# Population, Health, and Nutrition Highlights

Three decades of support from USAID for population, health, and nutrition have reduced mortality and fertility in the developing world. Millions of lives have been saved. USAID's strategy for stabilizing world population and protecting human health centers on sustainable reductions in four areas: unintended pregnancies, child mortality, maternal mortality, and sexually transmitted infections and HIV transmission. The Agency's technical leadership has led to innovations, such as case management for acute respiratory infections, that affect health worldwide.

# Reducing Unintended Pregnancies

Programs to reduce unintended pregnancies have contributed to women's reproductive health. USAID's efforts have contributed to an average fertility rate in developing countries of four children per woman compared with six children in the 1960s. USAID supports the Cairo Program of Action, a comprehensive vision of development adopted by more than 180 countries at the International Conference on Population and Development, held in September 1994.

■ USAID's Women's Reproductive Health Services Expansion project shows promise. The project integrates family planning and reproductive health efforts. In Central Asia, data from 33 project sites in four countries indicate a 58 percent increase in new contraceptive users and a 30 percent decrease in induced abortions.

#### **Reducing Child Mortality**

1995 marked the 10th anniversary of the USAID child survival program. The program has played a vital role in preventing childhood illness and reducing child mortality. Infant mortality in developing countries (excluding China), has declined 20 percent from 96 deaths per 1,000 live births in 1985 to 77 in 1995.

■ Following the eradication of polio in the Western Hemisphere in 1994, accomplished with USAID's support, the United States launched a global initiative in 1996 to help eradicate polio worldwide.

■ USAID supported development and testing of a new approach to care for sick children. Analyses confirm this integrated management is one of the most cost-effective public health interventions. In 1995, USAID began worldwide introduction of the approach, which combines interventions in one package.

## Reducing Maternal Mortality

USAID develops models for delivering prenatal, postpartum, and lifesaving obstetric care, and tests and adapts them. USAID-sponsored research helps to validate interventions to reduce maternal mortality. The interventions, adopted by USAID and its partners, have begun to save mothers' lives.

■ A study of the treatment of sexually transmitted infections in pregnant women is under way in Uganda. Preliminary results show lower prevalence of syphilis, trichomoniasis, and bacterial vaginitis in the post-partum period for women treated during pregnancy.

# Reducing Sexually Transmitted Infections

Since 1986, USAID has led the international response to HIV/AIDS. Through its support in more than 40 countries and its commitment of more than \$700 million, the Agency concentrates on reducing the spread of HIV and other sexually transmitted infections and on mitigating the pandemic's impact on sustainable development.



■ In the Philippines, the HIV infection rate is still one of the lowest in Asia. Mass media, outreach, and peer counselors promote behavioral changes that reduce HIV transmission. These efforts have had an effect: the HIV seroprevalence rate among groups that practice high-risk behaviors remains at the 1993 baseline of less than 1 percent. ■ Increasing condom use is critical to prevent transmission of HIV and other sexually transmitted infections. Condom sales have increased dramatically in many countries: in Kenya, monthly sales increased almost 20-fold from 1990 to 1995, from 26,000 to 500,000.

# Stabilizing World Population And Protecting Human Health

Three decades of support from USAID for population, health, and nutrition programs have provided a critical contribution to the reduction of mortality and fertility rates in the developing world. As a result of USAID's efforts, millions of lives have been saved. Millions of people have access to appropriate health care and family planning services.

USAID's strategy reflects both the urgency and the human consequences of the high rates of population growth and of mortality, particularly among children, in developing countries. Actions taken during this decade will determine when and at what level the world's population will stabilize. Millions of young people are entering their reproductive years. Even under the medium fertility assumption of the United Nations, world population, now at 5.7 billion, will reach 10 billion by the year 2050. Current estimates are that more than 12 million children under 5 still die each year in the developing world, most from preventable causes.

More than 150 million women have expressed an unmet need for family planning. The high levels of fertility that result from unintended pregnancies translate into rapid population growth, which impedes economic growth, contributes to environmental deterioration, and strains fragile political and social institutions. Promoting family planning for birth spacing has multiple positive outcomes: Increasing time between births reduces risk to the older infant, and improved child survival contributes to lower desired fertility. High death rates among children also tend to encourage high fertility.

Family planning also benefits maternal health, because unintended pregnancies increase maternal mortality. The World Health Organization (WHO) estimates that close to 600,000 women die annually from preventable, pregnancy-related causes. The vast majority of maternal deaths occur in developing countries. For each maternal death, an estimated 100 cases of acute illness occur, with long-term consequences for women's health and wellbeing and the health and survival of their newborns.

HIV/AIDS is one of the most urgent health problems of our time. Since the late 1970s, 28 million people have been infected with HIV. Almost eight million people have developed AIDS, and more than six million people have died. By the year 2000, an estimated 20 million additional people will become infected with HIV and an additional 8 million to 10 million will die of an AIDSrelated illness. The presence of sexually transmitted infections dramatically increases the efficiency of HIV transmission. WHO estimates that 333 million new cases of sexually transmitted infections, other than HIV/ AIDS, occur every year.

The USAID strategy to stabilize global population and protect human health is based on the following guiding principles:

■ No woman should become pregnant if she does not wish to bear a child

■ No family should suffer the death of a child through malnutrition or preventable disease

■ No woman should be subject to the risk of death or serious illness because of pregnancy

■ No person should be subject to the risk of disease as a result of responsible sexual activity

# Performance Measurement

Significant progress has been made toward the USAID goal of stabilizing world population and protecting human health in a sustainable fashion. The average annual population



growth rate in the developing world is now 2.2 percent; 30 years ago, it was 3 percent. At the 3 percent growth rate, the population would double in 32 years instead of in 24. Average fertility is four children per woman, a decline from six in the 1960s. As a result of organized family planning programs in developing countries (excluding China), it is estimated that there are over 300 million fewer people in the world today-a number equivalent to the combined populations of the United States and Canada.

Infant mortality in developing countries has declined from 107 deaths per 1,000 live births in 1980 to 77 in 1995. The mortality of children under 5 is now less than 120 deaths per 1,000 live births, down from 163 in 1980. With its partners, USAID has built on the success of the last 30 years, taking on new challenges and preparing country population and health programs that will continue long after USAID assistance has ended.

Figures 3.1–3.3 illustrate the changes by region in total fertility rates, and infant and under-5 mortality rates. They also reveal the dramatic differences in these rates between developing and industrial countries.

USAID's strategy for stabilizing world population and protecting human health includes four objectives, identified in figure 3.4, which coincide with the principles stated above. USAID partnership with host governments, bilateral and multilateral donors, cooperating U.S. and international agencies, and nongovernmental organizations (NGOs) ensures a coordinated approach to these objectives (see box 3.1). (See table 3.1 for the USAID country programs working on these objectives. A graphic representation appears in map 3.1.)

In most countries, USAID programs in population and health are closely integrated. As suggested by table 3.1, country programs often take on at least three of the four objectives. At the implementation level, as integration of these four program elements has increased, programs have better met the needs of USAID clients in a more cost-effective manner.

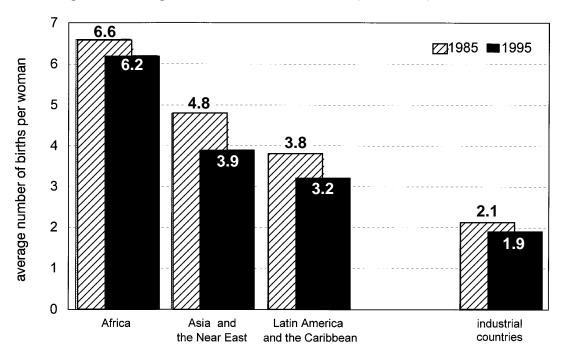
USAID continues to concentrate efforts on countries with the greatest magnitude and severity of need. While USAID currently conducts programs related to population, health, and nutrition in 60 countries, 75 percent of the population, health, and nutrition sector's resources are concentrated on 25 countries and regional programs. The Agency has begun to develop a framework for fostering sustainable programs in countries that will graduate from USAID assistance, without sacrificing longer range objectives of reducing fertility and mortality.

The overall effect of USAID assistance is not limited to those most directly served. The Agency's role in providing demonstration models, in building capacity for subsequent larger scale efforts, and in promoting new norms to guide provision of reproductive health services-these all have farreaching impact. The wide dissemination of data, research findings, training curricula, and programmatic lessons learned further increases the impact of Agency assistance. As USAID is the largest donor in the population and health sector, its technical leadership also influences the programs of other donors and partners.

USAID-financed demographic and health surveys (DHS) provide much of the data on development results in the population and health sector. During 1995, USAID supported such national surveys in 12 countries. Data from population-based surveys and other data collection tools enable country programs to monitor progress. Although DHS have made an immense contribution to the worldwide body of knowledge on demographics and health, USAID acknowledges that the periodicity and cost of such surveys may limit access to current data on health status indicators. These issues are being addressed in the design of the follow-on project.

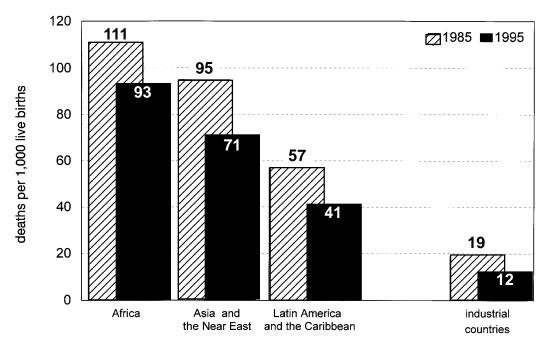
Appendix B includes tables that suggests the dated nature of data available on national-level indicators. With its partners, USAID is seeking the means to obtain health-status data in countries during years when

Figure 3.1. Regional Changes in Total Fertility Rates (1985–95)



*Note:* Figures reflect weighted averages by region. Asia and the Near East figure excludes China. *Source:* Center for International Health Information, 1996.

Figure 3.2. Regional Changes in Infant Mortality Rates (1985–95)



*Note:* Figures reflect weighted averages by region. Asia and the Near East figure excludes China. *Source:* Center for International Health Information, 1996.

DHS do not take place. If national data are unavailable, USAID programs may rely on subnational or project-specific data to obtain information on performance for management purposes. Maternal health and prevention of HIV and other sexually transmitted infections—which have fewer validated, standard indicators to measure performance—are receiving particular attention.

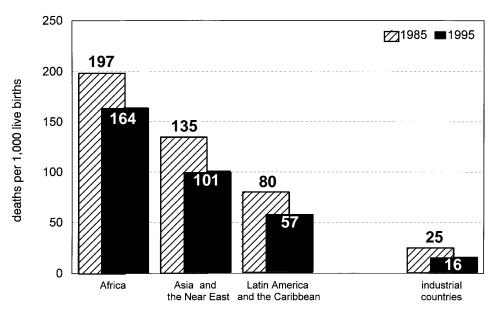
In 1994, USAID formulated a new strategy for Agency programs in support of stabilizing world population and promoting human health. Calling for special attention to the reproductive health needs of women and adolescents, and encouraging closer integration of family planning with mater-

nal and child health programs, it built on USAID's strengths in family planning and maternal and child health. USAID's strategy was affirmed by the Cairo Program of Action, adopted by over 180 countries at the International Conference on Population and Development held in September 1994. USAID participated in preparation for the conference and in the conference itself. The Cairo Program of Action outlined a comprehensive vision of development built around the core values of human rights, gender equality, and improved quality of life for all.

Gender and an increased emphasis on women are an important consideration in many of USAID's population, health, and nutrition programs. Programs in **Haiti, Jamaica, Mali, Morocco, Nepal, Nicaragua,** and **Peru** make explicit connections between health and Women in Development programs, such as girls' education and women's literacy.

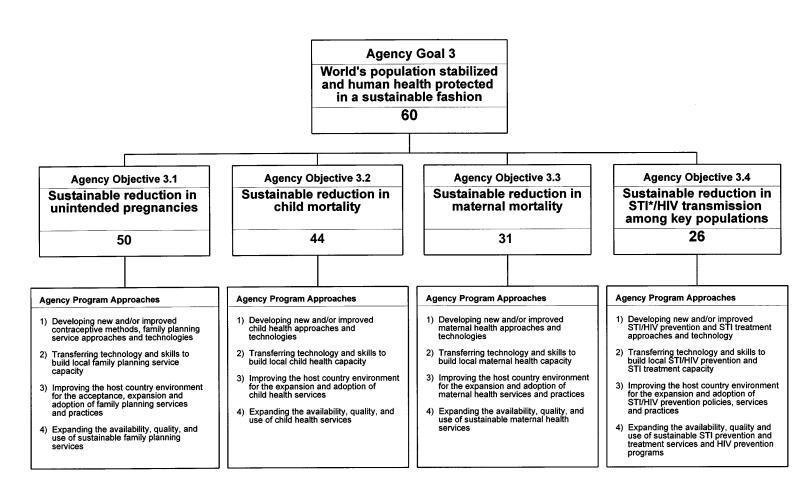
Stabilizing world population and protecting human health contribute to improving food security in developing countries. Reduced population growth rates ultimately lower the demands on food production. Better health improves food utilization by improving the ability of individuals to absorb nutrients. Improved health means improved labor productivity, enhancing the ability to earn and purchase food.

Figure 3.3. Regional Changes in Mortality Rates of Children Under 5 (1985–95)



Note: Figures reflect weighted averages by region. Asia and the Near East figure excludes China. Source: Center for International Health Information, 1996.





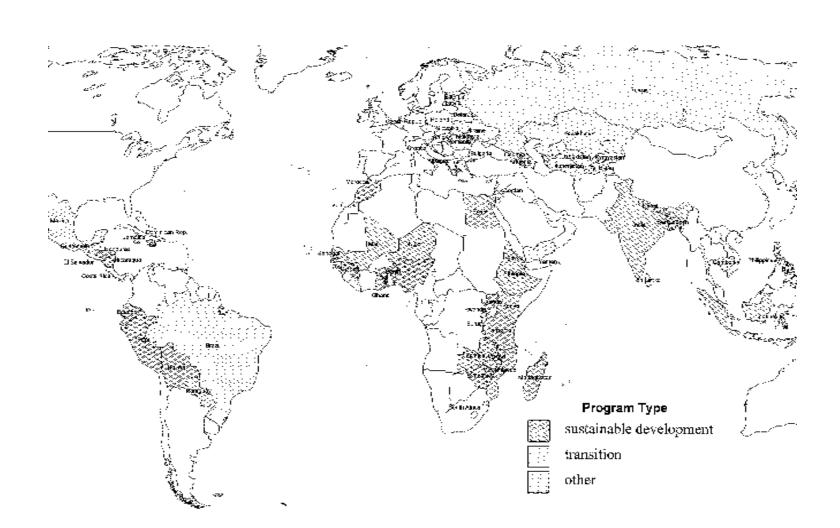
\*Sexually transmitted infections

# Table 3.1. USAID Country Programs with Population, Health, and Nutrition Objectives in 1996\*

	Africa	Asia and the Near East	Eastern Europe and the New Independent States	Latin America and the Caribbean	Total
Total number of programs	27	15	29	16	87
Number with PHN objectives	17 (63%)	11 (73%)	19 (66%)	13 (81%)	60 (69%)
Objective 3.1: Reduction in unintended pregnan- cies	Benin, Ethiopia, Ghana, Guinea, Kenya, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Senegal, Tanzania, Uganda, Zambia, Zimbabwe (16)	Bangladesh, Cambodia, Egypt, India, Indonesia, Jordan, Morocco, Nepal, Philippines, Yemen (10)	Albania, Estonia, Kazakstan, Kyrgyzstan, Latvia, Moldova, Romania, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan (12)	Bolivia, Brazil, Dominican Repub- lic, Ecuador, El Salvador, Guate- mala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Paraguay, Peru (13)	51 (59%)
Objective 3.2: Reduction in child mortality	Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Senegal, Zambia (11)	Bangladesh, Cambodia, Egypt, India, Morocco, Nepal, Philippines, Yemen (8)	Albania, Armenia, Belarus, Bulgaria, Czech Republic, Georgia, Hungary, Kazakstan, Kyrgyzstan, Latvia, Moldova, Romania, Russia, Slovakia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan (18)	Bolivia, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Nicara- gua, Peru (9)	46 (53%)
Objective 3.3: Reduction in maternal mortality	Eritrea, Ethiopia, Kenya, Mali, Mozambique, Niger (6)	Bangladesh, Egypt, India, Indonesia, Morocco, Nepal, Philippines, Yemen (8)	Albania, Estonia, Kazakstan, Kyrgyzstan, Latvia, Moldova, Romania, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan (12)	Bolivia, Ecuador, El Salvador, Guate- mala, Honduras, Nicaragua, Peru (7)	33 (38%)
Objective 3.4: Reduction in STI/ HIV transmission among key popula- tions	Benin, Ethiopia, Ghana, Kenya, Malawi, Nigeria, Senegal, Tanzania, Uganda, Zambia, Zimbabwe (11)	Cambodia, India, Indonesia, Nepal, Philippines, Sri Lanka (6)	Russia (1)	Brazil, Dominican Republic, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Peru (8)	26 (30%)

\* Excludes regional and global bureaus with major population, health, and nutrition objectives.





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Following the declaration of polio's eradication in the Americas in 1994, for which USAID was the lead donor, USAID in 1996 launched a new global polio eradication initiative. Working with other development partners, the Agency seeks to eradicate polio worldwide by the year 2000.

As part of a U.S. government effort, USAID will concentrate on combating emerging and reemerging infectious diseases that affect global health objectives. Priorities include reducing antimicrobial resistance in pneumonia, diarrhea, malaria, and sexually transmitted infections, and supporting surveillance and response activities in polio eradication, measles, and HIV/AIDS. In support of these efforts, increasing attention is being paid to reforming health systems, instituting approaches for financial sustainability, and ensuring technical and managerial sustainability for country partners.

USAID's population and health sector overall sustained a decline in 1996 funding levels compared with fiscal year 1995. Congress not only cut population funds by 35 percent from 1995 levels, but also imposed unprecedented restrictions on the timing of funding availability. This dramatic funding reduction, coupled with these restrictions, will have severe negative effects on USAID's results over the next several years. Nonetheless, USAID remains the major bilateral

# Box 3.1. Health Sector Reforms in Central and Eastern Europe and the New Independent States

USAID promotes more efficient, cost-effective health care systems by supporting systemic improvements in financing, payment, service delivery, management, and quality control in Central and Eastern Europe and the new independent states.

■ In Kemerovo, in **Russia**, a new project has merged hospital and polyclinic settings with modern managed-care principles, including utilization management, provider incentives, and quality of care. This has led to greater efficiency overall. The share of contracted care has increased by 25 percent, 30 percent of beds have been eliminated, and hospital cases are now treated in more cost-effective outpatient settings.

■ USAID and the World Bank have collaborated closely in central **Russia.** USAID's ZdravReform project helped Tver and Kaluga states implement payment, information, and quality-control systems. Eighty major health institutions throughout the two states will benefit from the new systems through a \$70 million World Bank loan, scheduled to be signed in January 1997. The USAID investment of \$1.2 million will help improve health care delivery for a population of 1.5 million Russians and provide reform models for use throughout the region.

■ USAID's Medical Partnerships Program in the **new independent states** develops institutional management capacity. Sokolov Medical Center adopted new hospital administration methods, becoming a working model for 85 hospitals across Russia. Average length of stay in the center has decreased, from 16.7 days in 1992 to 12.4 days in 1995. The number of patients treated has increased, from 10,800 in 1992 to 14,000 in 1995.

donor in population, child survival, maternal health, and HIV/AIDS prevention, accounting for roughly 50 percent of bilateral donor resources.

# Reducing Unintended Pregnancies

Unintended pregnancies can pose a serious threat to women's health and well-being. The consequences may be particularly severe for women in developing countries, where more than one third of all births result from unintended pregnancies. Such births may affect the individual woman's health, her economic situation, and, in a ripple effect, the well-being of her family. The high levels of fertility that result in part from unintended pregnancies translate into rapid population growth. Rapid population growth impedes economic growth, contributes to environmental deterioration, and strains fragile political and social institutions.

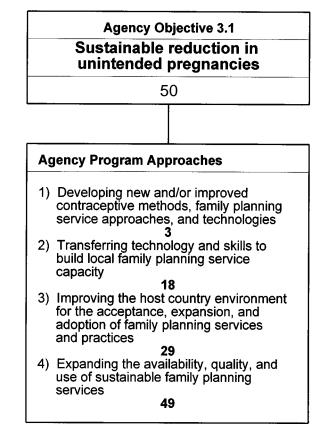
High rates of unintended pregnancies result from many factors associated with poverty. These include low status of women, low educational status, lack of information about and access to family planning services, and lack of male support and involvement in use of family planning.

Child survival also influences fertility decisions. Recognizing that family planning programs alone will not sufficiently reduce fertility levels, most USAID programs simultaneously address maternal and child health (see figure 3.5). USAID's programs under other Agency goals—particularly in economic growth (including education) and democracy and governance—address many socioeconomic factors that contribute to high fertility.

#### Developing New and Improved Approaches And Technologies

USAID supports the development of new and improved contraceptive methods and innovative approaches to family planning service delivery. Improving existing methods and developing and adopting new contraceptives is a long-term process. Technologies and program approaches are gener-

## Figure 3.5. Number of Country Programs Contributing to Agency Objective 3.1



ally tested and adapted in a variety of field settings and, in partnership with host countries, applied on a national scale and institutionalized in national programs. USAID's contraceptive development research activities range from clinical trials to adoption by national service delivery programs.

In 1995 the clinical trial for Lea's Shield, a female barrier contraceptive method, was completed with positive results. A multicenter clinical trial of Femcap, another female barrier method, is under way. USAID supported development of the Reality female condom, which has been approved by the U.S. Food and Drug Administration and is the first female-controlled barrier method that prevents both pregnancy and sexually transmitted infections. USAID currently supports research on two dozen potential new contraceptive methods and drug delivery systems in 80 facilities in the United States, Europe, and developing countries.

USAID-supported research has demonstrated that hormonal contraceptive methods for men can be highly effective, and research continues to identify appropriate agents. In addition, clinical trials continue on nonlatex condoms for men designed to be more acceptable to users than standard condoms. USAID and other donors promote collaboration with the private sector, in part through the newly established Consortium for Industrial Collaboration on Contraceptive Research.

Operations research efforts have provided important information on the effectiveness of different approaches and the cost-effectiveness of family planning programs and integrated approaches. Research findings have led to programs that more effectively meet the needs of USAID's ultimate customers. Currently, operations research projects are under way in about 30 countries.

In **Bangladesh** for example, operations research findings in 1995 led to increased provision of injectable contraceptives through community-based distribution, improving access and use. In **Senegal**, the early stages of operations research yielded unexpected results that are already being applied at the national level. After studies drew attention to the limited access to injectable contraceptives, a number of NGO clinics began to offer this effective method.

**USAID**-sponsored operations research has led to definitive conclusions as to the effectiveness of the lactational amenorrhea method, which relies on breastfeeding for child-spacing. USAID research developed the method, which defined the conditions necessary for breastfeeding to protect women from unintended pregnancies. The lactational amenorrhea method is proven to be over 98 percent effective when used correctly. It improves breastfeeding practice and may increase use of other family planning methods.

For example, during clinical trials in **Ecuador**, the duration of exclusive breastfeeding for women using the method increased from 3.9 to 5.7 months, approaching the ideal for child survival of 6 months. Among users of the method, 95 percent opted to continue using family planning and adopted a modern contraceptive. Originally tested in four clinic sites, the method is being introduced in 26 sites.

A USAID-supported operations research project in **Indonesia** early in 1996 examined the apparent large backlog of women who, according to service records, had not had Norplant implants removed at the end of the five-year life span of the contraceptive's effectiveness. A survey of Norplant acceptors revealed that many removals had taken place in the private sector, by nurse practitioners and other private service providers, who had few incentives to report removals to the government.

While the study determined that the backlog of removals was less severe than feared, it found that some women faced difficulties in receiving implant removal on request and in paying fees for removal. The findings are being used to improve the quality of Norplant services nationwide. Given that the family planning program in Indonesia is the world's largest provider of Norplant, the potential impact is considerable.

USAID also supports research to identify, develop, and test new and improved tools and technologies for management, training, information, education and communication, policy, data collection, and evaluation. During the past year, accomplishments included

■ Publication and dissemination of a series of handbooks of reproductive health indicators to measure program progress, for program managers and evaluators

■ Development and field testing of a computerized model, PROTRAIN, for projecting family planning training needs

■ Development and fieldtesting of interactive, computerized training modules on intrauterine device insertion that permit family planning trainees and service providers to learn at their own pace ■ Use of the Internet to improve the dissemination of management problem-solving tools

#### Transferring Technology And Skills

A strategic emphasis for USAID in coming years will be developing programs that will continue after outside assistance has ended. Transferring technology and skills to build local capacity helps to ensure the sustainability of efforts to reduce unintended pregnancies. The skills imparted to developing countries must incorporate improvements in policies, service delivery, the financial resource base, and the institutional capacity of the public and private sectors.

Cost recovery and the broader financial independence it promotes together represent an essential element of ensuring sustainability. In Egypt, costrecovery schemes contribute to improved long-term prospects for financial sustainability. The model USAID-supported family planning NGOs now generate more than 50 percent of their operating costs from user fees. In Indonesia, nearly 75 percent of the users of family planning services now pay for those services. Use of private sector services increased from 12 percent in 1987 to 28 percent in 1994.

The Agency's emphasis on training leads to sustainable local capacity-building with significant results. In the past year, the USAID family planning project in **India** has provided training to 500 government doctors, paramedical staff, and nurses in contraceptive technology and trained 800 private and NGO practitioners in approaches to family planning and reproductive health. Coverage by public providers has increased from 230,000 customers to more than five million.

In **Peru**, USAID training efforts target both facility- and community-based family planning services. During 1995, 2,864 Ministry of Health workers were trained in family planning, for a total of 4,454 over the period 1993–95. About half the reproductive health personnel in USAID priority regions in the country—and 39 percent of personnel in nonpriority regions—have received training.

#### Improving the Host Country Policy Environment

Sustainable programs rely in large measure on a supportive policy environment. As governments have come to understand the benefits derived from lower fertility for improving health and achieving national socioeconomic goals, national policies over the past 10 years have shifted significantly in favor of family planning. USAID has been at the forefront in the policy dialog that has led to these shifts. Under a USAID initiative, Maximizing Access and Quality, new service-delivery guidelines are being developed in 32 countries. For example,

■ In Jordan, USAID assistance led to a series of changes to the policy environment, including the development in 1996 of the first national population strategy; registration of two effective contraceptives, Depo-Provera and Norplant; and approval by the Ministry of Health of the use of mass media for promoting family planning.

■ Developed with USAID's assistance, **Senegal**'s first family planning service-delivery guidelines were approved in June 1996 by the Ministry of Health.

■ Through its work with the National Population Council in Yemen, USAID supported the incorporation of family planning objectives into both the Ministry of Public Health's Five-Year Health Development Plan and the National Five-Year Development Plan. USAID's assistance led to the development of national family planning guidelines and medical standards. These advances help lay the foundation for the government and other donors to proceed as USAID phases out of its assistance to the country.

Such guidelines represent one aspect of the shift in the Agency's policy work in population. Assistance now increasingly seeks to move governments from rhetoric to action, to make policies more applied and therefore more effective. Technical assistance seeks to empower actors in the population sector to pushfor needed changes and resources.

In Mali, partners' use of the USAID-developed computer model known as RAPID (resources for the awareness of the impact of population on development) galvanized the planning process in the government. The presentation, showing the effect of different fertility rates on development over a 30-year time frame, stimulated consensus among an interministerial committee to increase the percentage of the budget allocated to health and education.

USAID's technical assistance in **Bangladesh** led to the development of a 10-year prospective family planning program plan. The plan, approved by the government of Bangladesh in 1995, calls for strategies that are client oriented, based on the most recent survey data, and produced through a participatory process.

With USAID's assistance, in 1994 **Brazil**'s Bahia state developed a six-year reproductive health strategic plan. It will help ensure continuity of services when USAID's assistance ends.

#### Expanding Service Availability, Quality, And Use

Expanding the availability, quality, and use of family planning services is one of the most direct and cost-effective approaches for reducing unintended pregnancies and thereby decreasing fertility rates. In turn, reduced fertility contributes to declines in infant and maternal mortality. Countries that have been major recipients of USAID assistance have made steady progress in the use of family planning. Increased use of modern contraceptives, measured by the contraceptive prevalence rate, translates into reductions in the total fertility rate.

Going by recent data from 36 USAID-assisted countries, the average modern contraceptive prevalence rate in these countries is estimated to be over 34 percent. In comparison, the contraceptive prevalence rate in the United States is about 70 percent. Results in increased use from individual countries reflect the effect of USAID's contributions in family planning. Box 3.2 illustrates the effect such use can have on reproductive health, specifically in this case on the prevention of abortion.

During 1995 in **Bangladesh**, USAID, in partnership with other donors, NGOs, the Social Marketing Company, and the government, provided family planning services to 5.6 million married couples. This represents a 19 percent increase over the number reached in 1994. The average annual increase in contraceptive use has been 2 percent a year for the past decade, one of the highest sustained rates of increase in the world. Increases in contraceptive use from 1991 through 1994 contributed to a significant decline in the total fertility rate, from 4.3 to 3.4.

Owing in part to the magnitude, duration, and consistency of USAID support, Kenya offers one of sub-Saharan Africa's emerging family planning success stories. USAID's assistance has led to steady increases in the numbers of public and private sector sites offering services. Modern contraceptive use is estimated to have increased from 10 percent in 1984 to 25 percent in 1995. In Egypt, where USAID has been the largest foreign donor since the 1970s, the total fertility rate has declined from 5.3 children per woman of reproductive age in 1980 to 3.6 in 1995.

Providing couples with a choice of contraceptive methods increases their potential satisfaction with family planning services and enhances the likelihood that they will continue using a contraceptive method. Following approval in 1993 by the U.S. Food and Drug Administration, the injectable contraceptive Depo-Provera was introduced into USAID-supported programs, expanding the choice of methods. During 1995, USAID supported provision of almost

three million doses of Depo-Provera to 47 countries, an increase from the 835,000 doses sent to 18 countries in 1994. Overall, in 1995 USAID shipped \$47 million in contraceptives, concurrently providing technical assistance to ensure quality use.

In addition, USAID is a leader in helping countries develop and implement effective commodity management systems for family planning programs. USAID currently helps to reduce contraceptive shortages and stock-outs in 26 countries. With USAID's assistance, for example, Kenya now uses a locally designed management information system. This enables the country to use available transportation efficiently to resupply clinics. As a result, the need for warehouse space and the size of local inventories is minimized.

Couple-years of protection represents an aggregate of the amount of protection provided by the various forms of contraceptives distributed in a given country. Increases in coupleyears of protection provide an important preliminary indication of the availability and acceptability of contraceptives. In **Peru**, total couple-years of protection in the public and NGO sectors together increased from almost 600,000 in 1993 to 1.1 million in 1995-an 89 percent increase over a two-year period. In Ghana the coupleyears of protection level estimated for 1995, 493,000, is nearly five times higher than the

#### Box 3.2. Family Planning Helps Prevent Abortion

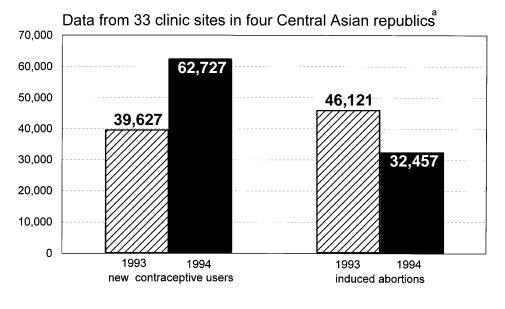
USAID's program to improve women's reproductive health services in **Central Asia, Moldova, Russia,** and **Ukraine** is in its third year. The Agency also funds reproductive health programs in Albania and Romania. The Women's Reproductive Health Services Expansion project increases access to family planning services, reducing women's reliance on abortion. The major method for fertility control throughout Eastern Europe and the new independent states, abortion can result in high levels of maternal mortality and other adverse health consequences. USAID programs conduct training of trainers and provide technical assistance to improve the development and management of sustainable family planning services.

Preliminary data suggest the positive effect of service improvements. In Central Asia, data from 33 clinic sites in four countries indicate a 58 percent increase in new contraceptive users and a 30 percent decrease in induced abortions during 1994–95. Figure 3.6 illustrates these changes. In Russia, where in the early 1990s women reported an average of seven abortions, women in two USAID studies in 1995 reported an average of three abortions. In Ukraine the Ministry of Health reported an 8.6 percent reduction in induced abortions in the first six months of 1996 and attributed the decrease directly to USAID's family planning assistance.

1988 baseline of 107,000, following a steady climb in the 1990s. The share of longer acting contraceptive methods has also reportedly risen from 21 percent in 1988 to an estimated 31 percent for 1995, suggesting a better balance between short-term and longer acting methods. Senegal's results show significant progress for 1995. The 1995 couple-years of protection figure of about 164,000 is more than triple the 1986 baseline of 54,000.

Though these examples are encouraging, USAID recognizes that many other factors determine the quality, use, and sustainability of services. In Brazil, the Agency supported client satisfaction surveys to study the effect of quality on sustainability. Interviews with more than 1,300 clients indicated that satisfied clients refer more than 75 percent of new users, underscoring the importance of quality in achieving high levels of use-and eventually sustainability.

Figure 3.6. Contraceptive Use and Abortion Rates



<sup>a</sup> Clinic sites located in Kazakstan, Kyrgyzstan, Turkmenistan, and Uzbekistan. Source: Women's Reproductive Health Services Expansion project, USAID, 1996.

Increased use depends not only on the availability of highquality services, but also on increasing levels of awareness (see box 3.3). USAID supports the innovative use of communications to disseminate information. Knowledge of the benefits of family planning and the services available is a critical precursor to use. Examples:

■ **Bolivia**'s 1995 reproductive health mass media campaign boosted clinic attendance by 66 percent. One study indicated that among viewers of television spots, more (over 90 percent of the sample) could correctly identify the national logo indicating a family planning service delivery site than could recognize the Bolivian flag or Coca-Cola's logo.

Two radio programs launched in Kenya in 1995 target youth. One interactive program, the "Youth Variety Show," features well-known personalities and live telephone calls; responses to questions are provided on the air. The shows link youth to services, delivering information on the availability of reproductive health services. A survey found that nearly 55 percent of 15-to-24-year-olds reported listening to the "Youth Variety Show." By the fourth month of the campaign, 56 percent of new clients at three youth clinics cited radio as their source for referral information.

■ In **Peru** a 1995 campaign reached 3.5 million people through television spots and 1.8 million people through radio messages. A toll-free telephone counseling service received almost 30,000 calls in 1995, surpassing the activity's target by 75 percent.

#### **Reducing Child Mortality**

Every year, an estimated 12 million infants and children die of preventable diseases in developing countries. If the 1985 rates of infant and child mortality had remained constant, the annual number of deaths today would exceed 16 million. Instead, owing in part to USAID's efforts in child survival, almost four million infant and child deaths are prevented each year.

Child survival programs target the principal causes of death among infants and young children: vaccine-preventable diseases, diarrheal disease. malnutrition, acute respiratory infections, and malaria. Child survival interventions not only save lives, but they also contribute to stability in developing countries and help reduce U.S. health-care costs. Global eradication of polio, for example, could save \$230 million a year in the United States by eliminating the need for polio immunization.

USAID's efforts to reduce child mortality are part of an unprecedented worldwide crusade. Developing countries, the UN Children's Fund (UNICEF), the World Health Organization, private voluntary organizations, universities and research institutions, private industry, and donor countries including the United States have joined forces in the common cause of saving children's lives.

The USAID child survival program, which has played a vital role in preventing childhood illness and death around the world, marked its decade anniversary in 1995. Progress continues toward the goal for the year 2000 set by the 1990 World Summit for Children: an annual rate of 70 deaths of children under 5 per 1,000 live

# Box 3.3. Men Well-Served by Family Planning

In 1992 a USAID program trained Dr. Rakotomalala Hubert from the town of Antsirabe, in central **Madagascar**, in the no-scalpel technique of vasectomy. The story of one of his clients reveals the potential effect of outreach education coupled with high-quality services.

In May 1995, Ranarivelo Haja, from a village about 50 kilometers outside Antsirabe, listened to a discussion given by the local family planning worker. Haja and his wife were eager to prevent another pregnancy: they had five living children and had suffered three stillbirths. They had decided that any more children would risk her health and the family's ability to feed itself. After hearing from the health worker about all available methods, Haja and his wife went to the clinic in Antsirabe to learn more about vasectomy. After discussing the advantages, disadvantages, the procedure, side effects, and follow-up, Dr. Rakotomalala set up an appointment for Haja to have a vasectomy.

Two weeks after the procedure, Haja mentioned his experience to his brother Nirina. So interested was the brother that he immediately told his wife, who decided they should find out more. The following month Nirina had a vasectomy. By September, the word had traveled so well that all six of Haja's brothers had received vasectomies.

births. In 1995, among the 17 USAID country programs reporting changes in the infant mortality rate and the under-5 mortality rate, 75 percent of the countries with data reported reductions. Figure 3.7 shows the number of USAID country programs that apply each of the four programmatic approaches to reduce child mortality.

## Developing New and Improved Approaches And Technologies

USAID played a lead role in researching and developing low-cost interventions to treat

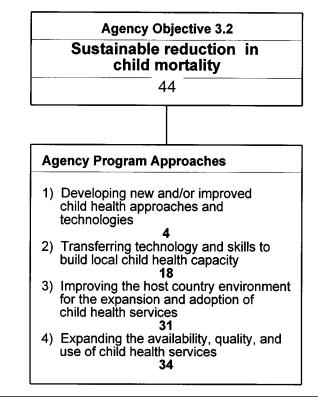
diarrhea, a major cause of death in young children. Oral rehydration therapy has since become a crucial component of programs in diarrheal disease control. In 1995 the Agency began supporting field trials of a new formulation of oral rehydration solution, modifying the quantity of sugar to improve absorption in cases where the standard solution proved ineffective. Integrated management of child illness represents another new approach for USAID and its partners (see box 3.4).

Despite progress in raising vaccination coverage rates, immunization of the world's children remains a challenge. As a major partner in the global effort to eradicate preventable diseases, USAID implemented new and improved technologies during the past year.

Through development of the vaccine vial monitor, the Agency has achieved a technological breakthrough that enables health care providers to verify the potency of oral polio vaccines. Previously, health workers discarded unused vaccines at the end of the day, unsure of their efficacy. UNICEF estimates that the monitor, which changes appearance if the vaccine is no longer viable, will save at least \$10 million a year. As of January 1996, all vials of oral polio vaccine meeting WHO standards were fitted with the monitors. Millions of vials of oral polio vaccine with the new monitors have reached developing country immunization programs. UNICEF alone will use at least 700 million doses with the new monitor in the next two years.

A major effort to introduce a new vaccine for hemophilus influenza type B (HiB) has made significant progress. In developed countries where the HiB vaccine has been used, HiB-associated disease has essentially disappeared. In 1994, USAID helped finance field-testing of HiB in **the Gambia.** In fully vaccinated children, the vaccine proved 95

# Figure 3.7. Number of Country Programs Contributing to Agency Objective 3.2



percent effective against meningitis due to HiB and 100 percent effective in preventing HiB pneumonia. The remarkable results-the outcome of a collaborative process with the National Institutes of Health, UNICEF, and others-paved the way for the first introduction of a new vaccine into the successful Expanded Program on Immunization strategy in the last decade. During 1995, USAID worked closely with the Children's Vaccine Initiative and others to develop a comprehensive plan to introduce the vaccine. With USAID support,

vaccines to prevent malaria and combat cholera are also being developed.

USAID seeks innovations to address other health problems as well. In 1995 the Agency served as a catalyst to create an alliance among soap manufacturers in **Central America** to promote the fundamental action of washing hands. Corporate interests benefit by increasing markets, while supporting the public health objective of disease prevention.

In **Bangladesh**, malnutrition rates are among the highest in the world. Sixty-five percent to 75 percent of children under 5 years of age are severely or moderately malnourished. Vitamin A deficiency is a major public health problem. USAID and its partners implemented efficient and cost-effective home-gardening programs to increase production of fruits and vegetables. Since its inception in 1988 in North Bengal, the program has served more than 2.5 million people in 90 of Bangladesh's 460 subdistricts.

A USAID grant to WHO contributed to building capacity in malaria control and prevention throughout **Africa.** By 1996 more than 27 African nations had adopted a newly developed malaria control strategy. USAID also has supported successful malaria control programs in **El Salvador, India, Pakistan, Sri Lanka,** and **Thailand,** reducing deaths due to this preventable disease.

#### Transferring Technology And Skills

A major challenge for the 1990s in USAID's child survival programs is promoting activities that preserve and build on progress made while decreasing host country dependence on donor-provided resources and technical assistance.

Increasing the number and capacity of local NGOs is one way to sustain child survival efforts. In **Benin**, with USAID's support, in 1995 the number of NGOs working in health or family planning jumped from 7 to 18. In **Bolivia**, PROCOSI, the

# Box 3.4. Integrated Management of Child Illness

USAID has supported the development and testing of a new approach to the care of sick children. World Bank analyses have shown that combining interventions in a single package makes integrated management of child illness one of the most costeffective public health interventions. Integrated management addresses a larger share of the global burden of disease than any other approach to the primary causes of child illness.

Following the success of oral rehydration therapy, USAID supported development of additional treatments for pneumonia and malaria, two of the other major causes of infant and child death in the developing world. Bringing these new interventions to children presented another challenge. At the country level, the Agency and its partners recognized that adding a new, separate program for each new treatment would be neither efficient nor sustainable. At the health facility level, separate training of health workers for each disease left it to the worker to decide which diagnosis and treatment to apply. Increasing evidence showed that symptoms of childhood diseases overlap and that many young children who come to health facilities require treatment for multiple conditions. Finally, fighting these illnesses alone missed the opportunity for preventive care, such as immunizations, provided by a child's visit to a health facility.

This analysis led USAID to collaborate with WHO and UNICEF to develop integrated management of child illness. This approach links the newly developed treatments and adds appropriate preventive steps for each health encounter. By maintaining and building on the key components of child survival, integrated management responds to the needs of children, health workers, and developing countries. Its introduction around the world has met with rapid acceptance. Ministries of health once reluctant to add new programs to their diarrheal disease control and immunization programs readily accepted this integrated approach. As one of the best tools for expanding and sustaining essential child health services, integrated management of child illness should become a major element of child survival programs in most developing countries within the next five years.

USAID-supported network, increased its NGO membership from 10 to 24. In **El Salvador**, 18 NGOs previously funded by USAID will now be paid and monitored by the government of El Salvador, increasing the effect of USAID's funding.

Developing skills through training also enhances local capacity. In **Peru,** USAID supported training of 25 percent of the Ministry of Health workers in four principal subjects of primary health. In **Nepal,** USAID in 1995 assisted the Ministry of Health in training community volunteer workers to diagnose and treat pneumonia.

In the first five months after training, the workers treated 2,012 cases and referred an additional 550 cases. Follow-up visits were made in 70 percent of the cases, exceeding the 50 percent target. Because untreated pneumonia in Nepal has a 20 percent fatality rate, this pilot program has contributed to saving over 400 lives in its first five months.

Educating caretakers is another cornerstone of USAID's activities. Education and training on breastfeeding can modify mothers' behavior. For example, the Agency's work to promote breastfeeding through lactation management training has resulted in supportive breastfeeding policies in 22 countries. Six regional and seven national lactation education centers have been established.

A recent USAID-funded study concluded that investments in breastfeeding led to substantial reductions in costs for maternity care and pediatric infections. CONASUMI, an NGO consortium in the Dominican Republic, achieved impressive results in promoting breastfeeding. In 1995, 99 percent of targeted mothers knew the benefits of breastfeeding, an almost 25 percent increase from the previous year. From 1993 through 1995, breastfeeding rates doubled in targeted areas.

USAID has made great strides in addressing malnutrition and micronutrient deficiencies through measures including research, policy reform, and support of health sector programming. Addressing micronutrient deficiencies through food fortification—such as Sri Lanka's national-level program to fortify wheat flour with iron to reduce anemia in women and children-is increasingly important. Such strategies have a high potential to reach a large percentage of a country's population.

In Eritrea and Ethiopia, goiter afflicts nearly one fourth of the population. An estimated 80 percent of the population is at risk for one or more of the hidden health disorders related to iodine deficiency. In 1993 Eritrea and Ethiopia issued a joint statement of their intent to eliminate iodine deficiency disorders. In late 1995, Eritrea inaugurated two large salt iodization facilities on its Red Sea coast. USAID is helping establish quality assurance standards for iodized salt production and will help develop systems to monitor the effectiveness of interventions. Iodized salt should have a major impact on eliminating iodine deficiency disorders in Eritrea and Ethiopia, which receives 85 percent of its salt from Eritrea.

Eritrea will also reap economic benefits from sales of iodized salt to the region.

#### Improving the Host Country Policy Environment

A supportive host country policy environment is essential to the success of child survival programs. USAID assistance develops and strengthens host country political commitment, promotes participation of local organizations, and encourages increased allocation of local resources to the sector.

Worldwide, research has shown that even the poorest consumers are willing to pay a small amount for high-quality care for their children. Most health care financing activities carried out through the child survival program capitalize on the link between the quality of services and the potential for sustainability.

USAID is the principal source of financial and technical support to **Kenya's** national health care financing program. Primarily owing to USAID support, the Ministry of Health national cost-sharing program has generated more than \$12 million in local revenue since 1990 for curative and preventive health services.

Cost-sharing revenue now provides nearly \$1 million a year in additive funding to support maternal and child health services and control of infectious diseases, improving the coverage and efficiency of health and family planning services. In addition, the Agency shares successes throughout the region, through south-to-south consultancies, regional and country workshops, conferences and seminars, study tours, and a regional newsletter.

Programs in **Eritrea**, **Ethiopia**, **Mozambique**, **Tanzania**, and **Uganda** have benefited. As a result of the information transfer from Kenya, Ethiopia drafted a national health finance policy, a hospital system in Tanzania adopted a health insurance program, and a USAID project in Uganda shifted its emphasis.

Through a series of national workshops, USAID has influenced immunization policies in the new independent states. For example, all of the countries have updated their policies on vaccine schedules and contraindications, and several have revised service delivery and support strategies, making them more appropriate and costeffective. An estimated \$800,000 in annual savings resulted from changes in national immunization schedules alone.

Expanding Service Availability, Quality, And Use

#### Box 3.5. USAID Helps Stem Spread of Diphtheria

With assistance from the U.S. Centers for Disease Control and Prevention (CDC), USAID has provided technical assistance and supplies to **Ukraine**, including 32 million doses of adult diphtheria toxoid vaccine, to help control a diphtheria epidemic. After a mass immunization control strategy, the epidemic is showing signs of abating. In seven regions that carried out mass campaigns in early 1995, incidence for the first half of 1996 has decreased by as much as 80 percent from the previous year. Nationwide, 1996 diphtheria incidence is 33 percent below 1995 levels (see figure 3.8).

In **Russia**, where USAID and the CDC are improving health surveillance and information, education, and communication efforts, the incidence of diphtheria is decreasing for the first time in six years. According to figures released by the Ministry of Health, during the first five months of 1996, 58 percent fewer cases occurred than in 1995. Since 1993 the ministry has vaccinated 97 million people against diphtheria, 70 million of whom are targeted adults.

USAID's child survival programs develop and apply cost-effective, sustainable interventions to reduce and prevent the principal causes of illness and death in infants and children. The Expanded Program on Immunizations is a crucial element of child health programs. In only six years, from 1984 to 1990, the Agency and its partners raised global vaccination coverage rates to 80 percent from 44 percent. While progress has been made in many USAID-assisted countries, gains in coverage in 1995 were particularly notable in Bangladesh, Bolivia, Guatemala, Honduras, Morocco, Niger, and Peru. In Ukraine, USAID has helped to control a diphtheria epidemic (see box 3.5).

Efforts in polio eradication, supported by USAID and others, have made several significant recent advances:

■ Polio immunization coverage has increased worldwide, from 48 percent in 1985 to 83 percent in 1995

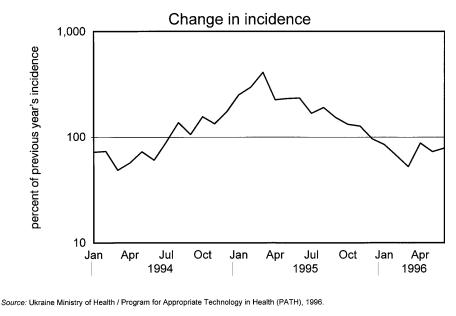
■ Globally, fewer than 7,000 cases of polio were reported in 1995, an 82 percent decrease since 1988

■ Countries reporting zero cases of polio increased, from 132 in 1992 to 150 in 1995

■ Latin America and the Caribbean remain free of polio, as confirmed by ongoing surveillance

In the five new **Central Asian republics,** training and technical assistance since 1992





has enabled annual immunization of 1.5 million infants. In 1995, polio eradication campaigns achieved 97 percent coverage. As of March 1996 the entire region has been poliofree.

Innovative combinations of interventions are on the rise. For example, vitamin A capsule distribution is piggybacking on national immunization days, building on the advanced distribution and logistics system already in place. Already used in several countries, this approach will be adapted as part of the planned global polio initiative.

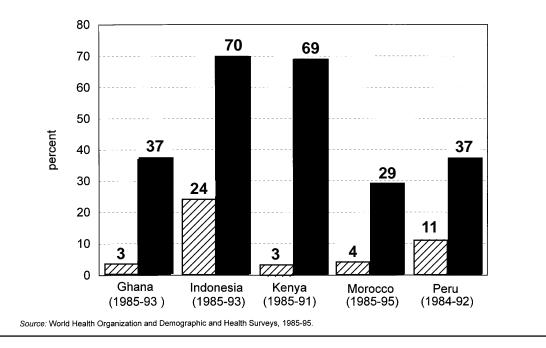
When an infant or child has diarrhea, caretaker behavior may prove critical. Information, education, and communication interventions promote relevant

behavioral change among caretakers. In Morocco, the proportion of children who received oral rehydration solution or recommended home fluids-such as a mixture of sugar, salt, and water prepared according to established standards—after diarrheal episodes almost doubled in three years, from 15 percent in 1992 to 29 percent in 1995. In USAID project areas in the **Dominican Republic,** from 1993 to 1995 the use of oral rehydration therapy for children under 5 increased from 49 percent to 72 percent, a 53 percent increase in two years (see figure 3.9).

Malnutrition and micronutrient deficiencies contribute to child morbidity (the rate of disease) and mortality. Even mild malnutrition increases a child's chance of dying. An estimated 200 million children worldwide are malnourished. More than a third of all children in the developing world are underweight, decreasing their ability to ward off disease. Overall, the effects of malnutrition contribute to more than half of child deaths in the developing world.

Adequate vitamin A intake can reduce child mortality by at least one fourth; in some areas, vitamin A can reduce infant mortality by more than 40 percent. USAID has carried out vitamin A programs in 50 countries. **Nepal's** National Vitamin A Program, supported by USAID, has expanded from 8 districts to the 23 where vitamin A intake has been a problem. The program has trained 14,000 health workers

Figure 3.9. Change in Oral Rehydration Therapy Use Rates in Selected Countries



and to date has reached 1.5 million children twice a year with vitamin A capsules, or 86 percent of all targeted children in the 23 districts. Vitamin A capsule distribution through this program is estimated to have averted 13,000 childhood deaths in Nepal. USAID also assists NGOs working on strategies to increase production and consumption of vitamin A–rich foods, a more sustainable approach.

# Reducing Maternal Mortality

Maternal mortality remains high throughout the developing world. In 1995, UNICEF and the World Health Organization sponsored a study that led to a recalculation of 1990 maternal mortality data. The result raises the estimate of annual maternal deaths during pregnancy and childbirth to nearly 600,000 from 500,000. The vast majority of these maternal deaths occur in developing countries.

Half of all maternal mortality occurs in just five countries, listed here in descending order: India, Nigeria, Ethiopia, Bangladesh, and Indonesia. For each maternal death, an estimated 100 cases of acute illness occur, with long-term consequences for women's health and wellbeing and the health and survival of their newborn infants. Figure 3.10 illustrates the extent of the reproductive health problems that afflict women worldwide.

The major complications of pregnancy and birth can be prevented or treated with known interventions. Relevant interventions include family planning, appropriate prenatal and postpartum services, and obstetric care for pregnancy and birth complications. The most common direct obstetric causes of maternal death in developing countries are hemorrhage, infection, hypertensive disorders of pregnancy, obstructed labor and the consequences of unsafe abortion. Contributing to morbidity and mortality are conditions that are far too common in developing countries-namely, poor maternal nutrition, acute or chronic infection, and too little time between births.

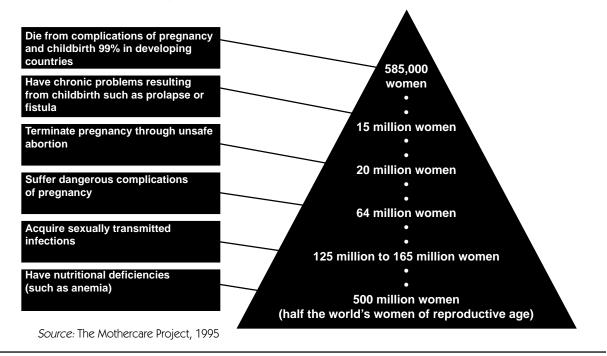
Reducing maternal mortality is a relatively new strategic objective for USAID (see figure 3.11). Considerable synergy exists among the Agency objectives in population, health, and nutrition, particularly given the new emphasis on reproductive health. Reductions in unintended pregnancies contribute to reductions in maternal mortality. Moreover, interventions to promote maternal health are essential to achieve further reductions in infant mortality. Beyond the population, health, and nutrition sector, interventions such as women's empowerment, girls' education, and economic growth also contribute to improved health status for women.

#### Developing New and Improved Approaches and Technologies

USAID interventions to reduce maternal mortality stress keeping women on the "pathway to survival." The construct, illustrated in figure 3.12, indicates the four steps necessary to achieve a positive birth outcome in the face of an obstetric or newborn complication. First, the woman, her family, or the attending provider must recognize that a problem exists. A decision must then be made to seek care. A woman must be able to reach or use a facility that can provide appropriate services of sufficient quality to save her life and that of her newborn. In addition to individual women's knowledge, husbands, families, and communities must be involved in supporting progress along the pathway.

USAID develops new models for delivering prenatal, postpartum, and lifesaving obstetric care, and tests and adapts them during extensive field evaluations. To assess the results of these interventions, USAID projects conduct surveys and review facility records to gather baseline data against which to measure impact. Previously, improvement in the use of maternity services, such as prenatal care and trained birth attendants, served as the final measure of program success. Now field sites are testing indicators more closely associated with maternal survival. such as the fatality rate for

# Figure 3.10. Women's Reproductive Health: Annual Statistics



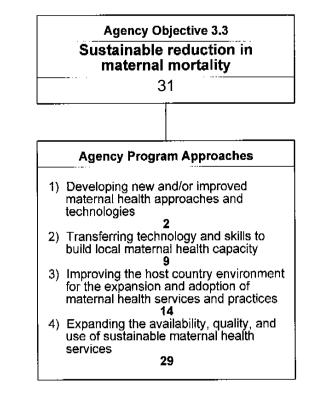
obstetric and newborn complications at individual health facilities.

Currently, 10 of the 31 USAID country programs with maternal health objectives use the actual maternal mortality ratio-the number of maternal deaths per 100,000 live births to measure progress. In Latin America and the Caribbean, **USAID** supports information systems that will provide data to guide program design and implementation. With USAID support, **Peru** is implementing a perinatal information system that will provide valid, timely data on hospital-based maternal mortality at the local level. The current best estimate from the system is 268 maternal deaths per 100,000 live births in 1994, down from estimates of 303 per 100,000 in 1991.

In **Bolivia**, one of the countries where USAID centered early attention on maternal mortality, 1989 estimates were 480 deaths per 100,000 live births. The 1994 demographic and health survey documented a much improved level of 390 maternal deaths per 100,000 live births. The U.S. average ratio is 7 maternal deaths per 100,000 live births.

Maternal mortality remains a serious problem throughout the Asia and Near East region. **Nepal,** at the high end of the region's range, has a maternal mortality ratio of 800 deaths per 100,000 live births. Integrated NGO programs supported by USAID serve 25 of Nepal's 75

# Figure 3.11 Number of Country Programs Contributing to Agency Objective 3.3



districts and provide community-level access to family planning spacing methods for couples in remote and difficultto-serve locations. As of 1995 the NGO activities include literacy classes for women to further encourage changes in health and family planning behavior.

In Bolivia, Guatemala, Honduras, India, Indonesia, Malawi, and Peru, studies are under way to determine the effectiveness of different strategies to improve the distribution of iron supplements primarily to pregnant women and improve their compliance in taking the supplements. Micronutrient supplementation decreases the prevalence of iron deficiency anemia, a significant risk factor associated with maternal and perinatal mortality.

Such research helps validate interventions that other countries and programs can adopt. Syphilis represents a significant problem for many women and newborns. Determining the extent of the problem is the first step. In areas of high prevalence, USAID has designed a program for decentralized screening and treatment for syphilis during prenatal care. Shown to be highly effective in Kenya, the same program will be introduced in Bolivia. In Uganda, a study of the presumptive treatment of sexually transmitted infections in pregnant women is under way. Preliminary results show lower prevalence of syphilis, trichomonas, and bacterial vaginosis in the postpartum period for women treated during pregnancy. As the study continues, it will obtain impact data on maternal and neonatal postpartum infection-including HIV-and newborn survival.

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#### Transferring Technology And Skills

USAID has used a variety of strategies to transfer technology and build local capacity. The Agency has been a leader in promoting a strategy centered on quality assurance, based on a problem-solving approach. Using minimal external resources, this strategy has brought substantial progress. Instilling such an approach represents a cornerstone of sustainable capacity-building. Results include an increase in prenatal care coverage from 56 percent to 72 percent over a sixmonth period in 1995 in a rural Niger clinic, and a decrease in infections following cesarean sections in a hospital in Guatemala from 25 percent in 1994 to 11 percent in 1995.

With USAID and other donor support, a lifesaving skills training curriculum has been developed to address obstetric and newborn complications. Tested first in **Ghana**, **Nigeria**, and **Uganda**, the curriculum is now being adapted for use in **Bolivia** and **Indonesia**. New training curricula are also being developed for USAID-sponsored efforts in the latter two countries to address normal birth and improve prenatal and postpartum care.

During 1995, participating U.S. partners in the Agency's Medical Partnership Program in the new independent states formed a task force to address women's health issues, producing tanglible results in an area traditionally neglected in this region. For example,

■ Working in partnership with Jacobi Medical Center in New York City, **Albania's** Maternity Hospital in Tirana achieved a decline in maternal mortality. During 1994–95, perinatal mortality fell from 31 to 23 deaths per 1,000 deliveries, while neonatal mortality dropped from 28 to 25 deaths per 1,000 deliveries.

■ In Russia, Savior's Hospital in Moscow, with its partner, Magee Women's Hospital in Pittsburgh, Pennsylvania, developed Savior's Women and Family Education Center. The center offers comprehensive health education classes on such topics as childbirth preparation, prenatal and newborn care, stress management, and nutrition. The program, which has attracted funding from several sources, including the Ministry of Health, will be replicated in 20 new educational centers across Russia.

■ The Second State Medical Institute of Tashkent, Uzbekistan, and the University of Illinois Hospital in Chicago, have formed a partnership that emphasizes obstetrics and neonatology. It has created a high-risk pregnancy center based on modern perinatal care standards. The Ministry of Heath has allocated \$200,000 to renovate the high-risk pregnancy center as a model to identify and treat high-risk pregnant women.

#### Improving the Host Country Policy Environment

Protocols and guidelines developed by USAID can influence national programs. Building on USAID-supported activities in both the rural and urban areas of **Bolivia**, the government developed a national plan to speed the reduction of maternal mortality. Now in effect, the plan continues to draw lessons from a USAID-supported demonstration project covering a population of one-half million. Protocols developed for the demonstration project to manage obstetric and newborn complications have been disseminated nationwide.

Data on the magnitude and severity of maternal health problems provide a powerful tool to inform policymakers and decision-makers in developing countries. USAID data collection programs, including the demographic and health surveys, increasingly address the full range of reproductive health issues. During 1995, USAID supported national demographic and health surveys in 12 countries. The core questionnaire for all new demographic and health surveys includes questions on delivery and obstetric complications and use of services, and on sexually transmitted infections, including HIV. Additional survey modules have addressed maternal mortality in 20 countries, HIV/AIDS in 20 countries, and female genital mutilation in 8 countries.

USAID programs have begun to address the health and human rights aspects of the traditional practice of female genital mutilation. Both the UN Cairo Program for Action and the Beijing Platform for Action condemned this practice, prevalent mainly in East and West Africa. Global estimates indicate that annually at least two million girls are at risk. USAID collaborates with the State Department and other government bodies to improve efforts to eliminate genital mutilation. Projects have been initiated in Egypt, Eritrea, Guinea, Kenya, and Mali. USAID and its partners work to strengthen the capacity of indigenous women's groups and community organizations to educate communities, the media, and policymakers as well as to advocate preventive programs and policies, including necessary legal reform.

# Expanding Service Availability, Quality, and Use

Information, education, and communication programs need to target women, their husbands and mothers-in-law, and others who influence decision-making. Communications techniques to encourage behavior change are designed and tested through USAID activities in selected countries. A methodology using self-diagnosis of maternal and neonatal health problems, which USAID introduced in Bolivia for women in rural Andean communities, reduced perinatal deaths by more than 50 percent. Peru and Pakistan are currently carrying out a similar methodology. In Bolivia, the methodology is now being used by NGOs throughout the country.

USAID has also begun activities with NGOs and professional organizations in **Bolivia, India, Indonesia, Malawi,** and **Pakistan** to build their capacity to deliver reproductive health services, targeting maternity care, women's nutrition, and sexually transmitted infections.

To reduce the morbidity and mortality associated with pregnancy and delivery, the quality of care in referral facilities must be upgraded. Several **Ukraine** cities have introduced a client-centered maternity care model. The model increases the confidence of women and their families to assume responsibility for certain decisions related to pregnancy and delivery, contributing substantially to the quality of care. In **Bolivia, Guatemala,** and **Indonesia,** USAID has helped develop protocols and practice guidelines for obstetric emergencies. Such tools serve to both standardize and promote excellent obstetric care.

While maternal mortality has probably been declining owing to the widespread use of modern contraceptives and increased use of professional delivery assistance, the **Egypt** National Maternal Mortality Study of 1992 documented the national ratio of 174 maternal deaths per 100,000 live births. The study also identified avoidable factors in maternal deaths. The findings informed efforts to improve care for pregnant women and increase the use of related health services. Child survival model clinics, operational in nine governorates, introduced quality assurance processes into public sector facilities. The increase in the number of women who receive four or more prenatal visits-from 22 percent in 1992 to 28 percent in 1995-suggests the improvements in quality.

Data show that in geographical areas with high maternal mortality, 70 percent to 90 percent of associated births occur at home. This common practice poses a serious obstacle: during home deliveries, life-threatening complications cannot be treated adequately. Increasing both the demand for and the availability of appropriate services is essential to improving access to care. Communication campaigns increase awareness of the importance of both prenatal care and assistance from a trained health care worker at delivery. They teach adults to recognize treatable life-threatening complications of pregnancy. In Morocco, the percentage of women receiving prenatal care rose from 32 percent in 1992 to 45 percent in 1995, and deliveries assisted by trained personnel rose from 31 percent in 1992 to 40 percent in 1995.

**Indonesia,** despite substantial success in family planning, still has high maternal mortality. In response, the government has implemented a strategy to train certified midwives to work at the village level. USAID assists the government with the lifesaving skills training. Midwives are trained to better recognize, refer, and stabilize women and newborns with complications.

In addition, the Agency assists with the establishment of a clinical training network. The network emphasizes clinical and teaching skills in reproductive health in 70 sites throughout seven target provinces. Indonesian researchers documented high levels of irondeficiency anemia among pregnant women: 55 percent are mildly or moderately anemic. Moderate anemia is associated with maternal mortality. USAID supports several activities that target women of reproductive age, especially adolescent girls, for increased micronutrient intake, specifically from foods rich in vitamin A and iron and from vitamin A capsules and iron tablets.

# Reducing Transmission Of HIV and Other Sexually Transmitted Infections

HIV/AIDS is recognized as one of the most urgent health problems of our time. Since the late 1970s, close to 28 million people have been infected with HIV.

Almost eight million people have developed AIDS, and more than six million people have died from it. It is estimated that by the year 2000, an additional 20 million will become infected with HIV and an additional 8 million to 10 million will die of an AIDS-related illness.

The high prevalence of other sexually transmitted infections (STIs) exacerbates the spread of HIV. The presence of other STIs dramatically increases the efficiency of HIV transmission. In addition, the same behaviors that put people at risk of acquiring STIs can also lead to HIV infection. The World Health Organization estimates that 333 million new cases of STIs other than HIV/AIDS occur every year.

As countries begin to experience the devastating social and economic effects of HIV/AIDS, the pandemic has emerged as a serious threat to sustainable development. The demand for increased health care and social support has put additional economic pressure on health systems and local and national governments. HIV/AIDS has considerable social and economic impact in developing countries, with the loss of adults in their most productive years placing burdens on families, communities, and industries.

AIDS is the leading cause of death in Africa in adults between 15 and 49 years of age. Because of AIDS, by the year 2010, life expectancy will decline by more than 25 years in several Asian and African countries. The 1990s have seen an increase of HIV/AIDS outside Africa, particularly in Asia, which will soon have more new HIV infections than any other region of the world. Although Latin America and the Caribbean have fewer cases of HIV infection than Asia or Africa, HIV infection rates in the region almost tripled from 1988 through 1992, and they continue to rise.

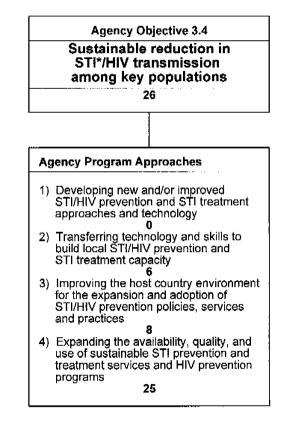
Since 1986, USAID has led the international response to the HIV/AIDS pandemic (see figure 3.13). Through its support in more than 40 countries and its commitment of more than \$700 million, the Agency works to reduce the further spread of HIV and mitigate the pandemic's impact on sustainable development. USAID has established effective partnerships with national governments, international organizations, donors, and NGOs to develop strategies for HIV/AIDS prevention and to build community capacity to slow the spread of the disease. Box 3.6 highlights certain results. Partnership and prevention are the guiding principles of USAID's response to the challenge of HIV/AIDS.

#### Developing New and Improved Approaches And Technologies

USAID's approach to slowing the spread of HIV/ AIDS relies on strategies tested and refined over the past 10 years. The Agency has provided global leadership in monitoring and evaluation by collaborating with the World Health Organization/Global Program on AIDS to establish standardized prevention indicators for worldwide use. Developed for use with general populations, the prevention indicators have been adapted to evaluate the results of specific prevention activities.

USAID has demonstrated that prevention and control services for sexually transmitted infections can be integrated effectively into family planning and maternal and child health

# Figure 3.12. Number of Country Programs Contributing to Agency Objective 3.4



\*Sexually transmitted infections

programs, thus dramatically expanding access for women. In **Kenya,** USAID led the way in integrating HIV/AIDS and family planning services. Local organizations now adapt programs to promote AIDS prevention education and counseling through integrated service delivery programs at the work place, in health clinics, and through community outreach programs.

Improving control of sexually transmitted infections is one of the most effective strategies for limiting the spread of HIV/AIDS. USAID leadership helped develop and promote this approach to STI management. It is cost-effective in settings where laboratory services are not available or affordable.

USAID supports research to develop low-cost, rapid diagnostic tools for STIs that are appropriate for limited resource settings. Several countries now produce a simple dipstick test for detecting HIV antibodies. A second groundbreaking technology developed with USAID support, the plasma separator card, allows syphilis testing using a drop of blood taken from the finger. The test provides results within 20 minutes so that infected individuals can be treated immediately.

Patients' beliefs about the causes of illness and their perceptions of the quality of available services influence whether, where, and when they seek care. USAID has developed and field-tested the target intervention research (TIR) methodology to bridge the gap between research and practice. To improve the quality of care, TIR uses qualitative research to identify current STI healthseeking behavior including local perceptions, terminology, practices, and beliefs. This methodology has improved country-level programs in Ethiopia, Swaziland, and Zambia. TIR studies are ongoing in Benin, the Philippines, Senegal, and South Africa.

USAID improved methodologies to inform policymakers of the relative effectiveness of various prevention strategies against the spread of HIV/ AIDS. The most recent, a model named AVERT, serves as a planning tool for stakeholders and project managers to assess the effectiveness and impact of HIV prevention programs by estimating the number of HIV infections averted.

USAID's early response to the emerging pandemic in Asia includes HIV/AIDS prevention

## Box 3.6. Preventing STI: Do the Interventions Work?

USAID's interventions have contributed to reducing the further spread of HIV/AIDS and to promising declines in STI/HIV transmission in specific populations. Efforts by USAID and others are beginning to show results.

■ The spread of HIV/AIDS has been slowed in San Pedro Sula, the epicenter of the disease in **Honduras**, which has 57 percent of all the reported cases of HIV/AIDS in Central America. For example, the 1994 HIV seroprevalence of 4 percent in prenatal women and 13 percent in commercial sex workers has remained constant at the 1991 level.

■ Implementation of a 100 percent condom-use policy in commercial sex establishments in **Thailand** has reduced STI incidence from 13 percent to 0.3 percent per month. The use of condoms by commercial sex workers has increased from 14 percent in 1989 to 94 percent in 1996.

■ In **Uganda**, data suggest progress in reducing the spread of HIV infection. For the third consecutive year, HIV prevalence has declined among pregnant women attending sentinel antenatal clinics in urban areas, signifying the first sustained drop in HIV prevalence in Africa. At one clinic in Kampala, HIV seroprevalence among pregnant women aged 15 through 19 declined from 26 percent in 1992 to 22 percent in 1995.

■ In the **Philippines** the HIV infection rate is still one of the lowest in Asia. Mass media, outreach interventions, and peer counselors promote behavioral changes in people that reduce the transmission of HIV. These efforts have had an impact: the HIV seroprevalence rate among groups that practice high-risk behaviors continues to remain at the 1993 baseline of less than 1 percent.

programs in **Bangladesh**, **India**, **Indonesia**, **Nepal**, and the **Philippines**. The role of mobile populations in the rapid spread of the virus in Asia has directed attention to the importance of cross-border transmission and the need for regional approaches to HIV/AIDS prevention.

#### Transferring Technology And Skills

The transfer of technology and skills helps ensure that local programs are effective and sustainable. Over the past decade, NGOs have demonstrated that they are in the best position to mobilize communities for HIV/AIDS prevention and care. USAID provides financial support to NGOs and builds their strengths by improving their ability to design, implement, and evaluate HIV/ AIDS programs.

Sustained, long-term capacity-building requires significant resources and specialized technical assistance. USAID used a cost-effective NGO "cluster approach" to capacitybuilding in Tanzania. Under this model, several NGOs train together, immediately apply the learned skills, and then receive timely feedback and follow-up. Since that project's inception in 1994, USAID has facilitated the creation of NGO clusters in nine regions, with participation from more than 100 NGOs. These clusters are an innovative approach to HIV/AIDS prevention programming, building on the strengths of existing organizations. Recognizing the limits to the level and duration of USAID support, the clusters are encouraged to address sustainability by generating more community support, recovering their costs, and promoting income-generating activities.

In **Senegal**, USAID provided capacity-building and training to more than 100 NGOs, community leaders, and decision-makers who are now able to design, implement, manage, and evaluate STI prevention and control programs. The involvement of religious leaders in these programs has brought about a more open dialog on HIV/AIDS prevention.

During 1995 the Agency assisted in **Uganda's** training of health workers to utilize the syndromic diagnosis of STIs and new, effective treatment regimens. The first round of monitoring indicated that the trained staff improved their performance in diagnosing and managing STI cases.

USAID provided training and technical assistance in the **Dominican Republic** to develop plans for long-term sustainability in HIV/AIDS prevention. Such plans strengthen local organizations. They provide the framework for future assistance requests and serve as the basis for the NGOs to leverage support from other donors.

#### Improving the Host Country Policy Environment

USAID's leadership role in policy development at the international, country, and local levels and in the public and private sectors has helped create an environment where HIV prevention programs can operate effectively and efficiently. USAID assistance has strengthened country political commitment, promoted participation of local organizations, built capacity to conduct policy dialog, and encouraged increased allocation of resources to prevent and reduce STI transmission.

In Indonesia, since the creation of the national HIV/ AIDS program in 1995, the government has formulated two new prevention policy statements: an endorsement of condom use as one of several risk-reduction strategies, and a statement ruling out euthanasia for people with AIDS. In addition, with USAID's support, the government developed implementation plans for HIV/ AIDS prevention. In a dramatic indication of the government's increased commitment, the 1995 government health resources allocated to HIV/AIDS increased by 40 percent, from \$2.5 million to \$3.5 million.

Computerized presentation models can dramatically demonstrate to policymakers the socioeconomic and epidemiological effects of the disease. The AIDS Impact Model, developed with Agency support, has been effective in raising AIDS awareness and influencing policymakers and opinion leaders. In **Ghana** it has guided policy formulation and the programming of resources for preventing HIV/AIDS.

USAID's efforts to encourage policy dialog in **Kenya** have resulted in increased public awareness and political support for HIV/AIDS prevention. In 1994–95 the government for the first time included a chapter on HIV/AIDS in its development plan. In addition, owing in part to USAID's advocacy, the 1995–96 government financial commitment to the National AIDS and STIs Control Program increased by 49 percent over the previous year's level.

# Expanding Service Availability, Quality, and Use

Increasing condom use is a key intervention to prevent the spread of AIDS and other sexually transmitted diseases. In 1995 USAID shipped a total of 520 million condoms for family planning and HIV/AIDS prevention programs. Applying social marketing techniques to distribute condoms is now an established strategy for preventing sexually transmitted diseases. Efficient and costeffective, social marketing increases condom availability to specific target populations and the general population. Condom sales for HIV/AIDS prevention have increased dramatically in many countries.

The 1995 demographic and health survey report in **Haiti** revealed a 40 percent increase over 1994 for condom sales levels and an increase in the treatment of STIs from 10 percent in 1991 to 69 percent in 1995. Condom distribution in **Nigeria** increased over 20 percent in one year, from 45 million in 1994 to 55 million in 1995. In **Honduras** the seven million condoms distributed in 1995 exceeded USAID's target.

Knowledge and attitudes necessary for AIDS prevention are widespread in **Kenya**, where USAID has been the lead donor in this effort. Protective behaviors are widely practiced. Condoms sold through the USAID social marketing program increased from 26,000 per month in 1990 to 500,000 per month in 1995. It is estimated that through 1995, condom use averted more than 110,000 HIV infections and 1.3 million other STI cases.

The Agency has introduced an innovative social marketing program in **Zambia** by training and selling condoms to traditional healers. This program has expanded the social marketing of condoms in rural areas through nontraditional outlets. It has also elevated the role of the traditional healers and peer educators as change agents in HIV/AIDS prevention and control. Over 50 percent of all traditional healers participating in this process are women.

The USAID-supported program in **Brazil** has generated an increased demand for condoms. During 1995, condom sales increased 61 percent over the previous year. USAID helped to strengthen the surveillance system, which monitors STI prevalence. In addition, access to STI clinical services expanded: almost 69,000 STI patients have received proper diagnosis and treatment. Improved referral systems ensure that commercial sex workers, in particular, have access to and use the STI clinical services.

Mass media can raise awareness, change attitudes, and promote behavior change. These campaigns can be more effective when coordinated with supporting interpersonal communication interventions implemented through peer educators. USAID has served as a catalyst in moving HIV/AIDS prevention programs from providing basic information about transmission to designing communication strategies to influence individual behavioral and social norms. It has reached more than 3.4 million people with comprehensive HIV prevention education and trained more than 72,000 people to serve as educators and counselors.

In Nepal, where USAID is the lead donor for STI-prevention activities, the AIDS epidemic remains at low levels in groups that practice high-risk behaviors, despite the high rates seen in neighboring India. This suggests that prevention efforts in Nepal targeting these vulnerable groups may be working. In 1995, a USAID-supported program distributed 4.2 million condoms in a 22-district target area. Under this prevention program, peer educators also reached 14,000 men and women who engage in high-risk sexual behaviors.

Adolescents and sexually active adults are two target groups identified in Tanzania for mass media intervention. In response to research findings that showed that young people both lacked a reliable source of information about sexually transmitted infections and responded well to mass media, USAID developed several print media. One magazine, targeted to adolescents and youth, provides accurate information on AIDS and other sexually transmitted infections. This popular magazine, distributed through all government secondary schools, has fostered greater demand for the introduction of a family life and AIDS curriculum.

#### Conclusion

USAID's 1995 Annual Performance Report touched on the challenges ahead as the Agency moves toward the goal of stabilizing population and protecting human health. These challenges included reaching the millions and growing numbers of women who do not have access to basic health and family planning services; institutionalizing prevention services to keep millions of children from dying each year; curtailing the rapid spread of HIV/AIDS; and building sustainable systems-all with declining resources. In 1996 the decrease in development assistance funds for USAID,

staffing cuts, and closings of country programs all intensify these challenges.

The new environment for development assistance underscores the need to concentrate on sustainability. USAID promotes programs that preserve and build on progress while decreasing host country dependence on donor-provided resources and technical assistance. Interventions develop the capacity of institutions in developing countries. Ultimately, these institutions must prove capable of supporting services without external assistance. USAID's population, health, and nutrition programs address this aim.

Integrated programming capitalizes on the linkages between the four objectives, building on the Agency's strengths in developing new approaches and technologies. A new program in West and central Africa, for instance, seeks ways to support family planning and HIV/AIDS programs in countries where USAID does not maintain a Mission, working through local and international NGOs. A new breastfeeding program, to be managed by USAID/Washington, integrates into a single program elements previously supported as separate activities for family planning, child survival, and maternal health.

Programs place considerable emphasis on the need to build local capacity. Local NGOs are more often the target of a broad range of technical assistance. Strategies include promoting cost-recovery, training of trainers, and development of curricula and cross-cutting systems.

In addition to capacitybuilding, a number of programs in population, health, and nutrition have incorporated cost-recovery elements into their strategic plans. Countries and programs addressing cost recovery in their plans represent a broad range of stages of development. They include **Bangladesh, Bolivia, Ecuador, Ethiopia, Indonesia, Jamaica, Kenya, Morocco,** and **Peru.** 

In certain countries in the past year, the Agency began to develop phase-out strategies that can serve as models for other countries and sectors. In Morocco, the transition plan for population, health, and nutrition applies a definition of sustainability geared to strengthen the capacity of the public and private sectors to provide high-quality services. Ensuring that services are valued by the population helps to guarantee that adequate national resources will be committed for their continued delivery.

The host country policy environment will become more critical as USAID identifies the necessary conditions for sustainability. USAID assistance develops and strengthens host country political commitment, promotes participation of local organizations, and encourages increased allocation of local resources to the sector. Policy work will look more to quality of care, government budget allocations, advocacy skills building, and strategic planning. As health programs become more decentralized, subnational regions require the capacity to lobby and plan for their specific needs. USAID policy development activities also recognize that sustainability of programs depends on broadening the base of support for policies. Programs support increased participation by beneficiaries in policymaking, outreach to national and community leaders outside the population and health sector, and wide dissemination of policy-relevant data and information.

Lessons learned will continue to inform program design and implementation. While there have been advances in integration of obstetric services and reduction of maternal mortality in some model areas, USAID will continue to advocate the necessary political will and resource allocations to address the problem. The Agency will continue to seek even more cost-effective models of care for maternal mortality reduction.

HIV knows no borders. The response to the HIV/AIDS pandemic must be equally dynamic. It requires a unified global response to HIV/AIDS prevention, research, care and management. In 1997 the Agency will launch the third major phase of its HIV/AIDS program, building on lessons learned during the past decade.

USAID's interventions to expand service availability, quality, and use will build on effective approaches that produce results in an efficient, sustainable manner. The Agency's development of Integrated Management of Child Illness, in collaboration with WHO and UNICEF, provides a striking example. The approach to child survival programming maintains and builds on the key components of child survival, vielding a functional, sustainable package.

An emphasis on systems enhances the sustainability of interventions. Efforts to piggyback essential drugs onto contraceptive distribution systems, and vitamin A distribution onto immunization programs, are two illustrations of making the most of logistics systems. USAID will combine with ongoing immunization programs its efforts to replicate worldwide polio eradication in Latin America and the Caribbean. Progress to eradicate polio will concurrently strengthen related immunization and surveillance systems.

USAID's emphasis on sustainability is an increasingly important aspect of the Agency's population, health, and nutrition programs. In addition, USAID programs continue to address the lifethreatening, urgent health needs in developing countries. The Agency and its partners have made considerable progress toward reducing unintended pregnancies, child and maternal mortality, and spread of sexually transmitted infections among key populations, but considerable work remains.