little power to object to their husband's wishes, even if they suspect that their husband may have HIV/AIDS. Similarly, the right to use protection against HIV and sexually transmitted infections is also limited. Condoms—the cheapest and most effective method of protection—are considered, in many places, as appropriate for use during sex with a prostitute but not for use between spouses. Sexually transmitted infections that cause ulcerative lesions are known to increase the probability of acquiring the HIV virus during sexual intercourse. Women, as the receptive partners, are particularly vulnerable to such infection.

Discrimination against women on the basis of gender may lead to additional burdens for the woman who has HIV/AIDS. For example, when women are denied the right to own property, a woman with HIV/AIDS or a woman whose husband has died of HIV/AIDS may be forced to leave her home and may have little legal recourse to reclaim the property (Center for Reproductive Law and Policy, 2000). In some Asian countries, where the status of women is low, the gender dynamics of the epidemic are expected to contribute to its rapid spread (Crossette, 2001).

Strategies to promote women's exercise of human rights and improve their legal and social status include eliminating the social, economic and cultural practices that make them more vulnerable to contracting HIV/AIDS. A new law in Guatemala, for example, defines the rights and duties of persons living with HIV/AIDS, protects the rights of all people to dignified and respectful treatment, and prohibits discrimination against people with HIV/AIDS (Center for Reproductive Law and Policy, 2000).

The rights of children

Children become infected with HIV/AIDS in two ways: through transmission of the virus from their mothers or through sexual activity initiated during the teenage years. Mother-to-child trans-

mission may occur during pregnancy, at childbirth or while breastfeeding. Approximately 25 to 30 per cent of babies born to HIV-infected women acquire the virus from their mothers, and most of them do not survive for more than a few years. Although safe and effective drugs, such as Nevirapine, are available that could substantially reduce the risk of giving birth to an HIV-positive baby, most women in developing countries have no access to such drugs. Reproductive rights include access to the full range of reproductive health care services, among them the care that ensures that women give birth to healthy babies.

Children, especially girl children, may also acquire HIV/AIDS when they are exposed to sexual activity at an early age. In addition to the health risks of early pregnancy and other risks associated with premature and unprotected sexual activity, teenagers now have the added risk of acquiring HIV/AIDS. Adolescents may have little or no access to information and counselling about HIV/AIDS and sexually transmitted infections, and may not be eligible for reproductive health services.

Child prostitution, which is associated with extreme poverty and the dissolution of family life, is another violation of the rights of the child and another source of HIV infection. There is increasing concern about the number of homeless children and the growing incidence of child prostitution in some countries. One study found that up to 48 per cent of street children had been sexually abused, often in return for accommodation and food (Kandela, 2000).

B. Reproductive rights and violence against women

The United Nations Declaration on the Elimination of Violence Against Women (General Assembly resolution 48/104 of 20 December 1993) defines violence against women as any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life. Violence includes battering, sexual abuse of female children, marital rape, traditional practices harmful to women, sexual harassment and intimidation at work, trafficking in women and forced prostitution. The issue of gender-based violence has been the subject of considerable discussion in the field of population since the concept of reproductive rights gained currency.

Gender-based violence often begins at early ages in societies that place a higher value on male children. During childhood preferential allocation of family resources to male children may impact negatively on the health of girls. Such resources may include food, medical care and schooling. Recent studies have found that gender discrimination is not systematically directed against girls in most countries, but there is evidence that boys are favoured in the use of health services in some Asian countries (United Nations, 2000b).

Domestic violence is the most common form of gender-based violence, and as women enter marriage—often as adolescents and in some instances without their consent—domestic violence may become a problem. This is particularly true in cases where the husband is considerably older than his wife and where local custom recognizes the husband as the dominant partner. Violence against women also occurs in other situations where women are unable to exercise their right to fair treatment. Such situations include sexual exploitation of women refugees, rape as a weapon of war, trafficking in women for sex work and discrimination against widows.

1. Domestic violence

In many countries, men are generally expected to provide economic support for the family, while women are confined to childbearing, child-rearing and domestic duties. Decision-making may lie almost entirely with the male partner, and the wife's obedience is not only expected but may be sanctioned by law. Women are vulnerable because of their economic dependence on men, because of cultural values that condone or at least tolerate violence towards women and because of the absence of laws to protect women against violence and sexual abuse, including marital rape. Even in cases where laws exist, enforcement may be seriously lacking (Ashford, 2001).

A study of violence against women in 11 countries found that the percentage of women who reported having been abused by an intimate partner at some point during their lives ranged from 5 per cent in the Philippines to 58 per cent in parts of Turkey. However, surveys in local areas often find substantially higher rates of abuse than national surveys. For example, in a local survey in Managua, Nicaragua, 30 per cent of women said they had been assaulted by an intimate partner during the past 12 months (United Nations, 2000c). Statistics on domestic violence are almost certainly underestimates of the true incidence. Often women are reluctant to report physical abuse by a partner because they are ashamed of their situation, afraid of reprisals or unaware of alternatives (World Health Organization, 1997). When physical violence escalates to homicide against women, it is frequently the intimate partner who commits the murder. A study in Brazil found that 60 per cent of female homicide victims had been killed by an intimate partner. In the United States, intimate partners committed 30 per cent of homicides of women according to a local study (United Nations, 2000c).

Domestic violence against women has been recognized as a major problem worldwide, and many countries, especially in Latin America and the Caribbean, have enacted laws during the last few years to protect women and eliminate domestic violence. The adoption and ratification of the Convention of Belém do Pará (Inter-American Convention on the Prevention, Punishment and Eradication of Violence against Women) in 1994 prompted numerous countries to undertake reforms. Those countries include Bolivia, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Peru and Uruguay. The laws differ in scope and remedies, but all are concerned with violence that occurs in the home (Center for Reproductive Law and Policy, 2000).

A comprehensive new law in Colombia addresses domestic violence and implements a constitutional mandate to provide treatment. It establishes that physical, psychological or sexual abuse against a family member is a crime, and it empowers the Colombian Institute of Family Welfare to develop programmes to prevent and remedy domestic violence. The law also provides for improved training of law enforcement personnel and justices of the peace who deal with domestic violence victims (Center for Reproductive Law and Policy, 2000).

In countries with economies in transition, crime and homicide have increased, but reported rapes have fallen. Rather than reflecting fewer cases of rape, this trend probably indicates a decline in confidence in the ability of the police force to take any action to protect victims and thus a reluctance to report rapes. Domestic violence is often not considered a crime by the criminal justice system. In a 1996 study of married and divorced women in Moscow, more than one woman in ten said she had been sexually assaulted and two fifths of divorced women had been beaten, struck or shoved. Alcohol is a prominent factor in domestic violence and divorce in countries with economies in transition (United Nations Children's Fund, 1999).

Strategies for responding to domestic violence have been adopted as part of the widespread reforms in countries with economies in transition and in other countries throughout the world. Measures include defining domestic violence as a crime, making the criminal justice system more sensitive, providing legal, health and social support systems for victims, and assisting women to leave abusive or violent environments. Other responses to domestic violence include raising public awareness, promoting an environment of prevention in schools, workplaces, families and communities, and teaching children of both sexes at an early age that violence is an inappropriate behaviour (United Nations Children's Fund, 1999). By 1999, at least 53 countries had passed laws against domestic violence, 27 had enacted laws against sexual harassment and 41 considered marital rape as an offence (Heise, Ellsberg and Gottemoeller, 1999).

Because violence against women is frequently rooted in the unequal power between men and women, the most effective countermeasure over the long term is continued progress towards the empowerment of women (Heise, Ellsberg and Gottemoeller, 1999). This means equal educa-

tional opportunities for girls, and for women, more control over their resources, increased economic independence, greater decision-making power, and higher levels of confidence and self-esteem.

2. *Harmful customary or traditional practices*

Approximately 2 million women and girls are at risk of undergoing some form of female genital mutilation every year (World Health Organization, 2000a). This procedure, sometimes called female circumcision, is usually performed on young girls or adolescents approaching marriage age, and it typically occurs outside the medical system. It involves partial or total removal of the external female genitalia or other injury to the female genital organs. About four out of five cases involve excision of the clitoris and the labia minora; 15 per cent involve infibulation, the most extreme form of the practice. Female genital mutilation is known to be practised in about 30 countries of Africa and a few countries of Western Asia. It has also been reported among immigrant communities in Europe, Northern America, Australia and New Zealand. According to recent Demographic and Health Surveys, in some countries—for example, Egypt, Eritrea, Mali and Sudan—more than 90 per cent of women have undergone the procedure.

The reasons most often cited for practising female genital mutilation are to maintain social acceptance and to protect the reputations of girls. In some areas, girls are not considered marriageable unless they have been circumcised. The Demographic and Health Surveys found that more than 70 per cent of women support the practice in countries where prevalence is high. Even women who opposed female genital mutilation chose to have their daughters undergo the procedure because of community pressure and the influence of older family members (United Nations, 2000c).

The General Assembly has adopted several resolutions calling on Governments to eradicate female genital mutilation, and some countries have passed legislation to ban the practice. In 1994 Ghana became the first African nation to outlaw female genital mutilation; it was followed by Burkina Faso, Côte d'Ivoire and Senegal. Uganda adopted a new Constitution in 1995, which states the following: "Laws, cultures, customs or traditions which are against the dignity, welfare or interest of women or which undermine their status are prohibited by this Constitution" (Center for Reproductive Law and Policy, 2000). In the Kapchorwa District of Uganda, a project has greatly reduced the incidence of female genital mutilation by separating the practice itself from the cultural values it was intended to support and by proposing alternative activities to sustain those ideals. Local community leaders were involved at all stages of the process, and awareness workshops were held for all sectors of the community. In 1996, female genital mutilation dropped by 36 per cent (Chekweko, 1998).

In Sweden, efforts are under way to eliminate female genital mutilation among the Somali immigrant community. Female genital mutilation has been illegal in Sweden since 1982, but the law was modified in 1998 to make the penalties more severe (Center for Reproductive Law and Policy, 2000). Sweden developed guidelines regarding female genital mutilation for health workers and used the media to raise awareness about female genital mutilation among Swedes and Somalis. In Gothenburg, Sweden, Somali doctors, religious leaders, nurses and schools have all been part of a project to discourage the practice of female genital mutilation. Religious leaders emphasize that female genital mutilation is not required by any faith, but some Somali women continue to believe that their daughters will not be eligible for marriage unless they have undergone the procedure.

The twenty-third special session of the General Assembly, entitled "Women 2000: gender equality, development and peace for the twenty-first century", called on Governments to "develop, adopt and fully implement laws and other measures, as appropriate, such as policies and educational programmes, to eradicate harmful customary or traditional practices, including female genital mutilation, early and forced marriage and so-called honour crimes, which are violations of the human rights of women and girls and obstacles to the full enjoyment by women of their human rights and fundamental freedoms, and intensify efforts, in cooperation with local women's groups, to raise collective and individual aware-

ness of how these harmful traditional or customary practices violate women's human rights" (General Assembly resolution S-23/3, annex, para. 69 [e]).

The special session also called on Governments to "increase cooperation, policy responses, effective implementation of national legislation and other protective and preventive measures aimed at the elimination of violence against women and girls, especially all forms of commercial sexual exploitation, as well as economic exploitation, including trafficking in women and children, female infanticide, crimes committed in the name of honour, crimes committed in the name of passion, racially motivated crimes, abduction and sale of children, dowry-related violence and deaths, acid attacks and harmful traditional or customary practices, such as female genital mutilation, early and forced marriages" (General Assembly resolution S-23/3, annex, para. 96 [a]).

Subsequently, the General Assembly adopted a resolution on working toward the elimination of crimes against women committed in the name of honour (General Assembly resolution 55/66) and a resolution on the elimination of all forms of violence against women, including crimes identified in the outcome document of the twenty-third special session of the General Assembly, entitled "Women 2000: gender equality, development and peace for the twenty-first century" (General Assembly resolution 55/68).

3. Other types of violence against women

Violence during wars or armed conflict

The weapons of war increasingly include forms of violence against women, such as rape or forced pregnancy. Women and girls in targeted ethnic groups are particularly vulnerable when there is an official or unofficial policy of using rape as a weapon of genocide (World Health Organization, 1997). During the conflict in the former Yugoslavia, tens of thousands of Muslim women were imprisoned in "rape camps", where they were raped repeatedly. Many were forced to bear children against their will. In Rwanda in 1994, even larger numbers of Tutsi women were targeted for rape, which was often followed by murder. During riots in Indonesia in 1998, some ethnic Chinese women were reported to be victims of rape (Center for Reproductive Law and Policy, 2000).

The World Conference on Human Rights was held at Vienna in 1993 as the world was becoming aware of the widespread use of sexual aggression against women during the hostilities in the former Yugoslavia. The Vienna Declaration and Programme of Action adopted at that Conference (A/CONF.157/23) deals explicitly with sexual violence as an instrument of terror and war. It states that violations of the human rights of women in situations of armed conflict are violations of the fundamental principles of international human rights and humanitarian law. It further states that all violations of this kind—including especially murder, systematic rape, sexual slavery and forced pregnancy—require a particularly effective response.

Further progress towards ensuring legal protection for civilians in armed conflicts occurred when the United Nations Diplomatic Conference of Plenipotentiaries on the Establishment of an International Criminal Court adopted the Rome Statute on 17 July 1998 (United Nations, 1998). The Rome Statute provides for the establishment of an International Criminal Court to address genocide, war crimes and crimes against humanity. For the first time under international humanitarian law, such acts as rape, sexual slavery, enforced prostitution, forced pregnancy, enforced sterilization and other forms of sexual violence were recognized as both crimes against humanity and war crimes. Moreover, violations of women's reproductive self-determination—both forced pregnancy, in which women are compelled to bear a child against their will, and enforced sterilization, which denies women the right to have a child—were identified as serious crimes under international humanitarian law. Similarly, the ad hoc tribunals for the former Yugoslavia and Rwanda, established by the United Nations Security Council in 1993 and 1994 respectively, which have mandates to prosecute individuals for genocide, war crimes and crimes against humanity following armed conflicts in those countries, have held that rape committed during armed conflict constitutes

both torture and genocide under international law (Center for Reproductive Law and Policy, 2000).

Violence against women refugees

Women and children often become refugees or internally displaced persons as a consequence of war or armed conflict. Families become separated as men are mobilized into the armed forces and women remain with their children and extended families. As homelands become battlefields, civilians may be forced to flee to refugee camps. The general breakdown in law and order that occurs during conflict and displacement leads to an increase in all forms of violence. Women may find themselves extremely vulnerable in refugee situations, and they may become victims of sexual exploitation and abuse (United Nations Children's Fund, 1999). They may be forced to provide sexual services in exchange for food, shelter or protection for themselves and their children.

Gender-related persecution has in the last decade been recognized as a basis for granting protection to refugees who seek asylum in other countries. In 1993 Canada was the first country to formulate guidelines for women refugees claiming gender-related persecution. Since then, the United States, Australia, Sweden and the United Kingdom have adopted guidelines or passed legislation to recognize gender-based persecution. This follows the Platform for Action of the Beijing Conference (United Nations, 1996, chap. I, resolution 1, annex II), which called for consideration to be given to recognizing as refugees women whose claim to refugee status is based on a well-founded fear of persecution, including persecution through sexual violence or other gender-related persecution.

During the last few years, the reproductive health needs of refugees and displaced persons have increasingly been recognized, and agencies of the United Nations have worked together in the Inter-Agency Working Group on Reproductive Health in Refugee Situations. In Bosnia and Herzegovina, the war destroyed an estimated 48 per cent of the health infrastructure. Vital rates were disrupted and health indicators declined significantly. Women had no access to contraceptives, and the abortion rate increased (Petrovic, 1999). A reproductive health kit for emergency situations has been prepared by the United Nations Population Fund, and additional services are being added, including new types of post-coital contraception and medical, social and psychological services.

C. CONCLUSION

The Programme of Action adopted at the International Conference on Population and Development in 1994 produced explicit definitions of reproductive health and reproductive rights. It also focused
attention on gender equality, equity and empowerment of women. The following year, the Fourth World Conference on Women in Beijing affirmed the principle of women's human rights and called upon Governments to promote and protect women's rights, including their reproductive rights, and to remove obstacles that prevented the achievement of these rights.

The concept of reproductive rights is an inclusive one, encompassing not just decisions about childbearing and access to contraceptives, but implying a larger commitment to the social progress that leads to equitable gender relations. Woman who have choices in other areas of their lives are more likely to exercise control over their reproduction and sexual health.

In many countries, today's adolescents have far more choices than their parents had. Access to basic education, especially for girls, offers new opportunities for work, careers and higher education. Education also enables young people to obtain the necessary information to make responsible and informed choices and decisions regarding their sexual and reproductive health needs. Information technology and the expansion of the Internet make knowledge accessible to greater numbers of people than ever before. However, the challenges facing adolescents in the twenty-first century are enormous, especially in countries where HIV/AIDS is rampant. Information and services to help them adopt responsible and safe sexual behaviour and practices and protect them from sexually transmitted infections and HIV/AIDS may come too late for some of today's teenagers.

Much progress has been made in establishing the basis for reproductive rights, but much remains to be accomplished in translating these rights into policies and programmes. Although many countries have begun to implement the agreements reached at the International Conference on Population and Development, others—particularly low-income countries—do not have the resources to offer comprehensive health services. The broad international consensus reached at that Conference and the continued endorsement of the concepts of reproductive rights and reproductive health at the twenty-first special session of the General Assembly for an overall review and appraisal of the implementation of the Programme of Action of the International Conference on Population for Development make it likely that reproductive rights will continue to be a major focus of population policies in the future.

REFERENCES

Ashford, Lori (2001). New population policies: advancing women's health and rights. *Population Bulletin,* vol. 56, No. 1 (March).

Center for Reproductive Law and Policy (2000). *Reproductive Rights 2000: Moving Forward.* New York.

Chekweko, Jackson (1998). Creating necessary conditions for implementing sexual and reproductive health and rights. In *Ensuring Reproductive Rights and Implementing Sexual and Reproductive Health Programmes including Women's Empowerment, Male Involvement and Human Rights.* Report of the UNFPA Expert Round Table Meeting, Kampala, Uganda, 22-25 June 1998.

Crossette, Barbara (2001). In India and Africa, women's low status worsens their risk of AIDS. *The New York Times (*26 February).

Heise, Lori, Mary Ellsberg and Megan Gottemoeller (1999). Ending violence against women. *Population Reports,* Series L, No. 11. Baltimore, Maryland: Johns Hopkins University School of Public Health, Population Information Program.

Kandela, Peter (2000). Marrakesh: child prostitution and the spread of AIDS. *The Lancet,* vol. 356, No. 9246 (9 December).

Petrovic, Sanja (1999). Reproductive health in crisis situations since the Cairo ICPD. Presentation at the Technical Meeting on *Reproductive Health Services in Crisis Situations*, Rennes, France, 3-5 November 1998. New York: United Nations Population Fund.

Ross, John A. (2001). Contraceptive and reproductive health commodity needs to the year 2015: developing world. Paper presented at the technical consultation on ensuring essential health commodity security through South-South collaboration, Kerala, India, 12-15 June.

United Nations (1995). *Report of the International Conference on Population and Development*, *Cairo, 5-13 September 1994*. Sales No. E.95.XIII.18.

——— (1996). *Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995*. Sales No. E.96.IV.13.

——— (1998). *Human Rights Today: A United Nations Priority.* Sales No. E.98.I.22.

——— (2000a). *Levels and Trends of Contraceptive Use as Assessed in 1998.* Sales No. E.01.XIII.4.

——— (2000b). *World Population Monitoring 2000: Population, Gender and Development*. Sales No. E.01.XIII.14.

——— (2000c). *The World's Women 2000: Trends and Statistics*. Social Statistics and Indicators, No. 16. Sales No. E.00.XVII.14.

UNAIDS (2001). *AIDS Epidemic Update: December 2001*. Geneva

United Nations Children's Fund (1999). *Women in Transition: A Summary*. The UNICEF Regional Monitoring Project (MONEE) for Central and Eastern Europe/Commonwealth of Independent States/Baltics, Regional Monitoring Report, No. 6. Florence, Italy: International Child Development Centre.

United Nations Population Fund (2001). *Population Issues: Briefing Kit 2001*. New York.

World Health Organization (1997). *Violence against Women: A Priority Health Issue*. Information pack. WHO/FRH/WHD/97.8.

——— (2000a). Female Genitalia Mutilation. WHO Fact Sheet, No. 241.

——— (2000b). Emergency Contraception. WHO Fact Sheet, No. 244.

ANNEX TABLES

TABLE A.1. SINGULATE MEAN AGE AT MARRIAGE AND PERCENTAGE OF MEN AND WOMEN AGED 15-19, 20-24 AND 45-49 WHO ARE EVER MARRIED, BY COUNTRY OR AREA

(*Most recent data available*)

			Men				*Women*				*SMAM*
	Data			*Percentage ever married*				*Percentage ever married*			*difference*
Country or area	*source*	*Date*	*SMAM*	*15-19*	*20-24*	*45-49*	*SMAM*	*15-19*	*20-24*	*45-49*	*(males-females)*
Africa											
Eastern Africa											
Burundi	C	1990	25.4	2.4	28.4	97.5	22.2	9.0	62.0	98.1	3.2
Comoros[a]	S	1996	28.5	3.1	15.0	98.1	23.6	11.5	48.3	100.0	4.9
Eritrea[a]	S	1995	25.3	1.5	31.4	99.0	19.6	37.6	78.1	98.1	5.7
Ethiopia	C	1994	25.6	6.2	30.9	98.5	20.5	30.9	71.3	99.1	5.1
Kenya[a]	S	1998	26.3	0.8	22.6	98.8	21.7	16.7	65.1	98.3	4.6
Madagascar	S	1997	..	..	..	..	20.6	33.7	74.3	98.7	..
Malawi	S	1992	..	..	39.2	100.0	18.7	41.2	90.0	100.0	..
Mauritius[a]	C	1990	28.2	0.7	12.6	94.7	23.8	11.5	51.5	94.5	4.4
Mozambique[a]	S	1997	22.6	3.8	57.6	99.3	18.0	47.1	88.8	97.1	4.6
Réunion	C	1990	30.3	0.1	6.9	82.1	28.2	2.1	19.4	84.1	2.1
Rwanda	S	1996	24.8	2.1	28.4	79.5	23.3	9.3	55.7	98.3	1.5
Seychelles	C	1987	26.4	0.7	18.9	79.9	23.8	5.8	36.7	82.5	2.6
Uganda[a]	S	1995	22.5	11.4	55.1	96.9	18.2	49.8	87.7	98.6	4.3
United Rep. of Tanzania	S	1996	25.0	3.4	29.5	97.1	20.5	25.4	75.5	99.3	4.5
Zambia[a]	S	1996	25.0	0.8	31.7	98.9	20.3	27.3	78.0	99.3	4.7
Zimbabwe[a]	S	1999	25.7	0.8	23.6	98.7	21.0	22.7	71.9	99.4	4.7
Middle Africa											
Angola	C	1970	24.5	7.6	41.7	92.5	19.4	35.7	82.8	95.4	5.1
Cameroon[a]	S	1998	26.7	4.2	28.0	99.2	20.2	35.8	73.6	98.5	6.5
Central African Republic.	S	1994-95	24.4	8.1	45.6	99.0	19.4	42.3	81.2	98.1	5.0
Chad	S	1996-97	24.1	5.9	43.7	100.0	18.0	48.6	92.2	99.9	6.1
Congo	C	1984	27.0	11.8	18.0	92.9	18.4	55.5	76.7	93.2	8.6
Democratic Republic of the Congo	C	1984	24.9	4.7	33.9	95.4	20.0	32.3	74.2	96.4	4.9
Equatorial Guinea[a]	C	1983	26.9	2.1	21.8	88.6	21.7	26.3	62.8	93.4	5.2
Gabon	C	1993	28.2	2.3	17.0	87.2	24.3	15.9	47.9	90.6	3.9
Sao Tome and Principe[a]	C	1991	23.0	1.9	28.0	77.4	17.8	19.9	61.7	75.4	5.3
Northern Africa											
Algeria	S	1992	..	..	..	..	25.9	3.6	29.6	98.1	..
Egypt	C	1996	27.9	2.8	11.9	98.6	22.2	15.9	56.1	98.6	5.7
Libyan Arab Jamahiriya	S	1995	32.0	0.1	1.3	98.5	29.2	1.0	12.2	98.6	2.8
Morocco	C	1994	29.8	1.1	11.0	95.1	25.3	12.8	44.1	97.9	4.5
Sudan	C	1993	29.0	2.5	14.8	96.3	22.7	21.3	55.2	98.3	6.4
Tunisia	C	1994	30.3	0.0	3.7	97.0	26.6	3.0	27.7	97.7	3.7
Southern Africa											
Botswana[a]	C	1991	30.8	3.2	9.6	85.2	26.9	5.8	27.4	77.6	3.9
Lesotho	C	1986	25.5	1.6	25.9	96.4	21.3	18.1	70.4	96.8	4.2
Namibia[a]	S	1992	..	..	..	..	26.4	7.7	31.1	88.1	..
South Africa[a]	C	1991	28.9	1.0	12.9	89.6	27.1	4.5	28.7	89.4	1.8
Swaziland[a]	S	1991	29.1	1.7	15.6	90.3	25.9	9.6	40.0	91.0	3.2
Western Africa											
Benin[b]	S	1996	..	..	27.3	98.7	19.9	29.1	79.5	99.7	..
Burkina Faso[a]	S	1991	27.5	2.9	17.1	97.2	18.9	34.6	85.9	98.3	8.6
Cape Verde[a]	C	1990	28.0	1.1	14.7	85.5	25.7	6.7	32.3	77.7	2.4
Côte d'Ivoire	S	1994	28.1	2.0	19.2	98.4	20.9	27.7	69.6	99.3	7.2
Gambia	S	1990	28.4	7.6	17.2	100.0	19.2	43.6	80.0	100.0	9.2
Ghana[a]	S	1993	26.2	1.8	27.5	98.9	20.5	22.4	75.3	100.0	5.7
Guinea[a]	S	1992	26.1	8.2	32.9	99.7	18.8	49.0	82.3	99.8	7.3
Liberia	C	1984	26.9	3.4	23.0	93.4	20.4	35.7	70.9	96.9	6.5

TABLE A. 1 *(continued)*

Country or area	Data source	Date	Men SMAM	Men Percentage ever married 15-19	Men Percentage ever married 20-24	Men Percentage ever married 45-49	Women SMAM	Women Percentage ever married 15-19	Women Percentage ever married 20-24	Women Percentage ever married 45-49	SMAM difference (males-females)
Mali	S	1995-96	25.8	4.6	28.9	99.6	18.4	49.7	87.6	99.8	7.5
Mauritania	C	1988	28.1	3.5	16.2	95.7	20.5	36.0	68.0	96.4	7.7
Niger	S	1998	23.9	4.2	41.8	99.6	17.6	61.9	88.9	99.8	6.3
Nigeria[a]	S	1999	27.2	3.0	17.2	100.0	21.3	27.5	63.5	98.9	5.9
Senegal[a]	S	1997	..	..	8.1	98.1	21.5	29.0	62.8	99.9	..
Sierra Leone	S	1992	27.6	6.0	20.3	97.0	19.8	47.4	73.1	98.3	7.8
Togo[a]	C	1998	27.0	2.3	18.4	98.9	21.3	19.9	63.4	99.7	5.6
Asia											
Eastern Asia											
China[c]	C	1990	23.8	1.8	37.5	94.9	22.1	4.7	58.6	99.8	1.7
China, Hong Kong SAR[d]	C	1996	30.7	0.8	6.0	92.5	28.6	1.7	14.7	94.1	2.0
China, Macao SAR[e]	C	1991	28.1	0.8	9.9	95.0	26.4	2.3	22.3	96.0	1.7
Japan	C	1995	30.7	0.3	6.7	88.7	27.7	0.7	13.2	94.4	3.0
Republic of Korea	C	1995	29.3	0.2	3.7	98.7	26.1	0.8	16.7	99.0	3.3
South-central Asia											
Afghanistan	C	1979	25.3	9.2	36.5	95.9	17.8	53.7	90.7	99.0	7.5
Bangladesh	C	1991	24.9	5.0	31.6	99.3	18.1	51.3	89.5	99.6	6.8
Bhutan	E	1990	23.8	7.9	45.5	93.1	20.5	26.6	69.9	93.1	3.3
India	C	1991	23.9	9.5	40.1	97.6	19.3	35.7	83.0	99.3	4.7
Iran (Islamic Republic of)	C	1994	24.9	2.7	31.7	98.7	21.7	22.4	64.9	99.2	3.2
Kazakhstan[a]	S	1999	25.2	0.5	34.4	95.7	21.6	9.0	59.9	94.1	3.6
Kyrgyzstan	C	1989	23.9	2.1	38.4	98.7	21.4	14.5	70.9	98.9	2.5
Maldives	C	1990	23.2	6.1	49.1	98.1	19.1	36.5	85.2	99.5	4.1
Nepal	S	1996	22.0	13.5	61.7	99.1	18.8	41.6	85.9	98.4	3.3
Pakistan	C	1998	25.8	6.1	30.0	96.2	21.3	20.6	61.4	97.5	4.5
Sri Lanka[f]	S	1993	27.9	1.0	16.3	92.9	25.3	7.1	38.8	94.8	2.6
Tajikistan	C	1989	23.1	2.5	45.2	99.0	20.7	15.5	77.3	98.9	2.4
Turkmenistan	C	1989	23.8	2.5	37.5	98.3	22.5	7.1	53.9	99.0	1.3
Uzbekistan[a]	S	1996	..	..	..	..	20.6	13.0	77.2	98.6	..
South-eastern Asia											
Brunei Darussalam	C	1991	27.3	1.2	18.6	95.2	25.1	8.0	38.2	91.3	2.2
Indonesia	C	1990	25.2	2.4	28.3	97.1	21.6	18.2	64.3	98.5	3.7
Lao People's Dem. Rep.	C	1995	..	..	..	..	21.2	19.7	67.4	96.3	..
Malaysia	C	1991	27.9	1.4	14.3	96.0	24.6	7.6	39.9	96.2	3.3
Myanmar	S	1997	27.5	2.2	23.3	94.3	26.4	6.6	34.8	87.9	1.1
Philippines	C	1995	26.6	3.3	25.4	95.0	24.1	9.6	42.3	93.8	2.5
Singapore	C	1990	29.8	0.2	5.7	92.4	27.0	1.2	21.2	92.9	2.8
Thailand	C	1990	25.8	6.0	31.5	96.8	23.5	15.2	52.0	94.8	2.4
Viet Nam	C	1989	24.5	4.7	37.4	98.5	23.2	11.1	56.9	96.5	1.3
Western Asia											
Armenia	C	1989	25.2	6.9	40.2	98.7	22.4	23.1	71.2	97.0	2.8
Azerbaijan	C	1989	25.5	3.2	25.4	98.5	23.5	12.0	52.9	97.5	2.0
Bahrain	C	1991	28.4	0.5	12.8	93.5	25.6	6.7	40.9	96.2	2.8
Cyprus	C	1992	27.0	0.6	18.1	97.2	23.1	7.5	50.8	94.0	3.9
Georgia	C	1989	26.0	4.7	29.9	96.6	22.3	18.5	59.3	94.0	3.7
Iraq[a]	C	1987	25.5	14.9	32.0	97.0	21.7	27.9	58.6	96.1	3.8
Israel	E	1993	25.5	4.0	32.4	97.5	24.3	4.9	39.5	95.0	1.3
Jordan	S	1997	..	..	..	..	25.3	8.2	38.8	96.1	..
Kuwait	E	1994	29.6	1.3	22.1	96.3	25.0	13.2	47.9	94.5	4.5
Lebanon[a]	C	1970	28.5	1.0	11.9	94.3	23.2	13.2	49.1	93.1	5.3
Occupied Palestinian Territory[g]	C	1997	25.3	2.1	27.9	99.0	21.7	24.2	64.0	92.4	3.6
Oman	C	1993	24.7	2.1	32.6	97.1	20.7	21.1	71.8	99.2	4.0
Qatar	S	1987	26.3	1.9	22.1	99.0	22.8	12.8	56.4	98.0	3.5

TABLE A. 1 *(continued)*

Country or area	Data source	Date	Men SMAM	Men Percentage ever married 15-19	Men Percentage ever married 20-24	Men Percentage ever married 45-49	Women SMAM	Women Percentage ever married 15-19	Women Percentage ever married 20-24	Women Percentage ever married 45-49	SMAM difference (males-females)
Saudi Arabia	S	1987	25.6	1.0	24.0	98.6	21.7	16.1	61.1	98.1	4.0
Syrian Arab Republic	C	1981	25.7	3.8	25.4	97.8	21.5	24.9	64.5	96.9	4.2
Turkey	C	1990	25.0	4.3	28.2	97.4	22.0	15.5	61.8	98.4	3.0
United Arab Emirates	S	1987-88	25.6	2.5	26.6	98.3	23.1	18.5	52.2	98.5	2.6
Yemen	C	1994	24.7	4.6	36.5	98.2	20.8	24.0	71.9	98.8	4.0
Europe											
Eastern Europe											
Belarus	C	1989	24.4	2.3	39.0	91.3	21.7	10.4	64.3	94.7	2.7
Bulgaria	C	1985	24.9	3.1	37.0	96.0	21.1	16.5	71.6	98.2	3.8
Czech Republic	C	2000	28.0	0.2	11.6	91.5	25.3	1.2	27.2	96.5	2.7
Hungary	C	2000	29.1	0.2	9.9	89.7	26.3	1.9	24.7	95.3	2.8
Poland	C	1990	26.2	0.6	22.9	92.8	23.0	4.0	52.1	95.0	3.2
Republic of Moldova	C	1989	23.7	2.7	42.0	98.8	20.9	15.2	72.3	96.7	2.9
Romania	C	2000	27.4	0.2	13.2	93.8	24.1	5.6	40.8	96.5	3.3
Russian Federation	C	1989	24.3	3.6	40.5	96.3	21.6	14.1	66.5	96.5	2.7
Slovakia	C	2000	27.9	0.4	14.5	90.8	25.0	2.2	32.0	93.1	2.8
Ukraine	C	1989	24.0	3.1	41.7	97.3	21.0	15.7	70.7	96.8	3.0
Northern Europe											
Denmark	R	1995	27.7	1.2	23.7	89.9	25.0	5.4	42.1	94.7	2.7
Estonia	C	1989	24.5	3.0	35.2	92.4	22.1	9.7	59.6	93.3	2.4
Faeroe Islands	R	1992	31.0	0.0	6.4	83.7	28.3	1.0	19.0	95.4	2.7
Finland	C	2000	32.3	0.1	4.7	78.6	30.2	0.5	10.5	85.9	2.2
Iceland	C	2000	32.6	0.4	4.2	70.0	30.5	0.9	8.2	70.9	2.1
Ireland	C	2000	31.4	0.2	1.1	85.4	30.3	0.4	3.0	91.4	1.1
Isle of Man	C	1991	28.8	0.3	10.4	91.0	26.3	1.5	22.1	94.3	2.5
Latvia	C	1989	24.3	3.8	38.9	93.4	22.0	10.7	61.7	94.8	2.2
Lithuania	C	1989	24.6	3.1	34.2	94.4	22.2	8.5	58.2	94.9	2.4
Norway	C	1999	33.4	0.1	3.1	90.1	30.9	0.5	8.7	94.2	2.4
Sweden	C	1998	34.2	0.1	2.2	74.6	32.0	0.5	6.8	82.5	2.2
United Kingdom of Great Britain and Northern Ireland	C	1991	28.4	0.5	11.9	90.8	26.4	1.7	24.6	94.8	2.0
Southern Europe											
Albania	C	1989	27.0	1.0	11.2	96.8	22.9	8.3	52.2	98.6	4.1
Croatia	C	1991	27.9	0.6	14.9	92.8	23.8	5.2	44.1	95.2	4.2
Gibraltar	C	1981	24.8	2.7	33.4	93.3	21.1	11.1	60.3	95.4	3.8
Greece	C	1991	29.4	0.6	8.4	94.1	24.5	5.5	36.3	94.9	4.9
Italy	C	1999	31.5	0.1	3.0	88.7	28.4	0.9	13.3	91.5	3.2
Malta	C	1985	26.2	0.4	13.2	88.2	22.2	3.1	33.2	80.7	4.0
Portugal	C	1991	26.7	1.2	18.9	95.4	23.9	5.7	38.6	93.1	2.8
San Marino	C	1995	22.2	0.0	67.8	94.4	22.3	14.3	52.9	84.1	-0.2
Slovenia	C	1991	28.5	0.5	11.1	89.2	24.8	2.1	33.9	92.3	3.7
Spain	C	1991	28.5	0.7	8.9	89.9	26.1	2.3	22.2	91.9	2.4
TFYR of Macedonia[h]	C	1994	26.7	1.5	21.7	97.4	22.9	9.1	51.3	97.2	3.9
Yugoslavia[i]	C	1991	27.4	1.9	20.5	95.5	23.1	11.3	50.8	96.1	4.3
Western Europe											
Austria	C	1991	28.9	0.6	11.5	90.3	26.1	2.7	25.7	92.4	2.8
Belgium	C	2000	30.3	0.1	5.7	89.5	27.9	1.1	16.5	93.2	2.5
France	C	1998	32.1	0.0	2.9	86.9	30.0	0.3	8.6	89.8	2.1
Germany	C	1999	31.4	0.1	5.3	82.6	28.5	1.2	14.8	86.8	2.9
Liechtenstein	C	1987	28.8	0.2	6.7	92.4	26.1	0.8	19.8	91.2	2.7
Luxembourg	C	1991	28.5	0.4	10.8	90.9	26.0	2.4	26.2	93.4	2.5
Netherlands	C	2000	32.1	0.1	3.5	86.5	29.5	0.7	11.6	91.2	2.6
Switzerland	C	2000	30.9	0.2	6.4	87.5	28.4	1.1	15.5	89.6	2.5

TABLE A. 1 *(continued)*

Country or area	Data source	Date	Men SMAM	Men Percentage ever married 15-19	Men Percentage ever married 20-24	Men Percentage ever married 45-49	Women SMAM	Women Percentage ever married 15-19	Women Percentage ever married 20-24	Women Percentage ever married 45-49	SMAM difference (males-females)
Latin America and Caribbean											
Caribbean											
Antigua and Barbuda	C	1991	33.2	0.2	3.1	68.1	31.5	0.5	8.0	62.6	1.8
Aruba	C	1991	28.8	0.4	14.9	83.9	26.2	3.2	29.0	79.0	2.7
Bahamas[a]	C	1990	29.0	1.1	13.9	85.5	27.2	3.7	25.2	82.8	1.8
Barbados	C	1990	34.3	0.2	2.3	62.8	31.8	0.6	6.7	59.8	2.6
British Virgin Islands	C	1991	31.9	0.2	7.3	84.3	28.4	1.6	15.2	76.4	3.5
Cayman Islands	C	1989	27.6	1.8	19.8	87.3	25.2	5.8	36.2	84.7	2.3
Cuba[a]	C	1981	23.5	6.7	40.5	91.0	19.8	28.8	73.5	96.2	3.6
Dominica	C	1991	35.4	0.1	1.3	63.4	31.5	0.3	5.4	59.7	3.8
Dominican Republic[a]	C	1993	26.0	4.3	30.1	86.3	22.5	21.9	55.3	90.6	3.5
Grenada	C	1991	34.4	0.1	1.1	59.8	30.9	0.6	6.4	57.4	3.5
Guadeloupe	C	1990	32.3	0.2	2.6	72.4	29.5	1.1	11.7	69.8	2.8
Haiti[a]	S	1994-95	26.6	3.0	28.0	96.9	22.2	16.9	58.7	98.5	4.5
Jamaica	C	1991	34.6	0.5	2.4	51.8	33.1	0.8	5.5	54.2	1.5
Martinique	C	1990	33.0	0.1	1.7	70.5	31.0	0.5	6.7	67.1	2.0
Montserrat[f]	C	1980	31.1	0.5	2.2	60.7	22.9	15.0	39.3	74.1	8.3
Netherlands Antilles	C	1992	31.7	0.5	6.4	78.5	29.2	1.6	15.8	72.4	2.5
Puerto Rico[a]	C	1990	25.5	5.7	32.9	90.8	23.5	14.5	47.3	93.0	2.0
Saint Kitts and Nevis	C	1980	32.1	0.1	2.4	51.1	31.3	0.5	7.7	62.1	0.9
Saint Vincent and the Grenadines	C	1991	34.5	0.0	1.8	60.7	30.9	0.8	7.6	58.3	3.6
Trinidad and Tobago	C	1990	29.8	1.2	10.6	78.8	26.8	9.0	27.5	79.3	3.0
United States Virgin Islands[a]	E	1995	31.6	4.0	5.5	85.4	29.9	3.2	15.5	88.5	1.6
Central America											
Belize	C	1991	28.4	1.4	18.1	75.9	28.2	1.5	19.8	78.4	0.3
Costa Rica[a]	C	1984	25.1	2.7	29.6	90.6	22.2	15.5	51.5	86.7	2.9
El Salvador[a]	S	1998	..	..	..	..	21.6	26.3	60.5	96.5	..
Guatemala	S	1990	23.8	7.8	45.9	95.0	21.3	24.2	66.8	96.6	2.5
Honduras[a]	S	1996	23.8	6.5	40.0	92.3	20.4	30.4	68.3	95.6	3.4
Mexico[a]	C	1990	24.6	5.7	38.9	94.4	22.4	16.1	54.6	92.9	2.2
Nicaragua[a]	S	1998	..	..	..	..	20.0	34.3	75.1	97.6	..
Panama[a]	C	1990	25.4	4.7	30.9	87.7	21.9	21.4	55.9	91.9	3.5
South America											
Argentina[a]	C	1991	25.6	2.7	25.6	90.6	23.3	12.4	45.2	91.3	2.4
Bolivia	C	1992	25.1	3.7	36.0	94.2	22.7	13.5	53.2	92.7	2.4
Brazil[a]	S	1996	25.4	4.3	29.1	97.0	22.7	16.8	52.6	94.8	2.8
Chile[a]	C	1992	25.8	5.3	25.4	89.3	23.4	11.7	43.8	86.6	2.5
Colombia[a]	C	1993	25.8	7.7	31.5	89.6	22.4	20.0	52.3	87.9	3.4
Ecuador[a]	C	1990	24.9	6.8	35.2	91.7	21.8	19.6	55.3	89.3	3.1
French Guiana	C	1990	32.3	0.1	3.2	53.9	29.0	1.1	8.7	54.2	3.3
Guyana	C	1991	30.1	0.9	12.1	80.5	27.8	6.9	26.6	81.7	2.3
Paraguay[a]	C	1992	25.8	2.1	27.4	90.1	21.5	16.6	53.5	85.5	4.3
Peru[a]	S	1996	25.7	3.5	32.9	99.0	23.1	12.5	52.3	95.7	2.5
Uruguay[a]	C	1996	25.6	3.5	26.9	88.7	23.3	12.8	44.8	91.4	2.3
Venezuela[a]	C	1990	25.4	5.5	31.3	87.2	22.1	17.7	50.6	86.6	3.3
Northern America											
Bermuda	C	1991	30.5	0.0	6.0	89.2	28.8	1.1	16.8	89.9	1.6
Canada	R	1994	28.9	0.3	10.8	91.5	26.2	1.3	25.1	93.0	2.7
Greenland	E	1997	33.7	0.2	3.7	63.4	31.5	0.6	12.2	78.3	2.2
United States	E	1998	28.4	2.7	16.6	91.1	26.1	5.7	29.7	92.8	2.3

TABLE A. 1 *(continued)*

Country or area	Data source	Date	Men SMAM	Men Percentage ever married 15-19	Men Percentage ever married 20-24	Men Percentage ever married 45-49	Women SMAM	Women Percentage ever married 15-19	Women Percentage ever married 20-24	Women Percentage ever married 45-49	SMAM difference (males-females)
Oceania											
Australia/New Zealand											
Australia	R	1994	29.2	1.0	10.6	91.4	27.0	1.6	21.6	94.6	2.2
New Zealand	C	1991	28.8	0.4	9.7	92.8	26.8	1.1	22.4	95.3	2.1
Melanesia											
Fiji	C	1986	25.3	2.5	29.2	95.8	22.5	13.3	58.5	96.4	2.8
New Caledonia	C	1989	30.9	0.1	5.2	76.8	28.4	1.3	17.2	84.2	2.5
Papua New Guinea[a]	S	1996	..	..	..	..	20.8	20.8	75.1	99.8	..
Solomon Islands	C	1986	25.0	3.1	31.3	92.8	21.2	19.1	65.1	94.1	3.8
Vanuatu	C	1989	25.1	3.4	30.9	94.5	22.5	12.8	58.0	97.0	2.6
Micronesia											
Guam	C	1990	26.8	2.1	29.3	94.0	24.4	5.8	45.3	94.8	2.5
Kiribati	C	1995	24.8	6.0	40.0	94.0	21.7	18.0	65.0	96.0	3.1
Marshall Islands	C	1988	23.7	7.0	48.8	91.8	21.0	23.7	70.9	94.8	2.7
Nauru	C	1979	30.7	0.0	5.3	96.6	23.4	0.0	60.0	100.0	7.3
Polynesia											
American Samoa	C	1990	28.3	1.6	16.0	92.5	25.7	4.7	35.0	96.1	2.6
Cook Islands	C	1996	30.9	1.4	12.1	79.5	29.6	2.2	17.4	89.4	1.3
Samoa	E	1999	27.4	1.1	19.1	94.4	23.9	8.3	50.8	96.6	3.4
Tonga	C	1996	27.9	1.7	17.8	92.5	25.5	5.0	33.4	92.9	2.4
Tuvalu	C	1979	29.1	0.2	14.5	97.2	25.4	3.2	33.4	87.7	3.6
Wallis and Futuna Islands	C	1990	28.5	0.1	8.8	90.8	23.4	2.9	25.8	77.2	5.1

Sources: Population Division and Statistics Division of the United Nations Secretariat; and United States, Bureau of the Census.

NOTE: SMAM=singulate mean age at marriage, which measures the mean age at first marriage. The computation is based on the proportion single between ages 15 and 50. C=census; E=estimate; S=survey; R=register.

[a] Consensual union data for both men and women were reported separately. They were included in the ever- married category.

[b] Consensual union data shown for women only.

[c] For statistical purposes, the data for China do not include Hong Kong Special Administrative Region or Macao Special Administrative Region.

[d] As of 1 July 1997, Hong Kong became a Special Administrative Region (SAR) of China.

[e] As of 20 December 1999, Macao became a Special Administrative Region (SAR) of China.

[f] Data for men from the 1981 census, and those for women from the Demographic and Health Survey (DHS) 1993.

[g] Estimates are based on Statistics Division data provided by the Palestinian Authority and referring to the Palestinian population.

[h] The Former Yugoslav Republic of Macedonia.

[i] As of 4 February 2003, the official name of Yugoslavia has been changed to Serbia and Montenegro.

TABLE A.2. PERCENTAGE OF MEN AND WOMEN AGED 15-19 AND 20-24 WHO ARE IN A CONSENSUAL UNION

Region and country	Census or survey year	Percentage of all men and women in consensual unions				Percentage in consensual unions among those in all unions			
		Men		Women		Men		Women	
		15-19	20-24	15-19	20-24	15-19	20-24	15-19	20-24
Africa									
Benin	1996	…	0.4	4.1	9.4	...	1.4	14.4	12.2
Botswana	1991	0.9	5.7	0.9	5.7	41.5	65.0	64.5	59.1
Burkina Faso	1999	0.1	1.3	2.2	7.2	9.2	6.4	6.4	8.2
Cameroon	1998	2.8	8.5	9.6	15.3	80.0	33.7	28.6	23.1
Cape Verde	1990	0.7	9.6	4.9	18.9	64.0	66.0	75.3	59.7
Central African Republic	1994-95	5.0	30.3	33.6	64.8	89.3	86.8	86.0	86.8
Chad	1996-97	0.7	4.1	2.9	4.7	13.4	10.2	6.2	5.4
Comoros	1996	1.0	1.6	1.2	1.6	50.0	11.9	11.8	3.7
Eritrea	1995	0.9	1.5	1.2	6.4	64.3	4.9	3.7	9.2
Ghana	1998	0.9	1.5	6.9	19.0	73.4	47.4	51.4	30.9
Guinea	1992	...	...	2.6	4.1	...	...	5.4	5.1
Kenya	1998	0.0	0.6	0.9	2.9	0.0	3.7	5.8	4.7
Liberia	1984	...	...	22.0	45.4	...	...	69.4	69.2
Madagascar	1997	...	...	8.6	16.4	...	...	30.8	26.5
Malawi	1992	...	3.4	1.2	4.3	...	9.4	3.4	5.5
Mali	1995-96	3.3	9.4	4.2	2.0	81.2	35.8	8.6	2.4
Mauritius	1990	0.2	1.6	1.4	2.5	38.3	13.3	12.9	5.0
Mozambique	1997	2.0	46.3	35.2	62.1	69.0	86.7	78.2	77.2
Namibia	1992	0.6	5.4	3.0	11.9	59.4	54.0	48.3	44.5
Niger	1998	0.2	0.0	0.0	0.1	6.1	0.0	0.0	0.1
Nigeria	1999	0.2	0.3	2.2	3.8	7.6	2.1	8.2	6.1
Rwanda	1992	...	...	7.0	28.8	...	...	84.3	57.9
Sao Tome And Principe	1991	1.8	26.1	19.4	54.1	95.8	97.3	98.2	95.4
Senegal	1997	...	0.0	0.3	0.3	...	0.0	1.0	0.5
South Africa	1991	0.4	3.7	1.8	7.7	46.8	29.6	41.5	27.7
Swaziland	1991	0.3	6.5	4.5	13.9	48.2	46.3	51.1	35.8
Togo	1998	0.7	1.6	3.6	7.4	30.4	9.9	18.8	12.4
Uganda	1995	2.9	2.6	8.1	9.4	29.0	5.3	17.2	12.1
United Rep. of Tanzania	1996	0.1	3.9	3.0	8.1	8.3	15.9	13.0	12.0
Zambia	1996	0.0	0.0	0.5	0.7	0.0	0.0	2.0	1.1
Zimbabwe	1999	0.0	0.8	2.5	6.6	0.0	3.9	11.4	10.4
Asia									
Kazakhstan	1999	0.0	1.7	0.5	1.7	0.0	5.4	6.2	3.3
Kyrgyzstan	1997	...	...	0.7	3.1	...	...	5.7	4.4
Mongolia	1998	...	...	2.7	12.7	...	...	40.9	22.2
Philippines	1995	0.4	2.4	1.5	3.0	14.0	9.7	15.6	7.2
Uzbekistan	1996	...	...	0.1	0.9	...	...	0.8	1.2
Europe									
Denmark	1991	1.1	21.1	4.8	33.8	86.4	82.2	84.8	75.2
Finland	1989-92	...	30.8	...	23.2	...	51.7	...	32.4
France	1994	...	15.8	...	23.9	...	79.0	...	61.9
Hungary	1990	0.7	2.6	1.9	3.7	48.6	11.5	25.8	7.6
Portugal	1991	0.3	1.8	1.1	2.9	26.7	10.0	20.7	8.0

Table A.2 (*continued*)

	Census or survey year	Percentage of all men and women				Percentage in consensual unions among			
		Men		Women		Men		Women	
		15-19	20-24	15-19	20-24	15-19	20-24	15-19	20-24
Republic of Moldova	1997	...	...	1.9	3.2	...	...	17.0	4.8
Russian Federation [a]	1994	0.5	3.0	1.9	3.8	17.9	7.8	13.8	6.7
Ukraine	1999	...	...	2.1	6.0	...	...	22.3	10.2
Latin America and the Caribbean									
Argentina	1991	1.7	10.5	6.3	14.3	67.7	42.3	52.6	33.2
Bahamas	1990	0.4	5.3	2.0	8.0	52.0	40.2	58.1	33.3
Bolivia	1998	3.1	17.5	7.8	22.4	72.8	57.9	73.8	45.7
Brazil	1996	2.3	10.5	6.8	14.5	70.5	46.6	49.6	31.6
Chile..	1992	1.1	4.8	2.5	6.4	21.3	19.3	21.7	15.2
Colombia	1993	3.6	20.0	12.7	28.7	74.7	68.3	76.2	60.8
Dominican Republic	1996	1.7	20.8	19.4	37.5	79.6	88.8	86.6	71.8
Ecuador	1990	2.0	12.1	8.3	18.8	45.1	36.9	47.5	35.9
El Salvador	1992	3.5	23.3	11.1	28.4	83.4	69.6	77.6	63.0
Guatemala	1990	4.2	19.9	11.8	24.4	56.6	44.3	52.6	39.8
Haiti	1994-95	2.1	21.5	14.0	41.3	100.0	89.3	94.0	81.2
Honduras	1996	...	...	19.3	38.1	...	...	85.0	69.7
Jamaica	1997	...	...	6.6	23.9	...	...	95.7	86.0
Mexico	1990	2.3	9.2	5.4	10.9	43.4	24.5	35.4	20.9
Nicaragua	1998	...	...	20.1	39.8	...	...	78.5	67.3
Panama	1990	3.6	20.7	15.5	32.3	87.3	73.5	82.9	66.6
Paraguay	1992	1.2	11.3	6.7	17.1	57.3	41.8	41.1	32.7
Peru	1996	1.8	22.7	9.6	31.4	78.4	76.3	80.7	66.0
Puerto Rico	1990	0.6	3.3	1.7	4.0	18.7	10.2	15.8	9.3
Uruguay	1996	1.9	10.9	5.8	14.9	57.8	42.4	47.4	35.4
Venezuela	1990	2.9	12.7	7.9	18.1	59.1	43.3	49.2	39.8
Oceania									
Samoa	1999	0.6	8.3	3.6	17.4	66.7	46.1	47.4	37.2

Source: Population Division of the United Nations Secretariat, database on marriage.
[a] Age group 16-19 instead of 15-19.

TABLE A.3. AGE PATTERNS OF FERTILITY, 1990-2000

Major area or region and country	Source of data: Type	Source of data: Year	Reference period	Age-specific fertility rates: 15-19	20-24	25-29	30-34	35-39	40-44	45-49	TFR
Africa											
Eastern Africa											
Burundi	E	2000	1990 - 1995	60	252	302	279	226	133	109	6.8
Comoros	S	1991	1987 - 1991	100	280	330	290	225	105	10	6.7
Djibouti	C	1990	1990 - 1990	31	155	270	317	257	121	44	6.0
Eritrea	S	1995	1993 - 1995	125	245	269	245	189	110	37	6.1
Ethiopia	S	1990	1990 - 1990	144	351	335	315	235	108	59	7.7
Kenya	S	1993	1989 - 1993	110	257	241	197	154	70	50	5.4
Madagascar	S	1992	1990 - 1992	157	270	272	226	192	89	19	6.1
Malawi	S	1992	1990 - 1992	161	287	269	254	197	120	58	6.7
Mauritius	R	1990	1990 - 1990	45	147	138	80	39	11	2	2.3
Mozambique	S	1992	1988 - 1992	..	..	..	..	..	..	..	6.3
Réunion	R	1993	1993 - 1993	42	128	148	106	43	18	1	2.4
Rwanda	S	1992	1990 - 1992	64	240	311	286	226	143	49	6.6
Somalia	E	2000	1990 - 1995	213	341	318	260	186	104	29	7.3
Uganda	S	1995	1991 - 1995	198	315	307	252	180	93	34	6.9
United Republic of Tanzania	S	1992	1988 - 1992	144	282	270	231	177	108	37	6.2
Zambia	S	1992	1990 - 1992	157	294	271	242	194	105	31	6.5
Zimbabwe	S	1994	1992 - 1994	99	210	194	172	117	52	14	4.3
Middle Africa											
Angola	E	2000	1990 - 1995	229	351	318	253	174	95	19	7.2
Cameroon	S	1991	1987 - 1991	164	282	260	228	149	62	20	5.8
Central African Republic	S	1994	1992 - 1994	155	237	231	192	117	60	23	5.1
Chad	S	1993	1989 - 1993	119	246	260	208	160	78	45	5.6
Congo	E	2000	1990 - 1995	146	264	283	254	186	94	30	6.3
Dem. Republic of the Congo	E	2000	1990 - 1995	230	316	275	235	166	92	25	6.7
Equatorial Guinea	E	2000	1990 - 1995	192	293	260	203	138	73	19	5.9
Gabon	S	1993	1989 - 1993	..	..	..	..	..	..	..	5.2
Northern Africa											
Algeria	S	1992	1988 - 1992	22	144	214	217	164	92	23	4.4
Egypt	S	1992	1990 - 1992	63	208	222	155	89	43	6	3.9
Libyan Arab Jamahiriya	S	1995	1991 - 1995	7	74	181	229	193	109	24	4.1
Morocco	S	1992	1988 - 1992	40	139	183	182	138	86	39	4.0
Sudan	S	1993	1991 - 1993	51	169	214	212	161	66	37	4.6
Tunisia	R	1989	1989 - 1989	17	129	193	173	112	41	9	3.4
Western Sahara	E	2000	1990 - 1995	96	228	253	182	119	57	23	4.8
Southern Africa											
Botswana	E	2000	1990 - 1995	97	209	253	194	130	62	26	4.9
Lesotho	S	1991	1987 - 1991	54	186	214	212	149	100	38	4.8
Namibia	S	1992	1988 - 1992	109	207	241	208	166	105	37	5.4
South Africa	E	2000	1990 - 1995	77	153	159	123	86	38	15	3.3
Swaziland	C	1986	1986 - 1986	88	229	224	201	152	80	44	5.1
Western Africa											
Benin	S	1996	1992 - 1996	123	271	283	260	205	90	31	6.3
Burkina Faso	S	1992	1988 - 1992	149	283	285	235	196	105	49	6.5
Cape Verde	E	2000	1990 - 1995	85	168	183	151	124	53	13	3.9

TABLE A.3. *(continued)*

Source of data			*Age-specific fertility rates*							*TFR*	*Major area or region and country*
Type	*Year*	*Reference period*	*15-19*	*20-24*	*25-29*	*30-34*	*35-39*	*40-44*	*45-49*		
											Africa
											Eastern Africa
E	2000	1995 - 2000	60	252	302	279	226	133	109	6.8	Burundi
S	1996	1992 - 1996	66	196	237	246	164	78	29	5.1	Comoros
E	2000	1995 - 2000	71	178	291	333	207	84	56	6.1	Djibouti
E	2000	1995 - 2000	119	241	262	224	168	95	31	5.7	Eritrea
E	2000	1995 - 2000	82	244	296	277	228	134	89	6.8	Ethiopia
S	1998	1994 - 1998	111	246	222	185	107	54	17	4.7	Kenya
S	1997	1993 - 1997	180	279	254	215	152	88	25	6.0	Madagascar
E	2000	1995 - 2001	162	308	293	250	183	106	49	6.3	Malawi
R	1997	1997 - 1997	37	128	123	76	35	8	1	2.0	Mauritius
S	1997	1993 - 1997	173	270	235	198	126	95	25	5.6	Mozambique
E	2000	1995 - 2000	32	113	157	101	43	14	0	2.3	Réunion
S	2000	1998 - 2000	52	240	272	257	190	123	33	5.8	Rwanda
E	2000	1995 - 2000	213	341	318	260	186	104	29	7.3	Somalia
E	2000	1995 - 2000	211	330	320	253	183	92	30	7.1	Uganda
S	1996	1994 - 1996	138	268	240	213	138	78	37	5.6	United Republic of Tanzania
S	1996	1992 - 1996	156	285	270	231	174	76	26	6.1	Zambia
S	1999	1997 - 1999	112	199	180	135	108	46	15	4.0	Zimbabwe
											Middle Africa
E	2000	1995 - 2000	229	351	318	253	174	95	19	7.2	Angola
S	1998	1994 - 1998	142	237	244	189	137	63	20	5.2	Cameroon
E	2000	1995 - 2000	155	250	245	198	125	62	25	5.3	Central African Republic
S	1997	1993 - 1997	194	312	313	257	168	67	14	6.6	Chad
E	2000	1995 - 2000	146	264	283	254	186	94	30	6.3	Congo
E	2000	1995 - 2000	230	316	275	235	166	92	25	6.7	Dem. Republic of the Congo
E	2000	1995 - 2000	192	293	260	203	138	73	19	5.9	Equatorial Guinea
S	2000	1996 - 2000	144	193	178	176	101	48	11	4.3	Gabon
											Northern Africa
R	1996	1996 - 1996	..	..	..	..	..	..	..	3.1	Algeria
S	2000	1998 - 2000	51	196	208	147	75	24	4	3.5	Egypt
E	2000	1995 - 2000	19	94	178	199	162	88	19	3.8	Libyan Arab Jamahiriya
R	1997	1997 - 1997	35	125	138	146	117	82	18	3.3	Morocco
E	2000	1995 - 2000	64	191	255	240	142	68	21	4.9	Sudan
R	1999	1999 - 1999	..	..	..	..	..	..	..	2.1	Tunisia
E	2000	1995 - 2000	91	218	238	163	104	47	18	4.4	Western Sahara
											Southern Africa
E	2000	1995 - 2000	77	188	249	177	111	49	19	4.4	Botswana
E	2000	1995 - 2000	74	219	240	202	132	60	23	4.8	Lesotho
E	2000	1995 - 2000	98	204	252	204	169	96	36	5.3	Namibia
S	1998	1994 - 1998	..	..	..	..	..	..	..	2.9	South Africa
E	2000	1995 - 2000	84	216	211	189	143	76	41	4.8	Swaziland
											Western Africa
E	2000	1995 - 2000	118	262	273	251	198	87	31	6.1	Benin
S	1999	1995 - 1999	144	305	293	264	214	112	28	6.8	Burkina Faso
S	1998	1994 - 1998	104	208	188	159	113	61	2	4.2	Cape Verde

TABLE A.3. *(continued)*

Major area or region and country	Source of data: Type	Source of data: Year	Reference period	Age-specific fertility rates: 15-19	20-24	25-29	30-34	35-39	40-44	45-49	TFR
Côte d'Ivoire	S	1994	1990 - 1994	151	245	240	227	172	82	26	5.7
Gambia	E	2000	1990 - 1995	171	269	262	192	134	64	30	5.6
Ghana	S	1993	1989 - 1993	116	221	233	209	143	87	22	5.2
Guinea	S	1992	1988 - 1992	157	247	248	215	154	74	39	5.7
Guinea-Bissau	E	2000	1990 - 1995	195	302	264	205	139	74	19	6.0
Liberia	E	2000	1990 - 1995	230	282	290	253	186	88	31	6.8
Mali	S	1996	1994 - 1996	198	310	303	262	208	98	27	7.0
Mauritania	S	1991	1988 - 1991	78	168	214	217	166	102	62	5.0
Niger	S	1992	1988 - 1992	215	315	301	252	185	92	39	7.0
Nigeria	S	1990	1986 - 1990	146	258	263	220	159	92	64	6.0
Senegal	S	1993	1989 - 1993	127	250	266	244	185	99	34	6.0
Sierra Leone	E	2000	1990 - 1995	212	321	287	225	152	82	21	6.5
Togo	E	2000	1990 - 1995	113	246	256	245	207	139	34	6.2
Asia											
Eastern Asia											
China	S	1994	1994 - 1994	5	161	144	47	10	4	1	1.9
China, Hong Kong SAR.[a]	R	1990	1990 - 1990	6	36	91	74	27	4	0	1.2
China, Macao SAR.[b]	R	1991	1991 - 1991	9	60	130	90	34	5	1	1.6
Dem. People's Rep. of Korea	R	1993	1993 - 1993	..	..	260	100	18	3	1	1.9
Japan	R	1990	1990 - 1990	4	45	140	93	21	2	0	1.5
Mongolia	S	1993	1993 - 1993	80	229	170	88	91	21	0	3.4
Republic of Korea[c]	R	1990	1990 - 1990	4	82	162	48	9	1	0	1.5
South-central Asia											
Afghanistan	E	2000	1990 - 1995	128	307	374	256	197	81	58	7.0
Bangladesh	S	1994	1991 - 1993	140	196	158	105	56	19	14	3.4
Bhutan	S	1994	1994 - 1994	120	267	242	195	174	95	24	5.6
India	S	1993	1991 - 1992	116	231	170	97	44	15	5	3.4
Iran (Islamic Republic of)	C	1991	1991 - 1991	..	..	..	..	..	..	..	4.9
Kazakhstan	R	1991	1991 - 1991	54	219	137	77	34	9	1	2.7
Kyrgyzstan	R	1992	1992 - 1992	55	274	195	122	56	16	5	3.6
Maldives	C	1990	1990 - 1990	106	286	303	270	199	96	23	6.4
Nepal	S	1991	1990 - 1991	98	280	245	187	129	60	19	5.1
Pakistan	S	1991	1987 - 1990	84	230	268	229	147	73	40	5.4
Sri Lanka	S	1993	1989 - 1994	35	109	134	104	54	14	2	2.3
Tajikistan	R	1991	1990 - 1990	41	307	279	211	118	52	8	5.1
Turkmenistan	R	1991	1991 - 1991	26	227	273	177	85	28	4	4.1
Uzbekistan	R	1990	1990 - 1990	44	297	239	149	65	21	3	4.1
South-eastern Asia											
Brunei Darussalam	R	1992	1992 - 1992	29	131	181	152	92	35	2	3.1
Cambodia	E	2000	1990 - 1995	125	289	297	202	112	41	14	5.4
Indonesia	S	1994	1990 - 1994	61	148	150	109	68	31	4	2.9
Lao People's Dem. Republic	S	1994	1990 - 1994	115	297	288	246	190	108	31	6.4
Malaysia	R	1990	1990 - 1990	19	124	203	171	106	39	4	3.3
Myanmar	R	1990	1990 - 1990	..	..	..	..	..	..	..	3.6
Philippines	S	1993	1991 - 1993	50	191	217	181	120	51	8	4.1
Singapore	R	1990	1990 - 1990	8	61	139	113	45	7	0	1.9
Thailand	S	1991	1991 - 1991	53	125	128	73	47	20	3	2.2
Timor-Leste[d]	S	1994	1990 - 1994	49	213	243	212	153	51	16	4.7

TABLE A.3. *(continued)*

Source of data			Age-specific fertility rates								
Type	*Year*	*Reference period*	*15-19*	*20-24*	*25-29*	*30-34*	*35-39*	*40-44*	*45-49*	*TFR*	*Major area or region and country*
S	1999	1994 - 1998	129	223	225	198	151	80	37	5.2	Côte d'Ivoire
E	2000	1995 - 2000	155	258	252	177	119	55	24	5.2	Gambia
S	1998	1994 - 1998	90	192	206	183	143	79	16	4.5	Ghana
S	1999	1995 - 1999	168	238	246	214	144	70	25	5.5	Guinea
E	2000	1995 - 2000	195	302	264	205	139	74	19	6.0	Guinea-Bissau
E	2000	1995 - 2000	230	282	290	253	186	88	31	6.8	Liberia
E	2000	1995 - 2000	195	312	308	255	214	95	21	7.0	Mali
E	2000	1995 - 2000	147	260	283	231	159	79	41	6.0	Mauritania
S	1998	1994 - 1998	216	322	319	293	206	96	42	7.5	Niger
S	1999	1995 - 1999	111	220	239	226	138	71	24	5.1	Nigeria
S	1997	1993 - 1997	103	219	240	245	186	99	41	5.7	Senegal
E	2000	1995 - 2000	212	321	287	225	152	82	21	6.5	Sierra Leone
S	1998	1994 - 1998	89	224	251	214	172	93	37	5.4	Togo
											Asia
											Eastern Asia
E	2000	1995 - 2000	5	156	139	45	9	4	1	1.8	China
R	1998	1998 - 1998	5	27	57	56	25	4	0	0.9	China, Hong Kong SAR[a]
R	1998	1998 - 1998	6	31	72	68	27	5	0	1.0	China, Macao SAR[b]
E	2000	1995 - 2000	2	61	250	79	15	3	1	2.1	Dem. People's Rep. of Korea
R	1998	1998 - 1998	5	39	103	93	29	3	0	1.4	Japan
S	1996	1995 - 1996	58	205	251	143	46	7	0	3.6	Mongolia
R	1998	1998 - 1998	3	49	159	75	16	2	0	1.5	Republic of Korea[c]
											South-central Asia
E	2000	1995 - 2000	119	303	385	257	189	75	52	6.9	Afghanistan
S	2000	1997 - 1999	144	188	165	99	44	18	3	3.3	Bangladesh
E	2000	1995 - 2000	71	241	291	251	165	71	11	5.5	Bhutan
R	1997	1997 - 1997	54	226	188	109	55	26	8	3.3	India
C	1996	1996 - 1996	..	..	..	..	..	..	..	2.5	Iran (Islamic Republic of)
S	1999	1997 - 1999	44	166	115	63	29	6	..	2.1	Kazakhstan
R	1998	1998 - 1998	45	188	159	106	51	14	3	2.8	Kyrgyzstan
E	2000	1995 - 2000	59	219	277	229	195	115	64	5.8	Maldives
S	1996	1992 - 1996	131	271	230	164	102	39	14	4.7	Nepal
E	2000	1995 - 2000	43	276	328	248	141	55	4	5.5	Pakistan
E	2000	1995 - 2000	24	111	133	93	44	14	2	2.1	Sri Lanka
R	1996	1996 - 1996	31	225	205	150	88	38	7	3.7	Tajikistan
E	2000	1995 - 2000	20	190	239	157	80	30	4	3.6	Turkmenistan
R	1999	1999 - 1999	28	228	118	93	35	8	1	2.5	Uzbekistan
											South-eastern Asia
E	2000	1995 - 2000	35	130	166	126	74	24	4	2.8	Brunei Darussalam
S	2000	1996 - 2000	51	191	203	165	118	55	15	4.0	Cambodia
S	1997	1993 - 1997	64	146	145	110	63	27	6	2.8	Indonesia
E	2000	1995 - 2000	96	247	239	204	158	90	27	5.3	Lao People's Dem. Republic
R	1997	1997 - 1997	..	..	..	..	..	..	..	3.3	Malaysia
R	1996	1996 - 1996	..	..	..	..	..	..	..	3.5	Myanmar
S	1998	1996 - 1998	46	177	210	155	111	40	7	3.7	Philippines
R	1998	1998 - 1998	41	110	105	44	7	0	2	1.5	Singapore
S	1996	1995 - 1996	54	126	107	68	36	11	3	2.0	Thailand
S	1997	1993 - 1997	..	..	..	..	..	..	..	4.4	Timor-Leste[d]

TABLE A.3. *(continued)*

Major area or region and country	Source of data: Type	Source of data: Year	Reference period	Age-specific fertility rates: 15-19	20-24	25-29	30-34	35-39	40-44	45-49	TFR
Viet Nam	S	1993	1993 - 1993	56	205	189	107	60	30	2	3.2
Western Asia											
Armenia	R	1990	1990 - 1990	76	222	125	63	24	5	0	2.6
Azerbaijan	R	1990	1990 - 1990	32	232	180	97	37	9	1	2.9
Bahrain	S	1995	1993 - 1995	19	117	168	156	121	47	19	3.2
Cyprus	R	1990	1990 - 1990	34	149	169	89	35	7	0	2.4
Georgia	R	1990	1990 - 1990	61	173	113	61	24	6	0	2.2
Iraq	E	2000	1990 - 1995	49	200	274	270	217	96	35	5.7
Israel	R	1990	1990 - 1990	20	142	201	148	76	16	1	3.0
Jordan	S	1990	1988 - 1990	49	219	296	264	188	79	19	5.6
Kuwait	E	2000	1990 - 1995	42	163	195	135	80	20	4	3.2
Lebanon	E	2000	1990 - 1995	34	136	167	131	82	32	7	2.9
Occupied Palestinian Territory	R	1992	1992 - 1992	160	357	419	349	273	94	20	8.4
Oman	S	1995	1993 - 1995	86	270	332	300	222	114	86	7.1
Qatar	E	2000	1990 - 1995	..	..	..	..	..	..	..	4.1
Saudi Arabia	E	2000	1990 - 1995	58	224	300	299	279	134	49	6.7
Syrian Arab Republic	S	1993	1989 - 1993	71	184	229	202	155	81	17	4.7
Turkey [e]	R	1990	1990 - 1990	57	188	166	98	56	25	7	3.0
United Arab Emirates	S	1995	1993 - 1995	41	183	249	222	161	80	42	4.9
Yemen	S	1991	1989 - 1991	102	283	315	284	258	172	120	7.7
Europe											
Eastern Europe											
Belarus	R	1990	1990 - 1990	44	175	97	45	16	4	0	1.9
Bulgaria	R	1990	1990 - 1990	70	159	78	29	9	2	0	1.7
Czech Republic	R	1990	1990 - 1990	45	174	105	37	11	2	0	1.9
Hungary	R	1990	1990 - 1990	40	147	115	47	16	3	0	1.8
Poland	R	1990	1990 - 1990	32	165	121	59	25	6	0	2.0
Republic of Moldova	R	1990	1990 - 1990	59	204	116	62	25	7	0	2.4
Romania	R	1990	1990 - 1990	52	145	98	46	19	6	0	1.8
Russian Federation	R	1990	1990 - 1990	56	157	93	48	19	4	0	1.9
Slovakia	R	1990	1990 - 1990	46	187	117	46	15	3	0	2.1
Ukraine	R	1990	1990 - 1990	57	165	91	44	16	4	0	1.9
Northern Europe											
Denmark	R	1990	1990 - 1990	9	71	135	87	27	4	0	1.7
Estonia	R	1990	1990 - 1990	54	164	106	56	23	5	0	2.0
Finland	R	1990	1990 - 1990	12	72	133	94	37	8	0	1.8
Iceland	R	1990	1990 - 1990	17	63	138	126	63	15	1	2.1
Ireland	R	1990	1990 - 1990	50	165	103	56	23	5	0	2.0
Latvia	R	1990	1990 - 1990	42	168	111	57	22	5	0	2.0
Lithuania	R	1998	1998 - 1998	29	97	81	44	18	4	0	1.4
Norway	R	1990	1990 - 1990	17	93	144	95	32	5	0	1.9
Sweden	R	1990	1990 - 1990	14	99	156	110	41	7	0	2.1
United Kingdom	R	1990	1990 - 1990	33	91	123	87	31	5	0	1.8
Southern Europe											
Albania	E	2000	1990 - 1995	17	158	203	126	56	17	3	2.9
Bosnia and Herzegovina	R	1990	1990 - 1990	38	129	102	51	18	4	1	1.7
Croatia	R	1990	1990 - 1990	27	127	105	47	16	3	0	1.6

TABLE A.3. *(continued)*

Source of data			*Age-specific fertility rates*								
Type	*Year*	*Reference period*	*15-19*	*20-24*	*25-29*	*30-34*	*35-39*	*40-44*	*45-49*	*TFR*	*Major area or region and country*
S	1997	1993 - 1997	36	173	141	90	48	18	3	2.5	Viet Nam
											Western Asia
R	1998	1998 - 1998	43	129	70	32	13	3	0	1.5	Armenia
R	1998	1998 - 1998	38	147	106	53	26	7	1	1.9	Azerbaijan
E	2000	1995 - 2000	20	111	180	118	67	23	8	2.6	Bahrain
R	1998	1998 - 1998	14	106	146	90	38	6	1	2.0	Cyprus
R	1997	1997 - 1997	62	109	81	47	18	6	1	1.6	Georgia
E	2000	1995 - 2000	45	184	252	249	200	88	33	5.3	Iraq
R	1997	1997 - 1997	17	118	191	159	81	20	1	2.9	Israel
S	1997	1995 - 1997	43	172	246	206	144	48	11	4.4	Jordan
S	1996	1994 - 1996	28	174	223	191	142	56	11	4.1	Kuwait
S	1996	1994 - 1996	..	..	..	..	..	..	..	2.4	Lebanon
E	2000	1995 - 2000	106	302	303	244	166	70	7	6.0	Occupied Palestinian Territory
E	2000	1995 - 2000	80	232	269	249	183	96	62	5.9	Oman
S	1998	1996 - 1998	23	147	206	199	143	41	15	3.9	Qatar
S	1996	1994 - 1996	50	201	270	264	191	103	68	5.7	Saudi Arabia
E	2000	1995 - 2000	44	168	267	174	102	38	6	4.0	Syrian Arab Republic
R	1998	1998 - 1998	49	175	142	66	30	12	2	2.4	Turkey[e]
E	2000	1995 - 2000	70	181	177	114	60	26	7	3.2	United Arab Emirates
S	1997	1995 - 1997	105	279	301	258	196	105	54	6.5	Yemen
											Europe
											Eastern Europe
R	1995	1995 - 1995	39	123	72	30	11	2	0	1.4	Belarus
R	1999	1999 - 1999	49	90	69	29	8	2	0	1.2	Bulgaria
R	1999	1999 - 1999	11	73	86	39	13	2	0	1.1	Czech Republic
R	1999	1999 - 1999	19	72	90	51	18	3	0	1.3	Hungary
R	1998	1998 - 1998	19	93	96	52	22	5	0	1.4	Poland
R	1997	1997 - 1997	53	124	91	42	15	4	0	1.7	Republic of Moldova
R	1999	1999 - 1999	24	91	81	43	13	3	0	1.3	Romania
R	1999	1999 - 1999	30	93	65	33	11	2	0	1.2	Russian Federation
R	1999	1999 - 1999	19	90	90	42	15	3	0	1.3	Slovakia
R	1995	1995 - 1995	54	117	66	28	10	2	0	1.4	Ukraine
											Northern Europe
R	1998	1998 - 1998	8	54	128	108	41	6	0	1.7	Denmark
R	1999	1999 - 1999	19	84	73	43	17	4	0	1.2	Estonia
R	1999	1999 - 1999	7	61	117	102	46	9	0	1.7	Finland
R	1999	1999 - 1999	19	88	123	103	53	8	0	2.0	Iceland
R	1999	1999 - 1999	20	48	94	131	69	13	1	1.9	Ireland
R	1999	1999 - 1999	19	79	73	39	16	4	0	1.2	Latvia
R	1997	1997 - 1997	32	102	82	41	17	3	0	1.4	Lithuania
R	1998	1998 - 1998	14	69	128	105	43	7	0	1.8	Norway
R	1997	1997 - 1997	7	55	109	91	38	7	0	1.5	Sweden
R	1998	1998 - 1998	32	72	99	89	40	7	0	1.7	United Kingdom
											Southern Europe
E	2000	1995 - 2000	16	143	185	113	47	13	2	2.6	Albania
E	2000	1995 - 2000	26	96	85	44	16	3	1	1.4	Bosnia and Herzegovina
R	1999	1999 - 1999	16	83	91	57	23	5	0	1.4	Croatia

TABLE A.3. *(continued)*

Major area or region and country	Source of data: Type	Source of data: Year	Reference period	Age-specific fertility rates: 15-19	20-24	25-29	30-34	35-39	40-44	45-49	TFR
Greece	R	1990	1990 - 1990	22	87	97	55	20	4	0	1.4
Italy	R	1990	1990 - 1990	9	56	99	74	29	6	0	1.4
Malta	R	1990	1990 - 1990	11	84	163	99	40	10	1	2.0
Portugal	R	1990	1990 - 1990	24	90	108	62	24	6	1	1.6
Slovenia	R	1990	1990 - 1990	25	119	95	39	13	3	0	1.5
Spain	R	1990	1990 - 1990	12	50	102	76	28	6	1	1.4
TFYR of Macedonia[f]	R	1990	1990 - 1990	43	161	131	55	19	4	0	2.1
Yugoslavia[g]	R	1990	1990 - 1990	41	150	130	65	23	6	1	2.1
Western Europe											
Austria	R	1990	1990 - 1990	20	85	102	58	20	4	0	1.4
Belgium	R	1990	1990 - 1990	11	78	139	73	21	3	0	1.6
France	R	1990	1990 - 1990	12	84	138	84	32	6	0	1.8
Germany	R	1990	1990 - 1990	18	75	107	66	21	3	0	1.5
Liechtenstein	R	1990	1990 - 1990	5	45	112	96	26	6	0	1.5
Luxembourg	R	1990	1990 - 1990	14	72	126	84	26	4	0	1.6
Netherlands	R	1990	1990 - 1990	6	42	120	114	36	5	1	1.6
Switzerland	R	1990	1990 - 1990	5	51	125	100	34	5	0	1.6
Latin America and the Caribbean											
Caribbean											
Bahamas	R	1994	1994 - 1994	61	121	114	102	60	15	4	2.4
Barbados	E	2000	1990 - 1995	43	85	82	58	26	6	0	1.5
Cuba	R	1990	1990 - 1990	78	114	97	56	18	3	0	1.8
Dominican Republic	S	1991	1989 - 1991	88	210	175	116	57	12	11	3.3
Guadeloupe	E	2000	1990 - 1995	19	79	112	121	68	18	2	2.1
Haiti	S	1995	1991 - 1995	76	179	233	206	166	78	19	4.8
Jamaica	E	2000	1990 - 1995	100	151	129	92	56	21	3	2.8
Netherlands Antilles	E	2000	1990 - 1995	52	115	137	95	46	11	0	2.3
Martinique	R	1992	1992 - 1992	28	89	114	93	50	12	1	1.9
Puerto Rico	R	1990	1990 - 1990	78	146	130	72	29	7	0	2.3
Trinidad and Tobago	R	1990	1990 - 1990	71	126	126	94	49	16	1	2.4
Central America											
Belize	R	1991	1991 - 1991	120	246	205	158	89	33	6	4.3
Costa Rica	S	1993	1989 - 1993	87	179	159	105	71	31	..	3.2
El Salvador	E	2000	1990 - 1995	111	192	166	116	75	34	11	3.5
Guatemala	R	1995	1993 - 1995	126	262	235	200	136	54	13	5.1
Honduras	S	1995	1993 - 1995	136	243	210	169	142	78	12	5.0
Mexico	R	1990	1990 - 1990	98	211	205	142	86	34	8	3.9
Nicaragua	S	1992	1988 - 1992	158	251	198	148	103	41	13	4.6
Panama	R	1990	1990 - 1990	93	162	149	102	51	16	3	2.9
South America											
Argentina	R	1990	1990 - 1990	70	148	157	113	62	20	3	2.9
Bolivia	S	1994	1992 - 1994	94	229	227	185	138	64	16	4.8
Brazil	S	1991	1989 - 1991	76	193	168	150	96	38	11	3.7
Chile	R	1990	1990 - 1990	66	139	138	99	52	14	1	2.6
Colombia	S	1995	1991 - 1995	92	171	143	99	60	25	4	3.0
Ecuador	S	1994	1989 - 1994	89	214	208	157	99	59	22	4.2
Guyana	E	2000	1990 - 1995	84	148	137	86	42	12	2	2.6

TABLE A.3. *(continued)*

Source of data			*Age-specific fertility rates*								
Type	*Year*	*Reference period*	*15-19*	*20-24*	*25-29*	*30-34*	*35-39*	*40-44*	*45-49*	*TFR*	*Major area or region and country*
R	1998	1998 - 1998	14	55	93	69	26	5	1	1.3	Greece
R	1996	1996 - 1996	7	35	79	77	34	6	1	1.2	Italy
R	1998	1998 - 1998	17	68	132	99	37	9	0	1.8	Malta
R	1999	1999 - 1999	18	61	95	81	34	6	0	1.5	Portugal
R	1999	1999 - 1999	5	61	98	55	17	3	0	1.2	Slovenia
R	1998	1998 - 1998	6	24	69	90	37	6	0	1.2	Spain
R	1999	1999 - 1999	31	125	122	55	17	3	0	1.8	TFYR of Macedonia[f]
R	1996	1996 - 1996	30	120	118	68	25	5	0	1.8	Yugoslavia[g]
											Western Europe
R	1999	1999 - 1999	13	67	92	63	24	5	0	1.3	Austria
R	1995	1995 - 1995	9	62	131	81	24	4	0	1.6	Belgium
R	1998	1998 - 1998	9	60	132	101	40	8	0	1.7	France
R	1997	1997 - 1997	13	60	94	76	27	4	0	1.4	Germany
R	1997	1997 - 1997	2	61	100	105	49	8	1	1.6	Liechtenstein
R	1999	1999 - 1999	2	44	99	93	34	5	0	1.4	Luxembourg
R	1999	1999 - 1999	5	39	109	125	46	6	0	1.7	Netherlands
R	1999	1999 - 1999	4	49	102	97	38	6	0	1.5	Switzerland
											Latin America and the Caribbean
											Caribbean
E	2000	1995 - 2000	63	125	123	100	53	13	2	2.4	Bahamas
E	2000	1995 - 2000	43	85	82	58	26	6	0	1.5	Barbados
R	1996	1996 - 1996	54	88	78	48	17	2	0	1.4	Cuba
S	1996	1992 - 1996	115	201	160	109	42	17	3	3.2	Dominican Republic
E	2000	1995 - 2000	19	77	110	119	67	18	2	2.1	Guadeloupe
S	2000	1996 - 2000	80	187	204	219	153	75	18	4.7	Haiti
E	2000	1995 - 2000	63	126	149	94	50	15	2	2.5	Jamaica
E	2000	1995 - 2000	46	106	126	88	42	11	0	2.1	Netherlands Antilles
E	2000	1995 - 2000	27	79	106	83	43	11	1	1.8	Martinique
R	1998	1998 - 1998	74	113	100	64	26	6	0	1.9	Puerto Rico
R	1998	1998 - 1998	43	97	88	70	35	9	1	1.7	Trinidad and Tobago
											Central America
R	1998	1998 - 1998	80	187	173	112	65	21	5	3.2	Belize
E	2000	1995 - 2000	85	158	140	101	60	20	2	2.8	Costa Rica
S	1998	1995 - 1998	116	211	167	118	68	29	8	3.6	El Salvador
R	1999	1996 - 1999	117	276	236	182	131	60	7	5.0	Guatemala
E	2000	1995 - 2000	115	226	193	154	105	56	11	4.3	Honduras
R	1995	1995 - 1995	..	..	..	..	..	..	..	3.0	Mexico
S	1998	1994 - 1998	139	203	173	132	82	35	10	3.9	Nicaragua
R	1997	1997 - 1997	102	158	146	104	54	15	3	2.9	Panama
											South America
R	1995	1995 - 1995	64	129	136	107	58	18	2	2.6	Argentina
S	1998	1996 - 1998	84	207	201	165	117	57	15	4.2	Bolivia
S	1996	1994 - 1996	88	153	126	81	45	16	3	2.6	Brazil
R	1998	1998 - 1998	67	106	108	85	49	13	1	2.1	Chile
S	2000	1998 - 2000	85	146	131	94	49	17	3	2.6	Colombia
S	1999	1994 - 1999	89	172	155	119	76	37	10	3.3	Ecuador
E	2000	1995 - 2000	74	139	138	86	41	11	2	2.5	Guyana

TABLE A.3. *(continued)*

Major area or region and country	Source of data: Type	Source of data: Year	Reference period	Age-specific fertility rates: 15-19	20-24	25-29	30-34	35-39	40-44	45-49	TFR
Paraguay	S	1996	1990 - 1995	107	212	215	158	116	61	15	4.4
Peru	S	1992	1989 - 1992	62	174	177	144	100	42	11	3.5
Suriname	R	1993	1993 - 1993	93	148	125	79	48	11	1	2.5
Uruguay	C	1985	1985 - 1985	62	149	162	118	68	24	3	2.9
Venezuela	R	1990	1990 - 1990	109	192	179	133	78	27	6	3.6
Northern America											
Canada	R	1990	1990 - 1990	26	85	132	88	29	4	0	1.8
United States	R	1990	1990 - 1990	61	117	120	81	32	6	0	2.1
Oceania											
Australia/New Zealand											
Australia	R	1991	1991 - 1991	23	78	137	102	37	6	0	1.9
New Zealand	R	1991	1991 - 1991	34	96	141	105	38	6	0	2.1
Melanesia											
Fiji	E	2000	1990 - 1995	..	..	..	..	..	..	..	3.4
New Caledonia	R	1994	1994 - 1994	34	140	182	130	61	16	1	2.8
Papua New Guinea	E	2000	1990 - 1995	98	247	241	191	124	79	30	5.1
Solomon Islands	E	2000	1990 - 1995	89	254	289	231	173	84	39	5.8
Vanuatu	E	2000	1990 - 1995	..	..	..	..	..	..	..	4.8
Micronesia											
Guam	E	2000	1990 - 1995	102	229	198	129	62	16	2	3.7
Polynesia											
French Polynesia	E	2000	1990 - 1995	..	..	..	..	..	..	..	3.1
Samoa	E	2000	1990 - 1995	51	218	241	213	141	63	13	4.7

Sources: Population Division of the United Nations Secretariat, database on fertility; and *World Population Prospects: The 2000 Revision,* vol. I, *Comprehensive Tables* (United Nations publication, Sales No.E.01.XIII.8).

NOTE*:* C - population census*;* E - estimate by the United Nations*;* R - civil registration*;* S - sample survey

[a] As of 1 July 1997, Hong Kong became a Special Administrative Region (SAR) of China.

[b] As of 20 December 1999, Macao became a Special Administrative Region (SAR) of China.

[c] Based on the results of the demographic sample survey.

[d] Formerly East Timor.

[e] Based on the results of the Population Demographic Survey.

[f] The former Yugoslav Republic of Macedonia

[g] As of 4 February 2003, the official name of Yugoslavia has been changed to Serbia and Montenegro.

TABLE A.3. *(continued)*

Source of data			*Age-specific fertility rates*								
Type	*Year*	*Reference period*	*15-19*	*20-24*	*25-29*	*30-34*	*35-39*	*40-44*	*45-49*	*TFR*	*Major area or region and country*
E	2000	1995 - 2000	76	201	198	172	120	56	11	4.2	Paraguay
S	1996	1994 - 1996	75	179	162	140	99	44	7	3.5	Peru
R	1995	1995 - 1995	75	150	120	70	43	13	3	2.4	Suriname
C	1996	1996 - 1996	76	121	129	102	59	25	7	2.6	Uruguay
R	1997	1997 - 1997	73	147	138	100	62	26	8	2.8	Venezuela
											Northern America
R	1997	1997 - 1997	20	64	104	84	33	5	0	1.6	Canada
R	1999	1999 - 1999	58	112	112	84	35	7	0	2.0	United States
											Oceania
											Australia/New Zealand
R	1996	1996 - 1996	21	68	121	109	45	8	0	1.9	Australia
R	1999	1999 - 1999	31	78	116	111	50	9	0	2.0	New Zealand
											Melanesia
E	2000	1995 - 2000	53	191	182	122	60	25	8	3.2	Fiji
E	2000	1995 - 2000	33	132	157	122	62	15	1	2.6	New Caledonia
E	2000	1995 - 2000	89	225	220	174	113	72	28	4.6	Papua New Guinea
E	2000	1995 - 2000	88	251	283	221	163	78	35	5.6	Solomon Islands
E	2000	1995 - 2000	62	235	232	176	120	57	36	4.6	Vanuatu
											Micronesia
E	2000	1995 - 2000	109	245	212	138	66	17	2	4.0	Guam
											Polynesia
E	2000	1995 - 2000	61	152	134	102	53	16	1	2.6	French Polynesia
E	2000	1995 - 2000	49	210	231	205	135	60	12	4.5	Samoa

TABLE A.4. TRENDS IN TOTAL FERTILITY RATES, 1990-1999

Major area, region and country	Year									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Africa										
Mauritius	2.32	2.30	..	..	2.25	2.14	2.12	2.04	2.00	..
Tunisia	3.38	3.31	3.27	3.12	2.90	2.67	2.51	2.38	2.23	2.09
Asia										
Armenia	2.63	2.58	2.35	1.97	1.70	1.63	1.60	1.45	1.45	..
Azerbaijan	2.74	2.93	2.75	2.81	2.64	2.30	2.06	2.03	1.89	..
China, Hong Kong SAR[a]	1.19	1.22	1.26	1.23	1.22	1.16	1.06	0.99	0.87	..
China, Macao SAR[b]	..	1.64	..	1.40	1.43	1.36	1.26	1.22	1.04	..
Cyprus	2.42	2.33	2.49	2.27	2.23	2.13	2.08	2.00	1.92	..
Georgia	2.19	2.10	1.77	1.64	1.66	1.71	1.69	1.62	..	..
Israel	3.02	2.90	2.93	2.92	2.90	2.88	2.91	2.93	..	..
Japan	1.52	1.51	1.47	1.43	1.47	1.42	1.42	1.39	1.36	..
Kazakhstan	2.92	2.87	..	..	..	..	2.19	2.03	2.00	..
Kyrgyzstan	3.70	3.70	3.62	3.28	3.11	3.34	3.03	2.82	2.83	..
Malaysia	..	3.44	3.48	3.50	3.40	3.35	3.34	3.25	3.29	3.23
Republic of Korea[c]	1.53	..	1.73	1.71	1.72	1.69	..	..	1.51	..
Singapore	1.87	1.77	1.76	1.78	1.75	1.71	1.76	1.71	1.57	..
Turkey[d]	2.99	2.91	2.84	2.76	2.69	2.62	2.55	2.48	2.38	..
Europe										
Eastern Europe										
Belarus	1.90	1.79	1.75	1.60	1.51	1.38	1.32	1.23	1.27	..
Bulgaria	1.73	1.57	1.53	1.46	1.37	1.23	1.24	1.09	1.11	1.24
Czech Republic	1.87	1.84	1.70	1.66	1.44	1.28	1.19	1.18	1.17	1.12
Hungary	1.84	1.86	1.77	1.69	1.64	1.57	1.46	1.38	1.33	1.27
Poland	2.04	2.05	1.93	1.85	1.80	1.61	1.58	1.51	1.43	..
Republic of Moldova	2.36	2.26	2.21	2.10	1.95	1.76	1.60	1.67	..	..
Romania	1.83	1.56	1.50	1.45	1.42	1.34	1.29	1.31	1.32	1.28
Russian Federation	1.89	1.73	1.55	1.39	1.40	1.35	1.28	1.23	1.24	1.17
Slovakia	2.07	2.04	1.98	1.92	1.66	1.52	1.46	1.43	1.38	1.30
Ukraine	1.89	1.81	1.72	1.55	1.46	1.38	1.38	1.36	..	..
Northern Europe										
Denmark	1.67	1.68	1.76	1.75	1.81	1.81	1.75	1.75	1.72	1.74
Estonia	2.04	1.79	1.69	1.45	1.37	1.32	1.30	1.24	1.21	1.20
Finland	1.79	1.80	1.85	1.82	1.85	1.81	1.76	1.74	1.70	1.72
Iceland	2.31	2.19	2.21	2.22	2.14	2.08	2.12	2.04	2.05	1.97
Ireland	2.12	2.09	2.00	1.91	1.85	1.85	1.88	1.92	1.93	1.89
Latvia	2.02	1.86	1.73	1.51	1.39	1.25	1.16	1.11	1.09	1.15
Lithuania	2.03	2.01	1.90	1.69	1.52	1.49	1.42	1.39	1.36	..
Norway	1.94	1.92	1.89	1.87	1.87	1.88	1.90	1.87	1.81	1.84
Sweden	2.14	2.12	2.09	2.00	1.89	1.74	1.61	1.53	1.51	1.50
United Kingdom	1.85	1.83	1.81	1.77	1.75	1.71	1.73	1.72	1.70	1.70
Southern Europe										
Croatia	1.63	1.53	1.48	1.52	1.47	1.58	1.67	1.69	..	1.38
Greece	1.39	1.38	1.39	1.34	1.36	1.32	1.30	1.32	1.29	1.30

TABLE A.4. *(continued)*

Major area, region and country	*Year*									
	1990	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*
Italy	1.33	1.33	1.33	1.27	1.22	1.19	1.21	1.22	1.19	1.21
Malta	2.04	2.07	2.21	2.01	1.89	1.82	2.01	1.95	1.80	..
Portugal	1.57	1.57	1.54	1.52	1.44	1.41	1.44	1.46	1.46	1.47
Slovenia	1.47	1.43	1.34	1.33	1.32	1.29	1.27	1.25	1.23	1.20
Spain	1.37	1.33	1.32	1.27	1.21	1.18	1.16	1.15	1.16	1.19
TFYR of Macedonia[e]	2.06	2.30	2.18	..	2.23	2.13	2.06	1.93	..	1.77
Yugoslavia[f]	2.07	2.08	1.91	1.90	1.85	1.87	1.83	1.77	..	..
Western Europe										
Austria	1.45	1.49	1.49	1.48	1.44	1.40	1.42	1.37	1.34	1.32
Belgium	1.63	1.66	1.65	1.61	1.56	1.55	..	..	1.53	1.54
France	1.78	1.77	1.73	1.66	1.66	1.70	1.72	1.71	1.75	1.77
Germany	1.45	..	..	..	..	1.25	1.32	1.37	1.36	1.37
Liechtenstein	1.45	1.56	1.40	1.52	1.33	1.57	1.51	1.63	..	..
Luxembourg	1.61	1.60	1.67	1.71	1.73	1.69	1.77	1.71	1.67	1.73
Netherlands	1.62	1.62	1.60	1.58	1.58	1.54	1.54	1.54	1.63	1.64
Switzerland	1.59	1.58	1.58	1.51	1.49	1.48	1.50	1.48	1.46	1.48
Latin America and the Caribbean										
Bahamas	2.03	..	2.71	2.64	2.38	..	..	..	..	..
Chile	2.55	2.47	2.41	..	2.32	2.24	2.22	2.18	2.15	..
Cuba	1.83	1.69	..	1.48	..	1.49	1.44	..	..	..
Puerto Rico	2.31	..	2.20	2.20	2.13	..	2.06	2.04	1.91	..
Northern America										
Canada	1.82	..	1.70	1.66	1.66	1.64	1.62	1.55	..	..
United States of America	2.08	2.07	2.07	2.05	2.04	2.02	2.03	2.03	2.06	2.05
Oceania										
Australia	1.91	1.85	1.89	1.86	1.85	1.82	1.80	1.78	1.76	..
New Zealand	..	2.10	2.12	2.05	2.04	2.01	1.97	1.93	1.98	1.98

Sources: Council of Europe, *Recent Demographic Developments in Europe, 1999* (Strasbourg, France, Council of Europe, 1999); EUROSTAT, demographic database; Australian Bureau of Statistics, available from http://www.abs.gov.au (accessed 8 May 2001); Statistics New Zealand, available from http://www.stats.gov.nz (accessed 8 May 2001); CIS Interstate Statistical Committee, *Population and Living Conditions in the Countries of the Commonwealth of Independent States* (Moscow, 1998); Tunisia, Institut National de la Statistique, available from http://www.ins.nat.tn (accessed 23 April 2001); Goskomstat Russia, *Demographic Yearbook 2000* (Moscow, 2000); United States Bureau of the Census, available from http://www.census.gov (accessed 28 April 2001); Georgian Centre of Population Research, available from http://www.mmc.net.ge/geopopin/centre.htm (accessed 9 May 2001); and United Nations Statistics Division, *Demographic Yearbook* Database.

[a] As of 1 July 1997, Hong Kong became a Special Administrative Region (SAR) of China.

[b] As of 20 December 1999, Macao became a Special Administrative Region (SAR) of China.

[c] Excluding alien armed forces, civilian aliens employed by the armed forces and foreign diplomatic personnel and their dependants.

[d] Based on the results of the Population Demographic Survey.

[e] The former Yugoslav Republic of Macedonia.

[f] As of 4 February 2003, the official name of Yugoslavia has been changed to Serbia and Montenegro.

TABLE A.5. BIRTHS BY AGE GROUP OF MOTHER, MAJOR AREAS AND REGIONS, 1995-2000

Major area or region	*Births (thousands)*	*Births by age group of mother (percentage)*		
		Under age 20	*20-34*	*35+*
World	659 964	10.6	79.0	10.4
More developed regions[a]	66 136	8.8	80.0	11.2
Less developed regions[b]	593 829	10.8	78.9	10.4
Least developed countries	125 027	17.4	68.1	14.5
Africa	144 998	16.0	68.9	15.1
Eastern Africa	50 423	15.3	68.1	16.6
Middle Africa	20 608	23.6	63.8	12.6
Northern Africa	22 944	8.1	76.5	15.3
Southern Africa	6 618	15.9	70.1	13.9
Western Africa	44 405	17.4	68.0	14.6
Asia	396 149	7.9	83.6	8.5
Eastern Asia	113 018	1.2	95.1	3.6
South-central Asia	197 595	10.6	80.1	9.3
South-eastern Asia	59 831	10.3	77.3	12.4
Western Asia	25 705	10.5	74.6	15.0
Europe	36 676	8.4	81.2	10.4
Eastern Europe	14 161	15.1	78.6	6.3
Northern Europe	5 524	6.3	79.9	13.8
Southern Europe	7 233	4.1	83.3	12.6
Western Europe	9 757	2.9	84.2	12.9
Latin America and the Caribbean	57 684	16.5	72.7	10.9
Caribbean	3 847	15.9	72.7	11.4
Central America	17 102	16.4	72.9	10.7
South America	36 735	16.6	72.6	10.9
Northern America	21 773	11.9	75.7	12.4
Oceania	2 683	8.4	76.1	15.6
Australia/New Zealand	1 526	5.2	79.0	15.8
Melanesia	1 009	12.6	71.8	15.7
Micronesia	76	12.1	75.0	13.0
Polynesia	73	11.7	76.0	12.3

Source: World Population Prospects: The 2000 Revision, vol. I, *Comprehensive Tables* (United Nations publication, Sales No. E.01.XIII.8).

[a]Comprising all regions of Europe and Northern America, Australia/New Zealand and Japan.

[b]Comprising all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean, and Melanesia, Micronesia and Polynesia.

TABLE A.6. PERCENTAGE USING CONTRACEPTION AMONG CURRENTLY MARRIED WOMEN OF REPRODUCTIVE AGE,[a] BY COUNTRY

Major area, region and country	Year	Age range	Percentage using Any method	Percentage using Modern[b] method
Africa				
Eastern Africa				
Burundi	1987	15-49	8.7	1.2
Comoros	1996	15-49	21.0	11.4
Eritrea	1995	15-49	5.0	4.0
Ethiopia	2000	15-49	8.1	6.3
Kenya	1998	15-49	39.0	31.5
Madagascar	1997	15-49	19.4	9.7
Malawi	2000[c]	15-49	30.6	26.1
Mauritius	1991	15-44	74.7	48.9
Mozambique	1997	15-49	5.6	5.1
Réunion	1990	15-49[i]	66.6	61.7
Rwanda	2000[c]	15-49	13.2[q]	4.3
Uganda	1995	15-49	14.8	7.8
United Rep. of Tanzania	1999	15-49	25.4[q]	16.9
Zambia	1996	15-49	25.0[r]	14.4
Zimbabwe	1999	15-49	53.5[q]	50.4
Middle Africa				
Cameroon	1998	15-49	19.3	7.1
Central African Rep.	1994/95	15-49	14.8	3.3
Chad	1996/97	15-49	4.1	1.2
Dem. Rep. of the Congo	1991	15-49	7.7	2.0
Gabon	2000[c]	15-49	32.7	11.8
Northern Africa				
Algeria	1995	15-49[o]	52.4	49.4
Egypt	2000	15-49	56.1	53.9
Libyan Arab Jamahiriya	1995	15-49	39.7	25.6
Morocco	1995	15-49	50.3	42.4
Sudan (North)	1992/93	15-49	8.3[r]	6.9
Tunisia	1994[c]	15-49	60.0	51.0
Southern Africa				
Botswana	1988	15-49	33.0	31.7
Lesotho	1991/92[c]	15-49[p]	23.2	18.9
Namibia	1992	15-49	28.9	26.0
South Africa	1998[c]	15-49	56.3	55.1
Swaziland	1988	15-49[k]	19.9[s]	17.2
Western Africa				
Benin	1996	15-49	16.4	3.4
Burkina Faso	1998/99	15-49	11.9	4.8
Cape Verde	1998	15-49	52.9	46.0
Côte d'Ivoire	1998/99[c]	15-49	15.0	7.3
Gambia	1990	15-49	11.8	6.7
Ghana	1998/99	15-49	22.0	13.3
Guinea	1999	15-49	6.2	4.2
Liberia	1986	15-49	6.4	5.5
Mali	1995/96	15-49	6.7	4.5
Mauritania	1990/91	15-49	3.3	1.2
Niger	1998	15-49	8.2	4.6
Nigeria	1999	15-49	15.3	8.6
Senegal	1997	15-49	12.9	8.1
Togo	1998	15-49	23.5	7.0
Asia				
Eastern Asia				
China	1997	15-49	83.8	83.3
China, Hong Kong SAR[d]	1992	15-49	86.2	79.7
Dem. People's Rep. of Korea	1990/92	15-49	61.8	53.0
Japan	1994	15-49	58.6	52.8
Mongolia	1998	15-49	59.9	45.7
Republic of Korea	1997	15-44	80.5	66.9
South-central Asia				
Afghanistan	1972/73	15-44[o]	1.6	1.6
Bangladesh	1999/00[c]	10-49	53.8	43.4
Bhutan	1994	15-49[p]	18.8	18.8
India[e]	1998/99	15-49	48.2	42.8
Iran (Islamic Rep. of)	1997	15-49	72.9	56.0
Kazakhstan	1999	15-49	66.1[q]	52.7
Kyrgyzstan	1997	15-49	59.5	48.9
Nepal	1996	15-49	28.5	26.0
Pakistan	1996/97	15-49	23.9	16.9
Sri Lanka	1993	15-49	66.1	43.6
Turkmenistan	2000[c]	15-49	61.8[q]	53.1
Uzbekistan	1996	15-49	55.6	51.3
South-eastern Asia				
Cambodia	2000[c]	15-49	23.8[q]	18.5
Indonesia	1997	15-49	57.4	54.7
Lao People's Democratic Rep.	1993	15-49	18.6	15.0
Malaysia (Peninsular)	1994	15-49	54.5	29.8
Myanmar	1997	15-49	32.7	28.4
Philippines	1998	15-49	46.0[q]	28.2
Singapore	1982	15-44	74.2	73.0
Thailand	1996/97	15-44	72.2	69.8
Viet Nam	1997	15-49	75.3	55.8

TABLE A.6. *(continued)*

Major area, region and country	*Year*	*Age range*	*Percentage using* *Any method*	*Modern method* [b]
Western Asia				
Armenia	2000[c]	15-49	60.5[q]	22.3
Bahrain	1995	15-49[j]	61.8[q]	30.6
Georgia	1999/00[c]	15-44	40.5	19.8
Iraq	1989	15-49[j]	13.7[r]	10.4
Jordan	1997	15-49	52.6	37.7
Kuwait	1996	<50[j]	50.2[q]	40.9
Lebanon	1996[c]	15-49	61.0	37.0
Oman	1995	15-49[j]	23.7[q]	18.2
Qatar	1998	15-49[j]	43.2[q]	32.3
Saudi Arabia	1996	15-49[j]	31.8[q]	28.5
Syrian Arab Republic	1993	15-49	36.1[r]	28.3
Turkey	1998	15-49	63.9	37.7
United Arab Emirates	1995	15-49[j]	27.5	23.6
Yemen	1997	15-49	20.8	9.8
Europe				
Eastern Europe				
Belarus	1995[c]	18-34	50.4	42.1
Bulgaria	1995	15-44	85.9	45.6
Czech Republic	1993	15-44	68.9	44.9
Hungary	1992/93	18-41	77.4	68.4
Poland	1991	20-49	49.4	19.0
Republic of Moldova	1997	15-44[l]	73.7	50.0
Romania	1999[c]	15-44	63.8	29.5
Slovakia	1991	15-44[l]	74.0	41.0
Ukraine	1999[c]	15-44	67.5	37.6
Northern Europe				
Denmark	1988	15-44[l]	78.0	72.0
Estonia	1994	20-49[m]	70.3	56.4
Finland	1989	25-49	77.4	75.4
Lithuania	1994/95	18-49	58.5	40.2
Norway	1988/89	[n]	73.8	69.2
Sweden	1981	20-44[l]	78.0	72.0
United Kingdom[f]	1993	16-49	82.0	82.0
Southern Europe				
Italy	1996	20-49	60.2[t]	38.9
Portugal	1979/80	15-49	66.3	32.8
Spain	1995	18-49	80.9	67.4
Yugoslavia[g]	1976	<45	55.0[u]	12.0
Western Europe				
Austria	1995/96	20-49	50.8	46.8
Belgium[h]	1991/92	21-39	78.4[t]	74.3
France	1994	20-49	74.6	69.3
Germany	1992	20-39	74.7	71.8
Netherlands	1993	18-42	78.5	75.6
Switzerland	1994/95	20-49	82.0[t]	77.5
Latin America and the Caribbean				
Caribbean				
Antigua and Barbuda	1988	15-44[i]	52.6	50.6
Bahamas	1988	15-44[i]	61.7	60.1
Barbados	1988	15-44[i]	55.0	53.2
Cuba	1987	15-49	70.0	67.0
Dominica	1987	15-44[i]	49.8	48.2
Dominican Republic	1996	15-49	63.7	59.2
Grenada	1990	15-44[i]	54.3	999.0
Guadeloupe	1976	15-44[i]	43.6	30.5
Haiti	2000[c]	15-49	28.1[q]	22.3
Jamaica	1997	15-49[i]	65.9	62.6
Martinique	1976	15-44[i]	51.3	37.9
Montserrat	1984	15-44[i]	52.6	52.2
Puerto Rico	1995/96	15-49	77.7	67.6
Saint Kitts and Nevis	1984	15-44[i]	40.6	37.0
Saint Lucia	1988	15-44[i]	47.3	46.1
Saint Vincent and the Grenadines	1988	15-44[i]	58.3	54.6
Trinidad and Tobago	1987	15-49[i]	52.7	44.4
Central America				
Belize	1991	15-44[i]	46.7	41.8
Costa Rica	1992/93	15-49	75.0	64.6
El Salvador	1998	15-44	59.7	54.1
Guatemala	1998/99	15-49	38.2	30.9
Honduras	1996	15-44	50.0	41.0
Mexico	1995	15-49	66.5	57.5
Nicaragua	1998	15-49	60.3	57.4
Panama	1984	15-44	58.2[v]	54.2
South America				
Bolivia	1998	15-49	48.3	25.2
Brazil	1996	15-49	76.7	70.3
Colombia	2000	15-49	76.9	64.0

TABLE A.6. *(continued)*

Major area, region and country	Year	Age range	Percentage using: Any method	Percentage using: Modern method [b]
Ecuador	1999	15-49	65.8	51.5
Guyana	1975	15-49	31.4	28.3
Paraguay	1998	15-44	57.4	47.7
Peru	1996	15-49	64.2	41.3
Venezuela	1977	15-44	49.3	37.7
Northern America				
Canada	1995	15-49	74.7	73.3
United States	1995	15-44	76.4	70.5
Oceania				
Australia	1986	20-49	76.1	72.2
Cook Islands	1996	15-49	63.2	60.4
Fiji	1974	15-49	41.0	35.1
New Zealand	1995[c]	20-49	74.9	72.0
Papua New Guinea	1996	15-49	25.9	19.6

Source: Database on contraceptive use maintained by the Population Division of the United Nations Secretariat.

NOTE: This table shows the most recent data available as of 1 June 2001. Information on contraceptive use is taken mainly from representative sample surveys of women of reproductive age. Except as noted separately, data pertain to women who are formally married or in a consensual union, including those in a visiting union in some Caribbean societies.

[a] Marital or consensual union.

[b] Modern methods include female and male sterilization, pills, intrauterine devices, injectables, implants, condoms and vaginal barrier methods.

[c] Preliminary or provisional.

[d] As of 1 July 1997, Hong Kong became a Special Administrative Region (SAR) of China.

[e] Excluding the state of Tripura.

[f] Data pertain to Great Britain.

[g] Former Socialist Federal Republic of Yugoslavia.

[h] Flemish population.

[i] Including visiting unions.

[j] Households of nationals of the country.

[k] Including single women who have borne a child.

[l] For all sexually active women.

[m] Sexually active within last month.

[n] Women currently married or cohabiting who were born in 1945, 1950, 1955, 1960, 1965 or 1968.

[o] Ever-married women.

[p] All women of specified age range.

[q] Including the lactational amenorrhoea method and/or breastfeeding if reported as the current contraceptive method.

[r] Adjusted from source to exclude breastfeeding.

[s] Excluding prolonged abstinence.

[t] Including some cases of sterilization for non-contraceptive reasons.

[u] Excluding sterilization.

[v] For the same areas as covered in 1976 and 1979, 60.5 per cent using in 1984.

TABLE A.7. REPORTED LEGAL ABORTIONS, SELECTED COUNTRIES, 1960-1999

Year	*Australia*	*Austria*	*Belgium*	*Canada*	*Denmark*	*Finland*	*France*	*Germany*	*Greece*	*Iceland*
1960	..	18 926	..	..	3 918	..	..	..	..	55
1961	..	19 544	..	..	4 124	..	..	..	..	67
1962	..	20 141	..	..	3 996	..	..	..	..	61
1963	..	19 819	..	..	3 971	..	..	..	..	86
1964	..	19 260	..	..	4 527	..	..	..	..	104
1965	..	18 685	..	..	5 188	..	..	..	..	68
1966	..	19 367	..	..	5 726	..	..	..	..	74
1967	..	18 710	..	..	6 324	..	..	..	..	85
1968	..	17 782	..	..	5 986	..	..	..	..	74
1969	..	16 886	..	..	7 295	..	..	..	..	102
1970	..	15 613	..	11 152	9 375	..	..	..	..	99
1971	..	15 450	..	37 232	11 157	..	..	..	..	142
1972	..	15 185	..	45 426	12 985	..	..	..	..	151
1973	..	14 288	..	48 702	16 536	..	..	..	..	224
1974	..	15 111	..	52 435	24 868	..	..	..	..	224
1975	..	26 433	..	53 705	27 884	21 547	..	..	..	274
1976	..	25 417	..	58 712	26 842	..	134 173	..	..	368
1977	..	23 438	..	59 864	25 662	..	150 931	..	..	456
1978	..	23 630	..	66 710	23 699	..	150 417	..	..	556
1979	..	22 995	..	69 745	23 193	..	156 810	..	..	523
1980	..	23 394	..	72 099	23 334	15 037	171 218	..	9 038	597
1981	..	21 630	..	71 911	22 779	..	180 695	..	8 564	613
1982	..	21 187	..	75 071	21 462	..	181 122	..	7 525	689
1983	..	20 188	..	69 368	20 791	..	182 862	..	6 725	745
1984	55 153	19 242	..	69 449	20 742	..	180 789	..	7 306	705
1985	57 052	17 907	16 035	69 216	19 919	13 833	173 335	..	7 184	685
1986	61 165	16 846	14 972	69 572	20 067	13 319	166 797	..	7 373	695
1987	61 131	15 547	15 623	70 023	20 830	12 995	162 352	..	8 758	673
1988	63 995	15 082	14 828	72 693	21 199	12 749	166 510	..	10 301	670
1989	68 640	3 619	16 245	79 315	21 456	12 658	163 090	..	11 222	714
1990	69 246	3 505	..	92 901	20 589	12 232	170 428	..	10 145	714
1991	72 478	3 366	..	95 059	19 729	11 747	162 902	124 377	11 109	658
1992	73 274	3 175	10 332	102 085	18 833	11 071	167 777	118 609	11 977	743
1993	75 833	3 134	10 380	104 403	18 687	10 342	167 921	111 236	12 289	827
1994	77 217	2 752	10 721	106 255	17 598	10 013	163 180	103 586	12 608	775
1995	77 551	2 494	11 224	108 248	17 720	9 884	156 181	97 937	..	807
1996	76 191	2 511	12 628	111 659	18 135	10 437	162 792	130 899	..	854
1997	..	2 341	12 266	111 709	17 152	10 238	163 985	130 890	..	919
1998	..	..	11 999	110 331	16 592	10 744	..	131 795	..	901
1999	..	..	12 734	..	..	..	..	130 471	..	..

TABLE A.7. *(continued)*

Year	*Israel*	*Italy*	*Japan*	*Netherlands*	*New Zealand*	*Norway*	*Singapore*	*Spain*	*Sweden*	*United Kingdom*	*United States*
1960.....	..	..	1 063 256	..	..	..	..	..	2 792	..	..
1961.....	..	..	1 035 329	..	..	..	..	..	2 909	..	..
1962.....	..	..	985 351	..	..	..	..	..	3 205	..	..
1963.....	..	..	955 092	..	..	..	..	..	3 528	..	..
1964.....	..	..	878 748	..	..	..	..	..	4 671	..	..
1965.....	..	..	843 248	..	..	3 455	..	..	6 208	..	..
1966.....	..	..	808 378	..	..	..	..	..	7 254	..	..
1967.....	..	..	747 490	..	..	..	..	..	9 703	..	..
1968.....	..	..	757 389	..	..	..	..	..	10 940	..	..
1969.....	..	..	744 451	..	..	..	..	..	13 735	..	..
1970.....	..	..	732 033	..	..	7 941	..	..	16 100	91 819	193 491
1971.....	..	..	739 674	..	..	..	..	..	19 250	..	485 816
1972.....	..	..	732 653	..	..	..	..	..	24 170	..	586 760
1973.....	..	..	700 532	..	..	..	..	..	25 990	..	615 831
1974.....	..	..	679 837	..	..	..	..	..	30 636	..	763 476
1975.....	..	..	671 597	15 500	..	15 132	..	..	32 526	147 029	854 853
1976.....	..	..	664 106	..	..	..	..	..	32 351	..	988 267
1977.....	..	..	641 242	..	..	..	..	..	31 462	..	1 079 430
1978.....	..	..	618 044	..	..	..	..	..	31 918	..	1 157 776
1979.....	..	..	613 676	..	..	14 456	..	..	34 709	..	1 251 921
1980.....	14 708	207 644	598 084	19 700	..	13 531	..	..	34 887	168 808	1 297 606
1981.....	14 514	224 377	596 569	..	..	16 845	..	..	33 294	..	1 300 760
1982.....	16 829	234 593	590 299	20 187	6 903	16 496	..	..	32 604	..	1 303 980
1983.....	15 593	231 401	568 363	..	..	13 646	..	..	31 014	..	1 268 987
1984.....	18 948	227 809	568 916	..	..	14 070	..	..	30 755	..	1 333 521
1985.....	18 406	210 192	550 127	17 300	..	14 599	..	..	30 838	181 062	1 328 570
1986.....	17 469	189 834	527 900	18 252	..	15 474	..	..	33 090	181 914	1 328 112
1987	15 290	181 379	497 756	17 760	8 789	15 422	..	16 766	34 707	183 736	1 353 671
1988.....	16 181	175 541	486 146	18 014	..	15 852	20 135	26 069	37 585	193 926	1 371 285
1989.....	15 216	166 290	466 876	17 996	10 200	16 208	20 619	30 552	37 862	194 183	1 396 658
1990.....	15 509	161 386	456 797	18 384	..	15 551	18 654	37 231	37 489	197 131	1 429 577
1991.....	15 767	157 173	436 299	19 568	..	15 528	17 798	41 910	35 788	190 590	1 388 937
1992.....	16 389	148 924	413 032	19 422	11 595	15 164	17 073	44 962	34 849	182 887	1 359 145
1993.....	16 303	145 021	386 807	19 804	11 893	14 909	16 476	45 503	34 169	179 780	1 330 414
1994.....	16 046	136 481	364 350	20 811	12 835	14 533	15 690	47 832	32 293	178 268	1 267 415
1995.....	16 609	136 817	343 024	20 932	13 652	13 762	14 504	49 367	31 441	174 781	1 210 883
1996.....	17 897	138 925	338 867	22 441	14 805	14 311	14 365	51 002	32 117	189 468	1 221 585
1997.....	18 480	140 166	337 799	22 413	15 208	13 985	13 827	49 578	31 433	191 855	1 186 039
1998.....	18 149	138 354	333 220	24 141	15 029	14 028	13 838	53 847	31 008	..	..
1999.....	18 785	..	337 314	..	15 501	14 251	13 753	..	30 712	..	..

Source: The population policy databank maintained by the Population Division of the United Nations Secretariat.

TABLE A.8. REPORTED LEGAL ABORTIONS, COUNTRIES WITH ECONOMIES IN TRANSITION, 1960-1999

Year	*Albania*	*Armenia*	*Azerbaijan*	*Belarus*	*Bulgaria*	*Croatia*	*Czech Republic*	*Estonia*
1960	..	..	..	170 787	143 155	..	67 550	35 915
1961	..	..	..	178 290	169 060	..	70 062	..
1962	..	..	..	185 554	95 842	..	66 031	..
1963	..	..	..	191 137	101 309	..	51 470	40 166
1964	..	..	..	200 534	112 310	..	51 524	42 340
1965	..	..	..	205 999	116 079	33 260	58 554	40 059
1966	..	..	..	203 430	121 060	..	65 818	40 767
1967	..	..	..	203 722	129 972	..	69 850	..
1968	..	..	..	198 955	113 755	..	72 488	..
1969	..	..	..	191 637	129 852	37 119	74 263	..
1970	..	..	..	187 935	142 511	38 529	71 893	40 663
1971	..	..	..	190 169	153 687	36 575	68 652	42 256
1972	..	..	..	185 101	154 715	37 139	65 079	42 309
1973	..	..	53 692	193 503	137 439	37 493	55 898	41 381
1974	..	..	54 771	194 247	144 509	39 441	56 969	39 902
1975	11 422	45 480	54 581	194 710	143 450	40 870	55 511	38 927
1976	..	..	57 293	199 121	142 267	41 216	56 889	38 341
1977	..	..	61 724	202 146	141 917	43 789	61 114	38 145
1978	..	..	62 660	201 619	147 974	42 332	63 904	36 865
1979	..	..	60 754	203 446	148 084	44 567	64 505	36 129
1980	15 912	32 105	58 012	201 832	156 056	47 827	68 930	35 497
1981	15 693	32 004	58 574	202 340	152 531	51 975	71 574	35 052
1982	16 289	33 158	59 156	198 011	147 976	51 534	74 531	36 272
1983	17 756	33 385	49 532	207 461	134 413	47 996	75 037	34 250
1984	18 908	33 896	54 136	210 844	131 322	48 771	79 534	33 747
1985	20 489	33 896	53 197	200 888	132 269	51 549	83 042	35 652
1986	20 838	38 116	51 431	171 114	134 964	50 058	83 564	35 749
1987	20 815	32 587	49 478	163 761	134 097	48 608	107 717	34 713
1988	24 053	26 670	43 695	140 921	133 147	42 864	110 031	30 702
1989	23 352	26 141	39 022	256 041	132 021	43 233	107 403	28 216
1990	26 112	25 282	24 611	260 839	144 644	38 644	107 131	29 410
1991	30 408	27 174	34 000	241 138	138 405	33 351	103 124	26 470
1992	27 745	27 958	31 816	240 387	132 891	26 223	93 435	25 803
1993	33 441	27 907	33 900	217 957	107 416	25 179	69 398	23 284
1994	31 232	30 571	33 280	212 533	97 567	19 673	53 674	19 784
1995	32 588	30 726	28 610	193 280	97 092	19 950	48 286	17 671
1996	27 734	31 323	28 357	174 098	98 566	19 634	46 506	16 887
1997	22 133	25 266	25 182	152 660	87 896	16 400	43 261	16 615
1998	18 948	18 286	24 914	145 339	79 842	15 292	40 935	15 726
1999	16 360	14 403	20 911	135 222	72 382	14 700	37 157	14 503

TABLE A.8 *(continued)*

Year	*Georgia*	*Hungary*	*Kazakhstan*	*Kyrgyzstan*	*Latvia*	*Lithuania*	*Moldova*	*Poland*	*Romania*
1960.....	42 834	162 160	..	..	..	36 500	60 687	150 418	769 776
1961.....	..	169 992	..	..	..	..	..	..	..
1962.....	..	163 656	..	..	..	..	..	..	..
1963.....	..	173 835	..	..	..	..	..	135 386	..
1964.....	..	184 367	..	..	..	..	..	133 525	..
1965.....	45 668	180 269	..	..	..	44 492	88 604	158 001	1 112 704
1966.....	..	186 773	..	..	..	..	..	154 992	..
1967.....	..	187 527	..	..	..	..	..	153 556	..
1968.....	..	201 096	..	..	..	..	..	148 795	..
1969.....	..	206 817	..	..	..	..	..	148 795	..
1970.....	46 348	192 283	..	..	..	45 300	86 093	148 369	292 410
1971.....	..	187 425	..	..	..	..	..	134 986	..
1972.....	..	179 035	..	..	..	..	..	135 317	..
1973.....	..	169 650	..	..	..	..	..	138 560	..
1974.....	..	102 022	..	..	..	..	..	142 281	..
1975.....	81 785	96 212	..	..	..	45 600	93 394	138 810	359 417
1976.....	..	94 720	..	..	..	..	..	140 909	..
1977.....	..	89 096	..	..	..	..	..	143 486	..
1978.....	..	83 545	..	..	..	..	..	145 630	..
1979.....	..	80 767	..	..	..	..	..	146 539	..
1980.....	85 285	80 882	..	64 957	..	45 200	96 283	137 950	413 093
1981.....	..	78 421	..	65 291	..	..	..	132 894	..
1982.....	..	78 682	..	67 555	..	..	..	138 977	..
1983.....	..	78 599	362 371	68 690	..	..	..	130 980	..
1984.....	..	82 191	..	66 227	..	..	..	132 844	..
1985.....	66 607	81 970	327 563	69 382	..	41 968	102 661	135 564	302 838
1986.....	74 702	83 586	332 055	73 802	..	39 245	110 011	129 716	183 959
1987.....	65 279	84 547	329 819	74 060	..	37 783	112 426	123 534	182 442
1988.....	75 903	87 106	294 596	67 667	..	34 845	94 998	108 367	185 416
1989.....	73 770	90 508	274 896	87 212	..	30 775	90 860	82 137	193 084
1990.....	56 862	90 394	254 943	53 641	39 042	27 504	81 931	59 417	992 265
1991.....	49 612	89 931	264 936	48 813	38 837	40 765	73 454	30 878	866 934
1992.....	40 492	87 065	346 405	43 867	34 325	40 947	71 430	11 640	691 863
1993.....	36 740	75 258	290 703	37 267	31 352	35 206	64 178	1 208	585 761
1994.....	35 563	74 491	261 834	31 389	26 795	30 355	58 777	782	530 191
1995.....	32 016	76 957	224 084	27 111	25 933	31 278	57 181	559	502 840
1996.....	30 003	76 600	194 187	24 187	24 227	27 832	46 010	491	456 221
1997.....	17 862	74 564	156 751	21 671	21 768	22 680	37 137	3 171	347 126
1998.....	21 018	68 971	149 248	19 431	19 964	21 022	33 229	..	271 496
1999.....	18 306	65 981	138 197	17 890	18 031	18 846	27 908	..	259 888

TABLE A.8 (*continued*)

Year	Russian Federation	Slovakia	Slovenia	Tajikistan	TFYR Macedonia[a]	Turkmenistan	Ukraine	Uzbekistan	Yugoslavia[b]
1960.....	..	20 738	..	..	9 366	..	..	..	..
1961.....	..	24 244	..	..	..	..	..	..	..
1962.....	..	23 784	..	..	..	..	..	..	..
1963.....	..	19 076	..	..	..	..	..	..	..
1964.....	..	19 174	..	..	..	..	..	..	..
1965.....	..	21 037	..	..	11 070	..	..	..	..
1966.....	..	24 445	..	..	..	..	..	..	..
1967.....	..	26 571	..	..	..	..	..	..	..
1968.....	..	27 398	..	..	..	..	..	..	..
1969.....	..	28 534	..	..	..	..	..	..	..
1970.....	..	27 873	..	..	15 074	..	1 130 115	..	..
1971.....	..	28 619	..	..	..	..	..	..	..
1972.....	..	26 213	..	..	..	..	..	..	..
1973.....	..	25 335	..	..	..	..	..	..	..
1974.....	..	26 086	..	..	..	..	..	..	..
1975.....	..	26 160	..	..	17 645	..	1 110 223	..	..
1976.....	..	27 700	..	..	..	..	..	..	..
1977.....	..	27 875	..	..	..	..	..	..	..
1978.....	..	28 641	..	..	..	..	..	..	..
1979.....	..	29 981	16 780	..	..	..	..	..	..
1980.....	..	31 240	18 160	..	26 726	..	1 137 391	..	..
1981.....	..	31 943	19 127	..	..	..	..	..	..
1982.....	..	33 107	19 742	..	..	..	1 131 437	..	..
1983.....	..	33 625	18 623	..	..	..	1 125 570	..	214 960
1984.....	..	34 268	18 582	..	..	..	1 127 627	..	222 129
1985.....	..	36 283	17 960	..	29 865	31 139	1 135 475	..	222 573
1986.....	..	40 624	17 988	..	26 986	34 031	1 166 039	..	220 259
1987.....	..	49 690	16 819	..	30 746	..	1 068 136	..	213 422
1988.....	..	51 000	16 531	..	30 885	..	1 080 029	..	201 586
1989.....	..	48 602	15 881	..	30 442	..	1 058 414	..	201 660
1990.....	3 920 287	48 437	14 731	52 658	21 994	35 698	1 019 038	214 137	195 694
1991.....	3 525 904	45 902	14 027	52 072	23 166	35 451	957 022	188 995	157 543
1992.....	3 265 718	42 626	13 258	47 040	19 855	37 044	903 507	168 316	142 330
1993.....	2 977 935	38 815	12 154	40 078	18 754	32 857	833 452	..	119 254
1994.....	2 808 103	34 883	11 324	21 988	16 480	33 486	772 629	..	119 219
1995.....	2 574 834	29 409	10 791	32 671	15 805	33 795	715 692	89 768	96 854
1996.....	2 469 198	25 173	10 218	28 505	14 164	31 952	664 156	76 730	..
1997.....	2 320 948	22 318	9 712	27 339	12 058	33 185	571 479	71 584	..
1998.....	2 210 166	21 109	9 116	21 177	12 015	..	498 621	61 950	..
1999.....	2 029 702	..	8 707	21 234	8 479	..		57 944	..

Source: The population policy databank maintained by the Population Division of the United Nations Secretariat.

[a] The former Yugoslav Republic of Macedonia.

[b] As of 4 February 2003, the official name of Yugoslavia has been changed to Serbia and Montenegro.

TABLE A. 9. GROUNDS ON WHICH ABORTION IS PERMITTED

Region and country	*To save the woman's life* (1)	*To preserve physical health* (2)	*To preserve mental health* (3)	*Rape or incest* (4)	*Foetal impairment* (5)	*Economic or social reasons* (6)	*On request*[a] (7)
Africa							
Eastern Africa							
Burundi[b]	x	x	x	-	-	-	-
Comoros[b]	x	x	x	-	-	-	-
Djibouti[c]	x	-	-	-	-	-	-
Eritrea[b]	x	x	x	-	-	-	-
Ethiopia[b]	x	x	x	-	-	-	-
Kenya[d]	x	x	x	-	-	-	-
Madagascar[e]	x	-	-	-	-	-	-
Malawi[e]	x	-	-	-	-	-	-
Mauritius[e]	x	-	-	-	-	-	-
Mozambique[b, f]	x	x	x	-	-	-	-
Rwanda[b]	x	x	x	-	-	-	-
Seychelles	x	x	x	x	x	-	-
Somalia[e]	x	-	-	-	-	-	-
Uganda[d]	x	x	x	-	-	-	-
United Republic of Tanzania[d]	x	x	x	-	-	-	-
Zambia	x	x	x	-	x	x	-
Zimbabwe	x	x	-	x	x	-	-
Middle Africa							
Angola[e]	x	-	-	-	-	-	-
Cameroon[b]	x	x	x	x	-	-	-
Central African Republic[e]	x	-	-	-	-	-	-
Chad[e]	x	-	-	-	-	-	-
Congo[e]	x	-	-	-	-	-	-
Dem. Rep. of Congo[e]	x	-	-	-	-	-	-
Equatorial Guinea[b]	x	x	x	-	-	-	-
Gabon[e]	x	-	-	-	-	-	-
Sao Tome and Principe[e]	x	-	-	-	-	-	-
Northern Africa							
Algeria	x	x	x	-	-	-	-
Egypt[g]	x	-	-	-	-	-	-
Libyan Arab Jamahiriya	x	-	-	-	-	-	-
Morocco[b]	x	x	x	-	-	-	-
Sudan	x	-	-	x	-	-	-
Tunisia	x	x	x	x	x	x	x
Southern Africa							
Botswana	x	x	x	x	x	-	-
Lesotho[h]	x	-	-	-	-	-	-
Namibia.	x	x	x	x	x	-	-
South Africa	x	x	x	x	x	x	x
Swaziland[h]	x	-	-	-	-	-	-
Western Africa							
Benin	x	-	-	-	-	-	-
Burkina Faso[b]	x	x	x	x	x	-	-
Cape Verde	x	x	x	x	x	x	x
Côte d'Ivoire	x	-	-	-	-	-	-
Gambia[d]	x	x	x	-	-	-	-
Ghana	x	x	x	x	x	-	-
Guinea[b]	x	x	x	-	-	-	-
Guinea-Bissau[e]	x	-	-	-	-	-	-
Liberia	x	x	x	x	x	-	-
Mali[e]	x	-	-	-	-	-	-

TABLE A.9 *(continued)*

Region and country	To save the woman's life (1)	To preserve physical health (2)	To preserve mental health (3)	Rape or incest (4)	Foetal impairment (5)	Economic or social reasons (6)	On request[a] (7)
Mauritania[e]	x	-	-	-	-	-	-
Niger[e]	x	-	-	-	-	-	-
Nigeria[i]	x	x	x	-	-	-	-
Senegal[e]	x	-	-	-	-	-	-
Sierra Leone[d]	x	x	x	-	-	-	-
Togo[j]	x	-	-	-	-	-	-
Asia							
Eastern Asia							
China	x	x	x	x	x	x	x
Dem. People's Rep. of Korea[k]	x	x	x	x	x	x	x
Japan[l]	x	x	-	x	-	x	-
Mongolia	x	x	x	x	x	x	x
Republic of Korea	x	x	x	x	-	-	-
South-eastern Asia							
Brunei Darussalam	x	-	-	-	-	-	-
Cambodia	x	x	x	x	x	x	x
Indonesia	x	-	-	-	-	-	-
Lao People's Democratic Republic[e]	x	-	-	-	-	-	-
Malaysia	x	x	x	-	-	-	-
Myanmar	x	-	-	-	-	-	-
Philippines[e]	x	-	-	-	-	-	-
Singapore	x	x	x	x	x	x	x
Thailand[b]	x	x	x	x	-	-	-
Viet Nam	x	x	x	x	x	x	x
South-central Asia							
Afghanistan[m]	x	-	-	-	-	-	-
Bangladesh	x	-	-	-	-	-	-
Bhutan[n]	x	-	-	-	-	-	-
India	x	x	x	x	x	x	-
Iran (Islamic Republic of)[e]	x	-	-	-	-	-	-
Kazakhstan	x	x	x	x	x	x	x
Kyrgyzstan	x	x	x	x	x	x	x
Maldives	x	x	-	-	-	-	-
Nepal[o]	x	-	-	-	-	-	-
Pakistan[p]	x	x	x	-	-	-	-
Sri Lanka	x	-	-	-	-	-	-
Tajikistan	x	x	x	x	x	x	x
Turkmenistan	x	x	x	x	x	x	x
Uzbekistan	x	x	x	x	x	x	x
Western Asia							
Armenia	x	x	x	x	x	x	x
Azerbaijan	x	x	x	x	x	x	x
Bahrain[e]	x	x	x	x	x	x	x
Cyprus	x	x	x	x	x	-	-
Georgia	x	x	x	x	x	x	x
Iraq[q]	x	-	-	-	-	-	-
Israel	x	x	x	x	x	-	-
Jordan[b]	x	x	x	-	-	-	-
Kuwait[b]	x	x	x	-	x	-	-
Lebanon	x	-	-	-	-	-	-
Oman	x	-	-	-	-	-	-
Qatar[b]	x	x	x	-	x	-	-
Saudi Arabia[r]	x	x	x	-	-	-	-
Syrian Arab Republic[e]	x	-	-	-	-	-	-
Turkey	x	x	x	x	x	x	x

TABLE A.9 *(continued)*

Region and country	To save the woman's life (1)	To preserve physical health (2)	To preserve mental health (3)	Rape or incest (4)	Foetal impairment (5)	Economic or social reasons (6)	On request[a] (7)
United Arab Emirates	x	-	-	-	-	-	-
Yemen[s]	x	-	-	-	-	-	-
Europe							
Eastern Europe							
Belarus	x	x	x	x	x	x	x
Bulgaria	x	x	x	x	x	x	x
Czech Republic	x	x	x	x	x	x	x
Hungary[t]	x	x	x	x	x	x	x
Poland	x	x	x	x	x	-	-
Republic of Moldova	x	x	x	x	x	x	x
Romania	x	x	x	x	x	x	x
Russian Federation	x	x	x	x	x	x	x
Slovakia	x	x	x	x	x	x	x
Ukraine	x	x	x	x	x	x	x
Northern Europe							
Denmark	x	x	x	x	x	x	x
Estonia	x	x	x	x	x	x	x
Finland	x	x	x	x	x	x	-
Iceland	x	x	x	x	x	x	-
Ireland	x	-	-	-	-	-	-
Latvia	x	x	x	x	x	x	x
Lithuania	x	x	x	x	x	x	x
Norway	x	x	x	x	x	x	x
Sweden	x	x	x	x	x	x	x
United Kingdom	x	x	x	-	x	x	-
Southern Europe							
Albania[t]	x	x	x	x	x	x	x
Andorra[e]	x	-	-	-	-	-	-
Bosnia and Herzegovina	x	x	x	x	x	x	x
Croatia	x	x	x	x	x	x	x
Greece	x	x	x	x	x	x	x
Holy See	-	-	-	-	-	-	-
Italy[t]	x	x	x	x	x	x	x
Malta[u]	-	-	-	-	-	-	-
Portugal	x	x	x	x	x	-	-
San Marino[e]	x	-	-	-	-	-	-
Slovenia	x	x	x	x	x	x	x
Spain	x	x	x	x	x	-	-
The former Yugoslav Rep. of Macedonia	x	x	x	x	x	x	x
Yugoslavia[hh]	x	x	x	x	x	x	x
Western Europe							
Austria	x	x	x	x	x	x	x
Belgium[t]	x	x	x	x	x	x	x
France[t]	x	x	x	x	x	x	x
Germany[t]	x	x	x	x	x	x	x
Liechtenstein	x	x	x	-	-	-	-
Luxembourg	x	x	x	x	x	x	-
Monaco[e]	x	-	-	-	-	-	-
Netherlands	x	x	x	x	x	x	x
Switzerland	x	x	x	-	-	-	-
Latin America and the Caribbean							
Caribbean							
Antigua and Barbuda[e]	x	-	-	-	-	-	-
Bahamas[v]	x	x	x	-	-	-	-

TABLE A.9 *(continued)*

Region and country	*To save the woman's life* (1)	*To preserve physical health* (2)	*To preserve mental health* (3)	*Rape or incest* (4)	*Foetal impairment* (5)	*Economic or social reasons* (6)	*On request*[a] (7)
Barbados	x	x	x	x	x	x	-
Cuba	x	x	x	x	x	x	x
Dominica	x	-	-	-	-	-	-
Dominican Republic[e]	x	-	-	-	-	-	-
Grenada	x	x	x	-	-	-	-
Haiti[e]	x	-	-	-	-	-	-
Jamaica[d]	x	x	x	-	-	-	-
Saint Kitts and Nevis[d]	x	x	x	-	-	-	-
Saint Lucia[w]	x	x	x	-	-	-	-
Saint Vincent and the Grenadines	x	x	x	x	x	x	-
Trinidad and Tobago[d]	x	x	x	-	-	-	-
Central America							
Belize	x	x	x	-	x	x	-
Costa Rica[b]	x	x	x	-	-	-	-
El Salvador[u]	-	-	-	-	-	-	-
Guatemala	x	-	-	-	-	-	-
Honduras[w]	x	-	-	-	-	-	-
Mexico[x]	x	-	-	x	-	-	-
Nicaragua[y]	x	-	-	-	-	-	-
Panama[z]	x	-	x	x	-	-	-
South America							
Argentina[b, aa]	x	x	x	x	-	-	-
Bolivia[b]	x	x	x	x	-	-	-
Brazil	x	-	-	x	-	-	-
Chile[u]	-	-	-	-	-	-	-
Colombia[g]	x	-	-	-	-	-	-
Ecuador[b, aa]	x	x	x	x	-	-	-
Guyana	x	x	x	x	x	x	x
Paraguay	x	-	-	-	-	-	-
Peru[b]	x	x	x	-	-	-	-
Suriname	x	-	-	-	-	-	-
Uruguay[b, bb, cc]	x	x	x	x	-	-	-
Venezuela	x	-	-	-	-	-	-
Northern America							
Canada	x	x	x	x	x	x	x
United States	x	x	x	x	x	x	x
Oceania							
Australia/New Zealand							
Australia[dd]	x	x	x	x	x	x	x
New Zealand	x	x	x	x	x	-	-
Melanesia							
Fiji[d]	x	x	x	-	-	x	-
Papua New Guinea	x	x	x	-	-	-	-
Solomon Islands	x	-	-	-	-	-	-
Vanuatu[b]	x	x	x	-	-	-	-

TABLE A.9 *(continued)*

Region and country	*To save the woman's life* (1)	*To preserve physical health* (2)	*To preserve mental health* (3)	*Rape or incest* (4)	*Foetal impairment* (5)	*Economic or social reasons* (6)	*On request*[a] (7)
Micronesia							
Kiribati	x	-	-	-	-	-	-
Marshall Islands[ee]	x	-	-	-	-	-	-
Micronesia (Federated States of)[ee]	x	-	-	-	-	-	-
Nauru[d]	x	x	x	-	-	-	-
Palau[ff]	x	-	-	-	-	-	-
Polynesia							
Cook Islands[gg]	x	x	x	-	-	-	-
Niue[gg]	x	x	x	-	-	-	-
Samoa[d]	x	x	x	-	-	-	-
Tonga[e]	x	-	-	-	-	-	-
Tuvalu	x	-	-	-	-	-	-

Source: World Abortion Policies 1999 (United Nations publication, Sales No. E.99.XIII.5).

NOTES: An X indicates that abortion is permitted. A hyphen (-) indicates that abortion is not permitted.

[a] For purposes of this table, if an abortion is authorized on request, it is presumed that an abortion can be performed during the period when it is authorized on request on any of the grounds listed, even if the law does not specifically mention such a ground.

[b] The abortion laws in these countries allow abortions to be performed to preserve the health of the woman, but do not differentiate between physical and mental health indications. In Comoros, abortions can be performed for serious medical reasons. In Vanuatu abortions can be performed for good medical reasons. Neither law defines these terms.

[c] Djibouti's Penal Code allows abortions to be performed for therapeutic reasons.

[d] The abortion laws in these countries either expressly allow abortions to be performed only to save the life of the woman, or are governed by general principles of criminal legislation which allow abortions to be performed for this reason on the ground of necessity. In addition, the holding of the British case of *Rex v. Bourne* or local applications of that decision apply. Under the decision, the ground of necessity was interpreted to encompass abortions performed on physical and mental health grounds. In the case of Fiji, a local court decision applying *Bourne* has stated that socio-economic factors could also be taken into consideration in determining whether there was a threat to physical or mental health.

[e] The abortion laws in these countries do not expressly allow abortions to be performed to save the life of the woman, but general principles of criminal legislation allow abortions to be performed for this reason on the ground of necessity.

[f] Abortions are also allowed in Mozambique in cases of contraceptive failure.

[g] Abortion law in Egypt does not expressly allow abortions to be performed to save the life of the woman, but general principles of criminal legislation allow abortions to be performed for this reason on the ground of necessity. In addition, necessity is generally interpreted to cover situations when health is endangered and even situations involving foetal impairment.

[h] There is no abortion statute in these countries; abortion is governed by Roman-Dutch common law. Under this law, general principles of criminal law permit abortions to be performed on the ground of necessity. There is some disagreement as to whether necessity encompasses only those abortions performed to save the life of the woman or also encompasses abortions performed to preserve the physical or mental health of the woman.

[i] Nigeria has two abortion laws: one for the northern states and one for the southern states. Both laws specifically allow abortions to be performed to save the life of the woman. In addition, in the southern states, the holding of *Rex v. Bourne* is applied, which allows abortions to be performed for physical and mental health reasons.

[j] The exact status of abortion law in Togo is unclear. The Penal Code contains no abortion provisions and it has been reported that abortions are allowed to be performed to save the life of the woman and to preserve her health, as well as on other grounds.

[k] The exact status of abortion in the Democratic People's Republic of Korea is unclear, although reports suggest that abortions are allowed to be performed on request.

[l] While Japan's abortion law allows abortions to be performed on the specific ground of physical health, it contains no specific mental health ground; nor does it specifically authorize abortions to be performed in the case of foetal impairment. However, since the law allows abortions to be performed for socio-economic reasons, mental health and foetal impairment grounds are presumably covered by this ground.

[m] The exact status of abortion law under the new Government of Afghanistan is unclear. Previously, abortions were allowed only to save the life of the woman.

[n] It is believed that the policy of Bhutan permits abortion on the ground of saving the life of the mother.

[o] Nepal's abortion law permits abortions to be performed on the ground of "benevolence," but does not indicate which abortions are covered by this ground.

[p] Pakistan's abortion law allows abortions to be performed to save the life of the woman or to provide "necessary" treatment. The law does not indicate which abortions constitute ''necessary'' treatment.

[q] Iraq's Penal Code lists no exceptions to the prohibition of the performance of abortions; however general principles of criminal legislation are interpreted in Iraq as allowing abortions to be performed to save the life of the woman and for physical and mental health reasons.

[q] Iraq's Penal Code lists no exceptions to the prohibition of the performance of abortions; however general principles of criminal legislation are interpreted in Iraq as allowing abortions to be performed to save the life of the woman and for physical and mental health reasons.

[r] Saudi Arabia's abortion law allows abortions to be performed during the first forty days of pregnancy "to accomplish a legal benefit" or "to prevent an expected harm;" during the first four months of pregnancy abortions are allowed to save the life of the woman and for health reasons, with no differentiation between physical and mental health. The exact definition of the cited phrases is not indicated.

[s] Uncodified Islamic law governs abortion in Yemen.

[t] The abortion laws in these countries require a woman seeking an abortion to state that she is in a condition of distress or a similar condition, depending on the country; the decision to have an abortion, however, is entirely the decision of the woman.

[u] The abortion laws in these countries have been amended to remove all indications for the legal performance of abortions; however, it is not clear whether a defense of necessity might be allowed to justify an abortion performed to save the life of the woman.

[v] The criminal laws of these countries provide that medical and surgical treatment performed in good faith is legal even though it involves abortion.

[w] The Honduras Penal Code makes no exceptions to the general prohibition on the performance of abortions; the Code of Medical Ethics, however, allows abortions to be performed for therapeutic purposes.

[x] Abortion law in Mexico is determined at the state level. The grounds checked refer only to the abortion law of the Federal District; some other states allow abortions to be performed on grounds 2, 3, 5 and 6.

[y] Nicaragua's abortion law allows the performance of "therapeutic abortions," but does not specify which abortions are therapeutic.

[z] Abortions are also authorized for serious health reasons that endanger the life of the "product of conception."

[aa] There is controversy over whether the text of the Argentine Penal Code can be interpreted to allow abortions to be performed in the case of rape or only in the case of rape of a mentally retarded or insane woman.

[bb] Abortions are allowed to be performed on the ground of rape or incest in the case of a mentally retarded or insane woman.

[cc] In cases of severe economic hardship, the penalty for performing an abortion illegally may be reduced or waived.

[dd] Abortion law in Australia is determined at the state level and is governed by various state laws and, in some states, court decisions. The most restrictive laws allow abortion to be performed to save the life of the woman and to preserve her physical or mental health; the most liberal law (Western Australia) allows abortion on request.

[ee] The status of abortion law in these countries is unclear. In the most recent version of the criminal law statutes of the Marshall Islands and the Federated States of Micronesia, there are no abortion provisions. In addition, criminal law in the Federated States of Micronesia was recently placed under the exclusive jurisdiction of the four states of that country. The one state criminal code that has been compiled since that time contains no abortion provisions. It is possible that local customary law governs abortion in both of these countries.

[ff] Provisions of Palau's criminal law prohibit the performance of all abortions. However, these provisions were held to be invalid by a local court before the country gained its independence. It is possible that local customary law or American common law governs abortion in Palau.

[gg] The abortion laws of the Cook Islands and Niue are based on New Zealand's abortion law before it was liberalized in 1977-1978. Under both laws, abortions can be performed only to save the life of the woman. It is probable that New Zealand case law, which, before the liberalization of New Zealand's abortion law, followed the *Bourne* decision and allowed abortion to be performed on physical and mental health grounds, is applicable in both countries.

[hh] As of 4 February 2003, the official name of Yugoslavia has been changed to Serbia and Montenegro.

TABLE A.10. MATERNAL MORTALITY RATIO, DEVELOPED COUNTRIES, 1970-1999
(Per 100,000 live births)

Region and country	*Maternal mortality ratio*									
	1970-1974	*1975-1979*	*1980-1984*	*1985-1989*	*1990-1994*	*1995*	*1996*	*1997*	*1998*	*1999*
Asia										
Japan	42.1	24.7	17.8	12.4	8.1	7.6	6.6	6.7	..	..
Europe										
Eastern Europe										
Belarus	..	..	22.4[a]	21.9	22.9	13.8	21.9	25.6	28.0	20.4
Bulgaria	34.6	25.5	20.1	17.0	16.1	13.9	11.1	10.9	10.7	..
Czechoslovakia (former)	17.1	12.8	10.2	9.7	..	..	..	..	..	..
Czech Republic	..	..	..	11.0[b]	10.0	2.1	5.5	2.2	5.5	6.7
Hungary	39.5	20.9	19.2	17.4	14.5	15.2	11.4	20.9	6.2	4.2
Poland	21.0	14.6	14.2	12.4	11.7	9.9	4.9	..	..	..
Republic of Moldova	..	..	59.2[a]	38.6	44.5	40.8	42.4	50.5	36.3	28.6
Romania	126.3	132.0	152.0	152.8	65.7	47.8	41.1	41.4	40.5	41.8
Russian Federation	..	..	63.6[a]	51.5	51.0	53.3	48.7	50.2	44.0	..
Slovakia	..	..	..	..	4.7[c]	9.3	5.0	3.4	..	10.7
Ukraine	..	..	39.4[a]	37.2	31.9	32.2	30.4	25.1	27.2	25.2
Northern Europe										
Denmark	5.5	6.2	5.6	5.3	5.6	10.0	5.9	..	..	..
Estonia	..	..	30.4[a]	36.0	33.7	51.6	–	15.8	16.3	15.9
Finland	9.9	7.7	3.1	6.4	5.8	1.6	3.3	5.1	5.3	..
Iceland	23.0	–	–	4.7	4.4	–	–	..	..	..
Ireland	26.7	13.0	7.2	3.5	3.5	–	5.9	5.7	..	..
Latvia	..	..	32.8[a]	37.7	31.6	23.2	20.2	42.5	48.9	41.2
Lithuania	..	..	31.3[a]	23.8	18.6	17.0	12.8	15.9	13.5	13.7
Norway	9.5	9.5	3.9	5.5	4.3	6.6	1.6	1.7	..	..
Sweden	7.2	5.1	4.3	5.6	2.7	3.9	5.3	5.4	..	..
United Kingdom	15.8	12.0	9.0	6.9	7.0	7.0	6.5	5.4	6.8	5.3
Southern Europe										
Albania	..	..	..	27.6[d]	17.8[e]	12.5	11.7	8.1	15.0	..
Bosnia and Herzegovina	..	..	..	25.8	15.9[f]	..	..	..	..	..
Croatia	..	..	..	3.7	8.8	12.0	1.9	10.8	6.4	11.1
Greece	28.2	18.4	12.7	5.8	2.5	–	4.0	–	6.9	..
Italy	44.8	19.4	10.7	6.1	5.8	3.2	3.8	4.4	..	
Malta	..	17.5	17.9	7.4	7.7	21.7	20.2	–	22.3	23.2
Portugal	57.9	40.0	18.7	9.7	9.5	8.4	5.4	5.3	7.9	5.2
Slovenia	..	..	..	10.4	4.8	5.3	16.0	11.1	–	11.5
Spain	29.6	15.8	9.0	4.7	4.1	3.0	3.0	2.2	2.7	..
The former Yugoslav Rep. of Macedonia	..	..	..	..	7.5	21.8	–	3.4	..	..
Yugoslavia[g]	41.6	20.8	20.2	14.6	..	..	..	..	..	..
Western Europe										
Austria	25.0	17.1	10.9	6.9	6.2	1.1	4.5	2.4	4.9	1.3
Belgium	17.1	9.9	7.5	4.2	3.7	9.5	..	..	..	..
France	24.4	16.1	14.3	10.1	11.2	9.6	13.2	9.6	10.2	..
Germany	43.1	28.7	16.1	8.5	7.1	5.4	6.4	6.0	5.6	4.8
Luxembourg	48.4	49.8	..	4.6	7.7	18.5	–	–	..	..
Netherlands	12.3	9.1	7.4	7.0	7.0	7.3	12.1	7.8	11.5	9.5
Switzerland	20.7	10.8	6.7	6.4	..	8.5	3.6	..	..	..

TABLE A.10 *(continued)*

Region and country	*Maternal mortality ratio*									
	1970-1974	*1975-1979*	*1980-1984*	*1985-1989*	*1990-1994*	*1995*	*1996*	*1997*	*1998*	*1999*
Northern America										
Canada	15.0	6.6	4.8	4.0	3.5	4.5	4.9	5.5	..	..
United States	17.9	11.1	8.3	7.6	8.0	7.1	7.6	8.4	7.1	..
Oceania										
Australia	15.9	8.4	8.5	5.3	5.4	8.2	5.1	4.8	2.0	..
New Zealand	21.0	14.9	11.8	14.5	11.2	3.5	7.0	5.2	5.4	..

Sources: Data supplied by the World Health Organization, Geneva.

NOTE: Owing to the small number of maternal deaths, the annual rates, particularly in the smaller countries, are subject to large random fluctuations.

A dash (–) indicates no maternal deaths.

[a]Data referring to 1981-1982.

[b]Data referring to 1986-1989.

[c]Data referring to 1992-1994.

[d]Data referring to 1987-1989.

[e]Data referring to 1992-1994.

[f]Data referring to 1990-1991.

[g]Former Socialist Federal Republic of Yugoslavia. As of 4 February 2004, the official name of Yugoslavia has been changed to Serbia and Montenegro.

TABLE A.11. MATERNAL MORTALITY RATIO, SELECTED DEVELOPING COUNTRIES, 1970-1999
(*Per 100,000 live births*)

	Maternal mortality ratio									
Region and country	*1970-1974*	*1975-1979*	*1980-1984*	*1985-1989*	*1990-1994*	*1995*	*1996*	*1997*	*1998*	*1999*
Africa										
Mauritius	148.8	116.6	87.1	77.4	55.5	60.5	28.9	51.7	21.3	35.8
Asia										
Armenia	..	..	25.0[a]	31.3	26.6	34.7	20.8	38.7	32.9	..
Azerbaijan	..	..	26.5[a]	31.5	22.4	37.0	43.3	31.0	41.1	43.4
China, Hong Kong SAR[b]	16.4	10.1	6.0	4.4	6.2	7.3	3.1	..	..	..
Georgia	..	..	26.0[a]	26.8	9.8[c]	..	..	..	..	..
Israel	..	12.6	3.1	4.2	6.8	6.0	7.4	9.6		
Kazakhstan	..	..	48.8[a]	47.9	51.6	57.3	52.9	59.0	..	..
Kyrgyzstan	..	..	..	51.2	51.5	44.3	25.0	62.7	33.6	42.3
Rep. of Korea[d]	..	..	..	12.0	12.7	12.2	10.8	9.7	..	..
Singapore	25.6	17.4	9.6	6.7	4.8	4.1	4.1	4.2	13.7	..
Tajikistan	..	..	..	49.3	61.3[e]	57.0	..	..	..	..
Turkmenistan	..	..	..	47.2	46.3	49.6	44.0	20.3	16.1	..
Uzbekistan	..	..	..	49.1	28.1	19.3	..	..	..	..
Latin America and the Caribbean										
Argentina	..	84.6	64.2	52.0	46.2	44.0	46.9	..	..	..
Barbados	118.8	67.4	22.3	44.6	59.4	..	..	..	..	..
Chile	145.4	103.1	53.5	45.2	33.3	..	..	..	..	..
Costa Rica	81.6	51.5	27.4	27.9	25.8	19.9	..	..	..	..
Cuba	60.7	53.0	51.6	44.4	45.1	47.6	36.4	..	..	..
Mexico	128.4	121.0	98.0	60.2	49.8	52.9	..	..	..	..
Puerto Rico	26.0	13.7	10.2	17.1	20.5[c]	..	..	..	..	..
Trinidad and Tobago	140.6	94.7	50.2	64.7	60.8	..	..	..	..	..
Uruguay	65.5	59.4	44.8	31.3	15.9[f]	..	..	..	..	..
Venezuela	88.5	67.7	56.8	58.3	61.5[g]	..	..	..	..	..

Sources: Data supplied by the World Health Organization, Geneva.
[a]Data referring to 1981-1982.
[b]As of 1 July 1997, Hong Kong became a Special Administrative Region (SAR) of China.
[c]Data referring to 1990-1992.
[d]Based on the results of the continuous demographic sample survey.
[e]Data referring to 1990-1991 and 1992-1994.
[f]Data referring to 1990.
[g]Data referring to 1990 and 1992-1994.

TABLE A.12. HIV/AIDS: POPULATION IMPACT AND POLICIES

Region and country	Total Population in 2001 (Thousands)	Adults (15-49 years) living with HIV/AIDS in 1999		Life expectancy at birth (years) in 2000-2005		Government level of concern about AIDS	Actions as reported by Governments			
		Number (Thousands)	Percentage	with AIDS	without AIDS [a]		Blood screening	Screening high-risk groups	Information/ education campaign	Promoting condom use
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Africa										
Eastern Africa										
Burundi	6 502	340	11.3	41	52	..	..	..	..	..
Comoros	727	<1	0.1	61	-	..	..	..	..	..
Djibouti	644	35	11.8	41	52	Minor	..	Yes	Yes	Yes
Eritrea	3 816	49	2.9	52	56	..	..	..	..	..
Ethiopia	64 459	2 900	10.6	43	53	Major	Yes	Yes	Yes	Yes
Kenya	31 293	2 000	14.0	49	66	Major	Yes	Yes	Yes	Yes
Madagascar	16 437	10	0.2	54	-		..	..	..	..
Malawi	11 572	760	16.0	39	53	Major	Yes	Yes	Yes	Yes
Mauritius	1 171	<1	0.1	72	-	Major	..	..	..	..
Mozambique	18 644	1 100	13.2	38	49	..	..	..	..	..
Rwanda	7 949	370	11.2	41	51	..	..	..	..	..
Seychelles	81	..	..	..	..	..	..	..	..	..
Somalia	9 157	..	..	49	-	..	..	..	..	..
Uganda	24 023	770	8.3	46	54	..	..	..	..	..
United Rep. of Tanzania	35 965	1 200	8.1	51	59	Major	Yes	Yes	Yes	Yes
Zambia	10 649	830	20.0	42	60	Major	Yes	Yes	Yes	..
Zimbabwe	12 852	1 400	25.1	43	69	..	..	..	..	..
Middle Africa										
Angola	13 527	150	2.8	46	48	..	..	..	..	..
Cameroon	15 203	520	7.7	50	59	..				
Central African Republic	3 782	230	13.8	44	55	Major	Yes	..	Yes	Yes
Chad	8 135	88	2.7	46	49	..	..	..	..	..
Congo	3 110	82	6.4	52	59	..	..	..	..	..
Dem. Rep. of the Congo	52 522	1 100	5.1	52	58	..	..	..	..	..
Equatorial Guinea	470	1	0.5	52	-	..	..	..	..	..
Gabon	1 262	22	4.2	53	58	..	..	..	..	..
Sao Tome and Principe	140	..	..	..	..	..	..	..	..	..
Northern Africa										
Algeria	30 841	11	0.1	70	-	Minor	Yes	Yes	Yes	Yes
Egypt	69 080	8	0.0	68	-	..	..	..	..	..
Libyan Arab Jamahiriya	5 408	1	0.1	71	-	..	..	..	..	..
Morocco	30 430	5	0.0	69	-	Minor	Yes	..	Yes	Yes
Sudan	31 809	140	1.0	57	-	..	..	..	..	..
Tunisia	9 562	2	0.0	71	-	..	..	..	..	..
Southern Africa										
Botswana	1 554	290	35.8	36	70	Major	Yes	Yes	Yes	Yes
Lesotho	2 057	240	23.6	40	64	..	..	..	..	..
Namibia	1 788	150	19.5	44	64	Major	Yes	Yes	Yes	Yes
South Africa	43 792	4 100	19.9	47	66	..	..	..	..	..
Swaziland	938	81	18.5	38	63	..	..	..	..	..
Western Africa										
Benin	6 446	67	2.5	54	57	..	..	..	..	..
Burkina Faso	11 856	330	6.4	48	56	Major	Yes	Yes	Yes	Yes
Cape Verde	437	..	..	71	-	..	..	..	..	..
Côte d'Ivoire	16 349	730	10.8	48	59	..	..	..	..	..
Gambia	1 337	12	2.0	47	49	..	..	..	..	..
Ghana	19 734	330	3.6	57	62	Major	Yes	Yes	Yes	Yes
Guinea	8 274	52	1.5	49	-	Major	Yes	..	Yes	Yes
Guinea-Bissau	1 227	13	2.5	45	48	..	..	..	..	..
Liberia	3 108	37	2.8	56	59	..	..	..	..	..
Mali	11 677	97	2.0	52	55	..	..	..	..	..

TABLE A.12 *(continued)*

Region and country	Total population (Thousands) 2001 (1)	Adults (15-49 years) living with HIV/AIDS: Number (Thousands) 1999 (2)	Adults (15-49 years) living with HIV/AIDS: Percentage 1999 (3)	Life expectancy at birth (years): with AIDS 2000-2005 (4)	Life expectancy at birth (years): without AIDS [a] 2000-2005 (5)	Government level of concern about AIDS (6)	Actions as reported by Governments: Blood screening (7)	Actions as reported by Governments: Screening high-risk groups (8)	Actions as reported by Governments: Information/ education campaign (9)	Actions as reported by Governments: Promoting condom use (10)
Mauritania	2 747	6	0.5	52	-	..	..	..	..	..
Niger	11 227	61	1.4	46	-	Major	Yes	..	Yes	Yes
Nigeria	116 929	2 600	5.1	52	58	..	..	..	..	..
Senegal	9 662	76	1.8	54	-	..	..	..	..	..
Sierra Leone	4 587	65	3.0	41	43	..	..	..	..	..
Togo	4 657	120	6.0	52	59	..	..	..	..	..
Asia										
Eastern Asia										
China	1 284 972	500	0.1	71	-	Major	Yes	Yes	Yes	Yes
Dem. People's Rep. of Korea	22 428	<1	0.0	65	-	..	..	..	..	..
Japan	127 335	10	0.0	81	-	Major	Yes	..	Yes	Yes
Mongolia	2 559	<1	0.0	64	-	Minor	Yes	Yes	Yes	Yes
Republic of Korea	47 069	4	0.0	75	-	Major	Yes	Yes	Yes	Yes
South-eastern Asia										
Brunei Darussalam	335	<1	0.2	76	-	..	..	..	..	..
Cambodia	13 441	210	4.0	56	60	..	..	..	..	..
Indonesia	214 840	52	0.1	67	-	Major	Yes	Yes	Yes	Yes
Lao People's Dem. Republic	5 403	1	0.1	54	-	..	..	..	..	..
Malaysia	22 633	48	0.4	73	-	Major	Yes	Yes	Yes	Yes
Myanmar	48 364	510	2.0	56	59	Major	Yes	..	Yes	Yes
Philippines	77 131	26	0.1	70	-	Major	Yes	Yes	Yes	Yes
Singapore	4 108	4	0.2	78	-	Major	Yes	Yes	Yes	Yes
Thailand	63 584	740	2.2	71	73	Major	Yes	Yes	Yes	Yes
Viet Nam	79 175	99	0.2	69	-	..	..	..	..	..
South Central Asia										
Afghanistan	22 474	<1	0.0	43	-	..	..	..	..	..
Bangladesh	140 369	13	0.0	61	-	Major	Yes	Yes	Yes	Yes
Bhutan	2 141	<1	0.0	63	-	..				
India	1 025 096	3 500	0.7	64	65	Major	Yes	Yes	Yes	Yes
Iran (Islamic Republic of)	71 369	1	0.0	70	-	..				
Kazakhstan	16 095	4	0.0	65	-	Major	Yes	Yes	Yes	Yes
Kyrgyzstan	4 986	<1	0.0	69	-	..	..	..	..	..
Maldives	300	<100	0.1	68	-	..	..	..	..	..
Nepal	23 593	33	0.3	60	-	..	..	..	..	..
Pakistan	144 971	73	0.1	61	-	Major	Yes	Yes	Yes	Yes
Sri Lanka	19 104	7	0.1	73	-	..	..	..	..	..
Tajikistan	6 135	<1	0.0	68	-	..	..	..	..	..
Turkmenistan	4 835	<1	0.0	67	-	..	..	..	..	..
Uzbekistan	25 257	<1	0.0	70	-	..	..	..	..	..
Western Asia										
Armenia	3 788	<1	0.0	73	-	Minor	Yes	Yes	Yes	Yes
Azerbaijan	8 096	<1	..	72	-	Minor	Yes	..	Yes	Yes
Bahrain	652	<1	0.2	74	-	..	..	..	..	..
Cyprus	790	<1	0.1	78	-	Major	Yes	Yes	Yes	Yes
Georgia	5 239	<1	0.0	74	-	..	..	..	..	..
Iraq	23 584	<1	0.0	65	-	Major	Yes	Yes	Yes	Yes
Israel	6 172	2	0.1	79	-	..	Yes	Yes	Yes	Yes
Jordan	5 051	<1	0.0	71	-	..	..	..	..	..
Kuwait	1 971	1	0.1	76	-	..	..	..	..	..
Lebanon	3 556	2	0.1	74	-	..	..	..	..	..
Oman	2 622	1	0.1	72	-	..	..	..	..	..
Qatar	575	<1	0.1	70	-	..	..	..	..	..

TABLE A.12 *(continued)*

Region and country	Total population (Thousands) 2001 (1)	Adults (15-49 years) living with HIV/AIDS Number (Thousands) 1999 (2)	Adults (15-49 years) living with HIV/AIDS Percentage 1999 (3)	Life expectancy at birth (years) with AIDS 2000-2005 (4)	Life expectancy at birth (years) without AIDS [a] 2000-2005 (5)	Government level of concern about AIDS (6)	Actions as reported by Governments: Blood screening (7)	Actions as reported by Governments: Screening high-risk groups (8)	Actions as reported by Governments: Information/ education campaign (9)	Actions as reported by Governments: Promoting condom use (10)
Saudi Arabia	21 028	1	0.0	72	-	Major	Yes	Yes	Yes	..
Syrian Arab Republic	16 610	<1	0.0	72	-	..	..	..	..	..
Turkey	67 632	3	0.0	71	-	Minor	Yes	..	Yes	Yes
United Arab Emirates	2 654	2	0.2	75	-	..	..	..	..	..
Yemen	19 114	<1	0.0	62	-	..	..	..	..	..
Europe										
Eastern Europe										
Belarus	10 147	14	0.3	69	-	Major	Yes	Yes	Yes	Yes
Bulgaria	7 867	<1	0.0	71	-	..	..	..	..	..
Czech Republic	10 260	2	0.0	75	-	Major	Yes	Yes	Yes	Yes
Hungary	9 917	3	0.1	72	-	Major	Yes	Yes	Yes	Yes
Poland	38 577	13	0.1	74	-	Minor	..	..	Yes	Yes
Republic of Moldova	4 285	5	0.2	67	-	..	..	..	..	..
Romania	22 388	2	0.0	70	-	Major	Yes	Yes	Yes	Yes
Russian Federation	144 664	40	0.1	66	-	Major	Yes	Yes	Yes	Yes
Slovakia	5 403	<1	0.0	74	-	Major	Yes	Yes	Yes	Yes
Ukraine	49 112	230	1.0	68	-	Major	Yes	Yes	Yes	Yes
Northern Europe										
Denmark	5 333	4	0.2	77	-	Major	Yes	..	Yes	Yes
Estonia	1 377	<1	0.0	71	-	Minor	Yes	Yes	Yes	Yes
Finland	5 178	1	0.1	78	-	Minor	Yes	..	Yes	Yes
Iceland	281	<1	0.1	79	-	..	..	..	..	..
Ireland	3 841	2	0.1	77	-	..	..	..	..	..
Latvia	2 406	1	0.0	71	-	Major	Yes	..	Yes	Yes
Lithuania	3 689	<1	0.0	73	-	Major	Yes	Yes	Yes	Yes
Norway	4 488	2	0.1	79	-	Minor	Yes	Yes	Yes	Yes
Sweden	8 833	3	0.1	80	-	Major	Yes	Yes	Yes	Yes
United Kingdom	59 542	30	0.1	78	-	Major	Yes	..	Yes	Yes
Southern Europe										
Albania	3 145	<1	0.0	74	-	..	..	..	..	..
Andorra	90	..	..	..	..	..	..	..	..	..
Bosnia and Herzegovina	4 067	<1	0.0	74	-	..	..	..	..	..
Croatia	4 655	<1	0.0	74	-	Minor	Yes	Yes	Yes	Yes
Greece	10 623	8	0.2	78	-	Major	Yes	Yes	..	Yes
Holy See [b]	1	..	..	..	..	..				
Italy	57 503	95	0.4	79	-	Major	Yes	..	Yes	..
Malta	392	<1	0.1	79	-	Minor	Yes	Yes	Yes	Yes
Portugal	10 033	36	0.7	76	-	..	..	..	..	..
San Marino	27	..	..	..	..	Major	..	Yes	Yes	Yes
Slovenia	1 985	<1	0.0	76	-	..	..	..	..	..
Spain	39 921	120	0.6	79	-	Major	Yes	Yes	Yes	Yes
TFYR of Macedonia [c]	2 044	<1	0.0	74	-	..	..	..	..	..
Yugoslavia [d]	10 538	5	0.1	73	-	Major	Yes	Yes	Yes	Yes
Western Europe										
Austria	8 075	9	0.2	79	-	Minor	Yes	Yes	Yes	Yes
Belgium	10 264	7	0.2	79	-	Minor	Yes	Yes	Yes	Yes
France	59 453	130	0.4	79	-	Major	Yes	Yes	Yes	Yes
Germany	82 007	37	0.1	78	-	Major	..	..	..	..
Liechtenstein	33	..	..	..	..	..	..	..	..	..
Luxembourg	442	<1	0.2	78	-	..	..	..	..	..
Monaco	34	..	..	..	..	Minor	Yes	..	Yes	Yes
Netherlands	15 930	15	0.2	78	-	Major	Yes	Yes	Yes	Yes
Switzerland	7 170	17	0.5	79	-	..	..	..	..	..

TABLE A.12 *(continued)*

Region and country	Total population (Thousands) 2001 (1)	Adults (15-49 years) living with HIV/AIDS: Number (Thousands) 1999 (2)	Adults (15-49 years) living with HIV/AIDS: Percentage 1999 (3)	Life expectancy at birth (years): with AIDS 2000-2005 (4)	Life expectancy at birth (years): without AIDS [a] 2000-2005 (5)	Government level of concern about AIDS (6)	Actions as reported by Governments: Blood screening (7)	Actions as reported by Governments: Screening high-risk groups (8)	Actions as reported by Governments: Information/ education campaign (9)	Actions as reported by Governments: Promoting condom use (10)
Latin America and the Caribbean										
Caribbean										
Antigua and Barbuda	65	..	..	..	..	..	..	..	..	..
Bahamas	308	7	4.1	69	74	Major	Yes	Yes	Yes	Yes
Barbados	268	2	1.2	77	-	..	..	..	..	..
Cuba	11 237	2	0.0	76	-	Major	Yes	Yes	Yes	Yes
Dominica	71	..	..	..	..	Major	Yes	..	Yes	Yes
Dominican Republic	8 507	130	2.8	67	70	Major	Yes	Yes	Yes	Yes
Grenada	94	..	..	..	..	..	..	..	..	..
Haiti	8 270	200	5.2	53	59	..	..	..	..	..
Jamaica	2 598	10	0.7	76	-	..	..	..	..	..
Saint Kitts and Nevis	38	..	..	..	..	..	..	..	..	..
Saint Lucia	149	..	..	74	-	..	..	..	..	..
St. Vincent and the Grenadines	114	..	..	..	..	..	..	..	..	..
Trinidad and Tobago	1 300	8	1.1	75	-	Major	Yes	Yes	Yes	Yes
Central America										
Belize	231	2	2.0	74	-	Major	Yes	Yes	Yes	Yes
Costa Rica	4 112	11	0.5	77	-	Major	Yes	Yes	Yes	Yes
El Salvador	6 400	19	0.6	70	-	..	..	..	..	..
Guatemala	11 687	71	1.4	66	-	..	..	..	..	..
Honduras	6 575	58	1.9	66	68	..	..	..	..	..
Mexico	100 368	150	0.3	73	-	..	..	..	..	..
Nicaragua	5 208	5	0.2	69	-	..	..	..	..	..
Panama	2 899	23	1.5	74	-	Major	Yes	Yes	..	Yes
South America										
Argentina	37 488	120	0.7	74	-	Major	Yes	..	Yes	Yes
Bolivia	8 516	4	0.1	63	-	Minor	Yes	Yes	Yes	Yes
Brazil	172 559	530	0.6	68	69	Major	Yes	..	Yes	Yes
Chile	15 402	15	0.2	76	-	Major	Yes	Yes	Yes	..
Colombia	42 803	70	0.3	72	-	Major	Yes	..	Yes	Yes
Ecuador	12 880	19	0.3	70	-	..	..	..	..	..
Guyana	763	15	3.0	62	67	..	..	..	..	..
Paraguay	5 636	3	0.1	71	-	Minor	Yes	Yes	Yes	Yes
Peru	26 093	47	0.4	70	-	Major	Yes	Yes	Yes	Yes
Suriname	419	3	1.2	71	-	..	..	..	..	..
Uruguay	3 361	6	0.3	75	-	..	..	..	..	..
Venezuela	24 632	61	0.5	73	-	..	..	..	..	..
Northern America										
Canada	31 015	50	0.2	79	-	Major	Yes	Yes	Yes	Yes
United States	285 926	426	0.2	78	-	Major	Yes	Yes	Yes	Yes
Oceania										
Australia/New Zealand										
Australia	19 338	14	0.2	79	-	..	..	..	..	..
New Zealand	3 808	1	0.1	78	-	Major	Yes	..	Yes	Yes
Melanesia										
Fiji	823	<1	0.1	70	-	Minor	Yes	Yes	Yes	Yes
Papua New Guinea	4 920	5	0.2	58	-	Major	Yes	Yes	Yes	Yes
Solomon Islands	463	..	..	69	-	..	..	..	..	..
Vanuatu	202	..	..	69	-	..	..	..	..	..
Micronesia										
Kiribati	84	..	..	..	..	..	..	..	..	..

TABLE A.12 *(continued)*

Region and country	Total population (Thousands) 2001 (1)	Adults (15-49 years) living with HIV/AIDS: Number (Thousands) 1999 (2)	Adults (15-49 years) living with HIV/AIDS: Percentage 1999 (3)	Life expectancy at birth (years): with AIDS 2000-2005 (4)	Life expectancy at birth (years): without AIDS [a] 2000-2005 (5)	Government level of concern about AIDS (6)	Actions as reported by Governments: Blood screening (7)	Actions as reported by Governments: Screening high-risk groups (8)	Actions as reported by Governments: Information/ education campaign (9)	Actions as reported by Governments: Promoting condom use (10)
Marshall Islands	52	..	..	..	..	..	..	..	..	..
Micronesia (Fed. States of)	126	..	..	..	..	..	..	..	..	..
Nauru	13	..	..	..	..	..	..	..	..	..
Palau	20	..	..	..	..	..	..	..	..	..
Polynesia										
Cook Islands	20	..	..	..	..	..	..	..	..	..
Niue	2	..	..	..	..	..	..	..	..	..
Samoa	159	..	..	70	-	..	..	..	..	..
Tonga	99	..	..	..	..	..	..	..	..	..
Tuvalu	10	..	..	..	..	..	..	..	..	..

Source: HIV/AIDS: Population Impact and Policies 2001, wall chart (United Nations publication).

NOTES:

Adults (15-49 years) living with HIV/AIDS (columns 2 and 3) refers to the number and percentage of persons aged 15-49 who were infected with HIV and were alive at the end of 1999. Data are from UNAIDS, *Report on the Global HIV/AIDS Epidemic, June 2000* (UNAIDS/00.13E).

Life expectancy at birth with AIDS (column 4) is the average number of years a person can expect to live at current levels of mortality. Life expectancy at birth without AIDS (column 5) is the average number of years a person could expect to live in the absence of AIDS-related mortality in the 45 countries most affected by HIV/AIDS. Data are from estimates and projections prepared by the Population Division; see "World population prospects: the 2000 revision, highlights" (ESA/P/WP.165) – [http://www.un.org/esa/population/publications/wpp2000/highlights.pdf].

Government level of concern about AIDS (column 6) and actions as reported by Governments (columns 7-10) are from the Eighth United Nations Inquiry among Governments on Population and Development, conducted in 1998 by the Population Division. The information provided within the framework of the Inquiry allowed limited documentation of the nature and intensity of interventions taken. From *Results of the Eighth United Nations Inquiry among Governments on Population and Development* (United Nations publication, Sales No. E.01.XIII.2).

Two dots (..) indicate that information or data were not readily available or were not ascertained.

[a] A hyphen (-) indicates that the difference between life expectancy without AIDS and life expectancy with AIDS is negligible.

[b] Refers to Vatican City State.

[c] The former Yugoslav Republic of Macedonia.

[d] As of 4 February 2003, the official name of Yugoslavia has been charged to Serbia and Montenegro.

TABLE A.13. FERTILITY TRENDS, MAJOR AREAS, REGIONS AND COUNTRIES, 1970-2000, AND GOVERNMENT VIEWS AND POLICIES ON FERTILITY

	Total fertility (number of children per woman)		*Annual percentage change, 1970-1975 to 1995-2000*	*View on fertility and type of intervention to modify fertility*
	1970-1975	*1995-2000*		
World	4.48	2.82	-1.9	..
More developed regions[a]	2.13	1.57	-1.2	..
Less developed regions[b]	5.42	3.10	-2.2	..
Least developed countries	6.60	5.47	-0.7	..
Africa	6.68	5.27	-0.9	..
Eastern Africa	7.03	6.09	-0.6	..
Burundi	6.80	6.80	0.0	Too high: intervene to lower
Comoros	7.05	5.40	-1.1	Too high: intervene to lower
Djibouti	6.70	6.10	-0.4	Too high: no intervention
Eritrea	6.52	5.70	-0.5	Too high: intervene to lower
Ethiopia	6.80	6.75	0.0	Too high: intervene to lower
Kenya	8.12	4.60	-2.3	Too high: intervene to lower
Madagascar	6.60	6.10	-0.3	Too high: intervene to lower
Malawi	7.40	6.75	-0.4	Too high: intervene to lower
Mauritius	3.25	2.00	-1.9	Satisfactory: no intervention
Mozambique	6.60	6.30	-0.2	Too high: intervene to lower
Réunion	3.93	2.30	-2.1	..
Rwanda	8.29	6.20	-1.2	Too high: intervene to lower
Somalia	7.25	7.25	0.0	Satisfactory: no intervention
Uganda	7.10	7.10	0.0	Too high: intervene to lower
United Republic of Tanzania	6.75	5.48	-0.8	Too high: intervene to lower
Zambia	7.75	6.05	-1.0	Too high: intervene to lower
Zimbabwe	7.40	5.00	-1.6	Too high: intervene to lower
Middle Africa	6.31	6.41	0.1	..
Angola	6.60	7.20	0.3	Satisfactory: intervene to maintain
Cameroon	6.30	5.10	-0.8	Too high: intervene to lower
Central African Republic	5.72	5.30	-0.3	Satisfactory: no intervention
Chad	6.66	6.65	0.0	Satisfactory: no intervention
Congo	6.29	6.29	0.0	Too high: intervene to lower
Democratic Republic of the Congo	6.30	6.70	0.2	Satisfactory: no intervention
Equatorial Guinea	5.68	5.89	0.1	Satisfactory: intervene to maintain
Gabon	4.26	5.40	0.9	Too low: intervene to raise
Northern Africa	6.34	3.58	-2.3	..
Algeria	7.38	3.25	-3.3	Too high: intervene to lower
Egypt	5.54	3.40	-1.9	Too high: intervene to lower
Libyan Arab Jamahiriya	7.59	3.80	-2.8	Satisfactory: no intervention
Morocco	6.89	3.40	-2.8	Too high: intervene to lower
Sudan	6.67	4.90	-1.2	Too high: intervene to lower
Tunisia	6.21	2.31	-4.0	Too high: intervene to lower
Western Sahara	6.53	4.40	-1.6	..
Southern Africa	5.54	3.29	-2.1	..
Botswana	6.60	4.35	-1.7	Too high: intervene to lower
Lesotho	5.74	4.75	-0.8	Too high: intervene to lower
Namibia	6.50	5.30	-0.8	Too high: intervene to lower
South Africa	5.44	3.10	-2.3	Too high: intervene to lower
Swaziland	6.49	4.80	-1.2	Too high: intervene to lower
Western Africa	7.03	5.95	-0.7	..
Benin	7.06	6.10	-0.6	Satisfactory: no intervention
Burkina Faso	7.80	6.89	-0.5	Too high: intervene to lower
Cape Verde	7.00	3.56	-2.7	Too high: intervene to lower
Côte d'Ivoire	7.41	5.10	-1.5	Too high: intervene to lower
Gambia	6.50	5.20	-0.9	Too high: intervene to lower
Ghana	6.90	4.60	-1.6	Too high: intervene to lower

TABLE A.13 *(continued)*

	Total fertility rate (per woman)		*Annual percentage change, 1970-1975 to 1995-2000*	*View on fertility and type of intervention to modify fertility*
	1970-1975	*1995-2000*		
Guinea	7.00	6.27	-0.4	Too high: intervene to lower
Guinea-Bissau	5.99	5.99	0.0	Too high: no intervention
Liberia	6.80	6.80	0.0	Too high: intervene to lower
Mali	7.11	7.00	-0.1	Too high: intervene to lower
Mauritania	6.50	6.00	-0.3	Satisfactory: no intervention
Niger	8.10	8.00	0.0	Too high: intervene to lower
Nigeria	6.90	5.92	-0.6	Too high: intervene to lower
Senegal	7.00	5.57	-0.9	Too high: intervene to lower
Sierra Leone	6.50	6.50	0.0	Too high: intervene to lower
Togo	7.10	5.80	-0.8	Satisfactory: intervene to maintain
Asia	5.07	2.70	-2.5	..
Eastern Asia	4.46	1.76	-3.7	..
China	4.86	1.80	-4.0	Satisfactory: intervene to maintain
China, Hong Kong, SAR	2.89	1.17	-3.6	..
China, Macao, SAR	3.20	1.15	-4.1	..
Democratic People's Republic of Korea	3.87	2.05	-2.5	Satisfactory: intervene to maintain
Japan	2.07	1.41	-1.5	Too low: no intervention
Mongolia	7.33	2.70	-4.0	Satisfactory: no intervention
Republic of Korea	4.28	1.51	-4.2	Satisfactory: no intervention
South-central Asia	5.60	3.58	-1.8	..
Afghanistan	7.40	6.90	-0.3	Too high: no intervention
Bangladesh	6.40	3.80	-2.1	Too high: intervene to lower
Bhutan	5.90	5.50	-0.3	Too high: intervene to lower
India	5.43	3.32	-2.0	Too high: intervene to lower
Iran (Islamic Republic of)	6.40	3.20	-2.8	Too high: intervene to lower
Kazakhstan	3.46	2.10	-2.0	Too low: intervene to raise
Kyrgyzstan	4.73	2.89	-2.0	Satisfactory: no intervention
Maldives	7.00	5.80	-0.8	Too high: intervene to lower
Nepal	5.79	4.83	-0.7	Too high: intervene to lower
Pakistan	6.28	5.48	-0.5	Too high: intervene to lower
Sri Lanka	4.08	2.10	-2.7	Satisfactory: intervene to lower
Tajikistan	6.83	3.72	-2.4	Too high: no intervention
Turkmenistan	6.19	3.60	-2.2	Satisfactory: no intervention
Uzbekistan	6.30	2.85	-3.2	Satisfactory: intervene to maintain
South-eastern Asia	5.53	2.83	-2.7	..
Brunei Darussalam	5.40	2.80	-2.6	Satisfactory: no intervention
Cambodia	5.54	5.25	-0.2	Too high: intervene to lower
Indonesia	5.20	2.60	-2.8	Too high: intervene to lower
Lao People's Democratic Republic	6.15	5.30	-0.6	Too high: intervene to lower
Malaysia	5.15	3.26	-1.8	Too high: intervene to lower
Myanmar	5.75	3.30	-2.2	Satisfactory: intervene to maintain
Philippines	6.00	3.64	-2.0	Too high: intervene to lower
Singapore	2.62	1.60	-2.0	Too low: intervene to raise
Thailand	4.97	2.10	-3.4	Satisfactory: intervene to maintain
Timor-Leste[c]	6.15	4.35	-1.4	..
Viet Nam	6.70	2.50	-3.9	Too high: intervene to lower
Western Asia	5.62	3.86	-1.5	..
Armenia	3.04	1.39	-3.1	Too low: intervene to raise
Azerbaijan	4.29	1.94	-3.2	Satisfactory: intervene to maintain
Bahrain	5.95	2.63	-3.3	Satisfactory: intervene to lower
Cyprus	2.49	1.98	-0.9	Too low: intervene to raise
Georgia	2.60	1.58	-2.0	Too low: intervene to raise
Iraq	7.11	5.25	-1.2	Satisfactory: no intervention

TABLE A.13 *(continued)*

	Total fertility rate (per woman)		*Annual percentage change, 1970-1975 to 1995-2000*	*View on fertility and type of intervention to modify fertility*
	1970-1975	*1995-2000*		
Israel	3.77	2.93	-1.0	Too low: intervene to raise
Jordan	7.79	4.69	-2.0	Too high: intervene to lower
Kuwait	6.90	2.89	-3.5	Satisfactory: no intervention
Lebanon	4.92	2.29	-3.1	Satisfactory: intervene to lower
Occupied Palestinian Territory	7.73	5.99	-1.0	..
Oman	7.20	5.85	-0.8	Too high: intervene to lower
Qatar	6.77	3.70	-2.4	Satisfactory: intervene to maintain
Saudi Arabia	7.30	6.15	-0.7	Satisfactory: intervene to raise
Syrian Arab Republic	7.69	4.00	-2.6	Satisfactory: no intervention
Turkey	5.15	2.70	-2.6	Too high: intervene to lower
United Arab Emirates	6.36	3.17	-2.8	Satisfactory: no intervention
Yemen	7.61	7.60	0.0	Too high: intervene to lower
Europe	2.16	1.41	-1.7	..
Eastern Europe	2.15	1.28	-2.1	..
Belarus	2.25	1.27	-2.3	Too low: intervene to raise
Bulgaria	2.17	1.14	-2.6	Too low: intervene to raise
Czech Republic	2.21	1.18	-2.5	Too low: intervene to raise
Hungary	2.09	1.37	-1.7	Too low: intervene to raise
Poland	2.25	1.46	-1.7	Too low: intervene to raise
Republic of Moldova	2.56	1.61	-1.9	Satisfactory: no intervention
Romania	2.62	1.32	-2.7	Too low: intervene to raise
Russian Federation	2.03	1.23	-2.0	Too low: intervene to raise
Slovakia	2.51	1.40	-2.3	Too low: intervene to raise
Ukraine	2.16	1.26	-2.2	Too low: intervene to raise
Northern Europe	2.08	1.67	-0.9	..
Channel Islands	1.78	1.50	-0.7	..
Denmark	1.97	1.74	-0.5	Satisfactory: no intervention
Estonia	2.15	1.24	-2.2	Too low: no intervention
Finland	1.62	1.71	0.2	Satisfactory: no intervention
Iceland	2.84	2.05	-1.3	Satisfactory: intervene to maintain
Ireland	3.82	1.92	-2.7	Satisfactory: intervene to maintain
Latvia	2.00	1.12	-2.3	Too low: intervene to raise
Lithuania	2.32	1.38	-2.1	Too low: intervene to raise
Norway	2.25	1.83	-0.8	Satisfactory: no intervention
Sweden	1.89	1.51	-0.9	Satisfactory: no intervention
United Kingdom	2.04	1.70	-0.7	Satisfactory: no intervention
Southern Europe	2.54	1.32	-2.6	..
Albania	4.66	2.60	-2.3	Satisfactory: intervene to maintain
Bosnia and Herzegovina	2.63	1.35	-2.7	Too low: no intervention
Croatia	1.96	1.68	-0.6	Too low: intervene to raise
Greece	2.32	1.30	-2.3	Too low: no intervention
Italy	2.33	1.20	-2.6	Too low: no intervention
Malta	2.07	1.91	-0.3	Satisfactory: no intervention
Portugal	2.75	1.46	-2.5	Too low: no intervention
Slovenia	2.19	1.24	-2.3	Satisfactory: intervene to raise
Spain	2.86	1.16	-3.6	Too low: no intervention
The former Yugoslav Republic of Macedonia	2.96	1.92	-1.7	Too high: intervene to lower
Yugoslavia[d]	2.36	1.77	-1.2	Satisfactory: intervene to maintain
Western Europe	1.92	1.49	-1.0	..
Austria	2.02	1.36	-1.6	Too low: intervene to raise
Belgium	1.93	1.55	-0.9	Satisfactory: no intervention
France	2.31	1.73	-1.1	Too low: no intervention
Germany	1.64	1.33	-0.9	Too low: no intervention

TABLE A.13 *(continued)*

	Total fertility rate (per woman)		*Annual percentage change, 1970-1975 to 1995-2000*	*View on fertility and type of intervention to modify fertility*
	1970-1975	*1995-2000*		
Luxembourg	1.97	1.72	-0.5	Too low: intervene to raise
Netherlands	2.06	1.54	-1.2	Satisfactory: no intervention
Switzerland	1.82	1.47	-0.9	Too low: no intervention
Latin America and the Caribbean	5.03	2.69	-2.5	..
Caribbean	4.38	2.50	-2.2	..
Bahamas	3.44	2.40	-1.4	Too high: intervene to lower
Barbados	2.74	1.50	-2.4	Satisfactory: no intervention
Cuba	3.55	1.55	-3.3	Satisfactory: no intervention
Dominican Republic	5.63	2.88	-2.7	Too high: intervene to lower
Guadeloupe	4.49	2.06	-3.1	..
Haiti	5.76	4.38	-1.1	Too high: intervene to lower
Jamaica	5.00	2.50	-2.8	Too high: intervene to lower
Martinique	4.08	1.75	-3.4	..
Netherlands Antilles	2.65	2.10	-0.9	..
Puerto Rico	2.99	1.97	-1.7	..
Saint Lucia	5.69	2.70	-3.0	Too high: intervene to lower
Trinidad and Tobago	3.45	1.65	-2.9	Too high: intervene to lower
Central America	6.43	3.04	-3.0	..
Belize	6.25	3.41	-2.4	Satisfactory: no intervention
Costa Rica	4.34	2.83	-1.7	Satisfactory: intervene to lower
El Salvador	6.10	3.17	-2.6	Too high: intervene to lower
Guatemala	6.45	4.93	-1.1	Too high: intervene to lower
Honduras	7.05	4.30	-2.0	Too high: intervene to lower
Mexico	6.52	2.75	-3.5	Too high: intervene to lower
Nicaragua	6.79	4.32	-1.8	Too high: intervene to lower
Panama	4.94	2.63	-2.5	Satisfactory: intervene to maintain
South America	4.65	2.57	-2.4	..
Argentina	3.15	2.62	-0.7	Satisfactory: no intervention
Bolivia	6.50	4.36	-1.6	Satisfactory: no intervention
Brazil	4.72	2.27	-2.9	Satisfactory: no intervention
Chile	3.63	2.44	-1.6	Satisfactory: no intervention
Colombia	5.00	2.80	-2.3	Satisfactory: intervene to lower
Ecuador	6.00	3.10	-2.6	Too high: intervene to lower
French Guiana	4.18	4.05	-0.1	..
Guyana	4.90	2.45	-2.8	Satisfactory: no intervention
Paraguay	5.65	4.17	-1.2	Too high: no intervention
Peru	6.00	2.98	-2.8	Too high: intervene to lower
Suriname	5.29	2.21	-3.5	Satisfactory: no intervention
Uruguay	3.00	2.40	-0.9	Too low: intervene to raise
Venezuela	4.94	2.98	-2.0	Satisfactory: intervene to lower
Northern America	2.01	2.00	0.0	..
Canada	1.97	1.60	-0.8	Satisfactory: no intervention
United States	2.02	2.04	0.1	Satisfactory: no intervention
Oceania	3.22	2.41	-1.2	..
Australia/New Zealand	2.59	1.80	-1.4	..
Australia	2.54	1.77	-1.4	Satisfactory: no intervention
New Zealand	2.84	1.97	-1.5	Satisfactory: no intervention
Melanesia	5.78	4.39	-1.1	..
Fiji	4.20	3.20	-1.1	Satisfactory: intervene to lower
New Caledonia	5.15	2.60	-2.7	..
Papua New Guinea	6.08	4.60	-1.1	Too high: intervene to lower
Solomon Islands	7.23	5.60	-1.0	Too high: intervene to lower

TABLE A.13 *(continued)*

	Total fertility rate (per woman)		*Annual percentage change, 1970-1975 to 1995-2000*	*View on fertility and type of intervention to modify fertility*
	1970-1975	*1995-2000*		
Vanuatu	6.11	4.59	-1.1	Satisfactory: no intervention
Micronesia	4.81	4.26	-0.5	..
Guam	4.12	3.95	-0.2	..
Polynesia	5.46	3.22	-2.1	..
French Polynesia	5.15	2.60	-2.7	..
Samoa	5.70	4.51	-0.9	Too high: intervene to lower

Source: *World Population Prospects: The 2000 Revision,* vol. I, *Comprehensive Tables* (United Nations publication, Sales No. E.01.XIII.8); and *National Population Policies 2001* (United Nations publication, E.02.XIII.12).

[a]Comprising all regions of Europe and Northern America, Australia/New Zealand and Japan.

[b]Comprising all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean, and Melanesia, Micronesia and Polynesia.

[c]Formerly East Timor.

[d]As of 4 February 2003, the official name of Yugoslavia has been changed to Serbia and Montenegro.