

Winning the Battle Against Overpopulation

by R. T. Ravenholt

There are encouraging signs that the world has begun to turn the tide against runaway population growth and victory can be achieved in the next few decades.

Family planning programs are alive and well in the developing world. Programs in the vanguard have already had startling impact on fertility. These include programs in Singapore, Hong Kong, Taiwan, Korea, Barbados, Costa Rica, Chile, Mauritius, Reunion, and Egypt.

No one has yet identified a population whose fertility is immune to appropriate availability of the effective means of fertility control. The most notable discovery of recent years is that poor and illiterate peasants use effective means of fertility control to approximately the same extent as literate urban residents when these means are made fully available in rural areas.

Most of the technological and strategical difficulties which retarded family planning programs' progress in many developing countries during the 1960s have now been solved. It is now apparent that the bulk of the international population program assistance needed to enable developing countries to control their fertility can be accomplished during the next decade.

These summary perspectives are derived from my 10 years experience as director of the population program of the United States Agency for International Development, which through fiscal 1975 had provided \$732 million for population program assistance—more than half of all such assistance to the developing world.

A decade ago, in 1965, when the United States changed its policy to provide assistance to developing countries for programs relating to population growth, the world growth rate

was approximately 2% a year, which resulted in an annual increment of 66 million people (see accompanying box).

At that time there was awakening recognition of the magnitude and severity of the world population crisis in only a few countries; less than 20 developing countries had initiated family planning programs; most countries were politically opposed to the concept of population and family planning assistance; and funds for international population program assistance were available only in limited amounts from several American foundations, the International Planned Parenthood Federation, and the government of Sweden.

Although oral contraceptives and intrauterine devices had been introduced in the early 1960s, large uncertainties and deficiencies existed concerning both the technology and strategy of fertility control programs.

Since then, the world population scene has changed with great speed, in considerable measure due to the initiative and resources provided by the United States and other donors and increasingly effective action by a number of developing countries.

The Present Situation

Today, after a decade of concerted action, the world population situation is greatly changed:

- The majority of nations now recognize population growth as a key developmental variable and are dealing with it forthrightly.
- The World Population Year—1974—and the World Population Con-



Population worker offers medical care for families as one way of encouraging mothers to visit his office and learn about contraceptive methods.

Photo: Carl Purcell, AID

Education of Children

"If developing countries are to be serious about attaining the sorts of goals they are setting for themselves, they will need to focus their attention on the education of children, the next generation of reproducers, to develop attitudes moving toward the concept of the two-child family. If these children grow up in the belief that it is desirable, sensible and good for them to have no more than two children, the world may still be a reasonably decent place to live 25 years from now." □

—Philander P. Claxton, former Special Assistant to the U.S. Secretary of State for Population Matters, in a speech before the International Population Conference of the World Population Society, Washington, D.C., November 1975.

ference in Bucharest that year, the World Population Plan of Action approved there by 136 nations and calling for provision of family planning information and means to all individuals and couples, and the International Women's Year Conference in Mexico City in 1975, have greatly increased awareness of population problems and the acceptability of action programs.

- Most nations have removed restrictions on provision of family planning information and means to their populations, and more than 50 nations now have national family planning programs—many of them far advanced.

- Rapid improvement in fertility control technology has been accomplished during the last several years, with rapidly increasing availability of high quality colored and lubricated condoms, lower-dose oral contraceptives with iron tablets, and simplified techniques of female sterilization and pregnancy termination which now permit such surgery to be performed as an outpatient procedure under local anesthesia.

Sterilization is now the most popular method for fertility control, with more than 65 million couples throughout the world using either male or female sterilization. There is extraordinary demand for sterilization services, especially female. We estimate that there are more than 50 million couples in developing countries who would control their fertility by sterilization if these services were appropriately and readily available.



Family planning worker visits a group of women near New Delhi. Ravenholt says that India's fertility problem is not mainly due to peasant desire for large families, but rather because the people have not been given adequate options for fertility control.

Photo: Carl Purcell, AID

We are now poised to extend high quality surgical services for sterilization throughout the developing world by 1980, using available technology and building upon training programs that are already substantially advanced. When we train a surgeon from a less developed country in the new techniques, which allow for a simplified out-patient sterilization, it has a great multiplier value. The doctor interests his colleagues in learning the new technique, and patients find that their friends are interested in receiving treatment when they learn how easy it is.

The result is that sterilization now occupies the number one spot among fertility control techniques, a spot that leading population organizations a decade ago had predicted would be held by the IUD. Intrauterine devices now rank last among the main contraceptive methods. The estimated number of users of the main contraceptive methods throughout the world in 1975 were approximately as follows:

Sterilization	65 million
Oral contraceptives	55 million
Condoms	30 million
IUD's	15 million

(In addition, an estimated 40 million pregnancies were terminated by induced abortion.)

The main limitation of the IUD has been the unsolved problems of bleeding and discomfort, necessitating considerable aftercare. Actually, IUD insertion is a fairly simple procedure, but aftercare of women with problems requires greater training and judgment.

Voluntary sterilization has much potential because of simplified pro-

cedures and almost zero aftercare requirements. Furthermore, both male and female surgical sterilization is now becoming a reversible procedure for the majority of men and women, if expert reconstructive surgical services are available. So sterilization has become the foremost method in many countries.

Both communist and capitalist economists have long believed that the principal determinant of fertility change is economic change. Certainly on a number of occasions, such as the Great Depression, this was true. But recent fertility changes, especially in the developing countries, now indicate that very large decreases in fertility occur when effective means of control are available, regardless of where those countries are on the developmental scale. Hence, fertility decrease can precede and can contribute to economic development, rather than necessarily succeeding it.

It is also clear, as shown in the cases of Brazil, Mexico, and Venezuela, that large increases in per capita GNP can occur without any important change in fertility.

Basis for Optimism

Many people have feared that even with full availability of fertility control methods, people would continue to have too many children. But there appears to be a sound basis for optimism: Where in the world is there a country in which people truly have the freedom and the means to control their fertility and yet are not doing it? The situation is especially encouraging in those countries where women have access to hindsight (abortion) as well as foresight (contraceptive)

World Demographic Situation

	1965	1974
World population total	3.2 billion	3.88 billion
Average world birth rate	34 per 1000	28.1 per 1000
Average world death rate	14 per 1000	11.8 per 1000
Annual population growth rate	2%	1.63%
Annual increment in population	66 million	63 million

A comparison of the figures for world population in 1965 and 1974 reveals a downward trend in birth rates which author R. T. Ravenholt says will increase in the years to come. The annual growth rate dropped from 2% in 1965 to 1.63% in 1974—resulting in a decrease in the annual increment in population from 66 million in 1965 to 63 million in 1974.

methods of fertility control. Bearing and rearing children is hard work, and few women have unlimited enthusiasm for the task when they are offered true freedom of choice, and when other factors predisposing to large birth rates (such as infant mortality and old-age security) are under control.

Family planning programs have already largely accomplished their purpose in a number of developing countries—Singapore, Hong Kong, Taiwan—where information and the most effective means have been made generally available and where birth rates last year were approximately 20 per 1000. A striking difference in fertility patterns is apparent in countries which instituted vigorous family planning programs during the 1960s when

compared with countries without such programs.

Most of the developing countries which undertook vigorous family planning programs during the 1960s were relatively small, but during the last few years some of the most populous countries have made similar rapid progress. The Philippines and Indonesia are examples of countries where effective donor action, mainly by AID, has made a crucial difference in the speed with which countries have been able to deal with their serious population and development problems. In 1967, when AID began population program assistance in these two countries, their birth rates were at the traditional high level of more than 45 births per 1000 population, their national policies and laws were opposed to family planning, there was a great dearth of trained personnel, and the people were almost entirely unfamiliar with family planning techniques. Today, both of these countries have revised their relevant laws and policies, thousands of persons have been trained, national programs achieving extensive availability and use of contraceptives have been implemented, and preliminary evidence indicates birth rates are decreasing rapidly.

While there is progress in many more countries, these programs are not yet sufficiently advanced so that we can judge when international assistance will no longer be essential. These include India, Pakistan, Afghanistan, Nepal, Bangladesh, a number of Latin American countries, and most African countries.

India, which began a much publicized family planning program in 1965, is sometimes cited as a country where family planning has "failed," but to the extent India implemented its family planning program, it did not fail. Unfortunately, India has only implemented part of a family planning

program: oral contraceptives have been almost entirely omitted from the Indian program (despite AID offers of generous supplies of these contraceptives), condoms are of poor quality and IUD's, sterilization, and abortion services are far from fully and adequately available. Nevertheless, some Indian states made good progress, and during the decade from 1965 to 1974, the Indian birth rate decreased from approximately 44 to 36 per 1000, an 18% decrease. If all effective fertility control means, including oral contraceptives and surgical services, had been generally available during the last decade, it is likely that India's birth rate would now be less than 26 per 1000.

Recent news stories report that Indian authorities are actively considering compulsory sterilization. Although I agree that more effective family planning is needed in India, I feel strongly that compulsory sterilization is unnecessary and would be counter-productive.

India's excessive fertility problem is not mainly due to lack of peasant desire to control fertility, but rather to the extraordinary ineptitude of the bureaucracy, which results in a lack of fertility control options for the population. What is needed is more availability of family planning services, including oral contraceptives, improved condoms, and surgical services for voluntary sterilization, both male and female.

Omission of oral contraceptives from India's program has long been a glaring defect. India's program is currently supplying these most effective contraceptives to less than .50,000 women, whereas Indonesia already has 1,750,000 women using this form of contraception. World experience indicates that if oral contraceptives



R. T. Ravenholt, Director of the Office of Population for the U.S. Agency for International Development, says that international assistance for population control can achieve most of its goals within the next 10 years.

World Plan of Action

"All couples and individuals have the basic human 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 responsibility of couples and individuals in the exercise of this right takes into account the needs of their living and future children, and their responsibilities towards the community." □

From the *World Plan of Action*, adopted at the United Nations World Population Conference, Bucharest, August 19-30, 1974.



Congested area of Bombay shows need for family planning programs in India. Author Ravenholt says that India has not yet made available to all its people the most effective methods of fertility control.

Photo: Carl Purcell, AID

were made consistently available at the village level in India, as is the case in Indonesia and Pakistan, more than 12 million Indian women would soon be using them. Adequate supplies are readily available to India from international donors, but have not been requested.

It is estimated that about 15 million women in India would accept sterilization now if good quality surgical services were available to them. A substantial cadre of well-trained Indian surgeons is available to begin such a program. What is needed is additional trained personnel, surgical supplies, and fiscal and organizational support for the application of their services. To entertain thoughts of compulsory sterilization before such services are made fully available is grotesque.

Effective Program in China

China, by contrast, has implemented a powerful fertility control program during the last decade, with emphasis upon delay of marriage, planning of births, and full availability of the most effective means of fertility control—oral contraceptives, sterilization, and abortion. China is estimated to have about 876 million people, or 22% of the world's population.

No official report has been made to international agencies, but the mosaic of data emerging during the last several years suggests that the Chinese program is highly effective and may already have lowered China's birth rate to approximately the United States level of 15 per 1000 in 1975.

World Demographic Situation

A recent comprehensive analysis of world fertility and mortality rates indicates that in the period from 1965 to 1974, the birth rate declined 5.9 points, from 34 to 28.1 live births per 1000 population—a decline of 19%. In the same period the world death rate fell 2.2 points, from 14 to 11.8 deaths per 1000 population (16%). (See accompanying box.)

The resultant decrease in the world population growth rate, from 2% in 1965 to 1.63% in 1974, reverses the historical trend toward increasing population growth rates and sets the stage for even more rapid decrease during the decade ahead.

The annual increment in world population—the product of the world population times its growth rate—was approximately 66 million in 1965 and 63 million in 1974. But the peak annual population increment occurred

about 1973, with approximately 70 million people added that year. An accelerating downward trend is now underway.

Had the annual population growth rate continued unabated from its 2% peak in 1965, the 1974 population increment would have been approximately 78 million people (2% times 3.88 billion), instead of the actual increase of approximately 63 million.

Future Trends and Needs

While major changes have occurred in the world population situation during the last decade, much more work needs to be done. In addition to insuring that each effective means of family planning is readily available to all classes of people—especially in rural areas—throughout the developing world, vigorous educational efforts are needed to achieve full utilization of available services.

A mobile unit brings the facilities for vasectomies to a city street. A "motivator," at right, explains the program to passersby and tells them of the payment given to each man who is sterilized.

Photo: Carl Purcell, AID



Because of the built-in momentum for population growth that characterizes developing countries which have disproportionately large numbers of children, an extra measure of action is needed to achieve satisfactory control of population growth.

But it is now apparent that essential international assistance for population and family planning, even in large and difficult countries such as the Philippines and Indonesia, can be accomplished within a time frame of about 10 years and at a total average cost of about one dollar per capita. At the end of such a decade of international population program assistance, the less developed country would ordinarily have formulated appropriate

population policies, achieved country-wide availability and use of effective means of fertility control, and birth rates would be moving down rapidly.

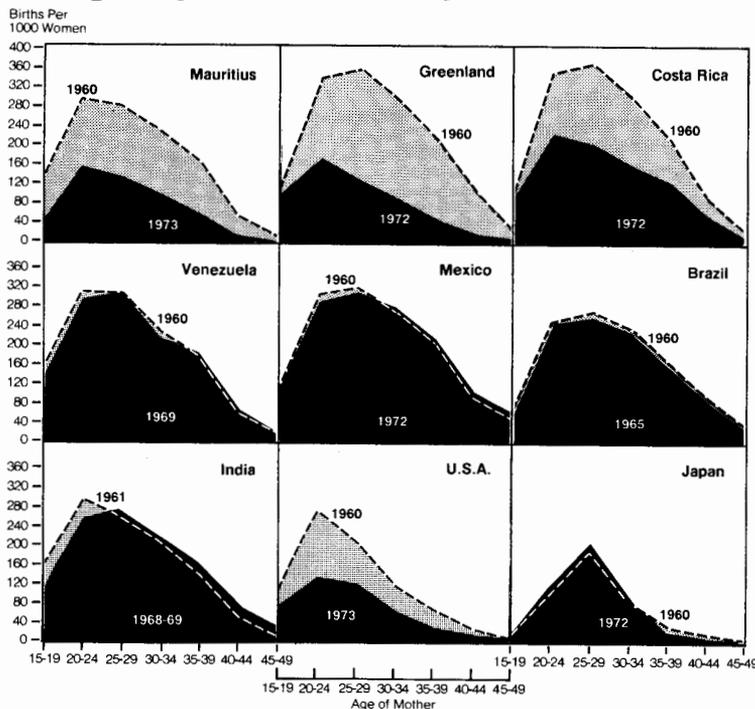
Furthermore, it appears that essential U.S. population program assistance on a global basis could be largely accomplished during the 20 years from 1965 to 1985—if the U.S. Congress provides steadfast and strong support for this program during the second decade of its operation, as it has during the first decade. The level of funding needs to be increased to about \$250 million per annum and maintained there for a number of years. The total cost of this 20 year program of U.S. assistance for resolution of the world population crisis should be less than \$3 billion.

With strong action for an additional decade, it should be feasible to bring the world birth rate below 20 per 1,000 and the world population growth rate below 1% by 1985. And if this is accomplished, then the world population total should be less than five and one half billion in the year 2000. □

R. T. Ravenholt, M.D., is Director, Office of Population, U.S. Agency for International Development, U.S. Department of State, Washington, D.C. 20523.

The foregoing article is based in part on a speech before the World Population Society's International Population Conference, Washington, D.C., November 21, 1975.

Age-Specific Fertility Silhouettes



Fertility silhouettes depict graphically the number of live births per 1000 women in each five-year age group throughout reproductive life (ages 15-49). Age-specific fertility rates declined notably during the 1960s and early 1970s in countries where vigorous family planning programs were established. Mauritius, Greenland, and Costa Rica are examples of such countries. On the other hand, fertility declined very little during this period in countries where governments did not support or allow family planning programs, as in Venezuela, Mexico, and Brazil. India's family planning program has been implemented only partially, and does not yet make oral contraceptives fully available. The United States shows a significant drop in fertility between 1960 and 1973, but, as shown on the left side of the silhouette, teenage pregnancies (often illegitimate and unwanted) continue at a substantial rate in the United States. Japan shows the most ideal age-specific fertility pattern, with births nicely concentrated in the 20s and early 30s, and very little teenage pregnancy.

Prepared for the Office of Population, U.S. Agency for International Development, by the International Statistical Programs Center, U.S. Bureau of the Census, October 1975.

Breaking the Vicious Circle

Population experts hope to break the vicious circle that keeps the underdeveloped countries poor.

Russell W. Peterson, Chairman of the President's Council on Environmental Quality, recently explained the vicious circle in these words: "Most developing nations retain their predominantly agricultural base; hence, children continue to be valued as workers in agriculture or other labor-intensive occupations. In addition, because most developing nations lack any organized provision for the elderly, children are still regarded as social security—as a sort of insurance against deprivation in old age.

"Thus a destructive cycle is set up. Developing nations find it difficult to generate a capital surplus because everything they produce is consumed by a rapidly growing population. Lacking that capital surplus they cannot purchase the technology—agricultural as well as industrial—to speed economic growth. Lacking economic growth, they cannot establish mass-education systems that would develop their human potential, nor have their governments the funds to establish some form of social security. Lacking any assurance of provision for old age, finally, people in the developing nations go on producing children at rates which guarantee continuing hunger, malnutrition, and—periodically—starvation." □