



POPULATION *Newsletter*

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FERTILITY, CONTRACEPTION AND POPULATION POLICIES

As part of its work programme, the Population Division of the United Nations Secretariat is responsible for the global monitoring of the implementation of the Programme of Action of the 1994 International Conference on Population and Development (ICPD). The publication *Fertility, Contraception and Population Policies* is part of the effort of the Population Division to disseminate the information resulting from these monitoring activities.

The second half of the twentieth century has been a period of unprecedented population change. During the past 50 years, the world experienced the highest rates of population growth and the largest annual population increases ever recorded in history. In response to these and other unparalleled demographic changes, Governments formulated a variety of policies and established a broad range of programmes related to population. These policies and programmes were aimed at national development objectives as well as improving the well-being of the population. Reproductive behaviour, for example, while once viewed as a private matter outside the purview of Government action, became widely accepted as a major concern of Governments.

Government policies on access to contraceptives have played an important role in the shift in reproductive behaviour.

Governments' views and policies with regard to the use of contraceptives have changed considerably during the second half of the 20th century. At the same time, many developing countries have experienced a transition from high to low fertility with a speed and magnitude that far exceeds the earlier fertility transition in European countries. Government policies on access to contraceptives have played an

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important role in the shift in reproductive behaviour. Low fertility now prevails in some developing countries, as well as in most developed countries. The use of contraception is currently widespread throughout the world. The highest prevalence rates at present are found in more developed countries and in China.

Since 1994, the percentage of countries that reported that they were satisfied with their fertility level continued to decline, with the result that only 38 per cent of countries found the present level satisfactory. Far more countries considered fertility to be too high rather than too low, but the percentage of countries that viewed fertility as too high, after rising from 1976 to 1996, leveled off after 1996 at about 45 per cent. Among countries in less developed regions, 58 per cent considered fertility too high, while more than three fourths (78 per cent) of the 49 least developed countries said fertility was too high in 2001. By contrast, the percentage of countries that considered fertility to be too low has been climbing over the last three decades. Of the more developed countries, fully half now consider fertility to be too low (up from 21 per cent in 1976), while 48 per cent are satisfied with the level of fertility. Seven per cent of countries in the less developed regions considered their fertility to be too low in 2001.

In the past, dissatisfaction with the level of fertility has not necessarily translated into a policy intervention. In 1976, more than one half of countries (52 per cent) did not intervene to modify the level of fertility. By 2001, this proportion had fallen to one-third. However, countries that view fertility as too high are more likely to intervene than countries that view fertility as too low. In 2001 the percentage of countries that considered fertility too high (44 per cent) was practically the same as that of countries that had adopted policies to lower fertility (45 per cent). In contrast, of the 34 countries that considered fertility to be too low, eight (24 per cent) did not have a policy in place to raise fertility.

By 2001, 92 per cent of all countries supported family planning programmes and contraceptives.

Direct governmental support to the use of contraceptive methods has been an important determinant of reproductive behaviour, as well as of maternal and child health. Such support entails the provision of family planning services through government-run facilities, such as hospitals, clinics, health posts and health centres and through government fieldworkers. Government support for methods of contraception has been steadily increasing since 1975. By 2001, 92 per cent of all countries supported family planning programmes and contraceptives, either directly (75 per cent), through government facilities, or indirectly (17 per cent), through support of non-governmental

activities, such as those operated by family planning associations (see table 3). Despite the pervasiveness of government support for contraceptive methods, the demand for family planning services is believed to outstrip the supply. It has been estimated that as of 2000, some 123 million women did not have ready access to safe and effective means of contraception.

In many countries, government support for contraception preceded the formulation of population policies. In 1963, none of the 53 countries that replied to the first United Nations Population Inquiry had formulated policies aimed at altering the reproductive behaviour of their respective populations. Nevertheless, many countries supported the distribution of contraceptive supplies. In Africa, particularly in Northern Africa, many countries began providing direct support for the distribution of contraceptives as early as the mid 1970s. These Governments supported contraceptive methods as part of basic reproductive health services even in the absence of policies to reduce population growth or fertility levels. Moreover, many countries in Asia (excepting those in Western Asia) and Latin America and the Caribbean were also early supporters of family planning.

During the last 30 years, nearly all countries have shifted their policies in favour of increased direct or indirect support for contraceptive methods. Even previously pronatalist Governments, which in the past had wanted to maintain or even increase the rate of population growth, have gradually changed their stance and now accept family planning and contraception as an integral part of maternal and child health programmes. At the same time, some countries, particularly in Europe (for example, Austria, Denmark, France, Italy and Switzerland) have reduced support for family planning programmes, possibly as a response to their below-replacement fertility levels, or as an acknowledgement that the private sector could meet demands for contraception without government subsidies.

In Eastern Europe, profound economic and political changes have been accompanied by a sharp decline in fertility, resulting in some of the lowest fertility levels in the world. Several reasons have been suggested to explain the situation: political instability has led to a “fear of the future” and a reluctance to have children; the economic crisis has lowered per capita income and living standards; and new forms of the family, which favour low fertility, have been adopted. Although most countries in

Eastern Europe considered fertility to be too low in 2001, their Governments continue to support access to contraceptive methods.

Policy formulation and implementation differ according to level of development. In developing countries, there is a clear trend towards increased Government support for methods of contraception (figure I). This trend is especially visible among the least developed countries, which have moved from having a low percentage of supportive Governments in the early 1970s to almost unanimous support at the present time. As of 2001, the least developed countries had the highest percentage (96 per cent) of Governments with direct and indirect support policies in place. Only Equatorial Guinea and Lao People's Democratic Republic offer no official support for contraception. By contrast, in developed countries, there has been a shift away from direct support of contraception to indirect support. Among the more developed countries, 62 per cent had implemented direct support policies in 1976, whereas in 2001, fewer than half (46 per cent) had such policies in place (figure II).

A recent United Nations study found that, while AIDS awareness is rising, behaviour, for the most part, remains unchanged and risky.

Today one of the main population concerns in the world is HIV/AIDS. The HIV/AIDS crisis has spawned renewed interest in barrier methods of contraception, such as the condom. Despite the considerable efforts that have been devoted to promoting the use of condoms, as part of HIV/AIDS education and prevention campaigns, condom use among couples remains low in affected countries. A recent United Nations study found that, while AIDS awareness is rising, behaviour, for the most part, remains unchanged and risky.

The United Nations has been instrumental in promoting the international acceptance of family planning and the intervention of Governments to deal with a wide spectrum of population issues. Through the convening of international and inter-governmental conferences, and the wide dissemination of research on demographic trends, population projections and the evolution of national population policies, the United Nations has helped foster commitment to lowering high rates of population growth and fertility, as a means of

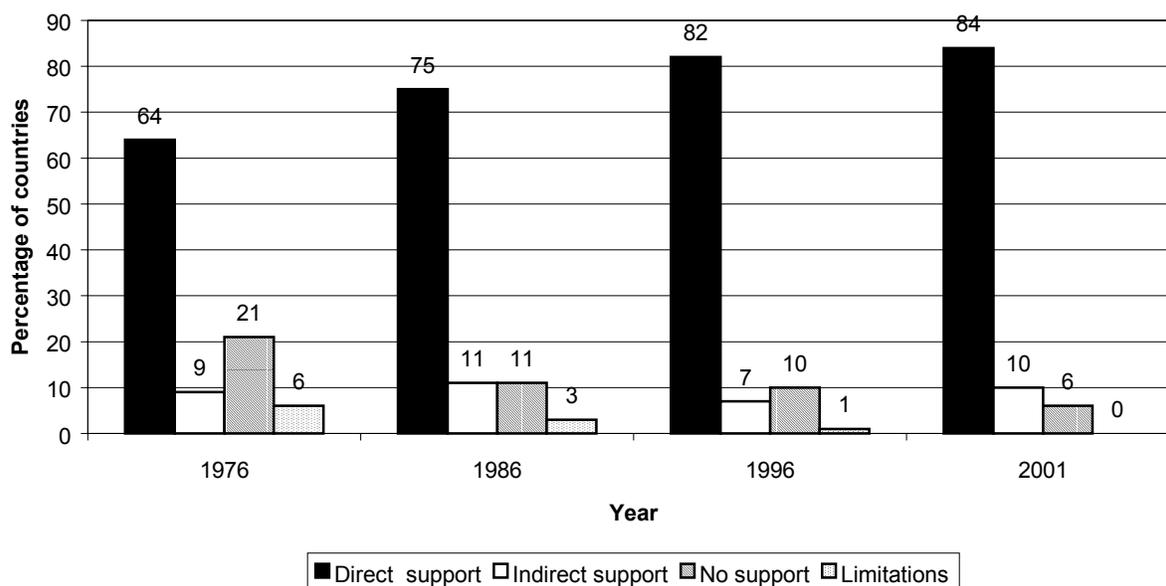
facilitating socio-economic development, and also as a means of helping couples to achieve their desired family sizes. As a result, the international community, NGOs and civil society have been mobilized to provide resources and marshal grass roots support for family planning efforts in developing countries based on the principle of human rights. This in turn has led to the wide distribution and acceptance of effective, safe, low-cost and easy-to-use contraceptives. The United Nations has also played a crucial role in situating family planning programmes within the wider framework of reproductive health and reproductive rights.

Adopting a supportive government policy, however, is only the first step in ensuring the success of family planning programmes. Other necessary elements include implementing those programmes and the commitment of sufficient resources over time. A variety of other factors also need to be considered, including the quality of care, traditional cultural attitudes towards family planning, the safeguard of client confidentiality, financial constraints, costs to users, the condition of the health care infrastructure, partnerships with non-governmental organizations and international donors, and civil conflicts that may disrupt the provision of supplies and services. Lastly, measures for the monitoring and evaluation of programmes beyond their impact on fertility need to be elaborated.

First established at the World Population Conference in Bucharest in 1974, Principle 8 of the ICPD Programme of Action stresses that States should take all appropriate measures to ensure, on a basis of equality of men and women, universal access to health-care services, including those related to reproductive health care, which includes family planning and sexual health. All couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so.

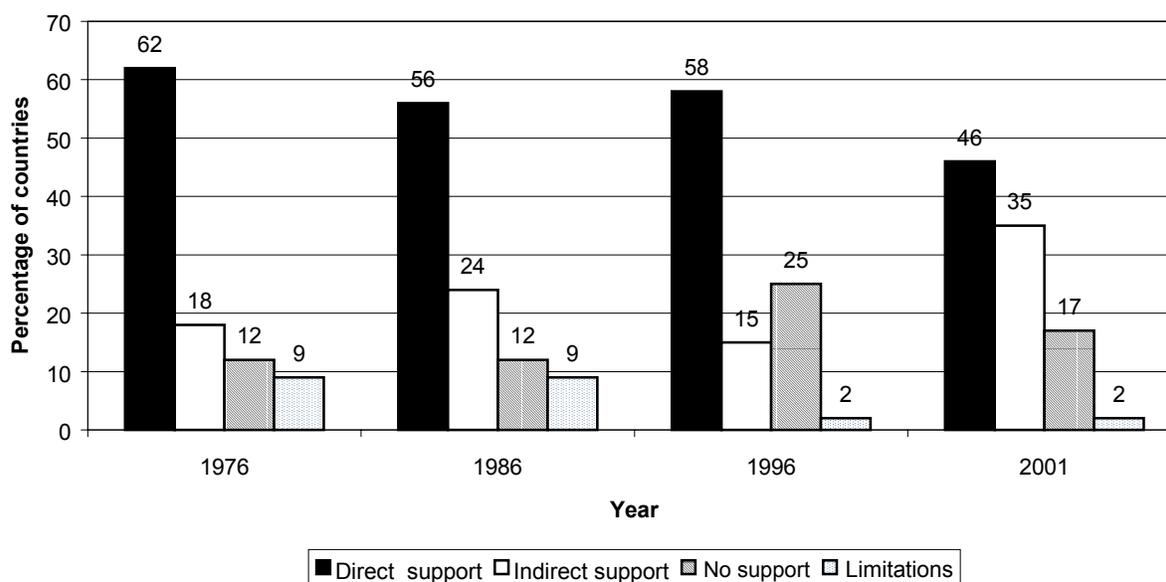
The publication *Fertility, Contraception and Population Policies* (ESA/P/WP.182) may be obtained by writing to the Director, Population Division, Department of Social and Economic Affairs, United Nations, New York, NY 10017, United States of America. The report can also be accessed on the web site of the Population Division at <http://www.unpopulation.org>.

Figure I. Government policies on providing access to contraceptive methods, 1976-2001: Less developed regions



Source: *National Population Policies, 2001* (United Nations publication, Sales No. E.02.XIII.12).

Figure II. Government policies on providing access to contraceptive methods, 1976-2001: More developed regions



Source: *National Population Policies, 2001* (United Nations publication, Sales No. E.02.XIII.12).

MEETING OF THE TECHNICAL WORKING GROUP ON LONG-RANGE POPULATION PROJECTIONS

On 30 June 2003 the Population Division convened a meeting of the Technical Working Group on Long-Range Population Projections. The meeting brought together an international group of experts to debate the proposed assumptions for the Division's forthcoming long-range projections based on *World Population Prospects: The 2002 Revision*.

The new long-range projections will be groundbreaking for two reasons. First, the time horizon for the projections will extend to 2300, while previous long-range projections covered only the period extending to 2150. Second, the Division is abandoning its earlier practice of calculating long-range projections only for the major regions of the world and will produce long-range projections at the country level (that is, for more than 190 distinct geographical units). Availability of projected populations at the country level will allow users to assess the long-term implications of demographic trends for individual countries as well as to create customized regional groupings.

At the meeting, the Population Division presented a set of proposed assumptions for the long-range projection of fertility, mortality and international migration.¹ In brief, it was proposed that countries would return to replacement-level fertility after a long period of below-replacement fertility; that life expectancy would continue to rise but at a decreasing rate as higher levels were reached and that it would level off at 100 years in countries that attained such a level; and that international migration would be assumed to be non-zero for most countries over the long-term, with the net migration rate of each country remaining close to that projected for 2045-2050 in *World Population Prospects: The 2002 Revision*.

The levels of uncertainty around any projection over 300 years would necessarily be very large.

The experts underscored the difficulty of imagining what very long-term trends in the demographic components would be. The levels of uncertainty around any projection over 300 years would necessarily be very large. Consequently, several experts suggested that the results of the Population Division's project should be labelled

¹ *United Nations Population Projections to 2300*, ESA/P/WP.184, Population Division, New York, 2003.

“scenarios” instead of “projections”, to indicate their speculative nature.

The experts generally concurred with the overall principles underpinning the proposed assumptions, but there was a lively discussion on each issue. With respect to fertility, the main issue discussed was whether fertility levels could be expected to stabilize eventually, and if so, when and at what level. It was generally accepted that one scenario should have fertility returning to replacement level in all countries. But it was noted that, according to the *2002 Revision*, the fertility of most countries was supposed to remain at below-replacement level for lengthy periods. Some experts considered that even over a period of 250 years, the return of fertility to replacement level once it had reached below-replacement level might not be likely. Mention was made of the difficulty developed countries were having today in raising the very low fertility levels that they had been experiencing. It was also noted that assuming that all countries would converge essentially to the same fertility level might not be realistic since heterogeneity in fertility levels was currently the norm.

There was a general consensus that world population would peak at some point during the next 300 years and then begin to decline. Some participants added nuances to this view, indicating that decline would be very slow; that the possibility of rapid and catastrophic decline could not be ruled out; and that swings of fertility would happen, probably being different in the zones of high and low fertility.

The debate on mortality centred on whether there is a limit to life expectancy and whether all countries will converge to similar mortality levels. There was general agreement that projections of life expectancy should not be forced to level off artificially at any given level. The methodology proposed by the Population Division to project mortality risks over the long run, based on the Lee-Carter method, was judged sound and consistent with the view that decreases in mortality risks would slow down as higher life expectancies were reached. However, it was recognized that such methodology had never been tried on the scale being proposed and that its results in terms of mortality convergence, crossovers of mortality levels between countries, and the eventual shape of mortality schedules at very high life expectancies might need revision.

It was agreed that international migration was perhaps the most difficult component of population change to project, even over the short run. Past trends in international migration are poorly measured in most countries. Furthermore, existing data indicate the high volatility of international migration and the fact that countries have often changed from being net senders of international migrants to being net receivers. In addition, international migration levels are highly dependent on the policies of the countries involved. However, most experts agreed that non-zero levels of net

migration were likely beyond 2050 and should be included in the projections.

The Population Division is continuing work on the long-range population projections whose results are expected by the end of 2003. The report of the meeting of the Technical Working Group together with the background paper presenting the Population Division's proposed assumptions will be issued as a working paper by September 2003.

COMMISSION ON POPULATION AND DEVELOPMENT

The thirty-sixth session of the Commission on Population and Development was held at United Nations Headquarters from 31 March to 4 April 2003. Its central theme was population, education and development.

The documents before the Commission included a report on world population monitoring, focusing on the theme of the session. The report provided recent information on selected aspects of population, education and development, covering topics such as: trends in the total and school-age population and trends in school enrolment, literacy and educational attainment; education and entry into reproductive life; the interrelationships between education and fertility; education, health and mortality; education and international migration; progress in meeting the international goals. Other reports covered the inter-session meeting of the Bureau of the Commission; monitoring of population programmes focusing on population, education and development as contained in the Programme of Action of the International Conference on Population and Development; flows of financial resources for assisting in the implementation of the Programme of Action of the International Conference on Population and Development; world demographic trends; and programme implementation and progress of work in the field of population in 2002.

The Commission considered follow-up actions to the recommendations of the International Conference on Population and Development and adopted a resolution concerning population,

education and development. In that resolution, the Commission requested the Population Division of the Department of Economic and Social Affairs of the Secretariat to continue its research and requested the United Nations Fund to continue its programming, in close collaboration with all relevant bodies, funds, programmes and agencies of the United Nations system, including the United Nations Educational, Scientific and Cultural Organization, on the linkages between population, education and development, including the relationships between population factors and the attainment of the goals of Education for All. It further requested that the Population Division incorporate the findings from this and other related research on population, education and development in its contribution to the next review and appraisal of the implementation of the Programme of Action of the International Conference on Population and Development and, as appropriate, to other relevant conferences and reviews, including the regular reviews of the Dakar Declaration and the Declaration of Commitment on HIV/AIDS.

The Commission approved the draft provisional agenda for its thirty-seventh session, to be held in New York from 22 to 26 March 2004, and adopted its report on its thirty-sixth session.

The documents presented at the Commission on Population and Development can be accessed on the web site of the Population Division at <http://www.unpopulation.org>.

WORLD POPULATION MONITORING ON POPULATION, EDUCATION AND DEVELOPMENT

From the founding of the United Nations, education has been recognized as one of the essential underpinnings of human development and societal progress. The right to education is proclaimed in the Universal Declaration of Human Rights (1948), and the importance of education with respect to population and individual development has been strongly endorsed in major United Nations conferences and summits. The World Conference on Education for All, convened in Jomtien, Thailand, in 1990, established goals and strategies to achieve Education for All (EFA). Recently, at the World Education Forum (Dakar, 2000), the Millennium Summit in 2000 and the special session of the General Assembly on children in 2002, the international community of nations explicitly recognized that education, especially primary schooling, is critical for achieving social and demographic progress, sustained economic development and gender equality. Achieving universal primary education and eliminating gender disparities in education are among the key objectives of the United Nations Millennium Declaration (2000).

The importance of education with respect to population and individual development has been strongly endorsed in major United Nations conferences and summits.

The importance of education has also been stressed in the series of international population conferences. The Programme of Action of the International Conference on Population and Development (1994) adopted quantitative goals related to education, endorsing the Jomtien EFA goal regarding elimination of illiteracy, and also calling for universal access to primary education before 2015 and elimination of the gender gap in primary and secondary education by 2005. In 1999, the key actions for the further implementation of the Programme of Action of the International Conference on Population and Development further specified an intermediate goal of achieving by 2010 a net primary school enrolment ratio for children of both sexes of at least 90 per cent, and also noted a particular need for improving the retention rate of girls in primary and secondary schools.

In the field of population studies, it has long been recognized that education is strongly related to a broad range of demographic behaviours. The spread of education throughout a population has been shown to be of central importance for the long-term demographic transition from high to low levels of fertility. In fact, it has been maintained that high levels of fertility would nowhere persist for long once a society had achieved “mass education”, that is to say, once a large majority of children were sent to school. More recent trends have generally borne this out.

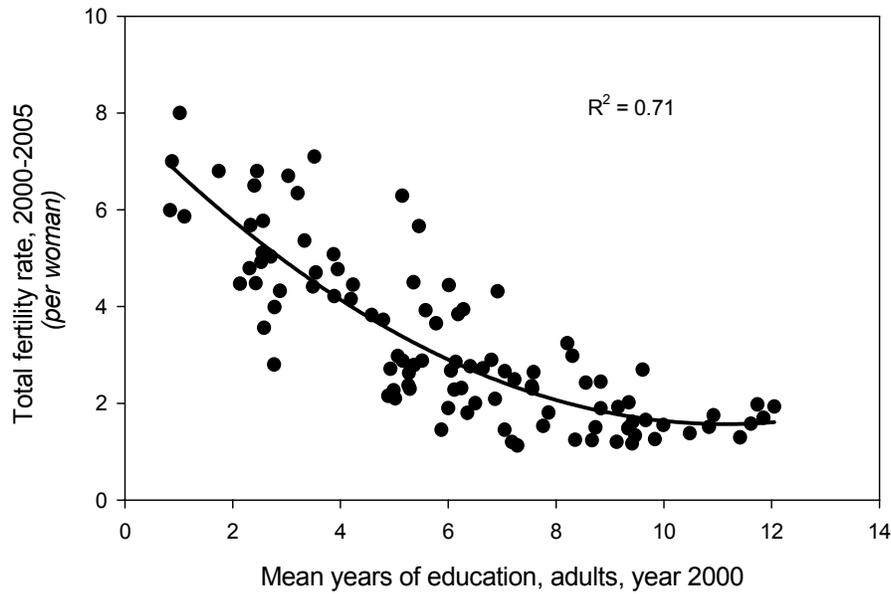
At present, educational attainment is strongly related to differences between countries in levels of fertility and mortality (figures I and II). In general, such cross-national associations may reflect the effects of education on demography, and the effects of demographic factors on education, as well as the joint effects of other factors that may separately influence both education and demographic variables. In fact, a substantial body of research has been directed towards examining each of these important relationships, and it is generally accepted that education both influences and, over time, is influenced by demographic factors.

The 2003 edition of the World Population Monitoring Report series focusses on the relationships among population, education and development. The report provides a review and update of the relationships between education and the main demographic factors, with attention to entry into reproductive life; fertility, desired family size and practice of family planning; mortality and health; and migration, with a focus on international migration. Also examined was the progress made toward meeting the goals of Education for All.

The conclusions of the Report are summarized below.

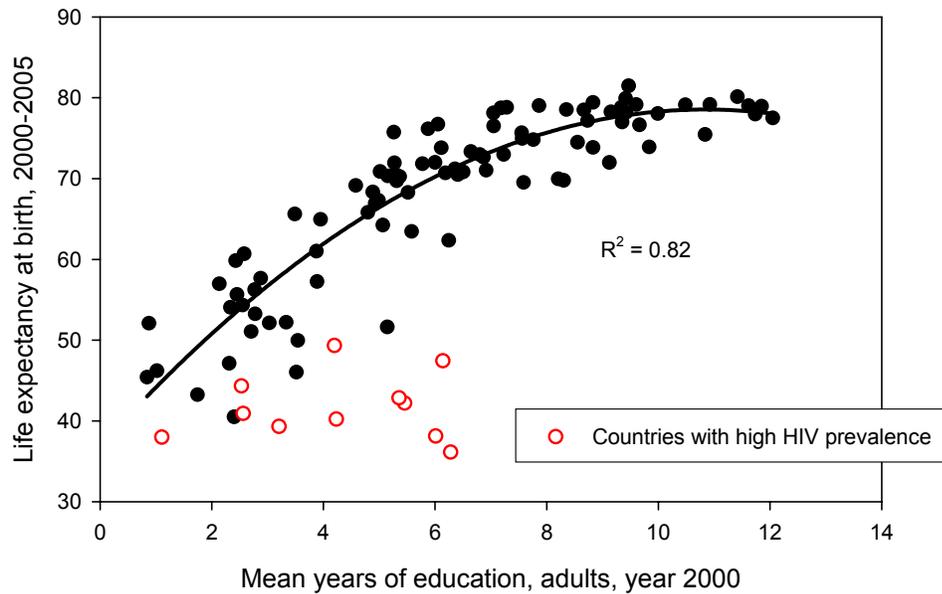
For low-income countries, expansion of primary education represents the best investment.

Figure III. Total fertility rate, by mean years of education



Sources: R. J. Barro and J. Lee, *International Data on Educational Attainment: Updates and Implications*, CID Working Paper, No. 42 (Cambridge, Massachusetts, Harvard University, 2000); and *World Population Prospects: The 2000 Revision*, vol. I, *Comprehensive Tables* (United Nations publication, Sales No. E.01.XIII.8 and Corr.1).

Figure IV. Life expectancy at birth, by mean years of education



Note: Countries with estimated HIV prevalence above 10 per cent for adults aged 15-49 are shown separately and are not included in the regression equation.

Sources: R. J. Barro and J. Lee, *International Data on Educational Attainment: Updates and Implications*, CID Working Paper, No. 42 (Cambridge, Massachusetts, Harvard University, 2000); and *World Population Prospects: The 2000 Revision*, vol. I, *Comprehensive Tables* (United Nations publication, Sales No. E.01.XIII.8 and Corr.1).

Relationships of education and development:

- Increased education makes an important contribution to societies' economic growth and to the economic fortunes of individuals. Evidence also suggests that for low-income countries, expansion of primary education represents the best investment. For middle-income countries, where primary education is typically already widespread, increased investment in secondary education tends to have a greater impact on economic growth.

- Illiteracy is a powerful predictor of poverty. A large body of research shows that primary education has a catalytic role in improving economic and social conditions among the poorest segments of society, including poor women and girls, rural dwellers and minorities. An important conclusion is that the expansion of educational opportunities is one of the most powerful tools for improving the conditions of the poor. Another important conclusion is that the expansion of educational opportunities is one of the most powerful tools that Governments have for promoting both income growth and equality.

- In some settings, the direct economic returns to women's education are limited because women are excluded from many types of employment. Nevertheless, studies of economic returns to education for individuals demonstrate that the returns from increasing women's schooling are, on average, even larger than the returns from increasing men's schooling.

Growth of the school-age population and meeting the goals on school enrolment and literacy:

- The enormous growth in the numbers of school-age children has presented a formidable challenge to countries in the less developed regions. Worldwide, the school-age population comprises about 2 billion persons, more than double that of 1950. Close to 90 per cent of the school-age population lives in the less developed regions. In Africa alone, the school-age population comprises 330 million persons, nearly four times as many as in 1950.

- Between 2000 and 2050, nearly 300 million persons are expected to be added to the world's school-age population. Over 350 million—a 20 per cent increase—are expected to be added in the less developed regions. Over 90 per cent of this increase is projected to occur in Africa, whose school-age population is projected to double from 330 million

in 2000 to 660 million in 2050. The school-age population of Nigeria alone will increase by 34 million (nearly 70 per cent).

- The school-age population of the more developed regions is expected to decline by over one fifth between 2000 and 2050—by about 60 million. The school-age population of Europe is projected to decline by 70 million (40 per cent). In contrast, the school-age populations of both Northern America and Australia-New Zealand are expected to rise by 20 per cent—by 16 million in the case of North America and by 2 million in the case of Australia-New Zealand.

- An estimated 862 million adults in the world were illiterate in 2000. Four countries — Bangladesh, China, India and Pakistan—account for close to two-thirds of the world's illiterate population.

- The Dakar goal, adopted in 2000, requires a 50 per cent improvement in national literacy rates by 2015. If present trends continue, about 25 developing countries are likely to reach this goal. Another 58 countries are poised to achieve an improvement of 30-50 per cent in their illiteracy rate. The remaining 30 countries, many among those with the lowest literacy levels in the world, are projected to reduce illiteracy by less than 30 per cent.

- Two-thirds of the world's illiterate adults are women. Gender gaps remain large in many countries, especially in Africa and Asia. For example, in sub-Saharan Africa in 2000, 29 per cent of young women (aged 15-24) were illiterate, as compared with 19 per cent of young men, and in South and West Asia, the figures were 39 per cent for young women and 23 per cent for young men.

In 2015, if current trends are maintained, there will still be 507 million illiterate women compared with 292 million illiterate men.

- Literacy rates among women have been improving at a faster pace than among men. However, in 2015, if current trends are maintained, there will still be 507 million illiterate women compared with 292 million illiterate men.

- Progress in improving access to schooling was greater during the 1990s than during the 1980s. Yet, as of 1999/2000, an estimated 115 million children

of primary-school age were not in school. Nearly all (94 per cent) of those children live in the less developed regions.

- In most parts of the world, girls and women have traditionally received less education than boys and men. Over recent decades, there has been substantial progress in all regions in narrowing the gap between boys' and girls' enrolments and the gender gap in literacy. Yet the gaps remain large in many countries, especially in Africa and Asia. By contrast, in the more developed regions and in Latin America and the Caribbean, there exist today only small gender gaps in primary and secondary enrolments, and such differences as do exist are usually to the advantage of girls.

- At current rates of progress, 57 countries are unlikely to reach the goal of universal primary education by 2015. Furthermore, 41 of these countries, including some of those in Central and Eastern Europe, have experienced some backsliding in recent years.

Marriage, onset of sexual relations, fertility and family planning:

- Among both women and men, an early age at first marriage is more common among those with no education than among their educated peers.

- Women's age at onset of sexual activity is higher among those with higher levels of education. The evidence for men, however, is less clear.

- Education of women is a major factor influencing the start of childbearing. In developing countries, the proportion of adolescents that have started childbearing is 3 to 5 times as high among adolescents with no education as among those with a secondary or higher education.

The impact of education on fertility is significant, both at the aggregate level and at the individual level.

- The impact of education on fertility is significant, both at the aggregate level and at the individual level. Globally, countries with higher female literacy rates and educational attainment have lower total fertility rates than countries whose populations have lower education levels.

- The impact of family size on children's education in most settings is generally found to be

weak in comparison with other social factors—household poverty, for instance. However, in some countries, unwanted and excess fertility has been found to reduce children's educational attainment, and adolescent girls who become pregnant often drop out of school.

- Within countries, fertility decreases as educational attainment increases. The largest fertility differentials by education are found in sub-Saharan Africa, Western Asia, and Latin America and the Caribbean, where women with a secondary or higher education ultimately have, on average, about 3 children fewer than women with no education. Differentials in fertility by educational level are much smaller in developed countries than in developing countries.

- In developing countries, husband's higher education is also related to lower completed fertility, but its effect is weaker than that of wife's education. In developed countries, there is only a slight difference (less than one half child) between the family size of the least educated men and that of the most educated men.

- The relationship between educational attainment and fertility evolves depending on the stage a society has reached in the fertility transition. The difference in total fertility between the lowest and the highest educated tends to widen at the beginning of the fertility transition. The difference narrows as the fertility transition proceeds further, low-fertility norms become diffused throughout the society and family planning services become accessible to all.

- Women with higher levels of education desire smaller families. Education differentials in the ideal number of children women report are greatest in sub-Saharan Africa, where women with no education desire to have, on average, 2 children more than women with a secondary or higher education.

- In general, women in developing countries want fewer children than they actually have and this gap varies across educational groups. The gap between desired and actual fertility is larger among women with no education or primary education than among women with a secondary or higher education. This is particularly true in Latin America and the Caribbean where the difference between wanted fertility rates and actual fertility rates among women with no education is almost twice as large as the equivalent difference among highly educated women.

- In the developing countries, contraceptive prevalence varies considerably across educational strata, there consistently being a higher prevalence among better-educated women than among women with low or no formal education. Even a small amount of schooling has a significant impact on contraceptive behaviour. Contraceptive-use differentials by education are most marked in sub-Saharan Africa, the region with the lowest level of education and the lowest level of contraceptive prevalence. In Africa, the proportion using contraception among women with a secondary or higher education is more than 3 times as high as that among women with no education. In the developed countries, where contraceptive prevalence is already high, differentials in contraceptive use by level of education are small.

Health and mortality:

- Declining mortality has acted to accelerate the growth of the school-age population. Even though this has the short-term effect of requiring the provision of enough teachers and schools, mortality decline also means that less of the costly investment in educating children is lost to premature death. In economic terms, declining mortality increases the returns to investments in education, since more of the children who receive schooling survive to become productive workers, parents and, eventually, elders.

Better-educated people and their family members appear to stay healthier and to live longer lives.

- Of the socio-economic variables that have been found to be associated with differentials in health and mortality, education is among the strongest and the most consistent. Wherever the relationship has been examined, better-educated people and their family members appear to stay healthier and to live longer lives. For example, in many developing countries, the better educated have greater knowledge of how to prevent HIV infection.

- In the more developed regions, education differentials in adult health and mortality are well documented. Evidence suggests that education differentials in mortality within developed countries are widening as better-educated persons increase their relative survival advantage over the poorly educated.

- In developing countries, studies have shown that those with less education have: higher maternal

mortality, children with higher under-five mortality, less knowledge of key health interventions, lower levels of immunization coverage, and lower nutritional status. Access to proper care during pregnancy and delivery is also sharply differentiated by the level of a woman's education.

- HIV/AIDS is a threat to the survival of education systems in many high-prevalence developing countries. High levels of teacher attrition and absenteeism because of HIV/AIDS-related illness challenge the education systems of such countries. The epidemic inflicts heavy burdens on students and their families, often resulting in declining school enrolments and increasing dropout rates. As education systems are weakened by the HIV/AIDS epidemic, teaching and learning are becoming less effective and accessible for large segments of the populations of a growing number of developing countries.

International migration:

- Education is increasingly taken into consideration as a key characteristic by countries that apply admission and residence criteria for the admission of immigrants. This has long been the case among the traditional countries of immigration (Australia, Canada, New Zealand and the United States of America). As a result, these countries attract more educated migrants than receiving countries in Europe. However, since the second half of the 1990s, European and other receiving countries have also been enacting legislation placing emphasis on migrants' skills.

- The educational attainment of migrants varies widely depending on their region or country of origin. The distance between origin and destination, the reasons for migration and the age structure of different groups of migrants are some of the determinants of the differences observed.

Increasingly, student migration has paved the way for worker migration or permanent settlement.

- Increasingly, student migration has paved the way for worker migration or permanent settlement. Migrants educated in the host country might be at an advantage in finding employment locally. In some cases, student migration is used as a channel for clandestine labour migration. As recruitment of highly skilled professionals has become competitive, foreign students, especially those in

science and technology, are being seen as part of a qualified migrant workforce.

- Recent years have witnessed an increased international mobility of students. The stock of international students is concentrated mostly in developed countries. The United States, the United Kingdom, Germany and France are the leading destinations for people seeking education abroad.

- Foreign students originate in a wide variety of countries that often have geographical, historical and institutional linkages with host countries. Countries in Africa, Asia and Europe mostly attract students from within their respective regions. However, a preponderance of Asian students has been a characteristic of student migration to Australia and the United States.

In sum, it is abundantly clear that education plays a key role in national development, besides

being a prime component of individual well-being. Through education, individuals are empowered to have choices and make decisions, in such areas as work, place of residence, family size, health, lifestyle, and personal development. When aggregated, all these individual choices and decisions have dramatic consequences for a population. As the Secretary-General recently stated, “without the full development of a country’s human resources, development will not take root, and economic growth will not be sustained” for “educated individuals are far more able to contribute to the well-being and advancement of their societies” (Dubai Strategy Forum, 28 October 2002).

A copy of *World Population Monitoring 2003, Population, education and development* (ESA/P/WP.179) may be obtained by writing to the Director, Population Division, Department of Social and Economic Affairs, United Nations, New York, NY 10017, United States of America.

WALL CHART: WORLD POPULATION 2002

The Population Division has issued a wall chart entitled *World Population 2002* presenting the results of the most recent round of official United Nations population estimates and projections, the *2002 Revision of World Population Prospects*. The chart shows that the population of the world was 6.3 billion in mid-2003 and is projected to reach 8.9 billion by 2050 according to the medium variant. In 2003, 48 per cent of the world’s population lived in urban areas, 29 per cent was under age 15, and only 10 per cent was aged 60 or older. The disparities between more and less developed regions in terms of urbanization and population distribution by age were significant. In 2003, 76 per cent of the population in more developed regions lived in urban areas whereas just 42 per cent of that in the less developed regions did so. In more developed regions, 20 per cent of the population was aged 60 years or older but only 8 per cent of the population of less developed regions was in that age range. Similarly, whereas about a third of the population of less developed regions was young (under age 15), only a sixth of that in the more developed regions was less than 15 years old. The

wall chart presents similar indicators for 228 countries or areas as well as for 33 aggregates, including the world. In addition, for the period 2000-2005, the wall chart presents values for the following indicators: the annual population growth rate; the crude birth rate; the crude death rate; total fertility; life expectancy at birth; and mortality under age five.

The wall chart *World Population 2002* (United Nations publication, Sales No. E.03.XIII.09) may be obtained from the Sales Section, United Nations, New York or Geneva; through booksellers worldwide; or by writing to the Director, Population Division, Department of Economic and Social Affairs, United Nations, New York, NY 10017, United States of America. For more information on this and other outputs related to the 2002 Revision consult the web site of the Population Division at www.unpopulation.org or contact the Director, Population Division, Department of Economic and Social Affairs, United Nations, New York, NY 10017, USA (fax: 212-963-2147).

SELECTED WORK IN PROGRESS

The social and economic impacts of HIV/AIDS

The Population Division is completing a report entitled “The impact of HIV/AIDS”. This report focuses on the social and economic impacts of the HIV/AIDS epidemic in developing countries, especially those in sub-Saharan Africa. The study is a literature review and assessment of research findings dealing with the impacts of the epidemic. The report includes an updated overview of the demographic consequences of the epidemic, drawing upon the results of the 2002 Revision of World Population Prospects. The discussion covers the research results and methodology regarding the impact of HIV/AIDS on households, firms, agriculture, health, education, and the economy. The report will be released in 2003 as a working paper.

Living Arrangements of Older Persons Around the World

The Population Division’s work on a study that analyses levels and trends of living arrangements of people aged 60 years or over for more than 90 countries around the world is nearing completion. The study is based on new tabulations and published results from various sources, including population censuses, Demographic and Health Surveys and other representative sample surveys. The report discusses national and regional patterns of several aspects of living arrangements of older persons, including institutional living, solitary living, and a five-category classification focusing on co-residence with a spouse, with children, and with other relatives and non-relatives.

In addition to providing a detailed descriptive analysis of the data, the study examines how living arrangements differ according to selected economic, social and demographic characteristics of countries and individuals. The study also takes advantage of newly released data from a special survey on the older population in seven urban areas of Latin America and the Caribbean (the SABE survey), in order to include a brief analysis incorporating such factors as the number of living children and the flow of informal support transfers—factors that strongly affect or are affected by living arrangements, but that usually cannot be assessed through conventional data sources such as population censuses. The study will be released late in 2003.

Levels and Trends in Contraceptive Use as Assessed in 2002

Work is proceeding on “Levels and Trends of Contraceptive Use as Assessed in 2002”, to be released by the end of 2003. This report will contain chapters on levels and trends of contraceptive use based on the most recent data available from 162 countries and areas of the world. The analysis will be done both at the aggregate and country levels and both for the use of all methods of contraception combined as well as for that of specific methods. A chapter on the dynamics of contraceptive use will also be included in the report.

Preliminary results show that worldwide, contraceptive prevalence (the percentage of married or in-union women using any form of contraception) is estimated to have reached 61 per cent in 1997, up from 58 per cent in 1993. By 2025, world contraceptive prevalence is projected to increase to 66 per cent. Contraceptive use is higher in the developed regions, but the less developed regions are catching up rapidly, especially in terms of use of modern methods. In the future, contraceptive use is expected to increase only slowly, except in Africa where prevalence is projected to double between 1997 and 2025 in order for this continent to attain the changes in fertility that are projected for that period. This report is the fifth in the series on current levels and trends of contraceptive use carried out periodically by the Population Division. The first four reports were prepared in 1983, 1988, 1994 and 1998.

Database on the international migrant stock 1960-2000

The Population Division is revising its estimates of the international migrant stock since 1960 on the basis of more complete and recent information on the number of foreign-born or, in some cases, the number of foreigners enumerated by censuses. Estimates of the migrant stock by sex and by country for every decade starting in 1960 and ending in 2000 are being prepared and will be available in electronic form by the end of 2003. The completed database will include estimates of the number of international migrants in each country as of 1 July 1960, 1970, 1980, 1990 and 2000, together with the number and percentage of female migrants, the total population, the percentage of international migrants in each country, and the average annual growth rate of the stock of international migrants per decade.

TECHNICAL COOPERATION

The Technical Cooperation Programme of the United Nations Population Division focuses on capacity building for population research in developing countries and the use of information and communication technologies for that purpose. In planning its technical cooperation activities, the Population Division takes advantage of the synergies between those activities and its core activities in the analytical and normative fields.

Collaborative Networks

Through technical cooperation, the Population Division continues to support two networks of population research and training institutions: Demoneta and Demonetasia. Demoneta brings together francophone institutions in Western Africa and Demonetasia does the same for institutions in Asia. The Division assures the maintenance and gradual development of the web sites of those networks (<http://demoneta.org> and <http://demonetasia.org>). The benefits of those web sites go beyond the institutions formally related to each network. For instance, the web site of Demonetasia contains one of the most extensive collections of links to online resources relevant for population research worldwide. In addition, the Population Division maintains the Redeluso web site (<http://redeluso.org>), which is a portal to online population resources on the eight Portuguese-speaking countries of the world. The possibility of launching a fourth network for the anglophone countries of Africa is currently being discussed with institutions in the region.

Capacity Building for the Management of Population Documentation in Africa

The Population Division, in collaboration with the Demographic Research Unit of the University of Lomé and the Centre on Population and Development (Paris), organized a training workshop on software for documentation management (WIN-ISIS) that was held at the University of Lomé, Togo in February 2003, for the benefit of Demoneta institutions. An important outcome of the Workshop was the online publication of the library databases of four major institutions in the Demoneta network, namely, the National School of Statistics and Applied Economics (ENSEA, Côte d'Ivoire), the Demographic Training and Research Institute (IFORD, Cameroon), the Demographic Training and

Research Unit of the University of Ouagadougou (UERD, Burkina Faso) and the Demographic Research Unit of the University of Lomé (URD, Togo). The library catalogues of all these institutions can now be accessed interactively, a major innovative development for population libraries in Africa. The web addresses for the catalogues are:

<http://ceped.cirad.fr/wwwisis/ensea/form.htm>
<http://ceped.cirad.fr/wwwisis/iford/form.htm>
<http://ceped.cirad.fr/wwwisis/uerd/form.htm>
<http://ceped.cirad.fr/wwwisis/urd/form.htm>

Workshop on HIV/AIDS and Adult Mortality

One of the technical cooperation activities that takes advantage of synergies with the analytical and policy expertise in the Population Division is the Workshop on HIV/AIDS and Adult Mortality in Developing Countries that the Population Division will hold at United Nations Headquarters from 8 to 13 September 2003. The Workshop is a unique combination of a technical meeting and a training activity for African population specialists working in the area of HIV/AIDS in some of the countries most affected by the epidemic. The Workshop is one of the main components of the Development Account Training programme on the Demographic Impact of AIDS in Africa. About 20 trainees, most of whom are working currently in national statistical offices and or in the AIDS coordination bodies of African countries, will attend the Workshop. The objectives of this training activity are to give African trainees a good understanding of the broad demographic aspects of the HIV/AIDS epidemic, including methodological and data quality issues, and to make them aware of the crucial importance of adopting effective ways to communicate the results of research on population and HIV/AIDS. The Workshop will focus on ways of improving such communication, especially through the mass media. United Nations correspondents and DPI representatives will address the Workshop.

The Workshop will also include presentations by experts and active discussions between trainees and experts on the technical aspects of estimating the demographic impact of HIV/AIDS, measuring adult mortality levels in general, and projecting mortality levels in the presence of the epidemic. The effects of HIV/AIDS on a wide array of social and economic aspects will also be discussed in

conjunction with policy responses and programmes developed to meet the challenges posed by the epidemic. The last two days of the Workshop will be devoted to a discussion of opportunities and constraints in the use of demographic information to inform policy formulation and communication in the 15 countries represented.

Outreach programme

As part of its commitment to reach out to young population scholars, the Population Division organised a breakfast briefing for some 100 students from developing countries attending the Annual Meeting of the Population Association of America in Minneapolis, USA on 2 May 2003. In addition to the various aspects of the work of the Population Division, students were also briefed on employment opportunities for demographers at the United Nations.

POPIN

The technical cooperation programme of the Population Division maintains the web site of the United Nations Population Information Network (<http://popin.org>), which is a portal for all online resources in the United Nations system.

Population Division E-mail Alerts

The automated e-mail announcements service of the United Nations Population Division alerts subscribers to the issuance of new publications by the Population Division. Currently more than 900 subscribers have registered for this service. To subscribe, find the link to E-mail announcements on the Population Division's homepage at <http://unpopulation.org>.

RECENT PUBLICATIONS

Studies

World Population Monitoring 2003: Population, education and development
ESA/P/WP.179

World Urbanization Prospects: The 2001 Revision
ST/ESA/SER.A/216 – Sales No. E.02.XIII.16

Fertility, Contraception and Population Policies
ESA/P/WP.182

Levels and Trends of International Migration to Selected Countries in Asia
ST/ESA/SER.A/218 – Sales No. E.03-XIII.2

World Population Prospects: The 2002 Revision, Highlights
ESA/P/WP.180

World Population Prospects: The 2002 Revision, Executive Summary
ST/ESA/SER.A/222 (Available in Arabic, Chinese, English, French, Spanish and Russian)

World Population Prospects: The 2002 Revision, Volume I: Comprehensive Tables
ST/ESA/SER.A/222

Long-Range Population Projections: Proceedings of the United Nations Technical Working Group on Long-Range Population Projections, 30 June 2003
ESA/P/WP.181

Wallcharts

World Population, 2002
Sales No. E.03.XIII.9

Data in electronic form

World Urbanization Prospects: The 2001 Revision, Urban and Rural Areas
POP/DB/WUP/Rev.2001/1
Excel files on diskette: \$200

World Urbanization Prospects: The 2001 Revision, Urban Agglomerations
POP/DB/WUP/Rev.2001/2
Excel files on diskette: \$200

World Population Prospects: The 2002 Revision, CD-Rom
ST/ESA/SER.A/225
Excel and PDF files on CD-Rom: \$800

World Population Prospects: The 2002 Revision, Interpolated Population by Sex, Single Years of
Age and Single Calendar Years, 1950-2050, Supplementary Tabulations
POP/DB/WPP/REV.2002/1
Access database on CD-Rom: \$1,000

World Population Prospects: The 2002 Revision, Interpolated Indicators 1970-2010,
Supplementary Tabulations
POP/DB/WPP/REV.2002/2
Excel files on CD-Rom: \$200

COUNTRIES WITH MORE THAN 100 MILLION INHABITANTS IN 1950, 2003 AND 2050

(Population in millions)

1950			2003			2050		
Rank	Country	Population	Rank	Country	Population	Rank	Country	Population
1	China	555	1	China	1 304	1	India	1 531
2	India	358	2	India	1 065	2	China	1 395
3	United States of America	158	3	United States of America	294	3	United States of America	409
4	Russian Federation	103	4	Indonesia	220	4	Pakistan	349
			5	Brazil	178	5	Indonesia	294
			6	Pakistan	154	6	Nigeria	258
			7	Bangladesh	147	7	Bangladesh	255
			8	Russian Federation	143	8	Brazil	233
			9	Japan	128	9	Ethiopia	171
			10	Nigeria	124	10	Democratic Republic of the Congo	152
			11	Mexico	103	11	Mexico	140
						12	Egypt	127
						13	Philippines	127
						14	Viet Nam	118
						15	Japan	110
						16	Iran (Islamic Republic of)	105
						17	Uganda	103
						18	Russian Federation	101

Source: United Nations, *World Population 2002* (United Nations publication, Sales No. E.03.XIII.9).