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Child Survival

A Seventh Report
to Congress on the
USAID Program



U.S. Agency
for International
Development
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We are living in remarkable times. During the last year, much of the world has come to embrace the concept of democracy and to place full value on the individual freedom that accompanies it. The same changes taking place in the former Soviet Union are rippling through Africa, Asia, and Latin America. Democratic institutions are being formed and tested everywhere.

Ultimately, the beneficiaries of this change will be the world's children. Until these emerging democracies begin functioning effectively, however, life for many of their children will be far from easy. The U.S. Agency for International Development (USAID) is committed to strengthening fragile democracies to ensure that the children of the world not only survive, but flourish, to reap the benefits of the changes sweeping the world today.

What does our commitment mean? Partly, it is demonstrated in the remarkable accomplishments of the first six years of the USAID Child Survival Initiative. Indeed, for the first time, progress in family planning and child survival has resulted in the total number of annual child deaths declining. Additionally, it is now estimated that:

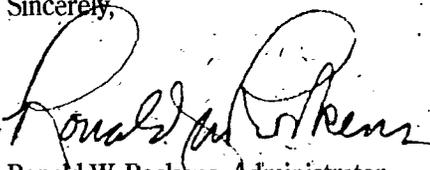
- ◆ Annually, immunization against measles and other childhood diseases now prevents 3.2 million child deaths; diarrheal disease control programs prevent more than one million;
- ◆ Around the world, vaccination coverage has soared. Twenty-five USAID-assisted countries provide basic child vaccination coverage to 80 percent or more of their children;
- ◆ Thirty-seven USAID-assisted countries are using oral rehydration therapy to treat at least 45 percent of diarrhea cases in children; and
- ◆ In countries with especially strong immunization programs, infant and child mortality rates continue to decline as much as two to three times.

Nonetheless, the battle is not yet won. Rather, it is, and must remain, a battle joined. More than 13 million children under the age of five die each year; most of these deaths are preventable with the technologies at hand. As this report makes clear, child survival faces three broad challenges in the coming decade:

- ◆ First, financial and technical support for ongoing programs must be sustained even as countries and communities increasingly assume full responsibility for them;
- ◆ Second, we must realize the full potential of the revolution in biotechnology and communications to tame the remaining threats to the children of the world; and
- ◆ Third, we must continue to manage existing programs with the same kind of diligence that we are asking parents to apply in nurturing their children.

Children may only be 25 percent of the world's population, but they are 100 percent of its future. As a whole new world opens up to them, we must remain ever committed to their needs. At USAID we remain committed to the Child Survival Initiative. The children whose lives are held in the balance are far too important to neglect.

Sincerely,



Ronald W. Roskens, Administrator
U.S. Agency for International Development
April 1992



A Global Look at the Child Survival Initiative



Child Survival Goals, Strategies, and Accomplishments

The U.S. Agency for International Development (USAID) initiated its child survival program in 1985, committing itself to reducing child deaths through simple, affordable, proven technologies. Specifically, USAID collaborates with the international community to increase global vaccination coverage of BCG (tu-

berculosis), measles, DPT3 (three doses of vaccine against diphtheria, pertussis, and tetanus), polio3, and tetanus2 to 80 percent; to promote the use of oral rehydration therapy (ORT) in 45 percent of all diarrhea cases; to improve nutrition with an emphasis on breastfeeding, and proper infant and child feeding; and to promote child spacing to reduce the number of high risk births.

Through the combined efforts of USAID, the World Health Organization, the United Nations Children's Fund, host country governments, and other

agencies and donors, millions of children's lives are saved each year in the developing world.

◆ It is estimated that immunization programs now avert 3.2 million child deaths each year from measles, pertussis, and neonatal tetanus.

◆ During 1990, ORT reportedly saved over one million children.

In USAID-assisted countries, significant gains have been made in improving the survival and health status of children since 1985.

◆ The number of countries reporting an ORT use rate of more than 45 percent increased from four countries in 1985 to 37 countries in 1991.

◆ Overall, infant and under five mortality rates declined by 10 percent and 12 percent respectively, with the Near East region experiencing a 40 per-

cent reduction in under five mortality.

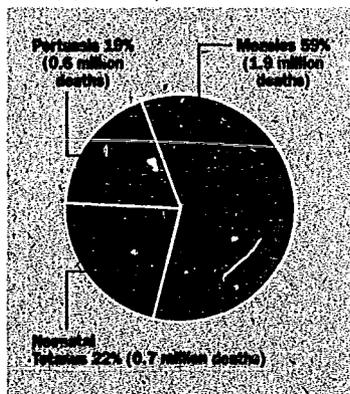
◆ DPT3 vaccination coverage for children 12 to 23 months rose from 39 percent to 67 percent.

◆ Measles coverage more than doubled from 24 to 60 percent.

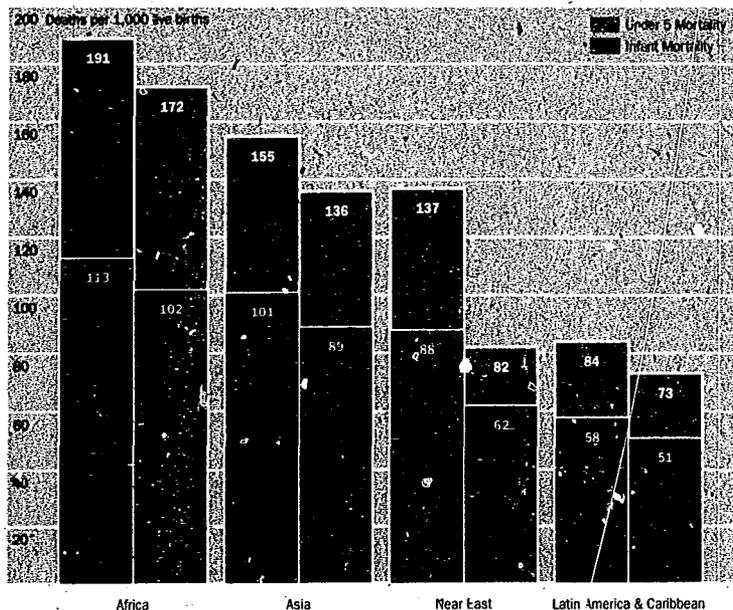
◆ Since 1985, USAID contributed more than \$1.2 billion to child survival-related programs.

To gain a full appreciation for USAID's contribution to child survival, it is essential to look beyond the number of vaccinations provided and oral rehydration packets distributed. The development of lasting services is the underlying key to the program's success. USAID strives to promote sustainable services, provide technical assistance to field programs, mobilize the private sector, both voluntary and for-profit organizations, collaborate with other don-

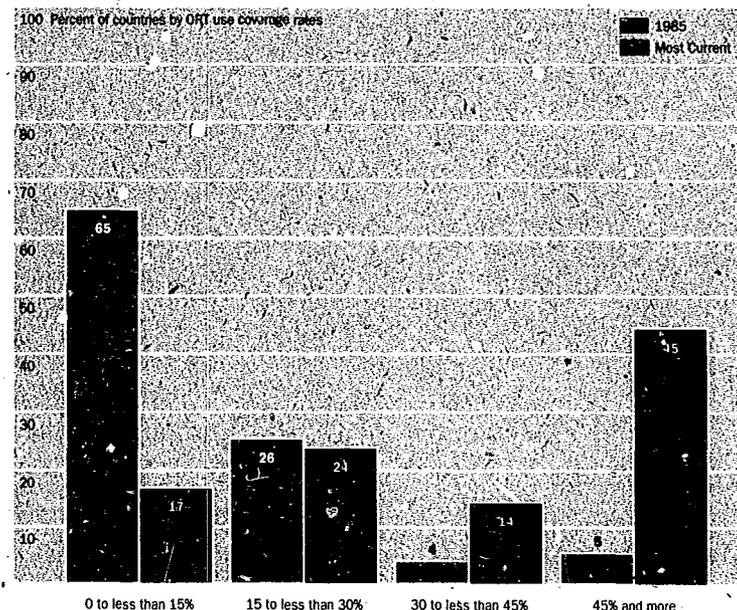
Under 5 Deaths Averted by EPI



Infant and Under 5 Mortality in USAID-Assisted Countries



ORT Use Rates in USAID-Assisted Countries



ors and agencies, monitor, evaluate, and refine services at the country and program levels, and increase program effectiveness through research.

The World Summit: Looking to the Year 2000

Despite the progress that has been made, 13 million children still die each year from preventable diseases. At the 1990 World Summit for Children, world

leaders pledged their continuing support to improving children's lives. The United States joined with the world community to endorse the following goals: the reduction of under five deaths by one-third, the reduction of maternal mortality by half, the reduction of severe and moderate malnutrition by 50 percent, and the provision of universal access to safe drinking water and sanitation for all families by the year 2000.

Current Status and Pending Challenges

◆ Acute respiratory infections have emerged as the leading cause of child death responsible for one-third (4.3 million) of all under five deaths.

◆ Forty-three million children currently suffer from vitamin A deficiency contributing to high child mortality and morbidity. Vitamin A has been shown to improve health and to be related to reductions in overall child mortality.

◆ Rapid increases in HIV/AIDS prevalence will place even greater burdens on the pace of child survival, especially in Africa. By the year 2000, 10 million children will be infected with the HIV virus, and in sub-Saharan Africa, 10 million children will be orphaned when one or both parents die of AIDS.

◆ Exclusive breastfeeding during the first four to six months of life although optimal is rarely practiced. According to USAID-supported surveys conducted in developing countries around the globe, more than half of breastfed infants under four months of age are receiving unnecessary and potentially dangerous water or other supplements in addition to breast milk.

◆ Over 700,000 infants in developing countries die each year from tetanus infections transmitted through unhygienic delivery procedures. Cover-

age of all women with tetanus toxoid vaccine which would protect their infants remains low at only 29 percent in developing countries.

◆ Each year, measles and its complications claim almost 900,000 children's lives and produce lasting affects which weaken a child's resistance to other illnesses.

◆ Throughout the developing world, one in three children remain malnourished, a condition with life-long effects on health and sound development, and a contributing factor in 60 percent of all child deaths.

◆ Sustaining the child survival achievements will be challenged by the growth of populations. While the global

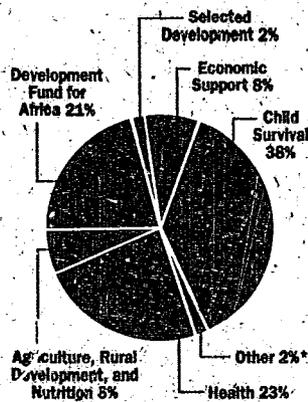
fertility rate is declining, each year more than 126 million infants are born in the developing world.

◆ Diarrhea-related dehydration continues to be the second leading cause of death, claiming the lives of three million children each year.

◆ Malaria is resurging in regions where malaria transmission had almost been eliminated two decades ago. In sub-Saharan Africa, malaria claims the lives of a million children each year.

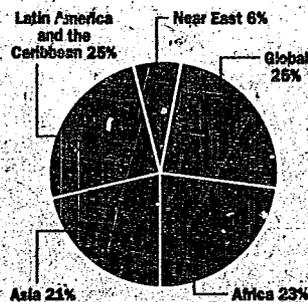
Child Survival Funding FY91

Total: \$251,125,000
By Appropriation

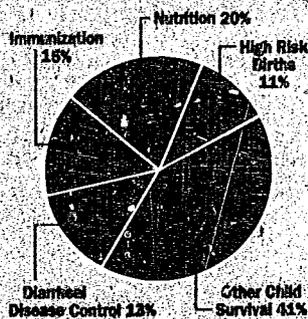


*Other includes Special Assistance Initiative, Education and Human Resources, and Sahel Development Fund

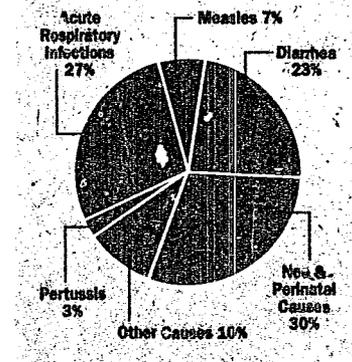
By Region



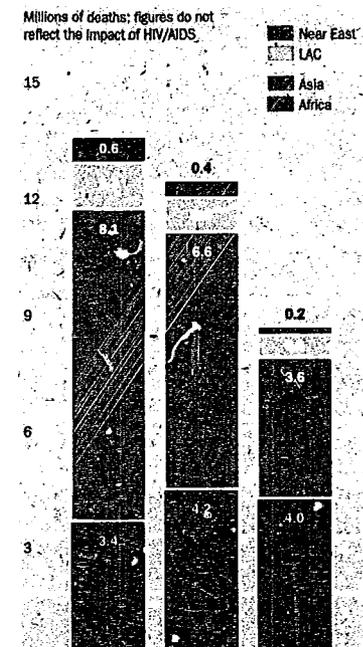
By Intervention



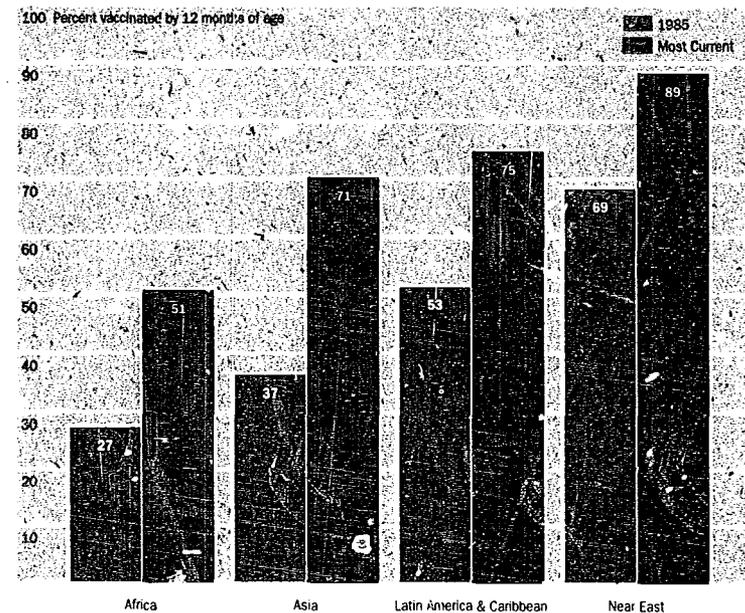
Killers of Children Under 5



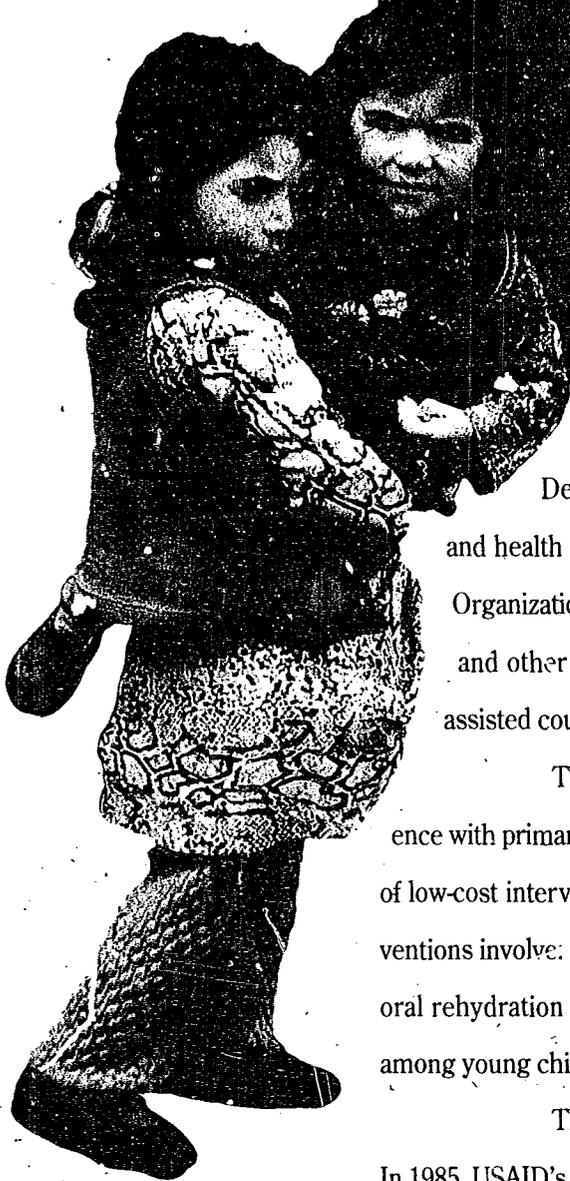
Shifts in Under 5 Mortality



DPT3 Vaccination Coverage Rates in USAID-Assisted Countries



Child Survival in the 1980s: A Success Story



Improving the lives of people – helping them to become healthy, productive members of their societies – is an essential task of development. One of the most dramatic development success stories of recent years is the improvement in the health and well-being of the world's children resulting from international child survival efforts.

As an integral part of this story, the U.S. Agency for International Development (USAID) launched a major initiative to improve the survival prospects and health of children. Working in collaboration with national governments, the World Health Organization, the United Nations Children's Fund, universities, private voluntary organizations, and other donors, USAID undertook a program to reduce infant mortality rates in USAID-assisted countries from the 1985 average of 97 deaths per thousand live births to below 75.

The USAID child survival program builds on a history of commitment to and experience with primary health care programs. Its strategy has been to focus on a limited, manageable mix of low-cost interventions proven to have a direct impact on reducing mortality. The four main interventions involve: increasing immunization against common childhood diseases, extending the use of oral rehydration therapy to prevent death from diarrhea-related dehydration, improving nutrition among young children, and reducing high risk births and improving maternal health.

The USAID program has focussed on countries with particularly high mortality rates. In 1985, USAID's 22 "emphasis" countries comprised two-thirds of infant mortality worldwide. USAID has additionally supported child survival activities in at least 40 other countries.

The Record to Date

Since 1985, USAID has committed over \$1.2 billion to the child survival program. It is an investment whose returns have already been substantial. It has improved health prospects among the developing world's children and strengthened the capacities of developing countries to provide health services.

In 1990, the World Health Organization announced that international child health efforts have succeeded in extending vaccination coverage against all six of the major vaccine-preventable childhood diseases – measles, diphtheria, pertussis (whooping cough), tetanus, poliomyelitis, and

tuberculosis – to at least 80 percent of the world's infants. In 1984, barely 10 percent of the children in the developing world were protected against measles, and fewer than 25 percent against the other five diseases. The World Health Organization estimates that immunization programs today prevent some 3.2 million deaths each year from measles, neonatal tetanus, and pertussis, as well as some 440,000 cases of paralytic poliomyelitis.

Another million lives are being saved each year through the use of oral rehydration therapy (ORT). ORT is a simple, inexpensive and proven technique to prevent death from the dehydration that usually accompanies diarrheal disease. Between 1984 and 1991, worldwide use of ORT increased from 12 percent of diarrheal episodes to 36 percent. During that time, access to packets of oral rehydration salts (ORS) more than doubled (from 35 percent to 79 percent). These figures represent substantial progress toward the international goals of universal access to ORS and use of ORT in at least 45 percent of diarrheal episodes. (Although increased intake of fluids are recommended for all children suffering from diarrhea, the administration of a specially prepared rehydration solution is not always required.)

As a result of these and other health interventions, infant mortality and child mortality rates improved steadily during the 1980s. In developing countries (excluding China), infant mortality (that is, deaths among those under one year of age) declined from 106 deaths per thousand live births at the beginning of the decade, to 95 in 1985, and to 83 in 1991. Deaths among children under five declined from 167 deaths per thousand live births in 1980, to 149 in 1985, to 130 in 1991.

The record for USAID-assisted countries – with some of the highest 1985 mortality levels in the world – is similarly impressive. Average infant mortality rates declined by 10 percent, from the 1985 average of 97 per thousand live births to 87 per thousand in 1991. In some countries with particularly strong programs, declines were as high as 25 to 50 percent.

Vaccination coverage rates and ORT use rates also increased substantially in USAID-assisted countries. In 25 countries, vaccination coverage rates were 80 percent or better by 1991, and another 16 countries had rates of at least 70 percent. In 1991, 37 USAID-assisted countries achieved ORT use rates of more than 45 percent.

But the successes of the child survival program lie not only in targets met or even deaths prevented, but also in the strengthened capacities they provide the institutions and peoples of developing countries. Child survival projects work to develop technical, administrative, managerial, logistical, communication, and research skills at all levels of the health system. This health infrastructure, in turn, is an essential ingredient in broader social and economic development.

“Saving one child is a miracle. As world leaders, we can realize such miracles, and then we can count them in millions” . . . George Bush, President, United States of America at the World Summit for Children, September 1990.

The ability to reach four out of five infants with health interventions is a major public health triumph. It represents unprecedented access to health services in developing countries and provides a strong foundation on which more comprehensive health services can be built.

If development is fundamentally about improving the lives of people, there can be no better investment than in the health and well-being of today's generation of children. If they enter school healthy, they have better opportunity to learn. Moreover, as children survive and thrive, parents have fewer children; they themselves begin to have more time and energy for productive activities and are better able to invest in their children's education. Better educated individuals earn more and can contribute more to society.

Investments in child health benefit both current and future generations. They begin a cycle that enables families, communities and nations to break away from some of the effects of poverty and economic deprivation. The long-term solution to overcoming childhood disease and death lies in achieving sustained economic growth. However, important steps can be – and are being – taken even in the short-term to improve lives and enhance productivity.

A Two-Way Flow of Benefits

The flow of benefits in the child survival program is not just from developed to developing countries. The United States benefits in direct and indirect ways from investments in developing country health, with many additional gains to be realized in the decade ahead. The domestic benefits of foreign assistance in health include savings in domestic health costs, the availability of new technologies, and the transfer of skills and knowledge back to the United States.

Between 1967 and 1977, USAID provided the equivalent of \$84 million (in 1991 dollars) for small pox eradication, primarily in West and Central Africa. As a result of the eradication of small pox from the world, the United States today saves that much every three to four months by not having to vaccinate its own population or conduct border checks. The successful eradication of polio, a major child survival objective for this decade, would also provide dramatic and direct savings.

Child survival technologies used in developing countries are increasingly recognized to be important in the United States as well. According to the U.S. Centers for Disease Control, over 200,000 children, most of them under age one, are hospitalized each year in the United States because of dehydration associated with diarrhea. This represents 10 percent of pediatric acute care hospital admissions and is estimated to add approximately \$500 million to the nation's annual health care costs. Between 1973 and 1983, an average of 500 children died annually from diarrhea-related dehydration, accounting for 10 percent of preventable infant deaths in the United States. The wider use of ORT – developed overseas with USAID support – in the United States would provide a far less expensive and



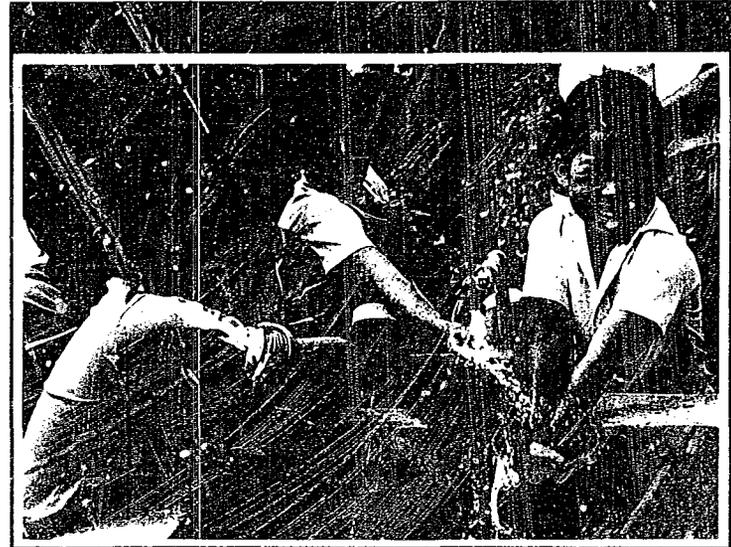
Some 13 million children under the age of five still die each year as a result of preventable or treatable illnesses . . .

potentially much more effective approach to the management of diarrhea. Currently, ORT is also being tested for preventing dehydration in the elderly in the United States.

USAID supports research on a host of other technologies and new vaccines – including single use injection devices, needleless injection devices, tests for anemia, cholera, and pneumococcal pneumonia, and vaccines for cholera, malaria, and rotavirus, among others – that could have significant applications for Americans.

Doctors, nurses, educators, nutritionists, and public health officials working in international health often bring their experience and expertise to domestic health issues. In many ways, the health issues facing poor, inner-city communities in the United States resemble those in developing countries. The skills and experience of professionals who have worked overseas, along with some of the proven technologies, could prove important in overcoming domestic problems.

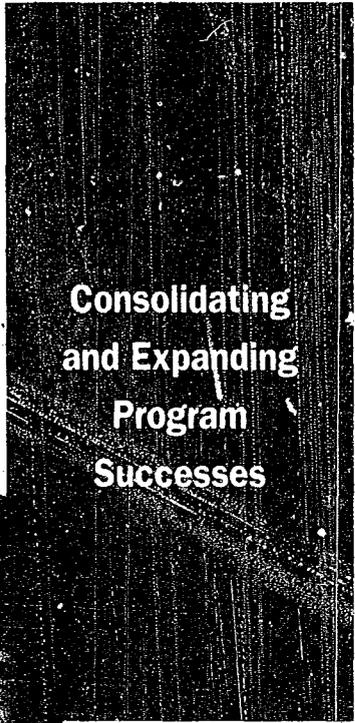
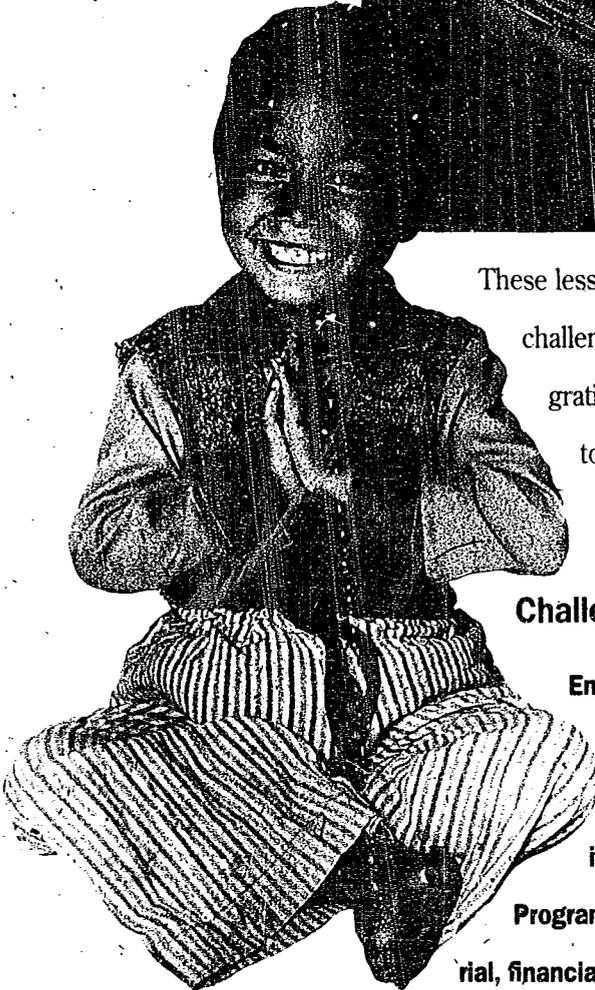
Finally, improved health contributes to more stable and perhaps more democratic societies. By providing or assisting others to provide health services, governments meet one of the most basic needs of their populations. Moreover, child health efforts are often community-based and built on citizen participation, giving people experience in successfully demanding quality health services. Such democratic decision-making in health contributes to broad-based, democratic, economic, and social development.



Future Challenges

With measurable impact already achieved, the temptation arises to declare victory and move on to other battles. Such a choice, however, would put at risk both the gains already made and those still possible. Despite substantial improvements in childhood mortality and morbidity, the job is not finished. Some 13 million children under the age of five still die each year as a result of preventable or treatable illnesses, and wide disparities still exist among and within countries in the developing world. Forty-two of the 90 countries receiving health assistance from USAID still have infant mortality rates higher than 75 deaths per thousand live births. The average infant mortality rate among USAID-assisted countries in the Latin America and Caribbean region is 51 deaths per thousand live births, compared to 102 in the Africa region.

During the 1980s, child survival activities succeeded in making unprecedented reductions in infant and child mortality, while simultaneously strengthening the institutions and systems through which further gains can be made. The challenges for child survival in the 1990s fall into two



Consolidating and Expanding Program Successes

areas: 1) consolidating and building on the successes achieved in child survival to date; and 2) addressing new issues arising from changing economic, demographic, and epidemiological patterns in developing countries around the world.

Perhaps the most important task facing the child survival program is to ensure that the accomplishments achieved in such a short time do not slip away. Gains already made must be protected; at the same time, even successful programs must make constant adjustments if they are to remain dynamic and effective. USAID and others involved in child survival activities learned a great deal during the 1980s about improving the health of children and designing effective primary health care programs.

These lessons must be utilized to further strengthen health systems by meeting the new challenges of 1) strengthening the ability of countries to deliver health services, 2) integrating focussed, targeted interventions, 3) building a more comprehensive approach to child survival, 4) improving the quality of services provided, and 5) expanding the scope of monitoring and evaluation activities.

Challenge #1: Strengthening the Capacity to Provide Services

Ensuring sustainability – that is, the long-term continuation of a project's activities and benefits beyond the period of donor support – has become an important international objective. Even as efforts continue to reach infant mortality and other goals, child survival programs must begin to plan for sustainability.

Programs must be designed to ensure that countries have the institutional, managerial, financial and technical capacity, as well as the political commitment, to deliver effective child health interventions over the long-term.

The political commitment to ensuring children's health has grown rapidly in recent years. In September 1990, the leaders of 70 developed and developing countries met for an unprecedented World Summit for Children. They took stock of the status of the world's children and committed to further improvements. The leaders also reaffirmed the crucial role children's health and well-being play in determining national well-being. Following the Summit, countries around the world have created high-level political committees and are currently in the process of preparing national action plans. In addition to political will, countries must have the capacity to continue such programs. The

cumulative experience of child survival programs around the world provides a growing body of evidence that child health programs can be designed from the outset to increase the likelihood that their activities and benefits will be sustained beyond the period of external project funding. Based on a study of countries that received USAID-health assistance, the following conditions have been found to optimize the prospects for long-term sustainability:

◆ **Projects should show demonstrable success in reaching clearly defined goals and objectives.** Success is a most convincing justification for sustaining a major enterprise. Community leaders, politicians, and private businesses seek to be associated with successful ventures. More importantly, a successful program stimulates demand from the community for continuation of the services it provides. In Zaire, for example, maternal and child health centers were well sustained in large part because they were able to show that they could serve the multiple objectives of reducing the demand on hospital maternity wards, providing immunization and health education services, and training nurses in maternal and child health. In Ecuador, the U.S. private voluntary organization Project HOPE has worked in communities to generate widespread demand for tetanus vaccinations, overcoming initial resistance through education and demonstration of the vaccine's effectiveness.

◆ **Projects should strengthen national institutions.** In order to achieve maximum initial impact, emphasis is frequently placed on a limited number of proven interventions. The institutions created or strengthened through these focussed interventions provide the foundation for subsequent diversification of activity in an effective and efficient manner. In Mali, USAID support has helped the Ministry of Health develop financial control and accounting systems, and provide integrated family health services on a daily basis at all centers in the Bamako District. In Morocco, USAID support served to strengthen an innovative community-based outreach system run by the Ministry of Public Health which integrated family planning, and maternal and child health care.

Two important elements contributing to a strengthened institutional base in developing countries are improved supervisory skills, and a commitment and capacity to use data and information for program planning and evaluation. In Niger, for example, USAID supported and assisted in the design, development, and testing of a national health management information system that gives the Ministry of Health a comprehensive overview of health service delivery as well as the capacity to feed the information back to hundreds of health facilities around the country. Combined with effective supervisory systems, as in the Central African Republic and Rwanda, such health information systems can strengthen health institutions and improve the quality of services.

◆ **Projects should achieve significant levels of funding from non-donor sources during the life of the project.** Long-term sources of funds can be developed either through gradual budgetary increases from national governments or through cost recovery from the project's beneficiaries. As in



**Cost recovery,
contributing
to sustainability,
can be greatly
enhanced when
projects are
built on effective
community
participation.**

most countries, the government of the Central African Republic has consistently provided a greater percentage of project funding than required by the original project agreement with USAID, with the result that it will not face a large incremental budget increase at the end of the project. Similarly, the Malawi government has begun to factor into future budgets the costs of providing child survival services now supported by USAID.

The polio eradication program in Latin America and the Caribbean, now on the verge of succeeding in eradicating polio in the region, is funded largely by the countries themselves. Although USAID has provided substantial contributions, nearly 90 percent of the program's recurrent costs are covered by national budgets.

In even the poorest countries, a portion of the community is able and willing to pay for health care services. These sources can make a significant contribution to health care funding. In Zaire, where gross national product per capita is estimated to be \$260 per year, fee-for-service financing has provided approximately half of the recurrent costs of most health care services. In Cameroon, revenues from the sale of essential drugs and consultation fees at USAID-supported public health facilities are used for a variety of purposes, including the resupply of essential drugs, the maintenance of health center refrigerators, primary health care outreach, and selected supervisory activities. This has resulted in high level political support for establishing cost recovery drug stores nationwide.

Cost recovery, contributing to sustainability, can be greatly enhanced when projects are built on effective community participation. People's willingness to assume some recurrent costs is closely related to their involvement and participation in the planning, implementation, and evaluation of activities. Also, strong community participation in health programs can help encourage democratic values and practices take root in villages and neighborhoods throughout the country. Private voluntary organizations such as the Adventist Development and Relief Agency, CARE, and World Vision Relief and Development cultivate strong community participation and support for their projects by establishing community health committees and training local volunteers to deliver project services.

The private sector can help reduce the burden of health care costs on the public sector. An expanded role for the private sector in providing child survival services both increases the public's access to services and provides some protection against loss of services as a result of changes in a country's political or economic climate. Private sector activity in child survival includes the commercial sale of ORS and chloroquine (as in Malawi and Sudan, where private voluntary organizations have established revolving drug funds for chloroquine), the delivery of vaccinations (as in Rwanda, where private mission hospitals have played an integral part), and the design and implementation of social marketing efforts (as in Nigeria and the Philippines, where advertising and public relations firms promote awareness of immunization and ORT campaigns). A slightly different approach is offered by the



Human resource development is essential to successful project implementation and helps build a constituency for the project's activities.

experience of Indonesia, where USAID supports efforts to increase efficiency and cost recovery in the hospital sector in order to free up resources for increased public spending on child survival.

◆ **Project design should be negotiated through a mutually respectful process.** Projects designed with local participation and negotiated through a respectful process of give and take are more responsive to locally defined needs, objectives and capabilities; moreover, they develop local leadership, a broader consensus, and a wider constituency committed to the project's objectives. Following the completion of USAID support to the highly successful National Control of Diarrheal Diseases program in Egypt, the national government established a general directorate in the Ministry of Health to oversee the continuation of activities. The directorate was given considerable administrative autonomy and its own budget funded from the sale of ORS at a marginal profit. Egypt's success in sustaining the diarrheal disease control program emphasizes the importance of collaboration between USAID and the national government, which was involved in the planning, decision-making, and implementation of the project.

◆ **Projects should include a strong training component.** Human resource development is essential to successful project implementation and helps build a constituency for the project's activities. Interventions have the greatest likelihood for continuation beyond an initial influx of resources and attention when those responsible for implementation understand the objectives and strategies of the intervention, and master the mechanics of service delivery.

Training in the use of child survival interventions should be built into the curricula of medical, nursing, and other schools, as well as into national training institutions. Nursing schools in Costa Rica and Kenya, and medical schools in the Dominican Republic and the Philippines are expanding curricula to include the correct management of diarrheal diseases and lactation management.

Continuing education that reinforces and upgrades the original training further contributes to sustainability by maintaining and upgrading the skills of health workers, and improving the quality of health care. When health care workers in Nigeria, the Central African Republic, and Côte d'Ivoire received in-service training based on systematic monitoring of clinic operations, significant improvements in their performance resulted.

The very effectiveness of the child survival interventions – and the rapid results they have achieved – have contributed substantially to building community and policy level support. Remarkable progress has been made in building political support, in using effective health communication to build demand and change behavior, in developing methods to generate revenue, and in strengthening institutions, and in developing the human resources that can deliver effective health services.

Ensuring the long-term sustainability of these results, however, will take time. In many countries with the best prospects for sustainability, USAID had already made significant investments



in human and physical infrastructure. Especially in the poorest countries, donors, including USAID, must be willing to provide long-term support to permit a gradual but steady transfer of technology, capacity, and responsibility to those countries.

Sustaining political commitment over the longer term and translating it into ongoing advocacy for policies and programs that benefit children is a major task for the 1990s.

Challenge #2: Integrating Targeted Interventions

In 1991, technical experts reviewed the evidence and concluded that focussed, targeted interventions have achieved significant reductions in infant and child mortality. The challenge for the 1990s is to sustain the delivery of these interventions while simultaneously increasing efficiency. Donors and countries must learn to utilize the infrastructure, human resources and communication services developed and strengthened by child survival programs to provide broader, more integrated services without reducing the effectiveness of the focussed interventions.

Many of the initial reductions in childhood mortality and morbidity under the international child survival effort have been accomplished through the widespread application of a small

number of technical interventions and the dissemination of information about these intervention to families, especially mothers. USAID concentrated its initial child survival efforts on four main interventions – immunization, ORT, nutrition, and reducing high risk births – with particular emphasis on extending vaccination coverage against the major vaccine-preventable diseases and increasing the use of ORT for diarrheal disease.

The strategy of relying on focussed, targeted interventions achieved remarkable success in a very short time. The interventions a) are effective in preventing or treating the diseases causing the great majority of preventable childhood mortality and b) do not require expensive, long-term investments in high-level training, equipment or facilities. Thus even in very poor countries,

significant health gains – in terms of rapid reductions in morbidity and mortality – have been realized.

Focussed, targeted interventions also serve as the basis for building strong primary health care programs. Initial successes in vaccination and diarrheal disease control provide management, distribution, education, and community mobilization techniques that can help other interventions succeed. However, if continued progress is to be made during the coming decade, better integration of the delivery of services must be achieved. As economic crisis is reducing health budgets throughout

On Measles . . . **"Health workers and parents do not consider measles dangerous, but it kills by devastating a child's immune system, opening the way for a host of other illnesses and infections such as pneumonia and diarrhea. It is especially deadly to children in developing countries. Only by greatly expanding the umbrella of immunization can we hope to shelter millions of infants and young children from the scourge of measles and its complications". . .**
USAID, September 1990.

the developing world, greater efficiency is required simply to maintain current service levels.

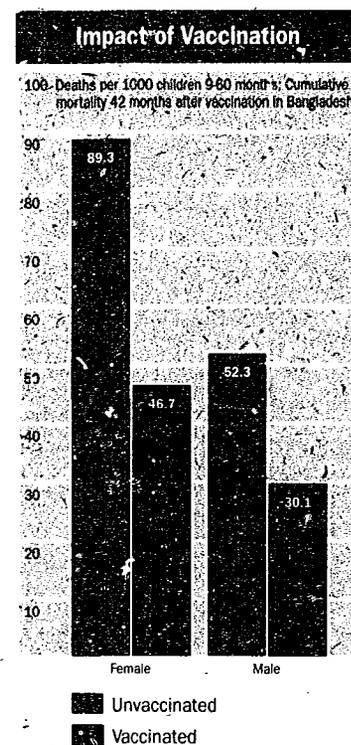
The need for increased efficiency is particularly acute at the clinic level, where a small number of people (sometimes a single individual) is responsible for providing a wide range of services. Too many separate programs put undue stress and performance expectations on these community health workers. Separate programs also put an unrealistic burden on mothers, who cannot, in addition to caring for children and engaging in income-generating activities, make repeated visits to the clinic for different services that would be provided more efficiently during the same visit.

Integrated service delivery enables health workers to recognize and address the multiple diseases and risk factors that can affect children, particularly those living in poverty, simultaneously as well as sequentially. While alleviating death from one cause does not necessarily prevent death from another, there is increasing evidence that diseases and the conditions or risk factors that increase susceptibility to diseases are mutually reinforcing. Children can become increasingly frail as a result of repeated bouts of acute disease and/or the cumulative result of chronic low-grade conditions or nutrient deficiencies. This frailty puts them at greater risk of dying from other diseases.

The most effective interventions, therefore, are those that reduce frailty as well as mortality. Measles vaccination, for example, is demonstrating an impact beyond merely reducing deaths due to measles. In rural Bangladesh, the mortality rates for vaccinated children were as much as 46 percent lower than for nonvaccinated children, indicating that the vaccine both reduced mortality directly attributable to measles and eliminated the debilitating consequences of the disease in those it did not kill. In Bangladesh and elsewhere, children immunized against measles have reduced mortality risks throughout their early childhood. The most vulnerable children benefit the most; measles vaccination not only reduces overall mortality levels but also reduces inequalities among groups in their survival chances.

USAID's experience has been that integrated service delivery succeeds best where it builds on the successful and sustained delivery of an initial focussed intervention, with additional services phased in gradually. Indonesia built on pre-existing family planning and nutrition services by adding immunization and diarrheal disease control services. It was one of the first USAID-assisted countries to deliver all four interventions on a national scale through more than 240,000 *posyandus*, or health posts. Indonesia is now adding a fifth intervention, the promotion of vitamin A (through supplements in the short run and food fortification and dietary change in the long run), and is developing ways to provide better maternal care at the community level.

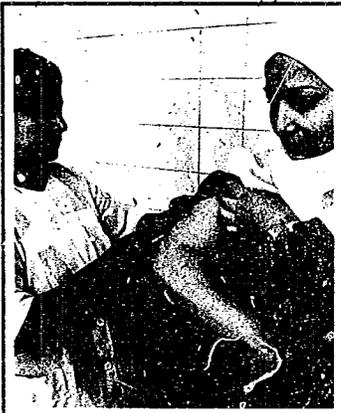
USAID's experience has shown that a focussed approach on selected proven and inexpensive interventions is effective in rapidly improving infant and child health, and can serve as the basis for subsequently building integrated programs. Expanding successful programs to address a



broader range of country-specific conditions, while maintaining the effectiveness of the targeted interventions, is an important priority for the 1990s.

Challenge #3: Building a Comprehensive Approach to Child Survival

At the beginning of the child survival initiative, immunization and diarrheal disease control represented more than half the total USAID child survival program. Today these two interventions constitute less than a third of the program. As a result of initial immunization and ORT successes as well as new information, a "second generation" of child survival interventions is available to accelerate progress toward more widespread child health. The challenge for the 1990s is to utilize these second generation interventions to build a more comprehensive approach to child survival.



Strategies and programs are needed to encourage and facilitate continued optimal breastfeeding for all women.

The shift in resources in USAID's child survival program is the result of three factors. First, many countries have achieved the original immunization and ORT goals. Second, there is greater appreciation of the interrelationship among childhood diseases, and of the effect of people's attitudes and practices on health. And third, as a result of ongoing research supported by USAID and others, there is increased confidence that additional technologies – within the context of the proven interventions as well as selected additional ones – can be applied effectively on a widespread basis. The second generation interventions that already play an important role in USAID's child survival program include control of acute respiratory infection, breastfeeding promotion, reduction of micronutrient deficiencies, and reduction of maternal mortality. In addition, new technologies are being developed and introduced to further improve vaccination and diarrheal disease control.

Control of Acute Respiratory Infections. Acute respiratory infections (ARI), including pneumonia, are the leading cause of childhood mortality, accounting for 33 percent of all childhood deaths in the developing world, an estimated 4.3 million deaths per year. Nearly one-fifth of these deaths are due to respiratory complications from measles and pertussis. A high proportion of fatal pneumonia in developing countries is caused by streptococcus and haemophilus influenza.

In the developed world, the incidence of pneumonia is generally kept low through preventive interventions (including immunization for measles and pertussis), and early diagnosis and treatment of cases not prevented. To date, in developing countries with limited health resources, large scale application of similar case management strategies has not been affordable. Now, however, as a result of research and pilot projects sponsored by the World Health Organization, United Nations Children's Fund, USAID, and others, a case management strategy has been developed that enables community health workers to diagnose and treat ARI.

The case management strategy is based on early recognition of pneumonia with prompt treatment of non-severe cases at home with standard antibiotics, and quick identification and referral

of severe cases to a hospital. In countries with high mortality, the effective application of pneumonia case management could reduce under five mortality by at least 39 deaths per thousand live births. In addition, preventive strategies including new vaccines against ARI are being developed and tested.

The Promotion of Breastfeeding. Breastfeeding is estimated to prevent some six million deaths per year in developing countries. Optimal breastfeeding practices recommended by USAID and others include exclusive breastfeeding for four to six months and continued partial breastfeeding through the first year of life. Optimal breastfeeding is strongly associated with lower incidence and case fatality for diarrheal disease, and consistently (if less strongly) associated with reduced incidence and death from ARI. Breastfeeding also prevents a number of other infections, promotes the child's growth and development, benefits the mother's health, serves as a natural method of child spacing, and provides significant cost savings for families, health systems and nations.

Unfortunately, less than optimal breastfeeding is widespread. Demographic and Health Surveys conducted in 24 countries between 1986 and 1989 show that while the vast majority of infants are breastfed, less than half of the infants in 22 of the countries are exclusively breastfed during the first four months. As populations become more urban and economic pressures more acute, traditional breastfeeding practices are often forsaken. Strategies and programs are needed to encourage and facilitate continued optimal breastfeeding for all infants.

USAID supports a variety of programs to promote and encourage more widespread and longer breastfeeding. One program provides lactation management training for teams of doctors, nurses, and nutritionists from teaching hospitals in developing countries. A growing percentage of developing-country babies are delivered in hospitals, which generally have policies that inhibit rather than promote breastfeeding. By working with staff from teaching hospitals, the USAID program encourages breastfeeding not only in those institutions, but throughout the health sector, since participating teams in turn serve as trainers and lactation specialists, and initiate lactation education programs in their countries.

Reduction of Vitamin A and Other Micronutrient Deficiencies. Millions of children and women of child-bearing age throughout the developing world suffer from deficiencies in the micronutrients vitamin A, iron, and iodine. In recent years, research supported by USAID and others has determined that these micronutrients not only prevent specific disorders such as blindness, anemia, and goiter, but also help reduce mortality among mothers and children, prevent mental and physical disability, protect against infectious disease, and improve adult capacity for physical work.

On Acute Respiratory Infections . . . "There is no longer any question about the necessity of undertaking a global effort to control acute respiratory infections. We cannot continue our progress with child survival without a worldwide campaign". . . Ronald W. Roskens, Administrator, USAID at the International Consultation on the Control of Acute Respiratory Infections, December 1991.

Strategies to reduce vitamin A deficiency within the broader context of child survival programs include direct supplementation, food fortification, dietary diversification (through education and promotion of local production and consumption of foods rich in vitamin A), and the application of new technologies of food preservation (such as solar drying of mangoes) to compensate for variations in seasonal food availability. Helen Keller International, for example, promotes vitamin A in more than 14 countries through community gardens, vitamin A supplements, and food fortification.

On Women's Health and Nutrition . . . "A substantial amount of maternal morbidity and mortality has its roots in these very early years. In short, our concern to improve women's health forces us to look at the health, nutrition, and education of very young girls" . . . Ann Van Dusen, Director of Health, Bureau for Research and Development, USAID at the National Council for International Health Annual Conference, June 1991.

In the case of iron deficiency, work has focussed on research to identify effective supplementation and fortification methods and the dietary patterns amenable to those methods. Limited field trials of iron supplementation and fortification are currently under way with support from USAID.

The addition of vitamin A interventions to other child survival activities provides a good example of how the addition of second generation interventions can reinforce initial focussed interventions. When Project HOPE made vitamin A available in Guatemala during the 1991 national vaccination campaign,

many more parents brought their children for vaccinations than in previous years.

Maternal Health. More than 500,000 women die annually of pregnancy and childbirth-related complications, and countless others suffer from poor nutrition and health caused by inadequate diet and limited access to health care services. The causes of maternal death include hemorrhage, infection resulting from unhygienic delivery, eclampsia, and obstructed labor.

The same factors that jeopardize a mother's health during pregnancy and delivery also jeopardize the life of her child. Data from Demographic and Health Surveys in 24 countries show that approximately half of all infant deaths take place during the first 28 days of life and are often directly related to the quality of prenatal care and the birth process itself. Maternal health appears to be a particularly significant factor in the cause of perinatal deaths (i.e., stillbirths or deaths in the first week of life). Recent analyses of studies examining the link between perinatal and maternal mortality suggest that at least three-fourths of perinatal deaths are associated with life threatening conditions to women, women's poor health or nutritional status, and inadequate delivery techniques.

USAID-supported efforts to meet women's health needs and reduce maternal mortality include training traditional birth attendants to perform safe, clean deliveries, and to identify and refer high risk pregnancies to higher skilled care; targeting food programs to meet the nutritional needs of women; and developing maternal health technologies. Projects in Bolivia, Guatemala, Indone-

sia, and Uganda are working to improve the quality of prenatal, intrapartum, and neonatal services by updating and strengthening the skills of midwives and traditional birth attendants. In Ecuador, traditional birth attendants are learning that some traditional practices are in fact harmful, how to perform cleaner and safer deliveries, and how to identify pregnancies that may require higher skilled care. This training and supervision has simultaneously strengthened acceptability of the birth attendants by the Ministry of Health facility staff. USAID is also supporting the World Health Organization to promote a home-based maternal record and a simple delivery kit that can be used by traditional birth attendants and community health workers.

New Technologies. While the past decade has shown the impact that diligent application of existing technologies can have, the next decade will begin to show the potential of new technologies to improve child health. Immunization is a case in point. Coverage is high; however, all of the vaccines used in global immunization programs are more than thirty years old. Recognizing these limitations, a global Children's Vaccine Initiative has been launched to accelerate the development and introduction of new vaccines; vaccines that require fewer doses, can be combined to ease delivery, are more stable, and protect against such childhood killers as pneumonia, diarrheal disease, and malaria. Such technological improvements will benefit children and strengthen health systems in developed as well as developing countries.

Other technological developments also hold promise. While ORT is having an important impact on mortality in some situations, researchers are looking for ways to improve rehydration solutions and to make them more acceptable to mothers as well as ways to prevent diarrhea in the first instance. Non-reusable syringes and easier to use injectable devices, and better techniques to diagnose childhood diseases will also improve efficiency and service delivery, and augment the impact of child health programs.

Second generation interventions are an important step in the process of building a comprehensive approach to child survival. The challenge in the next few years will be to promote their widespread use, taking into account of locally and regionally specific conditions, while continuing the research to develop additional interventions to address remaining health conditions.

Challenge #4: Improving the Quality of Services

The child survival program focussed initially on increasing the number of people with access to vaccination, ORT and other health services. Given high mortality levels in most developing countries and large proportions of populations with no available services, expanding access to services offered the best and most rapid results. Further reductions in mortality, however, require not only reaching those who are still unserved but also improving the quality of the services provided.



One of the most significant accomplishments of the 1980s is the simple fact that more than 80 percent of the world's children now have access to at least some health services. The low-cost interventions of the child survival strategy give citizens in developing countries the means to prevent and treat the most prevalent diseases threatening children.

Having access to services, however, does not mean that people fully utilize the services or that service providers offer the best and most effective care possible. Studies by USAID and the World Health Organization show that health care workers can improve the effectiveness of the basic child survival interventions by, for example, screening children more consistently who may be at risk for more serious diarrhea than the watery diarrhea that ORT can address, advising mothers to continue feeding children during diarrheal episodes, ensuring that mothers understand how to administer ORT, advising about follow-up treatments or return visits, and taking advantage of all opportunities to complete the immunization series of children brought to the clinic for other reasons.

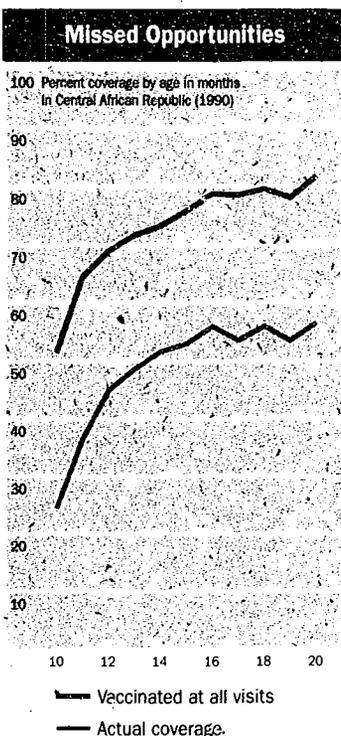
A study conducted in the Central African Republic by the Africa Child Survival Initiative – Combatting Childhood Communicable Diseases project estimates that the elimination of missed opportunities for vaccinating children could increase the coverage of measles vaccination from 54 percent to 76 percent of children less than two years old.

Such improvements in what the health care worker actually does while interacting with patients can improve the impact of already effective interventions. Responsibility for improvements in quality, however, cannot rest with the health worker alone. Community health workers often have far too many clinical responsibilities, as well as clients, to give each the kind of attention needed. Other measures that can improve the quality of service delivery include developing guidelines and providing continuing training for health care workers, encouraging supervisors to assess performance and initiate problem-solving, and developing data collection and management systems that provide information related to quality of care.

In many cases, problems once identified are easily amenable to solution:

- ◆ The development of two tools for use by health workers and supervisors in Regi, Pakistan improved health service. A checklist of tasks and a patient service form requiring health workers to verify completing the tasks led to improved patient counseling. The proportion of malaria patients asked about the duration of their fever increased from 48 percent to 78 percent. ARI patients questioned about what had already been done at home increased from 13 percent to 71 percent, and mothers who knew when to return for the next vaccination rose from 8 to 56 percent.

- ◆ In Santa Cruz, Bolivia, a strategy to reduce the number of missed opportunities to vaccinate against neonatal tetanus included more consistent vaccination of women in hospitals and health centers, house-to-house sweeps by vaccination teams through the slums, periodic immunization



in local markets, and training of birth attendants to administer vaccination. These initial steps were found in 1991 to have been highly successful in reducing the number of missed opportunities and are being followed with additional measures. New elements include perifocal vaccination around cases of neonatal tetanus, vaccination of primary school children, extending hours and locations of vaccination, and a communication plan to improve the knowledge, capabilities, and actions of health personnel, and the acceptance of vaccination by the public.

USAID is committed to promoting continuous, incremental improvement in the delivery of child health services and, therefore, emphasizes the generation and analysis of information to be used by program managers, supervisors, and health workers to further improve program operations. Attempts to improve quality focus both on the performance of the health worker and the support services that influence the health worker-client interaction.

Increased attention to quality in the 1990s offers donors and national governments the opportunity to maximize the effectiveness and reach of child survival and other health programs even within the constraints of limited resources.

On Micronutrient Deficiency . . . "The end of 'hidden hunger' is in sight in this decade of the 1990s. We know what must be done and how to do it, and our presidents and prime ministers have committed their support. I am confident that, together, we can meet the great challenge posed by micronutrient malnutrition, leaving this conference with common strategies and strengthened resolve to succeed in this great undertaking to eliminate this hidden enemy". . .

James Grant, Executive Director, UNICEF at Ending Hidden Hunger: A Policy Conference on Micronutrient Malnutrition, October 1991.

Challenge #5: Expanding Monitoring and Evaluation Activities

To ensure the quality of child survival activities, USAID puts a high priority on program monitoring and evaluation. The child survival program has developed a detailed framework for collecting data and incorporating them into further program development. Important tasks for the 1990s are to monitor progress toward global goals set by the World Summit for Children and more specific goals adopted by USAID, to continue to strengthen national capacities for program monitoring, and to respond to the need for new, more specialized data.

From the outset of the child survival program, USAID emphasized the need to measure carefully the results of its efforts and to utilize that information to bring about program improvements. USAID worked with national governments and other donors to assemble a global body of knowledge and an unusually comprehensive record of experience. Demographic and Health Surveys, for example, helped standardize global data collection and reporting on a number of indicators while stimulating better use of data at the country level to guide policy and implementation decisions.

The enhanced capacity to monitor the health status of children is in itself a significant accomplishment. At the global level, the high level of congruence in international data and the ability

to monitor progress toward a common set of goals have helped to generate interest in and sustain attention for child survival issues. When leaders at the 1990 World Summit for Children adopted new targets for improved children's health by the end of the century, they could do so confident that these were not merely empty rhetoric, but firm goals against which countries can be held accountable.

At the national level, the child survival program's focus on monitoring and evaluation has enabled developing countries to develop the capacity to track progress within ongoing health infor-

mation systems. In conjunction with the availability of low-cost microcomputers, USAID resources and technical assistance help give national governments accurate information about the health status of their populations for the first time. In Peru, the nationwide computerized health information system, designed and implemented with assistance from USAID, has served almost exclusively as the Ministry of Health's cholera surveillance system since the outbreak of the epidemic in January 1991.

At the project level, USAID's approach to monitoring and evaluation has resulted in constant improvement and refinement of data collection and analysis procedures which, in turn, have been applied to strengthen project activities. When project managers have access to valid, pertinent information, they use it

to incorporate improvements in their programs, resulting in further improvements in data quality. In Mali, Save the Children Federation, a U.S. private voluntary organization, helped put in place a health information system that village health committees and family trainers use to identify children who have not been immunized. In Kolondieba Town, this information prompted the Ministry of Health to add an extra day of vaccination per week at the local maternity center.

The need for data describing the health status of children is likely to grow. First, the targets adopted at the World Summit for Children include reductions in infant, child, and maternal mortality, and reductions in malnutrition among children. Increased information will be necessary to monitor the rate of progress in achieving these goals and in targeting unserved populations.

Second, where large reductions in mortality have already been achieved, further efforts will need to focus on improving the quality of services provided, on understanding how and why people change behavior, and on targeting subpopulations not yet reached. As noted earlier, in-depth studies of the quality of services provided has resulted in comprehensive efforts to improve monitoring of the performance, supervision, and training of health workers.

Monitoring changes in the knowledge and behavior of parents and health workers is

On Children's Vaccine Initiative . . . "While some basic research will be necessary, this should not be the thrust of the Children's Vaccine Initiative. Rather, CVI should maintain a strong focus on product development and on the issues that are important to make new and improved vaccines rapidly and widely available". . . Richard Bissell, Assistant Administrator for Research and Development, USAID at the Management Advisory Committee Meeting, Children's Vaccine Initiative, September 1991.

equally important. Many child survival interventions require parents and health workers to acquire new knowledge and to change their behavior in light of the new information. USAID-supported child survival projects frequently incorporate surveys of knowledge, attitudes and practices to ensure that messages are being communicated effectively and new practices are being adopted.

The need to target increasingly smaller population subgroups will require innovative approaches to monitoring. In general, those who do not yet have access to even minimum child health services are poor, disenfranchised, and geographically isolated. Finding and reaching these subpopulations will require greater emphasis on surveillance systems to extend child survival interventions to the hardest to reach populations. Surveillance also assumes increased importance where high vaccination coverage rates have been achieved and disease control becomes possible.

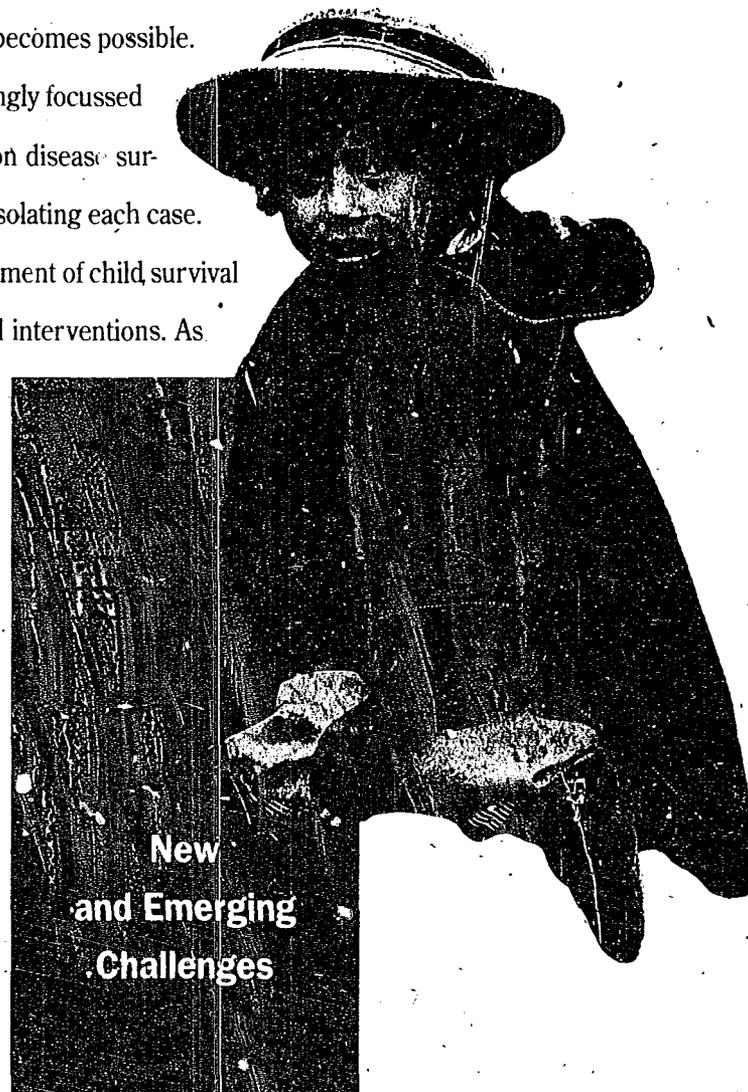
The effort to eradicate polio in the Americas, for example, is increasingly focussed on targeting vaccinations to smaller, localized subpopulations and on disease surveillance to track the presence of the polio virus by identifying and isolating each case.

A third reason for the continued evolution and refinement of child survival monitoring and evaluation is the growing diversity of child survival interventions. As the child survival program undertakes more activities directed at ARI, micronutrient deficiencies, measles, and other diseases, expanded monitoring activities will be required.

A major challenge for the 1990s is to meet the needs for expanded monitoring and evaluation activities, while continuing to strengthen national capacities in this area and to collect and feed back useable, hands-on data at the program level.

The evidence suggests that child survival interventions do not contribute to increased population growth. By reducing mortality and ensuring the health of surviving children, successful interventions contribute to decreasing fertility and, ultimately, slowing population growth. Moreover, by promoting better birth spacing, child survival and family planning programs have mutually reinforcing effects. Once reduced fertility rates are established and birth rates are declining, the momentum of population growth begins to shift. Successive birth cohorts become smaller, resulting in a slowing of the growth rates in the youngest age groups.

Despite dramatic successes in the promotion of family planning around the world, however, the total size of the under-five cohort will continue to increase until well into the next century. The



greatest demand for health services in the relatively young populations of developing countries will be for measures that combat the largely preventable diseases of childhood and those that address the health problems of women of childbearing age. It is estimated that expenditures for child health will have to increase two percent per year simply to maintain current levels of service.

In the coming years, child survival programs must respond not only to issues of growth and maturity arising from their own experience but also must adjust to broad changes in the larger context in which they operate. In addition to the issues posed by a still growing young population, child survival must address a number of emerging challenges, including threats from both new and resurgent diseases and the health needs of rapidly growing urban populations.

Challenge #6: New and Resurgent Diseases

Even as substantial reductions are made in mortality and morbidity, a number of new and resurgent diseases might undo some of the gains that have been achieved. Children's lives are at risk from diseases once presumed to be well on the way toward control (malaria and cholera) or unknown as recently as a decade ago (AIDS). One of the most urgent tasks for the 1990s is to

reduce the transmission rates of new and resurgent diseases, while simultaneously pressing forward on research to develop more effective means of prevention and treatment.

On AIDS . . . "An estimated 614,000 children, or seven percent of the under 15 population nationwide, were orphaned by 1990 . . . In some areas, an estimated 16 percent of children under 15 have lost at least one of their parents . . . In the most heavily infected areas, child health and nutrition in families caring for orphans is also being affected . . . The communities themselves could become less and less able to implement community-based programs to care for the survivors as the number of AIDS deaths increases" . . . Mrs. Janet K. Museveni, First Lady of Uganda at the USAID 1991 AIDS Prevention Conference, December 1991.

HIV/AIDS. Dramatic increases in the incidence of human immunodeficiency virus (HIV) infections and acquired immune deficiency syndrome (AIDS) cases are predicted worldwide during the 1990s. By the year 2000, there may be a cumulative total of 30 to 40 million HIV-infected people; as many as 10 million of these could be infants and children.

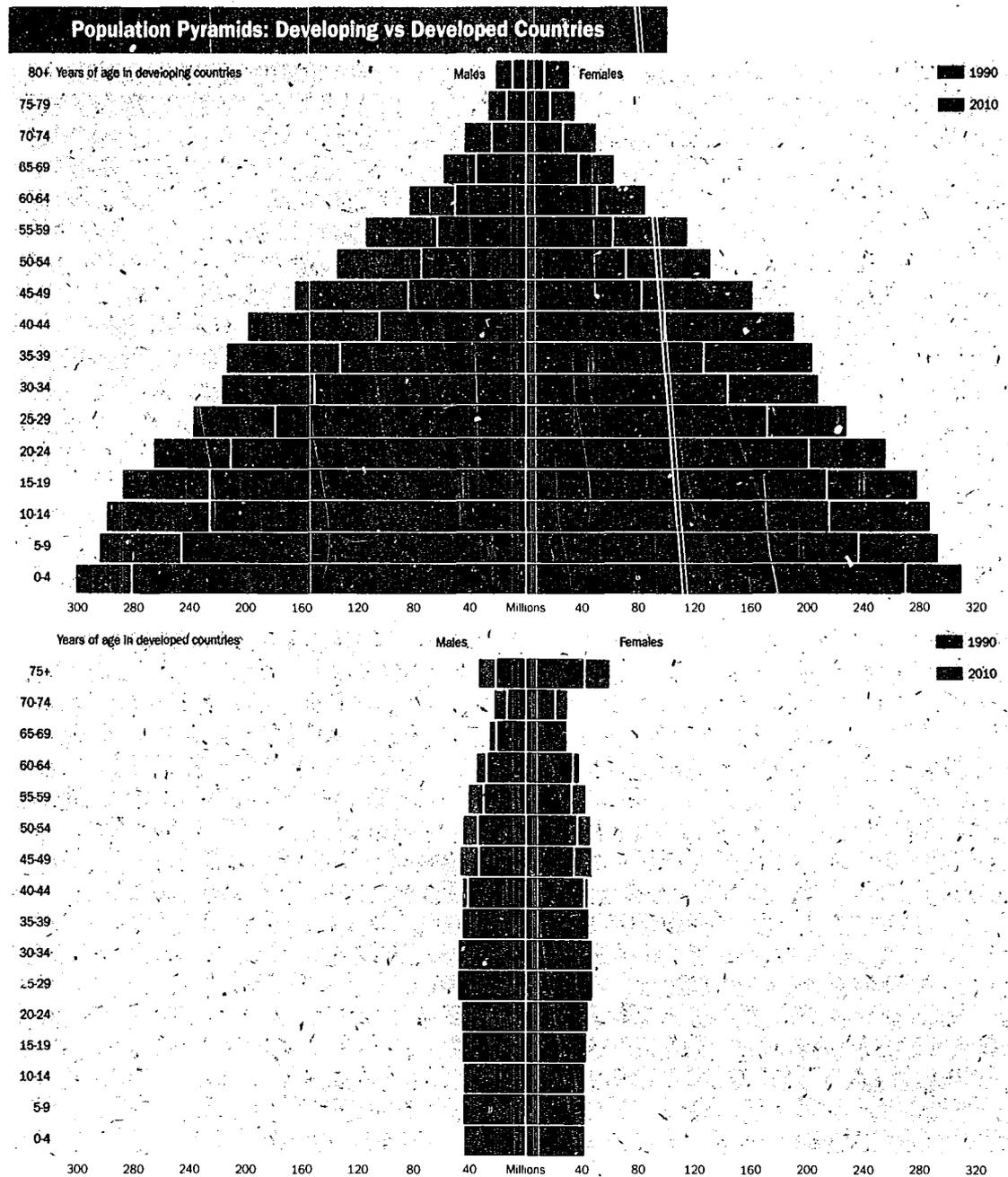
As heterosexual transmission becomes the primary means by which HIV infection is spread, women and children are increasingly at risk. Approximately 30 percent of children born to HIV-infected mothers are infected themselves. About half of these children die before their first birthday; almost all die before age five. In some developing countries, HIV/AIDS could become

the leading killer of children by the year 2000. The problem is particularly acute in Africa, where recent estimates suggest that in some countries virtually all the reductions in child mortality achieved through immunization and other health measures could be cancelled out by deaths from AIDS. Instead of continuing to rise, life-expectancy at birth in sub-Saharan Africa could drop below current levels.

HIV/AIDS has health implications even for uninfected children. HIV-infected women are more likely to give premature birth or to have low birth weight babies (whether the babies are infected or not). Moreover, as mothers become sicker, they are less able to care for their children; and both the mothers' and fathers' capacity to earn income is decreased as illness progresses, leaving the family even poorer. Some 10 million children in Africa could be orphaned by the death of one or both parents in the 1990s. These children are left to care for themselves or be cared for by extended families already affected by the loss of productive adult members.

HIV/AIDS is also contributing to increases in the incidence of tuberculosis in Africa, where tuberculosis is the most common infection related to HIV (in the United States the most common infection precipitated by HIV is pneumonia). Moreover, individuals not infected with tuberculosis are more likely to become so due to increased exposure to HIV-infected persons with active tuberculosis. Children are particularly susceptible.

The risk of HIV transmission can be as much as 20 to 50 times greater when another sexually transmitted disease (STD) is present. Yet because STD infection is often asymptomatic, women may not even know they have an STD or that they and any children they bear are at great risk. A review of published reports suggests that where syphilis prevalence exceeds 10 percent among pregnant women, as it does in most African countries, from five to eight percent of pregnancies will result in fetal or infant death, or the birth of an infant with syphilis. Other kinds of reproductive tract infections also threaten women's and children's health by contributing to fetal wastage and low birth weight.



Since transmission from mother to child during pregnancy is virtually the only source of HIV transmission among young children, a concerted attack on the transmission of STDs offers one of the few means available for slowing the spread of HIV among children and for preventing dramatic reversals of gains in children's health. With respect to HIV/AIDS, as in so many areas of children's health, educating the public and successfully promoting behavior change are key to ensuring sustained improvement. Also needed, however, are improved capacities to diagnose and treat STDs within existing health care infrastructures.

Malaria. During the 1950s and 1960s, it was thought that malaria could be eliminated through a global eradication effort. As it became clear that the transmission of malaria depends on a wide variety of locally and regionally specific conditions, eradication efforts were replaced gradually by efforts aimed at prevention, treatment and control.

In recent years, malaria has made a dramatic resurgence, occurring in over 100 countries. Approximately 40 percent of the world's population is at risk. About three-quarters of these people live in areas where the incidence of malaria had declined because of eradication efforts but is now on the rise, in some cases surpassing earlier levels.

The incidence of malaria is rising even where eradication efforts during the 1950s and 1960s were initially successful. Some strains of malaria have become resistant to chloroquine, the main

drug for preventing and treating the disease; mosquito resistance to once commonly used insecticides has also increased. At the same time that fewer tools are available to combat malaria, opportunities for human contact with the malaria vector are increasing as a result of population growth, migration, and a variety of development-related activities.

Some 250 to 300 million new cases of malaria occur worldwide each year. Young children and pregnant women are among those at greatest risk of severe and complicated malaria. In sub-Saharan Africa, where 80 percent of all cases occur, approximately one million children under age five die of malaria annually.

Those who do not die, acquire some level of immunity, but may also suffer poor growth, fitness and educational achievement. Malaria during pregnancy can cause miscarriage, fetal death, intrauterine growth retardation, low birth weight, and premature delivery. Until a vaccine is perfected, the complications of malaria can best be prevented through early diagnosis and treatment. USAID continues to support research in the development of such a vaccine; however, it may be some time before an effective vaccine is produced, tested, and made available on a large scale.



in 1991, USAID assisted the World Health Organization in a global effort to develop new strategies for controlling malaria, organizing regional workshops to focus on the specified problems of Africa, Asia, and Latin America. USAID also supported two major studies on malaria by the Institute of Medicine and the American Academy for the Advancement of Science, and will use their recommendations to develop a new malaria strategy.

Cholera. Cholera, an easily transmitted diarrheal disease, reemerged in Latin America in 1991, after having been absent from the continent throughout the century (see regional report on Latin America and Caribbean). Cholera had similarly reappeared in Africa two decades ago after an absence of more than 70 years. The swift, dramatic resurgence in Latin America received tremendous international attention, even though both incidence and mortality are routinely much higher in Africa than in most countries of Latin America and even though deaths from other diarrheal diseases are much greater. In 1990, 90 percent of the world's reported cases of cholera were in Africa.

Cholera is characterized by profuse watery diarrhea, vomiting, and rapid dehydration. Because cholera is so feared, many people do not think of it as another form of diarrhea, spread through fecal-oral transmission. In fact, through the first 11 months of 1991, cholera took the lives of just over 16,000 people of all ages which, while important, is but a tiny fraction of the over 3,000,000 deaths due to diarrhea each year in children alone. Moreover, the same strategies used by USAID and others in the child survival program are crucial for controlling the cholera epidemic. Prevention and treatment of cholera benefit from strategies used in diarrheal disease control efforts, including epidemiological surveillance, rapid dissemination of community education messages, improvement of water and sanitation infrastructure, and services, and extensive use of ORT for case management.

Case-fatality for serious cholera can be as high as 50 percent without treatment; however, just like other diarrhea-related dehydration, it is readily treatable with ORT. In fact, ORT was developed with USAID support at the cholera laboratory in Bangladesh (now the International Center for Diarrheal Disease Research) during the cholera pandemic in the 1960s and 1970s.

Rapid detection, community education, and successful ORT treatment – all strengthened through child survival programs – have helped keep case-fatality rates low in many areas. In Latin America, where surveillance systems, awareness of and access to ORT, and access to health, water, and sanitation services compare favorably with other regions, the case-fatality rate for cholera is

On Malaria . . . "The issue for prioritization is not whether to select specific technologies or control strategies, but to raise the priority of solving the problem of malaria. This is best done by encouraging balanced research and control strategies and developing a mechanism for periodically adjusting support for promising approaches" . . . Malaria: Obstacles and Opportunities. A USAID-supported report of the Committee for the Study on Malaria Prevention and Control, Institute of Medicine, 1991.

about one percent. The regional case-fatality rate for Africa, in contrast, is about nine percent, with much higher rates in some countries (e.g., 13 percent in Nigeria and 20 percent in Cameroon). Certainly, the recent experience with cholera underlines the important contribution child survival programs are making to strengthen health systems and to prepare them to meet new challenges.

Challenge #7: Rapid Urbanization

Rapid rates of growth in urban areas throughout the developing world mean that by the year 2000, some 44 percent of developing country populations will be living in urban areas. During the 1990s, child survival programs must focus more systematically on neglected poor urban areas. They must examine pilot activities in Jakarta, Dhaka, Lima, and elsewhere, as well as lessons from the rural experience, to determine what strategies will be most effective in addressing urban child health issues while improving the likelihood of sustainability.

In general, developing-country urban growth rates have been two to three times greater than those experienced in industrialized countries in the past; annual increases of more than three percent are expected well into the next century. Contrary to widespread belief, more than 60 percent of the population growth in urban areas is attributable to natural increase; less than 40 percent is due to migration from rural areas.

At least half the urban population of the developing world today lives in extreme poverty in the slums and shanty towns that have virtually no access to the health and other services generally considered a principal advantage of urban life. In some cities, the proportion of the urban population living in desperate poverty is as high as 79 percent.

The urban poor are afflicted with the traditional diseases of underdevelopment as well as the chronic and environmental diseases associated with industrialization. They suffer not only the infectious diseases and malnutrition associated with scarcity and contamination of water supplies and the lack of sanitary waste disposal, but also the diseases associated with pollution of air, water, and land from factories, transportation, energy production, etc. Overcrowding, inadequate disposal of human and commercial waste, and a lack of affordable and accessible health services further contribute to ill health among the urban poor.

In general, few data exist to accurately measure these conditions. Most urban data are aggregated and, therefore, hide the extent of poverty, ill health, disability, and premature death. Frequently, those worst off are not included at all because they are squatters occupying the land illegally. Individual case studies, however, provide dramatic examples of the extent of intra-urban differences in children's health status.

◆ In urban areas in Guatemala, infant mortality was found to vary from 113 per thou-



Most urban data are aggregated and, therefore, hide the extent of poverty, ill health, disability, and premature death.

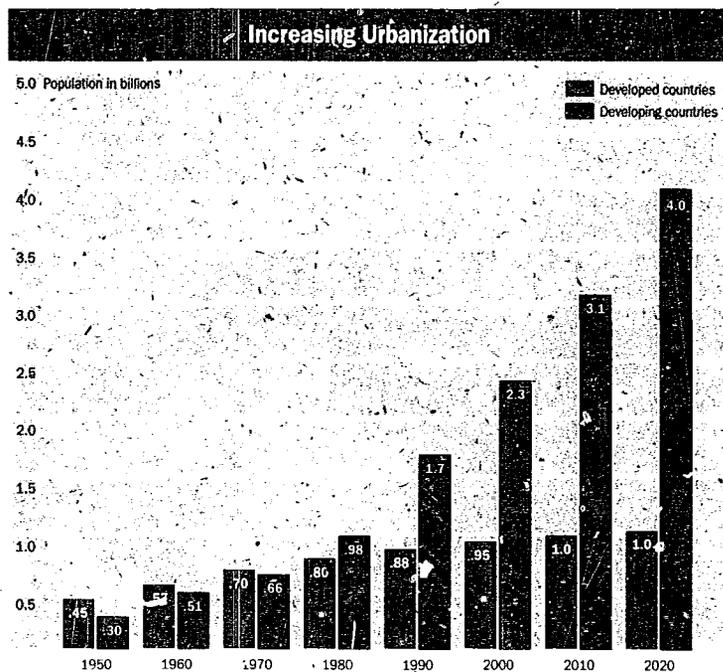
sand live births for the children of illiterate women in the poorest socioeconomic groups to 33 per thousand among wealthier populations.

◆ The infant mortality rate in the slums of Nairobi, Kenya, is 200 deaths per thousand live births, compared with 74 per thousand for Kenya as a whole.

In most developing countries, hospitals and other high technology care absorb the majority of health expenditures. However, these resources tend to be available to the urban elite but not the urban poor, who are the fastest growing segment of the urban population. The modern hospitals and outpatient departments that are nearby are in fact a world away from the poor inhabitants of urban areas and have inhibited the development of more accessible neighborhood health centers. The poor use hospitals for emergencies, relying on traditional healers or pharmacists without formal medical training for more routine care. Preventive measures are not stressed by any of these providers – hospitals, pharmacists, or traditional healers; access to preventive services remains limited in both the public and the private sector.

Providing primary health care to urban populations has some particular difficulties. While the concentration of population would seem to offer communications and logistical advantages, the heterogeneous nature of urban populations and the lack of social cohesion often make such programs labor intensive and expensive to administer. In instances where urban health authorities operate with a degree of independence from the national ministry of health, concerted attention to health issues in urban areas requires developing good working relationships between these two levels of government. Any sustainable urban health effort must include the large pool of private sector providers (doctors, nurses, midwives, etc.) already practicing in urban areas; yet these providers traditionally are least responsive to the preventive orientation of child survival and other primary health care services.

Where child survival programs have addressed urban health issues, the rewards have been substantial. In Bangladesh, USAID began a five-year bilateral project, the Urban Volunteer Program, to train women from slum communities to furnish preventive health care and referral information to slum residents. Initially focussed on diarrheal disease control through health education and ORS distribution, it has expanded to include nutrition, immunization, and family planning services, as well as an urban surveillance system. By 1991, a dramatic shift had taken place. Whereas urban areas had been lagging behind in 1988, by early 1991, they had higher immunization rates than the rest of the country.

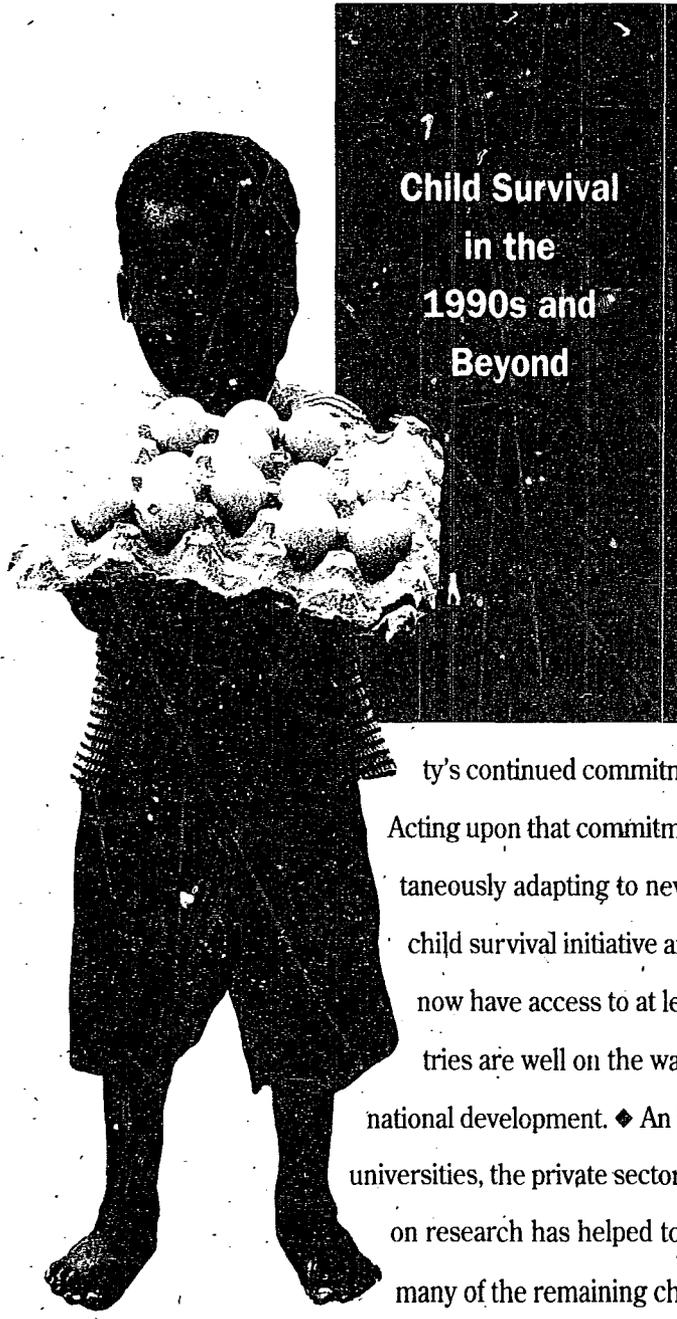


Save the Children Federation, a U.S. private voluntary organization, works in three urban slums of Jakarta, Indonesia promoting primary health care services through trained community health volunteers. A project survey found immunization coverage and ORT use levels exceeded targets in two of the three project areas. Seventy-two percent of mothers surveyed used ORT, and 83 percent of children aged 12 to 24 months had been fully immunized.

In Guatemala and Honduras, La Leche League trains and certifies women from low-income marginal urban communities to provide breastfeeding counseling and to conduct breastfeeding mother support groups. In addition to educating mothers about optimal breastfeeding practices, the volunteers also refer mothers to the public health system for other child survival services.

As the proportion and number of urban poor increase in coming years, new ways must be found to address their health and nutritional needs. This does not so much require new programs

as continuing to adapt existing programs by finding new ways of reaching the neglected urban poor with basic child health services.



Child Survival in the 1990s and Beyond

Few development assistance programs have succeeded as rapidly in meeting their objectives as the international effort to reduce infant and child mortality in developing countries. The child survival initiative has benefitted from a clear international consensus about its objectives and a general agreement to focus resources on a few proven interventions.

With the initial mortality reduction targets met in many countries, and nearly met in others, new, harder to reach, targets have been set. The goals and plan of action agreed to at the World Summit for Children reaffirmed the international communi-

ty's continued commitment to improving children's health status and long-term opportunities. Acting upon that commitment requires consolidating and building on past successes while simultaneously adapting to new and changing conditions. The successes of the first few years of the child survival initiative are documented in this report: ♦ Four out of five of the world's children now have access to at least some aspect of modern health services. ♦ Many developing countries are well on the way to building effective health infrastructures that in turn contribute to national development. ♦ An impressive partnership has been created among donors, governments, universities, the private sector, and nongovernmental and private voluntary organizations. ♦ A focus on research has helped to develop "second generation" interventions and strategies to address many of the remaining child health problems.

USAID's role in these child survival successes has gone well beyond simply providing services. Its emphasis on high-mortality countries, its leadership role in developing information and communication capabilities as well as monitoring and evaluation systems, and its commitment to research have been important contributors to progress achieved to date.

Issues for the 1990s

USAID's continued commitment to child survival in the 1990s is essential if the gains already made are not to be lost and if the international goals are to be met.

The child survival program represents only three percent of USAID's annual development assistance budget, or less than one percent of international affairs appropriations including military sales. It is, in other words, a comparatively small program. But it has the potential for lasting impact a) if efforts to consolidate and sustain current programs are pursued with the same intensity as the effort to establish them and b) if the willingness to learn and adapt to changing conditions and needs continues to characterize the program.

Despite the successes, the task ahead remains enormous. Nearly 13 million children still die every year as a result of preventable or treatable illnesses. There are major opportunities for further reductions in mortality and morbidity, but they may be more difficult to accomplish. Remaining child health problems will not be as responsive to a few select interventions and will require more country- and locally-specific strategies. Emerging and resurgent diseases will complicate the task.

Moreover, further gains must be achieved at a time when developing countries themselves have fewer resources to devote to health, and USAID and other development assistance agencies are under pressure to meet a host of competing needs.

At a time when resources are scarce and needs are great, building upon proven successes represents sound investment and wise policy. The child survival program has the advantages of international consensus about what is needed, a proven track record, and demonstrated ability to learn from experience and adapt to changing circumstances. And, as a result of ongoing research, the program will continue to provide the framework for introducing newly perfected technologies.

The child survival program offers one of the surest ways of contributing in a lasting way to the health and productivity of the people of developing countries. Its simple interventions, used on a national scale, help strengthen country capacities to promote health by mobilizing the public and private sectors to meet priority health needs and by building the systems to face future challenges.



Africa Region



During 1991, USAID supported health and child survival activities in 39 countries throughout the Africa region. While a large portion of child survival-related activities were concentrated in the eight child survival emphasis countries (Kenya, Malawi, Mali, Niger, Nigeria, Senegal, Sudan, and Zaire), significant contributions toward saving the lives of infants and children were made in countries throughout the continent. Since 1985, the annual infant mortality rates for USAID-assisted countries in the region have dropped from 113 deaths per 1,000 live births to 102. In 1991, seven African countries (including one emphasis country - Kenya) had infant mortality rates below the target of 75 deaths per 1,000 live births.

Significant strides have been made in the past decade toward bringing child survival and health care services to the majority of Africa's population. The DPT3 vaccination coverage rate of 57 percent demonstrates that more than half of Africa's infants are seen by health care workers not once, but three times, during the first year of life. Vaccination coverage rates for children 12 to 23 months in the child survival emphasis countries have almost doubled since 1985 for BCG, DPT3, polio3, and measles. In the Central African Republic, Mozambique, Rwanda, Swaziland, and Tanzania, the vaccination coverage rates for these antigens

have reached 80 percent. For the first time, more measles cases and deaths have been prevented than have occurred in the Africa region according to the World Health Organization.

In Burundi, 80 percent vaccination coverage rates for children 12 to 23 months accomplished in 1989 were nearly sustained during 1990 without reliance on vaccination campaigns. This accomplishment may be attributed to the vaccination registration system, which identifies children who do not complete their vaccination series for follow-up. Vaccination campaigns, though more expensive than routine services, are still used effectively throughout the region to maintain or increase coverage

rates. In the Central African Republic, where a long labor strike interrupted the routine vaccination program, campaigns are being used to maintain the high rates of coverage.

Reports of cholera in 1991 underlined the importance of diarrheal disease in Africa and the need to strengthen diarrheal disease and environment control activities such as water and sanitation. In 1990, 90 percent of all cholera cases worldwide occurred in Africa. The significantly lower case fatality rates in Latin America provide evidence that strong diarrheal disease control programs, better water supply systems, extensive surveillance systems, and wider use of oral rehydration therapy can lower fatality from the disease. Continued investments in these areas will be necessary in Africa to improve existing systems and enable health personnel to respond appropriately and rapidly. In 1991, cholera epidemics in Niger and Zambia were addressed with strong support from USAID in the areas of educational materials for health workers, radio and television messages, and technical assistance in the development of national strategies.

The routine use of oral rehydration therapy to prevent deaths from diarrheal diseases in USAID-assisted countries increased from 10 percent in 1985 to 41 percent in 1991. In many areas of Africa, where oral rehydration salts are not easily accessible or afford-

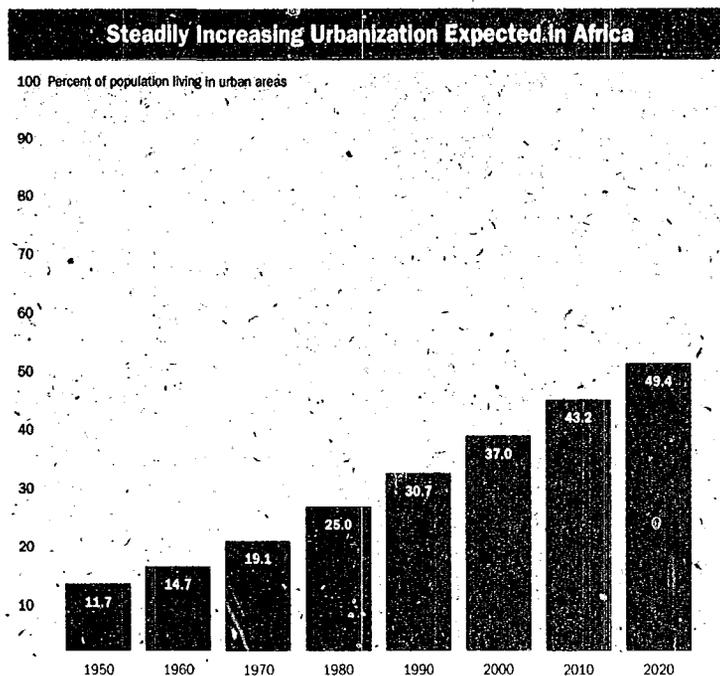
able, a home-based solution is promoted as an alternative. Of the 41 USAID projects supporting activities to prevent or control diarrheal diseases, 38 projects promoted home-based solutions or local porridge. A number of promising research activities are currently underway to determine the effectiveness of various local porridges and possible additives such as salt to increase their effectiveness. All of these projects supporting the control of diarrheal disease include the promotion of continued breastfeeding or other feeding during diarrhea, giving recognition to the importance of breastfeeding to protect young children.

Throughout the Africa region, increased importance is being placed on the role that breastfeeding and other infant feeding practices play in child survival. With 90 percent of mothers initiating breastfeeding at birth, breastfeeding is more widespread in Africa than in other developing regions. However, exclusive breastfeeding during the first 4 to 6 months of life is rare, and is, therefore, becoming a central issue in child survival activities. Twenty-five USAID-supported projects promoted breastfeeding for its nutritional impact in 13 countries during 1991. USAID also sponsored a conference bringing together West African physicians, nutritionists, behavioral scientists, and program managers to share experiences in promoting healthy infant feeding practices

and integrating them with other child survival interventions.

While these accomplishments in child survival are admirable, the region continues to lag behind the rest of the world in terms of the health status of children and adults. Morbidity and mortality rates for African children remain the highest in the world. During 1990, an estimated 24.5 million children were born in Africa. As many as 4.2 million of these children will die before their first birthday. Famine, drought, war, and lack of health care infrastructure are a few reasons why the general health status remains poor.

More than two million African infants die annually. Nineteen of the 39 USAID-assisted countries in Africa still have an infant mortality rate above 100 deaths per 1,000 live births. Children under five have the lowest vaccination coverage rates, are least likely to receive oral rehydration therapy during bouts of diarrheal disease, and suffer more from wasting or acute malnutrition than in any other region. Less than half of the population has reasonable access to modern health care.



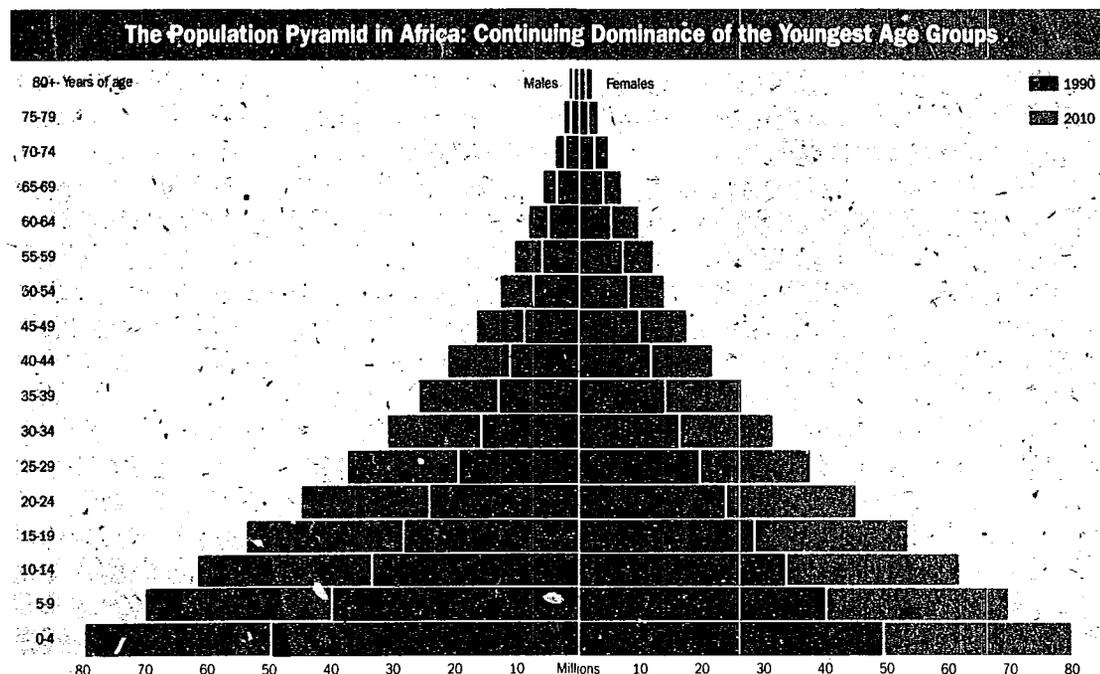
Continuing high population growth rates place heavy pressures on scarce health care resources. By 2010, an additional 10 million infants will need to be immunized to achieve a 90 percent coverage rate. Population growth also fuels an accelerating rate of urbanization, which threatens to overwhelm the capacity of African cities to provide basic services. Between 1990 and 2025, Africa's urban population is expected to grow by 700 million—more than the current population of the entire continent.

Over the past decade, the USAID regional project Africa Child Survival Initiative-Combating Childhood Communicable Diseases (ACSI-CCCD) has supported 13 African governments in three technical interventions – immunization coverage, control of diarrheal disease and control of malaria – using four support strategies, including health information systems, training/supervision, health education and operational research. ACSI-CCCD is assisting in the integration of health services at the

central and regional levels in several countries to utilize scarce health resources more efficiently. The Ministry of Health of the Central African Republic, for example, is building on its success in vaccination and diarrheal disease control, by linking additional priority interventions, including acute respiratory infections, the prevention and control of HIV/AIDS, and the promotion of birth spacing to the existing integrated primary health care program. Swaziland's Ministry of Health is working with ACSI-CCCD to develop plans to integrate maternal and child health services with family planning.

The concept of integration of services was a central topic at a USAID-sponsored regional conference on infant feeding and child survival. As mentioned earlier, in September 1991, 50 West African researchers gathered to discuss infant feeding practices and maternal nutrition as they relate to child survival. The objective was to exchange ideas and experiences on improving maternal nutrition and infant feeding through maternal and child health, nutrition, control of diarrheal disease, and family planning interventions. By the close of the conference, eight country teams of conference participants presented individual country plans of action related to promoting infant feeding and integrating it into other health activities.

Ministries of health are also investigating alternative health care financing schemes to ensure the most efficient use of health care funds. USAID is assisting several countries to develop ways of collecting fees-for-services and fees for medications. In a reversal of policy, the government of Zambia recently legalized fee-for-service schemes. Where it was once illegal to charge for health



Africa Region

Project Support Active
in Fiscal Year 1991

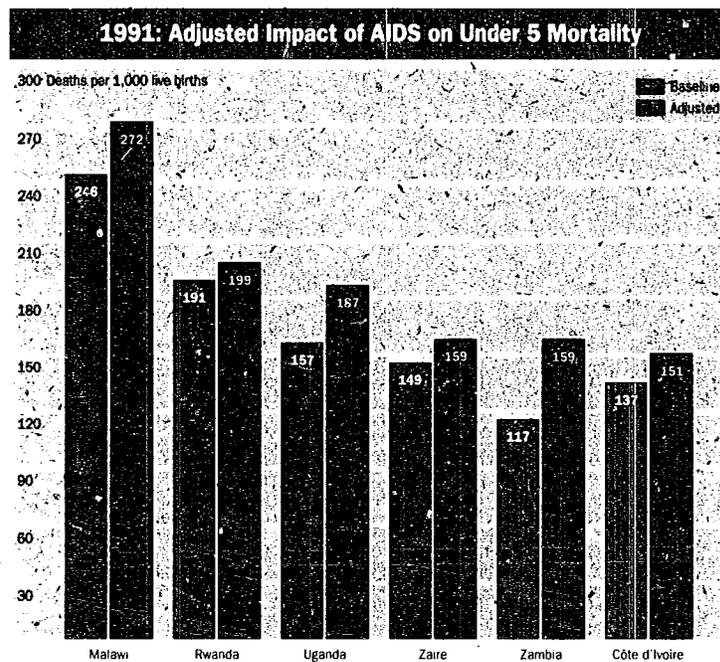
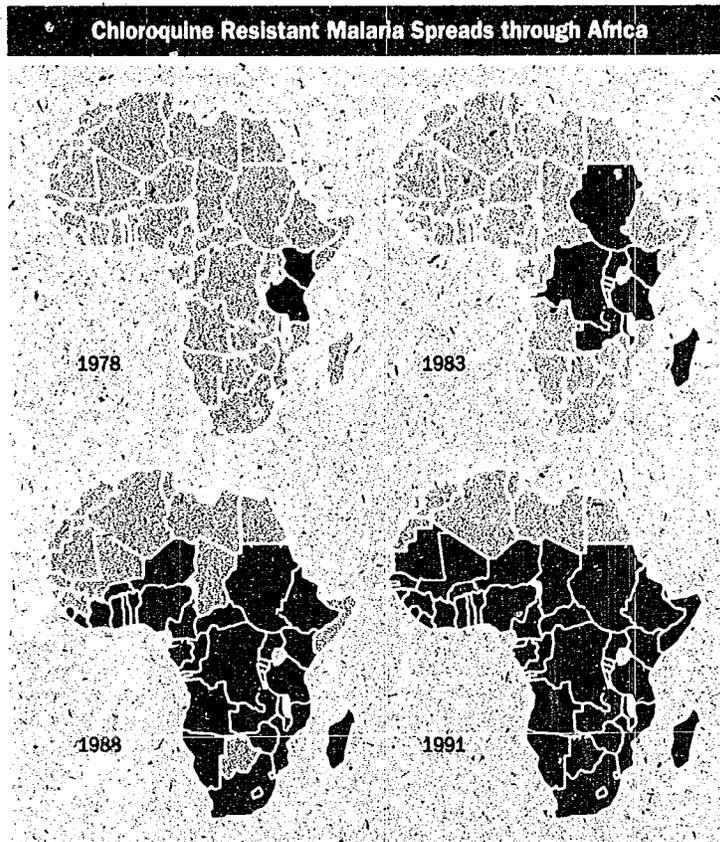
	Kenya Malawi	Mali Niger	Nigeria Senegal	Sudan Zaire	Benin Botswana	Burkina Faso Burundi	Cameroon Cen. Afr. Rep.	Congo Côte d'Ivoire	Ethiopia Gambia	Ghana Lesotho	Madagascar Mauritania	Mozambique Rwanda	South Africa Swaziland	Tanzania Togo	Uganda Zambia Zimbabwe
Bilateral	♦ ♦	♦ ♦	♦ ♦	♦ ♦	♦ ♦	♦ ♦	♦	♦	♦	♦	♦	♦	♦ ♦	♦	♦
Regional															
Africa Child Survival Initiative-CCCD	♦ ♦	♦ ♦	♦	♦		♦ ♦	♦ ♦	♦ ♦	♦	♦			♦	♦	♦
HIV/AIDS Prevention in Africa Operations Level Management Development	♦ ♦	♦		♦		♦ ♦	♦ ♦			♦			♦	♦	♦ ♦ ♦
Private Voluntary Organizations	♦ ♦	♦ ♦	♦ ♦	♦ ♦		♦ ♦	♦	♦			♦ ♦	♦			♦ ♦ ♦
Central Project Support															
AIDSCOM		♦								♦		♦	♦ ♦	♦	♦ ♦
AIDSTECH Applied Diarrheal Disease Research	♦ ♦	♦ ♦	♦	♦	♦	♦ ♦	♦ ♦	♦		♦				♦	♦ ♦
Applied Research and Child Survival Services Breastfeeding and Maternal and Neonatal Health					♦	♦	♦								♦
CSAP Support Demographic and Health Surveys	♦ ♦	♦ ♦	♦ ♦	♦	♦	♦ ♦	♦	♦			♦	♦		♦ ♦	♦ ♦ ♦
Food and Nutrition Monitoring Support HBCU Research Grants	♦									♦					
HEALTHCOM, Health Financing and Sustainability	♦	♦	♦ ♦	♦			♦ ♦			♦					♦
HealthTech Nutrition Education and Social Marketing	♦					♦			♦				♦	♦	♦
ORT Help PRICOR II	♦	♦	♦	♦			♦ ♦	♦						♦	
PRITECH II Project SUPPORT	♦ ♦	♦ ♦	♦	♦		♦	♦		♦		♦ ♦	♦		♦	♦ ♦
REACH Technical Advisors in AIDS and Child Survival	♦		♦				♦				♦				♦
University Development Linkages Project Vector Biology and Control			♦		♦		♦					♦			
Vitamin A for Health Water and Sanitation for Health	♦	♦	♦		♦	♦		♦		♦			♦		♦ ♦
WHO/Global Programme on AIDS Women and Infant Nutrition	♦ ♦		♦				♦	♦			♦	♦ ♦		♦ ♦	♦ ♦

care, the government has now set a goal that 20 percent of ward accommodations in public institutions are to be operated on a fee-paying basis.

Activities to expand the role of the private sector in an effort to reduce government spending in health care are underway in 13 countries in Africa, seven of which involve for-profit business in project activities. With a primary health care system in place, Nigeria is increasingly receptive to private sector involvement in health care. Areas in which its private sector is expanding the availability of health and family planning services, include: 1) social marketing efforts in family planning which include health commodities such as oral rehydration salts; 2) community and service organizations such as Rotary International which provide vaccinations and other health services; and 3) Africa care, a U.S. private voluntary organization, which includes private maternal and child health care providers in its primary health care network in Imo State.

In addition to sustaining these accomplishments made by the health care delivery system, such as vaccination coverage, African governments will need to meet the pressures of a rapidly expanding population. Moreover, governments also face new or resurgent diseases that will undoubtedly sap already limited resources.

Malaria is a continuing challenge in Africa, with 90 million clinical cases each year, causing approximately one million child deaths. Chloroquine-resistant *Plasmodium falciparum*, found only in Kenya and Tanzania in 1978, has now been detected throughout sub-Saharan Africa. As this drug resistant strain spreads, the incidence and clinical severity of the disease also appear



to be increasing. For example, reported deaths due to malaria in Zaire rose from 2.1 percent of cases in 1984 to 5.8 percent of cases in 1988.

Malaria particularly affects pregnant women and young children and is a major cause of low birth weight. Pediatric anemia in Zaire due to malaria infection rose in 1987 to three times its

1984 prevalence. This resulted not only in significant increases in malaria-related morbidity and mortality, but also in significant numbers of transfusion-induced HIV-infection in children.

Successful strategies for reducing malaria deaths in Africa will use combinations of interventions, such as the elimination of mosquito breeding

sites and personal protection, rather than relying on drug distribution. Simple effective tools are needed to help people protect themselves against infective mosquito bites. A recent study in the Gambia found that insecticide-impregnated bednets reduced mortality in children 1 to 4 years old by 70 percent.

The AIDS pandemic has had a greater effect on infant and child mortality than earlier believed. In sub-Saharan Africa, approximately 500,000 HIV-infected babies have been born to HIV-infected mothers as of 1990. Another four to eight million may be born in the next decade. Using current rural and urban HIV prevalence studies, the graph to the left shows the estimated impact of AIDS on current under five mortality rates for six countries. The World Health Organization estimates that during the 1990s AIDS may be responsible for an increase of 50 percent over the expected rate of child mortality in large parts of Africa. USAID is currently assisting West African countries in developing a strategy for integrating HIV/AIDS prevention activities into existing child survival programs.

While applauding the significant progress that has been achieved in child survival to date, there is much work yet to be done. This was a general conclusion made during the recent trip of Dr. Louis Sullivan, the Secretary of Health and Human Services, and Dr. Ronald Roskens, the Administrator of USAID, to eight African countries. "The heads of state with whom we spoke shared our profound concern with the barriers to child survival," said Roskens. "We all agreed that, in the words of President Museveni, meaningful development must begin with the human being, especially the child."

Bilateral Projects

- ◆ Health Care Financing Program
- ◆ Family Planning Services and Support
- ◆ PVO Co-Financing

Regional Projects

- ◆ Africa Child Survival Initiative- Combatting Childhood Communicable Diseases
- ◆ HIV/AIDS Prevention in Africa

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

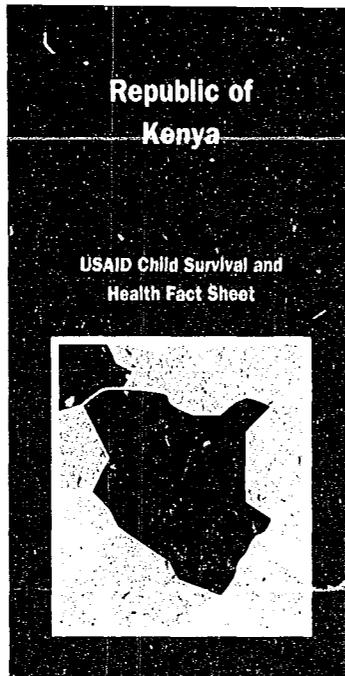
- ◆ African Medical and Research Foundation (Child Survival Grant)
- ◆ Minnesota International Health Volunteers (Child Survival Grant)
- ◆ World Vision Relief and Development (Child Survival Grant)

Bureau for Research and Development

- ◆ Demographic and Health Surveys
- ◆ Nursecare
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ REACH (Resources for Child Health)
- ◆ WHO Global Program on AIDS

Short-Term Technical Assistance and Support

- ◆ AIDSTECH
- ◆ Food and Nutrition Monitoring and Support
- ◆ Health Financing and Sustainability
- ◆ HealthTech (Technologies for Child Health)
- ◆ WIN (Women and Infant Nutrition: Wellstart)



Demographic Indicators

Total Population.....	23,000,000 (89)
Life Expectancy at Birth.....	60 Yrs (91)
Children Under 1.....	1,025,222 (89)
Annual Infant Deaths.....	80,011 (89)
Infant Mortality.....	74/1,000 (89)
Under 5 Mortality.....	103/1,000 (91)
Maternal Mortality.....	657/100,000 (87)
Total Fertility.....	6.7 (89)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access.....	63% (89)
ORT Use.....	63% (89)
Adequate Nutritional Status.....	N/A
Appropriate Infant Feeding....	58% (89)
Exclusive Breastfeeding.....	24% (89)
Complementary Feeding.....	87% (89)
Continued Breastfeeding.....	83% (89)
Contraceptive Prevalence.....	18% (89)

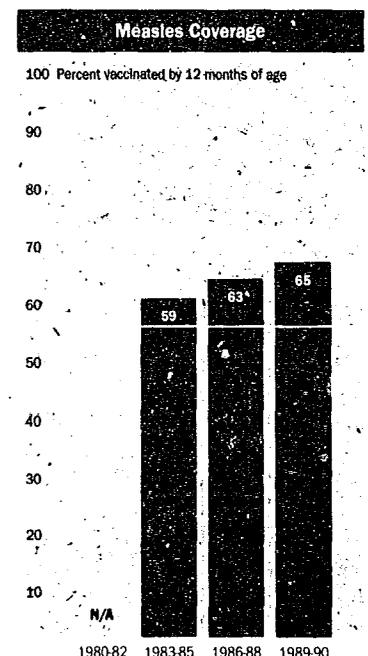
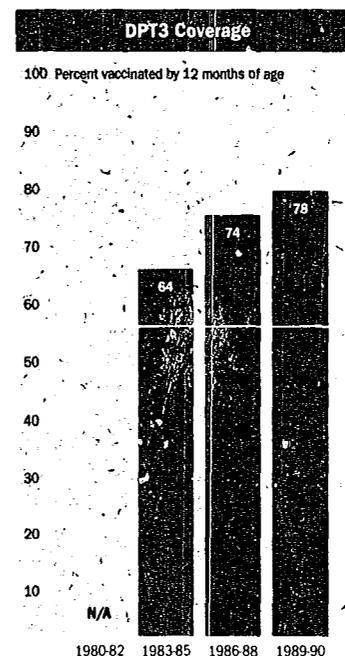
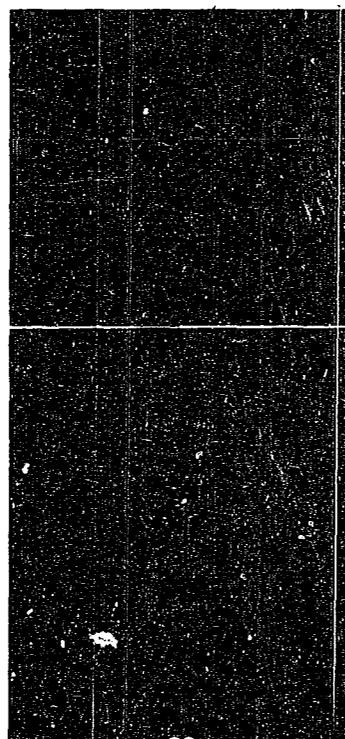
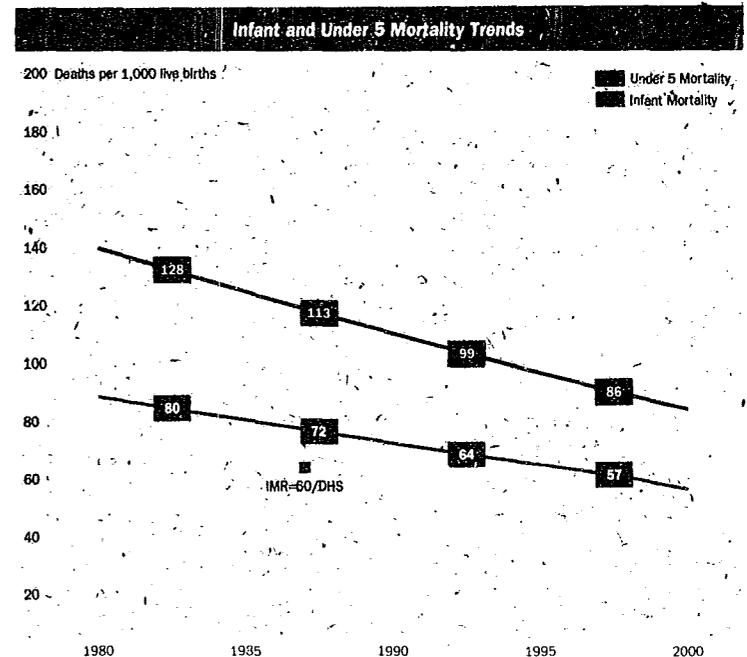
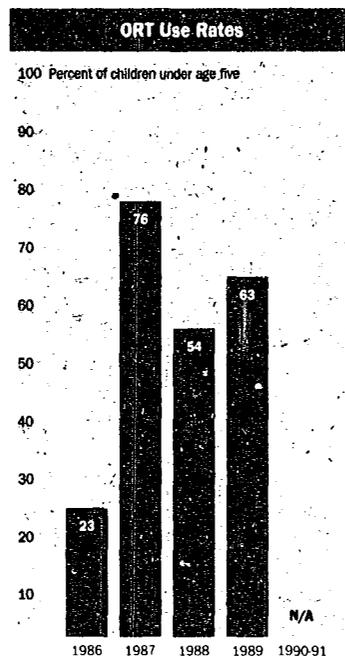
Vaccination Coverage

BCG.....	80% (90)
DPT3.....	74% (90)
Measles.....	59% (90)
Polio3.....	71% (90)
Tetanus2+.....	25% (89)
DPT Drop-Out.....	8% (89)

Other Health Indicators

Access to Improved Water	
Urban.....	61% (88)
Rural.....	21% (88)
Access to Sanitation	
Urban.....	40% (88)
Rural.....	25% (88)
HIV-1 Seroprevalence	
Urban.....	7.8% (90)
Rural.....	1% (90)
Deliveries by Trained Attendants.....	50% (89)

See Data Notes



Demographic Indicators

Total Population	9,102,020 (91)
Life Expectancy at Birth	48 Yrs (91)
Children Under 1	456,160 (91)
Annual Infant Deaths	71,901 (91)
Infant Mortality	142/1,000 (91)
Under 5 Mortality	246/1,000 (91)
Maternal Mortality	420/100,000 (85)
Total Fertility	7.6 (91)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access	56% (88)
ORT Use	14% (88)
Adequate Nutritional Status	70% (80)
Appropriate Infant Feeding	N/A
Exclusive Breastfeeding	N/A
Complementary Feeding	N/A
Continued Breastfeeding	N/A
Contraceptive Prevalence	1% (84)

Vaccination Coverage

BCG	97% (90)
DPT3	81% (90)
Measles	80% (90)
Polio3	79% (90)
Tetanus2+	72% (89)
DPT Drop-Out	N/A

Other Health Indicators

Access to Improved Water	
Urban	77% (88)
Rural	36% (88)
Access to Sanitation	
Urban	70% (88)
Rural	36% (88)
HIV-1 Seroprevalence	
Urban	23.3% (90)
Rural	N/A
Deliveries by Trained Attendants	52% (79)

See Data Notes

Republic of Malawi

USAID Child Survival and Health Fact Sheet



Bilateral Projects

- ◆ Promoting Health Interventions for Child Survival
- ◆ Services for Health, Agriculture and Rural Enterprise Development
- ◆ Human Resources and Institutional Development

Regional Projects

- ◆ Africa Child Survival Initiative - Combatting Childhood Communicable Diseases
- ◆ HIV/AIDS Prevention in Africa

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ Adventist Development and Relief Agency (Child Survival and Vitamin A Grants)
- ◆ International Eye Foundation (Child Survival and Vitamin A Grants)
- ◆ Project HOPE (Child Survival and Vitamin A Grants)
- ◆ Save the Children Federation (Child Survival Grant)
- ◆ VITAP (Vitamin A Technical Assistance Program/Helen Keller International)
- ◆ World Vision Relief and Development (Child Survival and Vitamin A Grants)

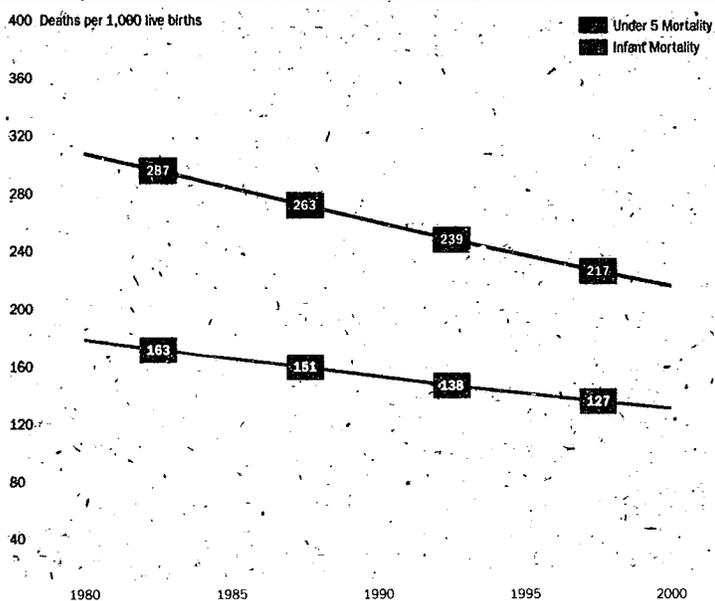
Bureau for Research and Development

- ◆ AIDSCOM
- ◆ Vitamin A for Health (VITAL)
- ◆ WHO Global Programme on AIDS

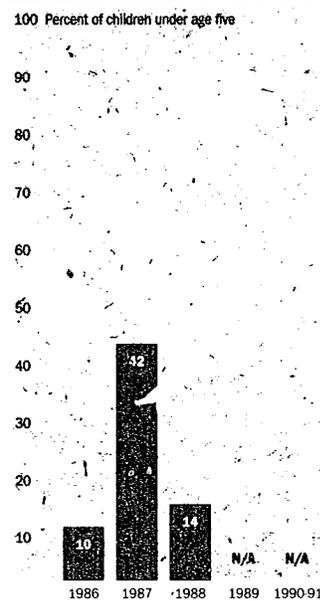
Short-Term Technical Assistance and Support

- ◆ AIDSTECH
- ◆ Demographic and Health Surveys
- ◆ ORT Help (Peace Corps)
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ VBC (Vector Biology and Control)
- ◆ WASH (Water and Sanitation for Health)

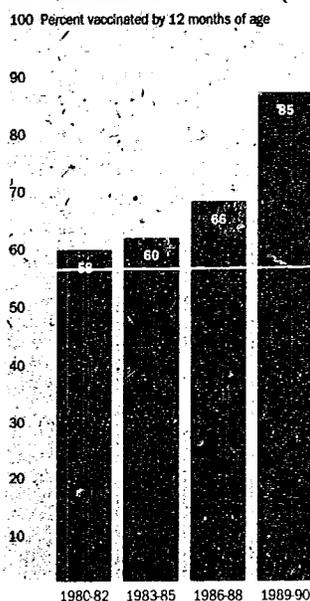
Infant and Under 5 Mortality Trends



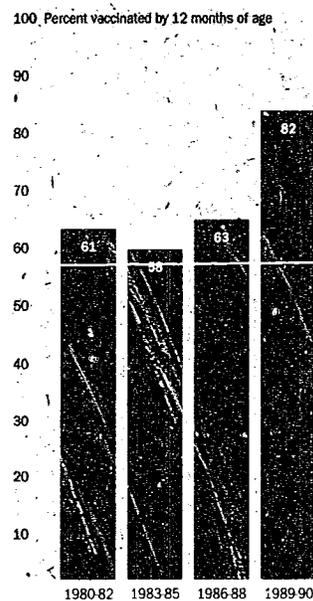
ORT Use Rates



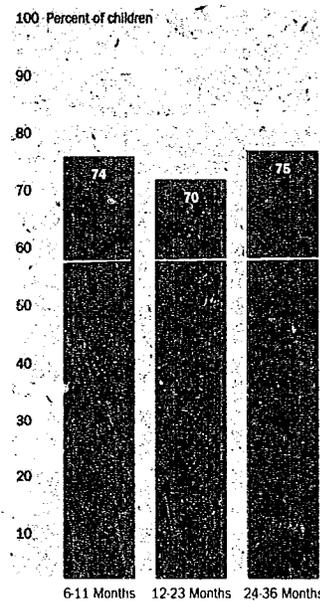
DPT3 Coverage



Measles Coverage



Adequate Nutritional Status



Bilateral Projects

- ◆ Dioro Child Survival
- ◆ Community Health and Population Services
- ◆ Integrated Family Health Services
- ◆ PVO Co-Financing

Regional Projects

- ◆ A Child Survival Grant to the United Nations Development Program
- ◆ Africa Child Survival Initiative - Combatting Childhood Communicable Diseases
- ◆ HIV/AIDS Prevention in Africa

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

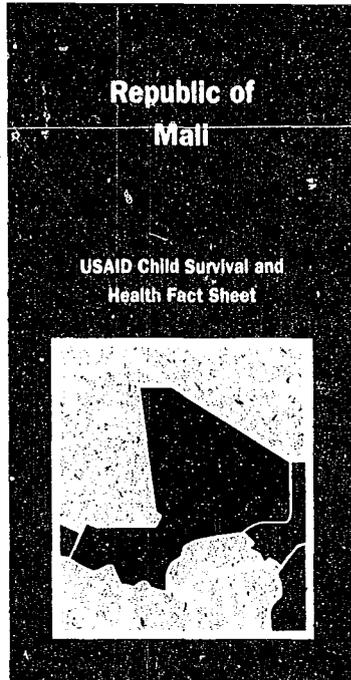
- ◆ CARE (Child Survival Grant)
- ◆ Foster Parents Plan (Child Survival Grant)
- ◆ Save the Children Federation (Child Survival Grant)
- ◆ VITAP (Vitamin A for Health Technical Assistance Program/Helen Keller International)
- ◆ World Vision Relief and Development (Child Survival and Vitamin A Grants)

Bureau for Research and Development

- ◆ Nutrition Education and Social Marketing
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ TAACS (Technical Advisors in AIDS and Child Survival)

Short-Term Technical Assistance and Support

- ◆ AIDSTECH
- ◆ Demographic and Health Surveys
- ◆ HEALTHCOM (Communication and Marketing for Child Survival)
- ◆ WASH (Water and Sanitation for Health)



Demographic Indicators

Total Population.....	8,990,000 (91)
Life Expectancy at Birth	45 (91)
Children Under 1	423,039 (91)
Annual Infant Deaths	49,425 (91)
Infant Mortality	108/1,000 (87)
Under 5 Mortality	249/1,000 (87)
Maternal Mortality..	2,900/100,000 (87)
Total Fertility.....	5.6 (87)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access.....	95% (89)
ORT Use.....	41% (89)
Adequate Nutritional Status... 60% (87)	
Appropriate Infant Feeding....	42% (87)
Exclusive Breastfeeding	8% (87)
Complementary Feeding	45% (87)
Continued Breastfeeding.....	90% (87)
Contraceptive Prevalence.....	3% (91)

Vaccination Coverage

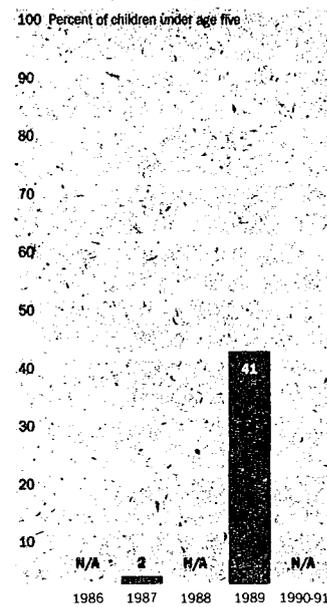
BCG	89% (91)
DPT3.....	58% (91)
Measles	56% (91)
Polio3.....	58% (91)
Tetanus2+.....	18% (90)
DPT Drop-Out	56% (90)

Other Health Indicators

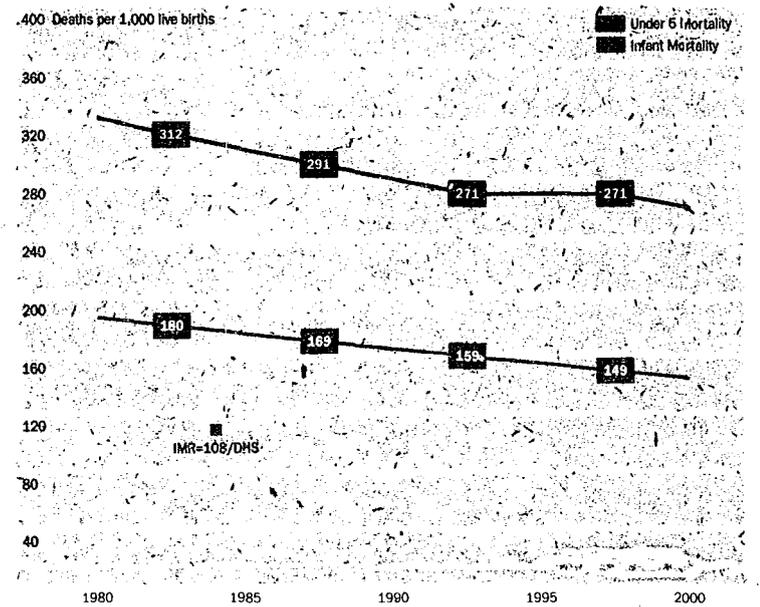
Access to Improved Water	
Urban.....	46% (88)
Rural	20% (88)
Access to Sanitation	
Urban.....	90% (88)
Rural	3% (88)
HIV-1 Seroprevalence	
Urban.....	0.4% (90)
Rural.....	N/A
Deliveries by Trained Attendants.....	
	32% (87)

See Data Notes

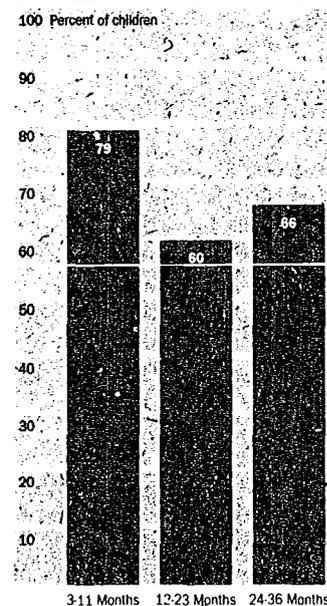
ORT Use Rates



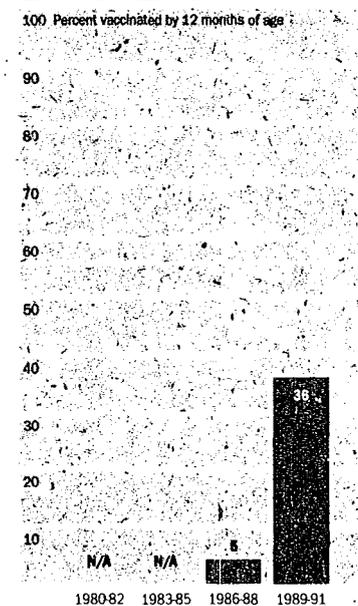
Infant and Under 5 Mortality Trends



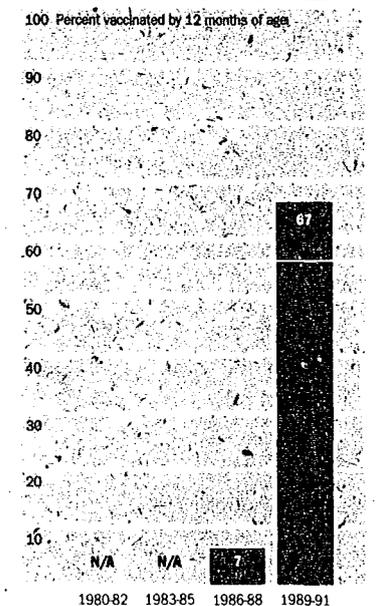
Adequate Nutritional Status



DPT3 Coverage



Measles Coverage



Demographic Indicators

Total Population	8,038,000 (91)
Life Expectancy at Birth	50 Yrs (90)
Children Under 1	373,027 (91)
Annual Infant Deaths	57,898 (91)
Infant Mortality	140/1,000 (91)
Under 5 Mortality	208/1,000 (90)
Maternal Mortality	700/100,000 (88)
Total Fertility	7.1 (91)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access	81% (91)
ORT Use	54% (91)
Adequate Nutritional Status	88% (89)
Appropriate Infant Feeding	N/A
Exclusive Breastfeeding	N/A
Complementary Feeding	N/A
Continued Breastfeeding	N/A
Contraceptive Prevalence	2% (91)

Vaccination Coverage

BCG	50% (90)
DPT3	13% (90)
Measles	21% (90)
Polio3	13% (90)
Tetanus2+	44% (90)
DPT Drop-Out	N/A

Other Health Indicators

Access to Improved Water	
Urban	36% (88)
Rural	49% (88)
Access to Sanitation	
Urban	36% (88)
Rural	3% (88)
HIV-1 Seroprevalence	
Urban	N/A
Rural	N/A
Deliveries by Trained Attendants	
	47% (83)

See Data Notes

Republic of Niger

USAID Child Survival and Health Fact Sheet



Bilateral Projects

- ◆ Africare Child Support
- ◆ Health Sector Support
- ◆ Family Health and Demography
- ◆ Niger Health Sector
- ◆ Niger River Blindness

Regional Project

- ◆ Africa Child Survival Initiative - Combatting Childhood Communicable Diseases

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ CARE (Child Survival Grant)
- ◆ Helen Keller International (Vitamin A Grant)
- ◆ VITAP (Vitamin A Technical Assistance Program/Helen Keller International)

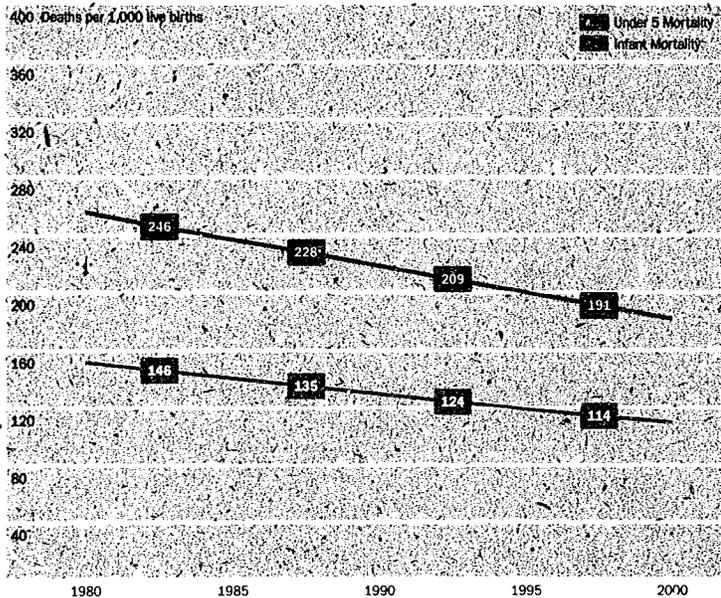
Bureau for Research and Development

- ◆ CSAP Support (Health and Child Survival Fellows)
- ◆ Demographic and Health Surveys
- ◆ ORT Help (Peace Corps)
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ TAACS (Technical Advisors in AIDS and Child Survival)

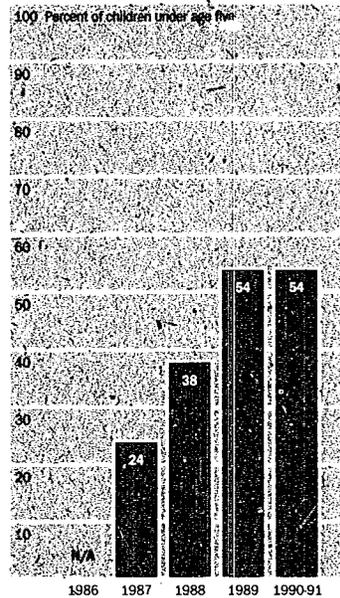
Short-Term Technical Assistance and Support

- ◆ AIDSTECH
- ◆ Applied Research and Child Survival Services
- ◆ Nutrition Education and Social Marketing
- ◆ PRICOR (Primary Health Care Operations Research)
- ◆ VBC (Vector Biology and Control)
- ◆ Vitamin A for Health (VITAL)
- ◆ WIN (Women and Infant Nutrition: Education Development Center)

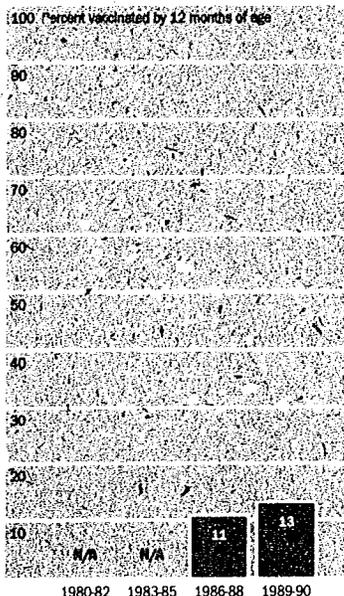
Infant and Under 5 Mortality Trends



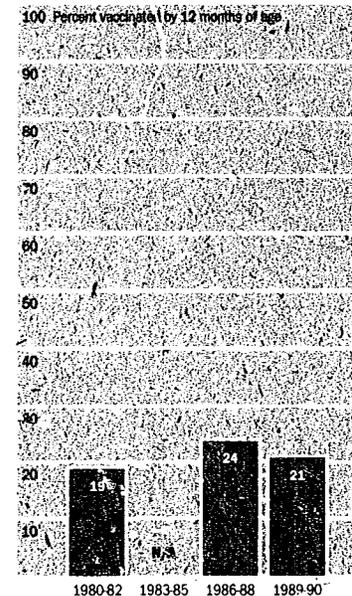
ORT Use Rates



DPT3 Coverage



Measles Coverage



Bilateral Projects

- ◆ Primary Health Care Support Program
- ◆ Nigeria River Blindness

Regional Projects

- ◆ Africa Child Survival Initiative - Combatting Childhood Communicable Diseases
- ◆ Operations Level Management Development (MEDEX)

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ Adventist Development and Relief Agency (Child Survival Grant)
- ◆ Africare (Child Survival Grant)
- ◆ VITAP (Vitamin A Technical Assistance Program/Helen Keller International)
- ◆ World Vision Relief and Development (Child Survival Grant)

Bureau for Research and Development

- ◆ Applied Diarrheal Disease Research
- ◆ CSAP Support (Health and Child Survival Fellows)
- ◆ Demographic and Health Surveys
- ◆ Diarrheal Disease Research (WHIO)

Short-Term Technical Assistance and Support

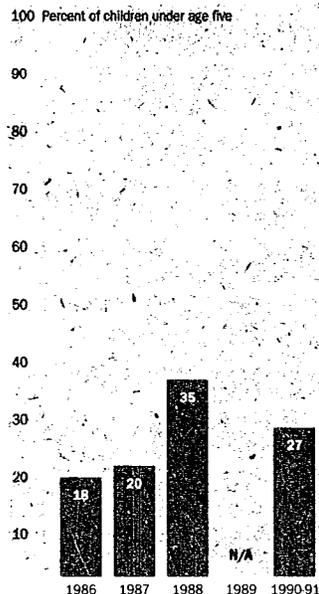
- ◆ AIDSTECH
- ◆ Breastfeeding and Maternal and Neonatal Health
- ◆ HEALTHCOM (Communication and Marketing for Child Survival)
- ◆ PRICOR (Primary Health Care Operations Research)
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ REACH (Resources for Child Health)
- ◆ WIN (Women and Infant Nutrition: Education Development Center)

Federal Republic of Nigeria

USAID Child Survival and Health Fact Sheet



ORT Use Rates



Demographic Indicators

Total Population	112,372,386 (91)
Life Expectancy at Birth	52 Yrs (91)
Children Under 1	4,926,227 (91)
Annual Infant Deaths	522,305 (91)
Infant Mortality	99/1,000 (91)
Under 5 Mortality	162/1,000 (91)
Maternal Mortality	800/100,000 (88)
Total Fertility	6.7 (91)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access	60% (91)
ORT Use	27% (90)
Adequate Nutritional Status	N/A
Appropriate Infant Feeding	N/A
Exclusive Breastfeeding	N/A
Complementary Feeding	N/A
Continued Breastfeeding	N/A
Contraceptive Prevalence	4% (90)

Vaccination Coverage

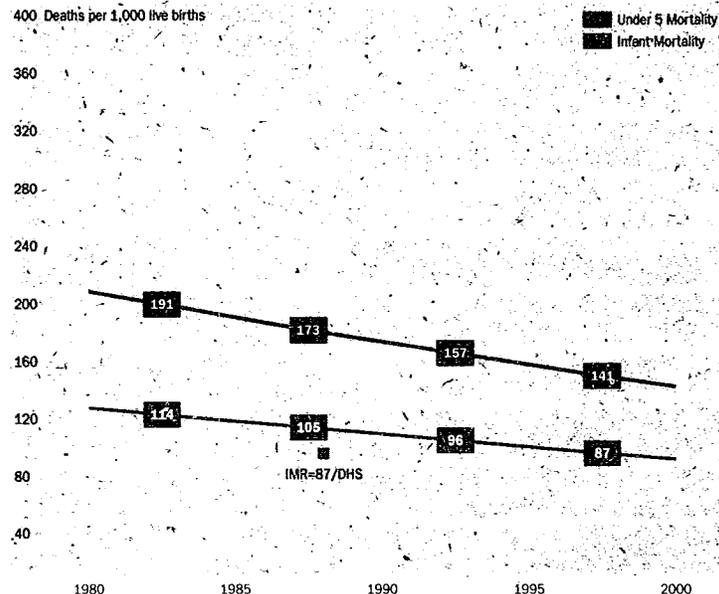
BCG	61% (90)
DPT3	33% (90)
Measles	46% (90)
Polio3	33% (90)
Tetanus2+	58% (90)
DPT Drop-Out	44% (90)

Other Health Indicators

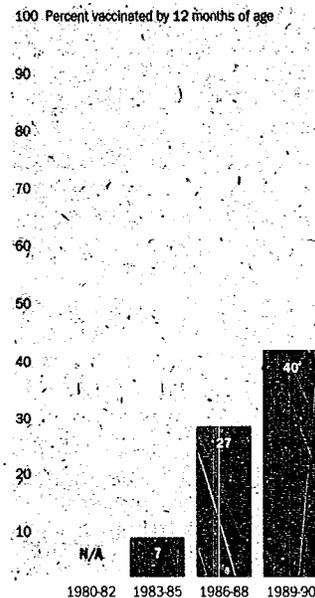
Access to Improved Water	
Urban	60% (88)
Rural	30% (88)
Access to Sanitation	
Urban	10% (88)
Rural	10% (88)
HIV-1 Seroprevalence	
Urban	0.5% (90)
Rural	N/A
Deliveries by Trained Attendants	32% (90)

See Data Notes

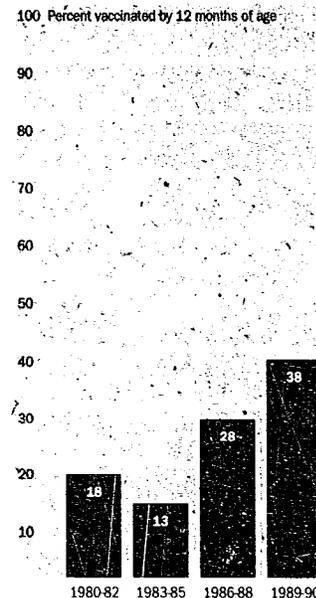
Infant and Under 5 Mortality Trends



DPT3 Coverage



Measles Coverage



Demographic Indicators

Total Population	7,545,732	(91)
Life Expectancy at Birth	49 Yrs	(91)
Children Under 1	315,741	(91)
Annual Infant Deaths	27,503	(91)
Infant Mortality	82/1,000	(91)
Under 5 Mortality	209/1,000	(91)
Maternal Mortality	948/100,000	(88)
Total Fertility	6.3	(91)

Child Survival Indicators

Oral Rehydration Therapy		
ORS Access	16%	(88)
ORT Use	27%	(88)
Adequate Nutritional Status	72%	(86)
Appropriate Infant Feeding	49%	(86)
Exclusive Breastfeeding	7%	(86)
Complementary Feeding	68%	(86)
Continued Breastfeeding	93%	(86)
Contraceptive Prevalence	2%	(86)

Vaccination Coverage

BCG	92%	(91)
DPT3	60%	(91)
Measles	59%	(91)
Polio3	66%	(91)
Tetanus2+	45%	(91)
DfT Drop-Out	33%	(91)

Other Health Indicators

Access to Improved Water		
Urban	79%	(88)
Rural	38%	(88)
Access to Sanitation		
Urban	87%	(88)
Rural	20%	(88)
HIV-1 Seroprevalence		
Urban	0.1%	(90)
Rural	0.1%	(90)
Deliveries by Trained Attendants	41%	(86)

See Data Notes

Republic of Senegal

USAID Child Survival and Health Fact Sheet



Bilateral Projects

- ◆ Rural Health Delivery Services II
- ◆ Family Health and Population
- ◆ PVO/NGO Support Project

USAID/Washington Support

U.S. Private Voluntary Organization/FVA/PVC

- ◆ World Vision Relief and Development (Child Survival Grant)

Bureau for Research and Development

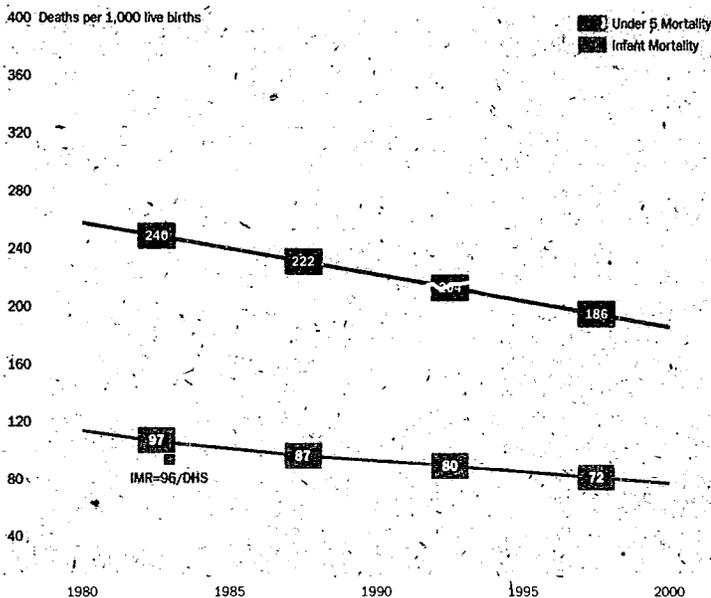
- ◆ HEALTHCOM (Communication and Marketing for Child Survival)
- ◆ TAACS (Technical Advisors in AIDS and Child Survival)
- ◆ Vitamin A for Health (Florida State University & VITAL)

- ◆ WHO Global Programme on AIDS

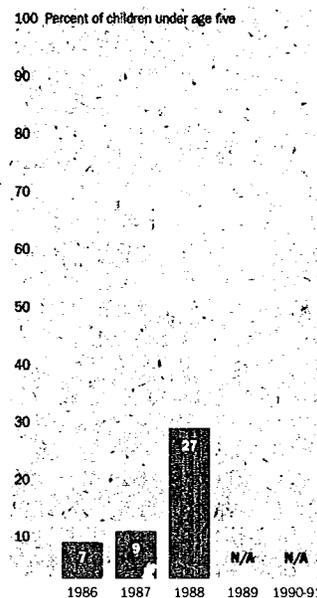
Short-Term Technical Assistance and Support

- ◆ Demographic and Health Surveys
- ◆ Health Financing and Sustainability
- ◆ ORT Help (Peace Corps, Dialogue on Diarrhea)
- ◆ PRICOR (Primary Health Care Operations Research)
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ WIN (Women and Infant Nutrition: APHA Clearinghouse)

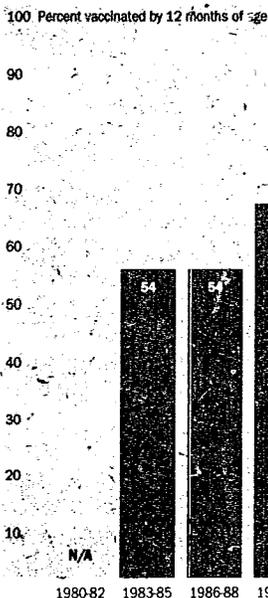
Infant and Under 5 Mortality Trends



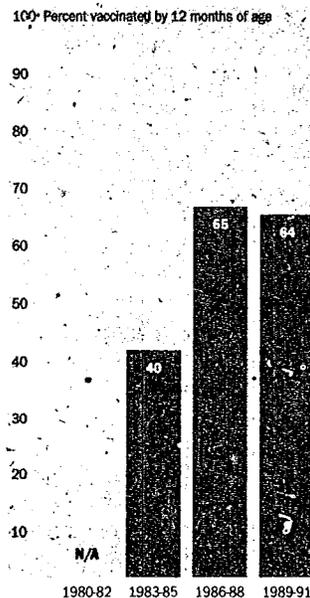
ORT Use Rates



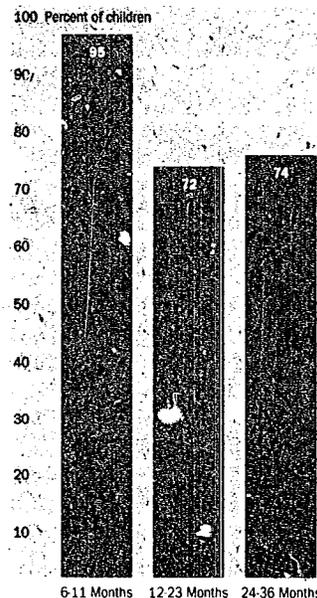
DPT3 Coverage



Measles Coverage



Adequate Nutritional Status



Bilateral Project

- ◆ Rural Health Support Project - South

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ CARE (Child Survival Grant)
- ◆ Helen Keller International (Vitamin A Grant)
- ◆ Save the Children Federation (Child Survival Grant)

Bureau for Research and Development

Short-Term Technical Assistance and Support

- ◆ Demographic and Health Surveys

Democratic Republic of the Sudan

USAID Child Survival and Health Fact Sheet



Demographic Indicators

Total Population.....	25,988,310 (91)
Life Expectancy at Birth.....	51 Yrs (91)
Children Under 1.....	1,054,446 (91)
Annual Infant Deaths.....	115,579 (91)
Infant Mortality.....	102/1,000 (91)
Under 5 Mortality.....	160/1,000 (91)
Maternal Mortality.....	655/100,000 (83)
Total Fertility.....	5.0 (89)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access.....	22% (91)
ORT Use.....	36% (89)
Adequate Nutritional Status.....	N/A
Appropriate Infant Feeding.....	N/A
Exclusive Breastfeeding.....	14% (89)
Complementary Feeding.....	45% (89)
Continued Breastfeeding.....	80% (89)
Contraceptive Prevalence.....	6% (89)

Vaccination Coverage

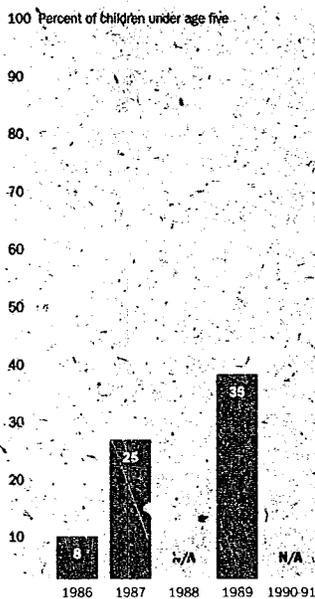
BCG.....	76% (89)
DPT3.....	60% (89)
Measles.....	61% (89)
Polio3.....	61% (89)
Tetanus2+.....	25% (89)
DPT Drop-Out.....	22% (89)

Other Health Indicators

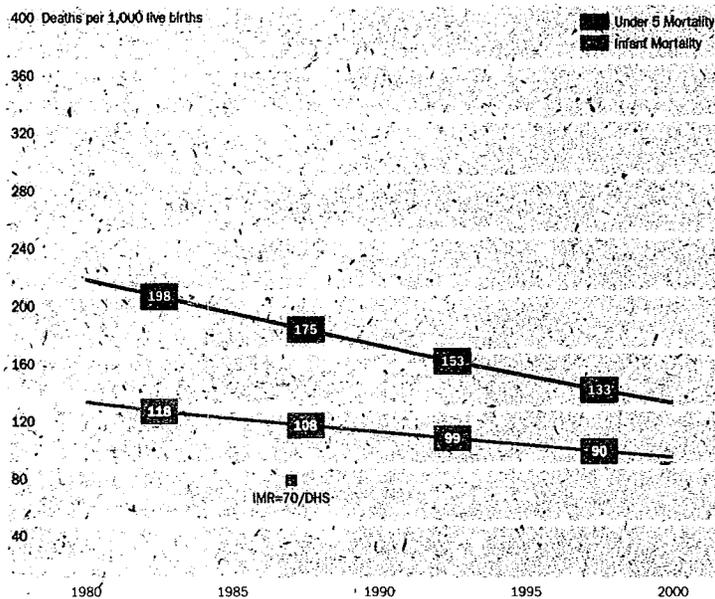
Access to Improved Water	
Urban.....	50% (88)
Rural.....	30% (88)
Access to Sanitation	
Urban.....	15% (88)
Rural.....	15% (88)
HIV-1 Seroprevalence	
Urban.....	0.1% (90)
Rural.....	N/A
Deliveries by Trained Attendants.....	69% (89)

See Data Notes

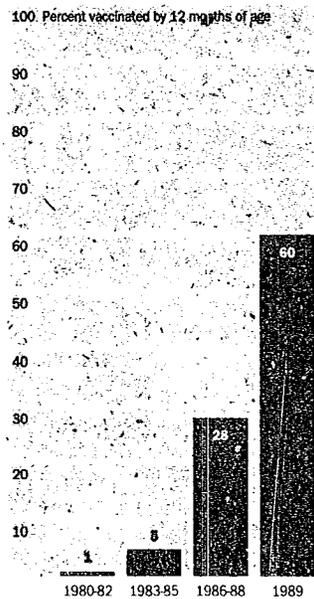
ORT Use Rates



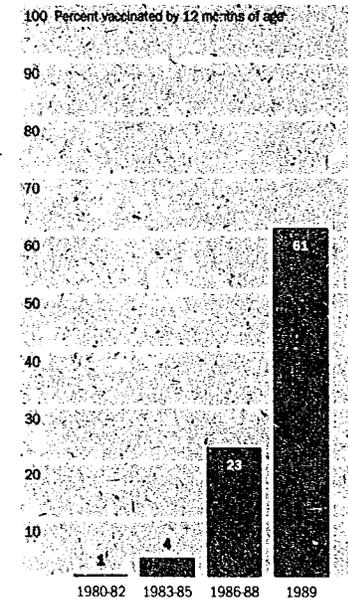
Infant and Under 5 Mortality Trends



DPT3 Coverage



Measles Coverage



Demographic Indicators

Total Population	36,817,288	(91)
Life Expectancy at Birth	53 Yrs	(91)
Children Under 1	1,509,531	(90)
Annual Infant Deaths	151,890	(91)
Infant Mortality	94/1,000	(90)
Under 5 Mortality	150/1,000	(91)
Maternal Mortality	800/100,000	(80)
Total Fertility	6.1	(91)

Child Survival Indicators

Oral Rehydration Therapy		
ORS Access	50%	(91)
ORT Use	45%	(91)
Adequate Nutritional Status	N/A	
Appropriate Infant Feeding	N/A	
Exclusive Breastfeeding	N/A	
Complementary Feeding	N/A	
Continued Breastfeeding	N/A	
Contraceptive Prevalence	N/A	

Vaccination Coverage

BCG	59%	(89)
DPT3	38%	(89)
Measles	44%	(89)
Polio3	38%	(89)
Tetanus2+	29%	(89)
DPT Drop-Out	29%	(91)

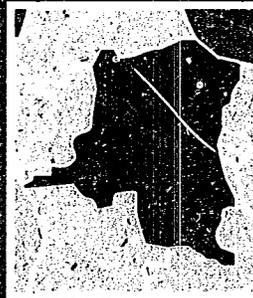
Other Health Indicators

Access to Improved Water		
Urban	65%	(88)
Rural	15%	(88)
Access to Sanitation		
Urban	6%	(88)
Rural	10%	(88)
HIV-1 Seroprevalence		
Urban	6%	(90)
Rural	3.6%	(90)
Deliveries by Trained Attendants	N/A	

See Data Notes

Republic of Zaire

USAID Child Survival and Health Fact Sheet



Bilateral Projects

- ◆ Basic Rural Health II
- ◆ School of Public Health
- ◆ Family Planning Services
- ◆ Shaba Refugee Health Project

Regional Projects

- ◆ Africa Child Survival Initiative - Combatting Childhood Communicable Diseases
- ◆ HIV/AIDS Prevention in Africa

USAID/Washington Support

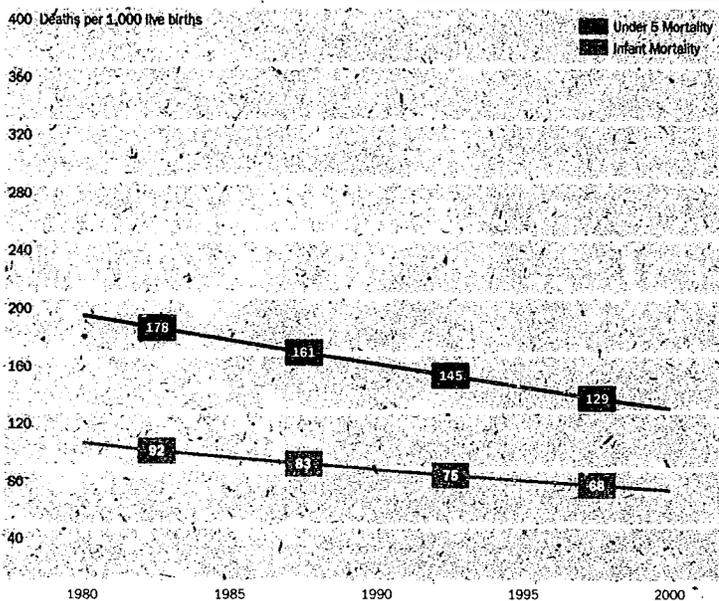
Bureau for Research and Development

- ◆ Applied Diarrheal Disease Research
- ◆ PRITECH (Technologies for Primary Health Care)

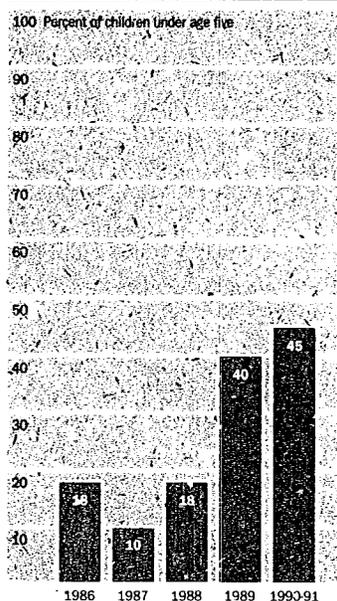
Short-Term Technical Assistance and Support

- ◆ AIDSTECH
- ◆ Health Financing and Sustainability
- ◆ HEALTHCOM (Communication and Marketing for Child Survival)
- ◆ ORT Help (Peace Corps)
- ◆ PRICOR (Primary Health Care Operations Research)
- ◆ WASH (Water and Sanitation for Health)

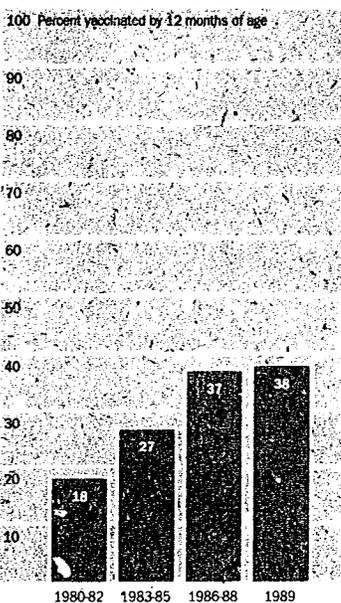
Infant and Under 5 Mortality Trends



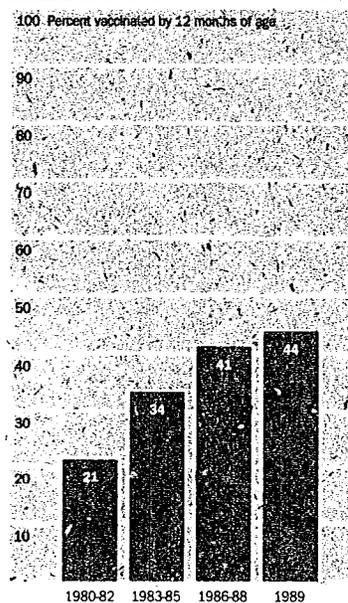
ORT Use Rates



DPT3 Coverage



Measles Coverage



Asia Region



Between 1980 and 1991, infant mortality rates in the 13 USAID-assisted countries in the Asia region dropped from almost 114 to 89 deaths per thousand live births. Nonetheless, almost 60 percent (4,344,748 deaths) of all infant deaths reported in USAID-assisted countries worldwide in 1991 occurred in the Asia region. While aggregate mortality figures are strongly influenced by the size of India's population, an estimated 43 percent of infant deaths in the region occurred outside India. Of the five Asia child survival emphasis countries (Bangladesh, India, Indonesia, Nepal and Pakistan), Indonesia (with a rate of 68 deaths per thousand) is the first emphasis country to achieve an infant mortality rate of less than the target of 75 deaths per thousand live births. Infant mortality rates in the Asia region remain among the highest in the world. Examples include Afghanistan (165), Bangladesh (111), Cambodia (120), India (91), Nepal (121), and Pakistan (102).

Improvements in vaccination coverage have been significant. Regional DPT3 coverage has doubled since 1985; and measles coverage increased from 9 percent in 1985 to 59 percent in 1990. The Philippines, Sri Lanka, and Thailand report surpassing the USAID target of 80 percent coverage for BCG, DPT3, polio3, and measles. Although vaccination coverage has not reached 80 percent in Bangladesh, the country

has experienced a dramatic increase in coverage: DPT3 and polio3 coverage rates have risen from under four percent in 1985 to 62 percent in 1991. In countries where BCG, DPT3, and polio3 coverage is high, attention is turning to increasing lagging measles and tetanus coverage. In 1991, Rotary International and the Lion's Club cosponsored a Measles Immunization day in India.

Although immunization programs have been expanded, there are still portions of the population that are not being reached. USAID-assisted projects are working in several countries to extend vaccination coverage to isolated, rural areas and underserved urban areas. India's urban slum communities are the primary target for Rotary International's 50,000 volunteers, who promote immunization through home visits and assist health workers during vaccination sessions. Rotary International has contributed to improvements in national vaccination coverage, especially polio3 coverage, which has more than doubled since 1985.

Sustaining high vaccination coverage while extending coverage to high risk groups not currently reached

will require political support, adequate resources, and demand for immunization services. In Indonesia, where high vaccination coverage has already been achieved, signs of sustainability are already evident: production of diphtheria, tetanus, tuberculosis, and pertussis vaccines is underway, and private voluntary organizations and private physicians are working to extend immunization services to remote, underserved populations. However, much greater support is still needed to ensure sustainability of programs: expenditures for children are small in proportion to children's health problems, and preventive health care activities compete with curative facilities, infrastructure needs, and other community priorities.

Diarrheal disease remains a leading killer of children under five in the Asia region. Cause of death studies conducted in Bangladesh, India, Nepal, and the Philippines show diarrheal disease to be the leading cause of death, accounting for one-third of all child deaths. To reduce the mortality associated with diarrheal disease, USAID has promoted the use of oral rehydration therapy (ORT), though progress in the region has been slow. Indonesia is the only emphasis country with an ORT use rate over the target of 45 percent, and only Pakistan is steadily approaching the target. A combination of cultural, social, and economic factors has hindered the use of ORT, including con-

straints to the mobilization of women, the communication of effective messages, and the access of Oral Rehydration Salts (ORS).

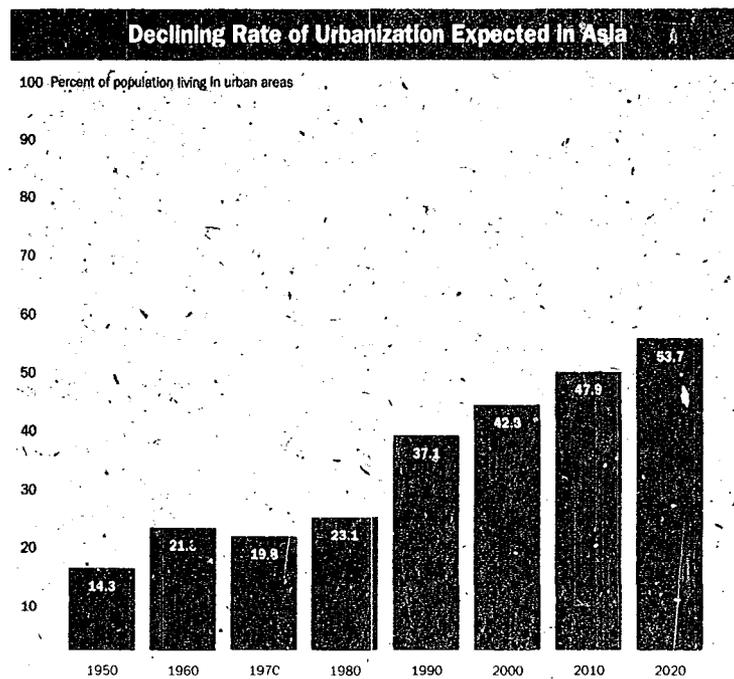
The diarrheal disease control strategies include promotion of continued breastfeeding and appropriate infant feeding during diarrheal episodes. Over 20 USAID projects in six Asian countries have incorporated breastfeeding and appropriate infant feeding interventions into their diarrheal disease control programs. Breastfeeding is promoted through nutrition education, curriculum development, policy development, and operations research activities. In Indonesia, the Ministry of Health is training regency hospital teams in lactation management using a training module developed by the USAID-supported Women and Infant Nutrition project.

Studies have shown risk factors such as lack of breastfeeding and poor nutritional status to be associated with persistent diarrhea. Research on the dietary management of diarrhea revealed that simple foods such as noodles and yogurt reduce stool output, and removal of lactose (milk sugar) from children's diets shortens the duration of diarrhea. USAID-supported studies conducted by the International Center for Diarrheal Disease Research in Bangladesh, the Applied Diarrheal Disease Research project, and the World Health Organization have shown the importance of continued feeding in the

treatment of persistent diarrhea. A standard treatment algorithm for the treatment of persistent diarrhea which centers on dietary management is being tested in six countries, including Bangladesh, India, and Pakistan.

The prevalence of malnutrition in Asia is high. In Bangladesh, 60 percent of children under five suffer from moderate or severe malnutrition; in Indonesia, the rate is 51 percent. Recent studies in Bangladesh, Nepal, India, and Pakistan point to higher malnutrition rates among females than males. The Women and Infant Nutrition project is conducting studies in Nepal, India, and the Philippines to examine factors affecting the nutritional status of adolescent girls.

Child survival and nutrition programs are expanding to include activities that address vitamin A deficiency, which has been shown to be associated with child mortality in areas where vitamin A rich foods are lacking. Community-based vitamin A supplementation trials conducted in Indonesia, Nepal, and South India revealed 30 to 54 percent reductions in under five mortal-



ity due to increased vitamin A intake. Vitamin A activities supported by USAID are currently underway in Bangladesh, Indonesia, India, Nepal, and the South Pacific. As the result of several successful pilot projects, some of which were supported by USAID, the Ministry of Health in Indonesia has adopted a policy to eliminate xerophthalmia (night blindness) caused by vitamin A deficiency by 1993. In February 1991, the Ministry of Health launched a national communications campaign, with

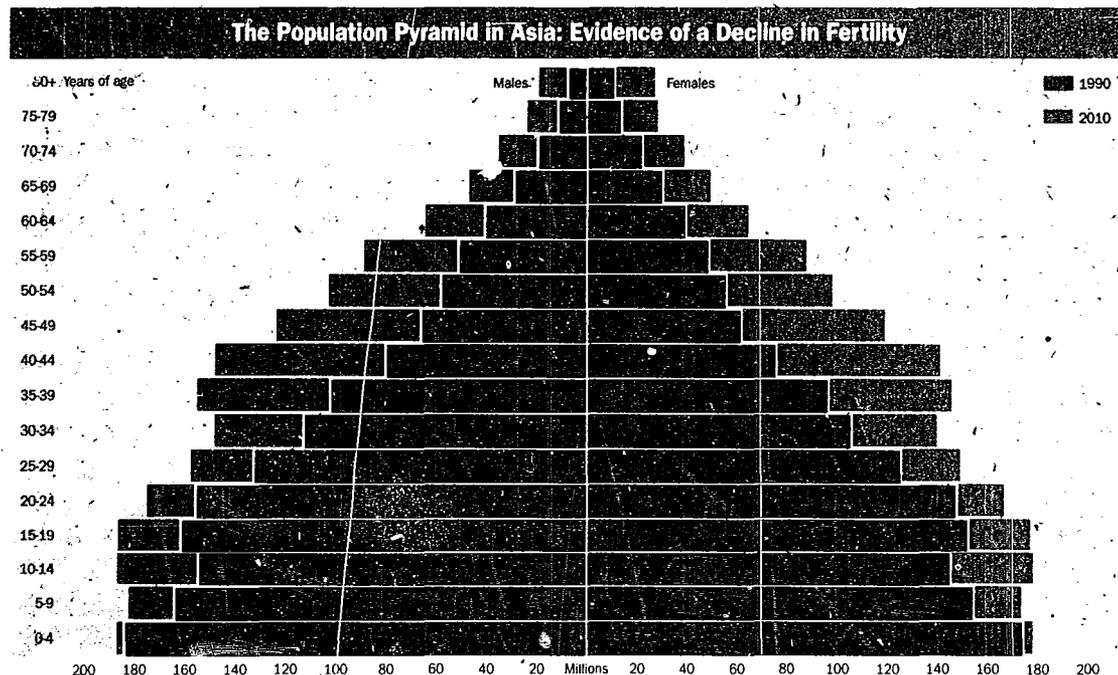
assistance from HEALTHCOM, to increase mothers' awareness of the benefits of vitamin A and to inform them of how to obtain vitamin A capsules for their children.

In Asian countries where diarrheal disease control, immunization, and nutrition programs are established, other causes of death are beginning to be addressed. Acute respiratory infections (ARI) account for an estimated one-third of all deaths among children under five in the developing world. Studies

conducted largely in Asia have shown that standard ARI case management reduces under five mortality by an average of 25 percent. USAID has initiated ARI interventions in India, Indonesia, Nepal, Pakistan, and Papua New Guinea. Pneumonia has been documented as the leading cause of death among children in the Philippines. REACH (Resources for Child Health) is working with the Philippine Department of Health to improve and expand ARI services. Work has begun on developing health education tools for use by midwives in educating mothers who seek pneumonia treatment for their children.

The decade of the 1990s brings with it new challenges. While Asia's population continues to be concentrated in rural areas, the urban population is expected to almost double to 36 percent of the total population by the year 2000, placing increasing demands on already overburdened health care services. Donor support will need to be balanced to respond to both the pressing needs of poor people in burgeoning urban centers and the continued presence of the bulk of the population in rural areas. USAID currently supports programs to address the special health needs of the urban poor in Bangladesh, India, Indonesia, and Pakistan. The USAID-assisted Urban Volunteer Program in Bangladesh has successfully trained women volunteers to communicate health and family planning messages, promote child survival services, and refer the seriously ill to local health clinics in urban slums in Dhaka. Contraceptive prevalence and ORT use rates in the project area are 10 to 15 percent higher than in non-project areas.

Consolidating the gains already made in child survival is a major



Asia Region

Project Support Active
In Fiscal Year 1991

	Bangladesh	India	Indonesia	Nepal	Pakistan	Afghanistan	Cambodia	China	Papua New Guinea	Philippines	Sri Lanka	Thailand	Vanuatu
Bilateral	◆	◆	◆	◆	◆	◆	◆			◆	◆		
Regional					◆				◆	◆			
Private Voluntary Organizations	◆	◆	◆	◆	◆	◆			◆	◆		◆	◆
Central Project Support													
AIDSCOM			◆							◆			
AIDSTECH		◆	◆							◆		◆	
Applied Diarrheal Disease Research			◆		◆							◆	
Breastfeeding and Maternal and Neonatal Health	◆	◆	◆						◆				
CSAP Support	◆		◆							◆			
Demographic and Health Surveys		◆	◆	◆	◆							◆	◆
Diarrheal Disease Research		◆						◆					
HBCU Research Grants	◆		◆										
HEALTHCOM			◆							◆			
Health Financing and Sustainability				◆						◆			
Health Resources Support							◆					◆	◆
HealthTech			◆										◆
ORT Help		◆		◆	◆								
PRICOR II			◆							◆			◆
PRITECH II			◆		◆					◆			
REACH		◆		◆					◆	◆			
Technical Advisors in AIDS and Child Survival			◆										
University Development Linkages Project	◆	◆		◆									
Vector Biology and Control				◆	◆					◆			
Vitamin A for Health		◆	◆	◆								◆	◆
Water and Sanitation for Health	◆	◆	◆	◆								◆	
WHO/Global Programme on AIDS		◆							◆			◆	
Women and Infant Nutrition			◆		◆			◆		◆		◆	

In Bangladesh and Pakistan, private sector involvement in the production and distribution of ORS is highly successful. Pakistan's two-pronged approach is based on generic and brand-specific promotion by private ORS producers, and expanded distribution of ORS through consumer outlets. As a result, private sector sales of ORS increased by 75 percent between 1990 and 1991. In Bangladesh, USAID's Family Planning and Health Services project is facilitating the distribution of ORS through pharmacies and other consumer outlets. Most recently, village women are being trained to sell ORS packets door-to-door in underserved, rural areas.

The development of effective strategies for financing health care has become an important issue in the 1990s. Tight national budgets, population growth, and lack of adequate infrastructure to provide services make it necessary to mobilize both government and nongovernment resources for child survival. In Indonesia, a study conducted by the Health Sector Financing Project convinced the government to require 15 hospitals to use fees for hospital services to finance operational, maintenance, and personnel costs. With assistance from the project, legislation has been passed to facilitate the introduction of health insurance in Indonesia. The Ministry of Health recently supported the joint development of a health insurance plan by the Indonesian Medical Association and a local insurance firm. In Indonesia, as in all Asian countries, the greatest challenge facing the government and foreign aid donors in the 1990s will be to provide affordable, quality health care to a rapidly growing population.

task for the 1990s. Strategies for achieving sustainability in the Asia region include integrating health care services, encouraging private sector involvement, and improving and establishing health care financing mechanisms. In-

tegration of health care services has been extremely successful in Indonesia, where family planning, nutrition, diarrheal disease control, immunization, and prenatal care services are delivered through monthly health posts held in

each community. In Pakistan, the Child Survival project is working with the Ministry of Health to expand the curricula of national Diarrhea Training Units to include ARI, immunization, and nutrition interventions.

Demographic Indicators

Total Population.....	118,918,683 (91)
Life Expectancy at Birth.....	52 Yrs (91)
Children Under 1.....	4,505,018 (91)
Annual Infant Deaths.....	542,238 (91)
Infant Mortality.....	111/1,000 (91)
Under 5 Mortality.....	174/1,000 (91)
Maternal Mortality.....	550/100,000 (85)
Total Fertility.....	4.9 (89)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access.....	75% (91)
ORT Use.....	26% (91)
Adequate Nutritional Status... 22% (89)	
Appropriate Infant Feeding.....	N/A
Exclusive Breastfeeding.....	N/A
Complementary Feeding.....	N/A
Continued Breastfeeding.....	N/A
Contraceptive Prevalence.....	40% (91)

Vaccination Coverage

BCG.....	86% (91)
DPT3.....	62% (91)
Measles.....	54% (91)
Polio3.....	62% (91)
Tetanus2+.....	74% (91)
DPT Drop-Out.....	20% (91)

Other Health Indicators

Access to Improved Water	
Urban.....	24% (85)
Rural.....	49% (85)
Access to Sanitation	
Urban.....	24% (85)
Rural.....	3% (85)
HIV-1 Seroprevalence	
Urban.....	N/A
Rural.....	N/A
Deliveries by Trained Attendants.....	5% (85)

See Data Notes

People's Republic of Bangladesh

USAID Child Survival and Health Fact Sheet



Bilateral Projects

- ◆ Urban Volunteer Program
- ◆ Family Planning and Health Services
- ◆ Disaster Preparedness

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ CARE (Child Survival Grant)
- ◆ Helen Keller International (Vitamin A Grant)
- ◆ VITAP (Vitamin A Technical Assistance Program/Helen Keller International)
- ◆ World Relief Corporation (Child Survival Grant)
- ◆ World Vision Relief and Development (Child Survival and Vitamin A Grants)

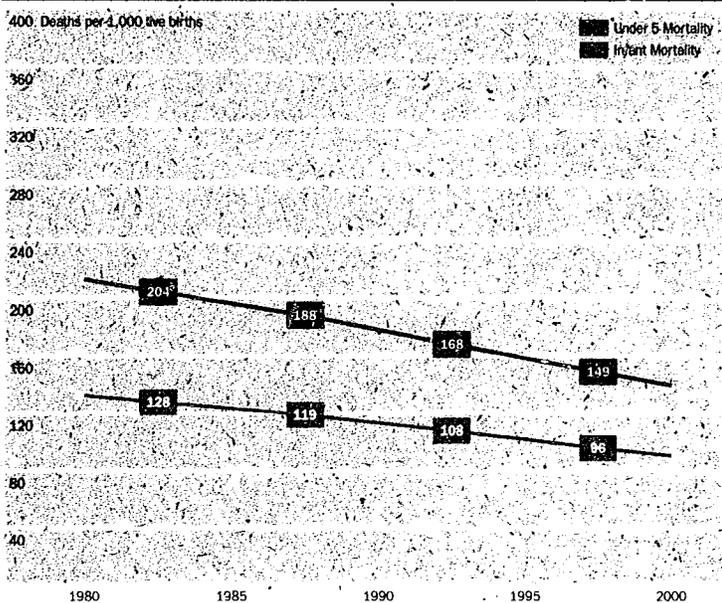
Bureau for Research and Development

- ◆ CSAP Support (Johns Hopkins University, Health and Child Survival Fellows)
- ◆ Diarrheal Disease Research (International Center for Diarrheal Disease Research/Bangladesh)

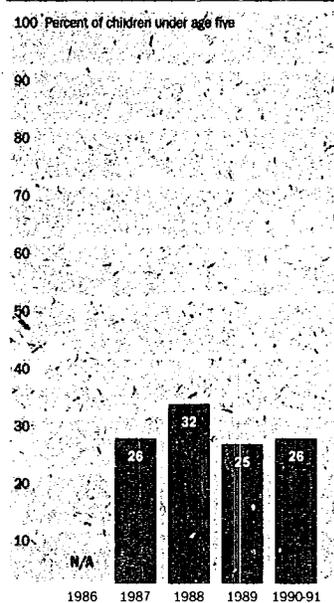
Short-Term Technical Assistance and Support

- ◆ Breastfeeding and Maternal and Neonatal Health
- ◆ WASH (Water and Sanitation for Health)

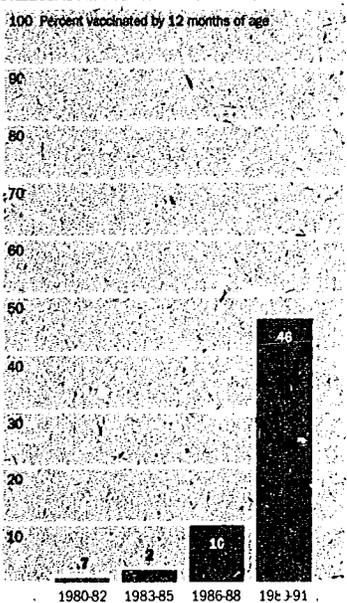
Infant and Under 5 Mortality Trends



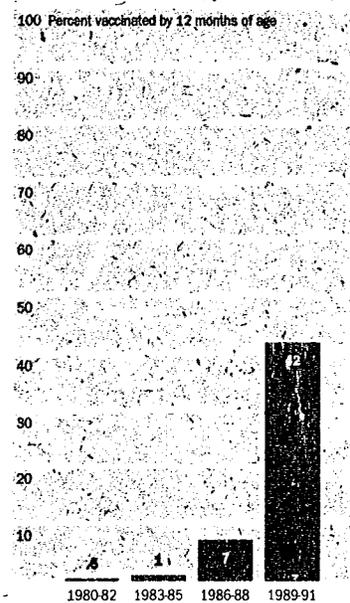
ORT Use Rates



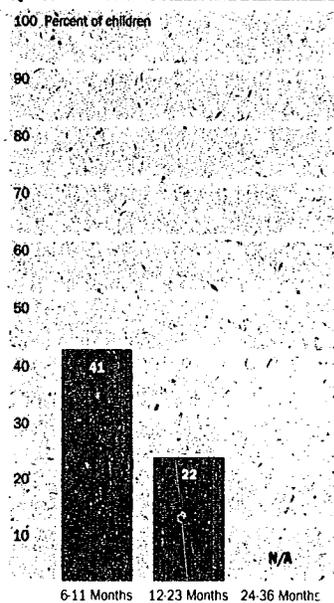
DPT3 Coverage



Measles Coverage



Adequate Nutritional Status



Bilateral Projects

- ◆ Child Survival Health Support
- ◆ Integrated Child Survival Development Services
- ◆ Private & Voluntary Organizations for Health II
- ◆ Vaccine and Immunodiagnostic Development
- ◆ Biomedical Research Support
- ◆ Program for Advancement of Commercial Technology
- ◆ Contraceptive Development & Research in Immunology
- ◆ Quality Control for Health Technologies
- ◆ Partnership for Nutrition Program
- ◆ Maternal and Child Health

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ CARE (Child Survival Grant)
- ◆ Rotary International (Child Survival Grant)
- ◆ VITAP (Vitamin A Technical Assistance Program/Helen K ller International)
- ◆ World Vision Relief and Development (Child Survival Grant)

Bureau for Research and Development

- ◆ Diarrheal Disease Research (WHO)
- ◆ WHO Global Programme on AIDS

Short-Term Technical Assistance and Support

- ◆ AIDSTECH
- ◆ Breastfeeding and Maternal and Neonatal Health
- ◆ Demographic and Health Surveys
- ◆ ORT Help (Dialogue on Diarrhea)
- ◆ REACH (Resources for Child Health)
- ◆ Vitamin A for Health (VITAL)
- ◆ WASH (Water and Sanitation for Health)

Republic of India

USAID Child Survival and Health Fact Sheet



Demographic Indicators

Total Population.....	871,818,749 (91)
Life Expectancy at Birth.....	60 Yrs (91)
Children Under 1.....	25,587,248 (91)
Annual Infant Deaths.....	2,491,814 (91)
Infant Mortality.....	91/1,000 (91)
Under 5 Mortality.....	135/1,000 (91)
Maternal Mortality.....	1,250/100,000 (78)
Total Fertility.....	4.2 (91)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access.....	60% (91)
ORT Use.....	14% (91)
Adequate Nutritional Status..... N/A	
Appropriate Infant Feeding..... N/A	
Exclusive Breastfeeding..... N/A	
Complementary Feeding..... N/A	
Continued Breastfeeding..... N/A	
Contraceptive Prevalence..... 40% (89)	

Vaccination Coverage

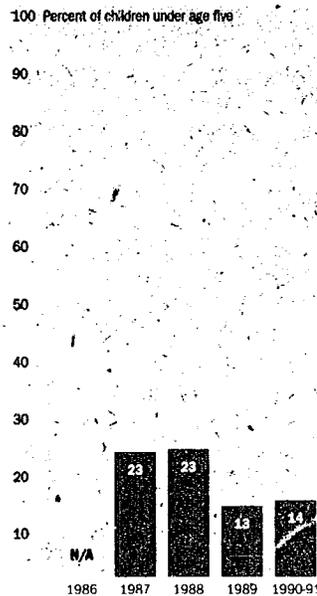
BCG.....	80% (89)
DPT3.....	79% (89)
Measles.....	56% (89)
Polio3.....	74% (89)
Tetanus2+.....	67% (89)
DPT Drop-Out.....	N/A

Other Health Indicators

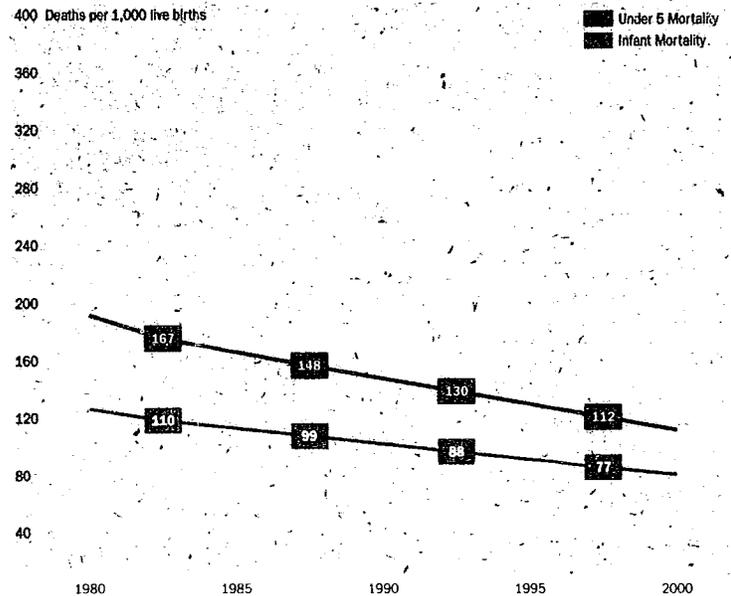
Access to Improved Water	
Urban.....	76% (85)
Rural.....	50% (85)
Access to Sanitation	
Urban.....	31% (85)
Rural.....	2% (85)
HIV-1 Seroprevalence	
Urban.....	0.1% (90)
Rural.....	N/A
Deliveries by Trained Attendants..... 33% (83)	

See Data Notes

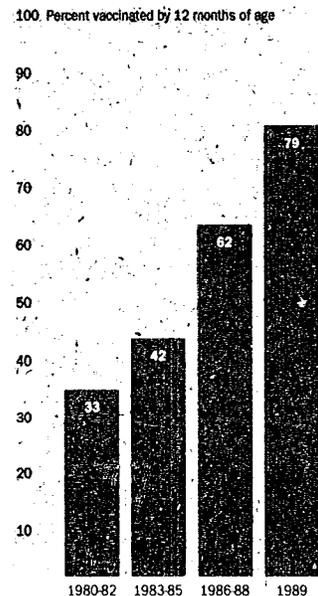
ORT Use Rates



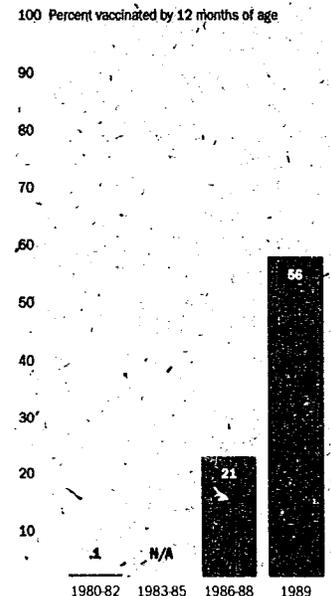
Infant and Under 5 Mortality Trends



DPT3 Coverage



Measles Coverage



Demographic Indicators

Total Population.....	179,321,641 (90)
Life Expectancy at Birth.....	62 Yrs (91)
Children Under 1.....	4,711,879 (90)
Annual Infant Deaths.....	346,826 (90)
Infant Mortality.....	68/1,000 (91)
Under 5 Mortality.....	104/1,000 (91)
Maternal Mortality.....	400/100,000 (87)
Total Fertility.....	3.0 (91)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access.....	92% (91)
ORT Use.....	57% (91)
Adequate Nutritional Status.....	N/A
Appropriate Infant Feeding.....	N/A
Exclusive Breastfeeding.....	39% (87)
Complementary Feeding.....	82% (87)
Continued Breastfeeding.....	82% (87)
Contraceptive Prevalence.....	47% (91)

Vaccination Coverage

BCG.....	74% (91)
DPT3.....	56% (91)
Measles.....	58% (91)
Polio3.....	56% (91)
Tetanus2+.....	43% (91)
DPT Drop-Out.....	23% (91)

Other Health Indicators

Access to Improved Water	
Urban.....	60% (88)
Rural.....	40% (88)
Access to Sanitation	
Urban.....	40% (88)
Rural.....	45% (88)
HIV-1 Seroprevalence	
Urban.....	0.1% (90)
Rural.....	N/A
Deliveries by Trained Attendants.....	32% (91)

See Data Notes

Republic of Indonesia

USAID Child Survival and Health Fact Sheet



Bilateral Projects

- ◆ Family Planning Development and Services II
- ◆ PVO Co-Financing II
- ◆ Faculties of Public Health
- ◆ Health Sector Financing
- ◆ Private Sector Family Planning Project
- ◆ Strengthening Institutional Development
- ◆ Urban-based Community-Financing Water and Sanitation

Regional Project

- ◆ Technical Collaboration: Indonesia

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ Adventist Development and Relief Agency (Child Survival and Vitamin A Grants)
- ◆ CARE (Child Survival Grant)
- ◆ Helen Keller International (Vitamin A Grant)
- ◆ Program for Appropriate Technologies in Health (Child Survival Grant)
- ◆ Project Concern International (Child Survival Grant)
- ◆ Project HOPE (Child Survival and Vitamin A Grants)
- ◆ Save the Children Federation (Child Survival Grant)
- ◆ VITAP (Vitamin A Technical Assistance Program/Helen Keller International)

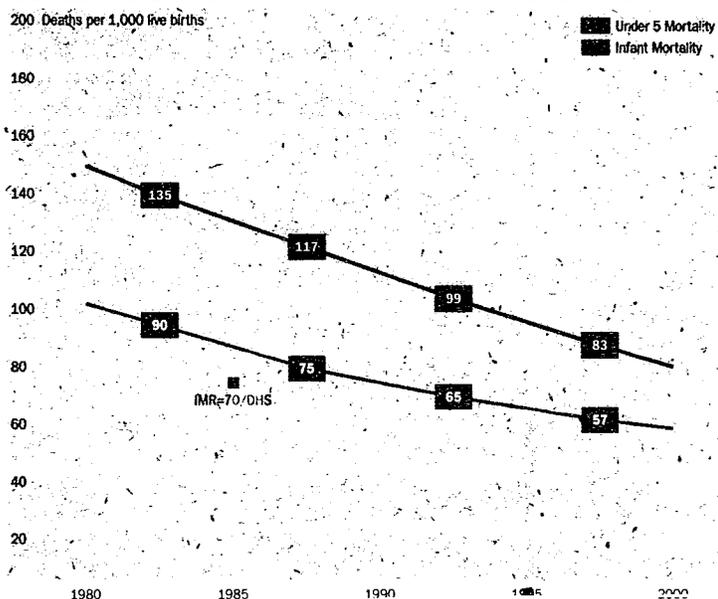
Bureau for Research and Development

- ◆ AIDSCOM
- ◆ Applied Diarrheal Disease Research
- ◆ Breastfeeding and Maternal and Neonatal Health
- ◆ CSAP Support (Johns Hopkins)
- ◆ Demographic and Health Surveys
- ◆ HEALTHCOM (Communication and Marketing for Child Survival)
- ◆ TAACS (Technical Advisors in AIDS and Child Survival)

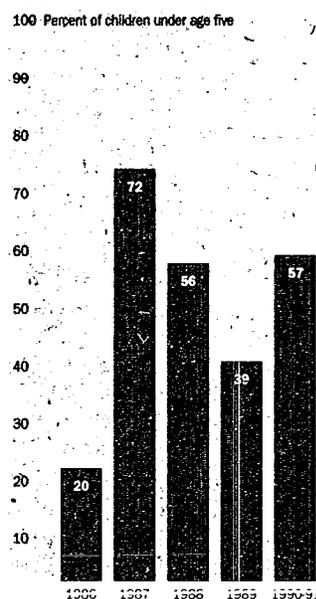
Short-Term Technical Assistance and Support

- ◆ AIDSTECH
- ◆ HealthTech (Technologies for Child Health)
- ◆ PRICOR (Primary Health Care Operations Research)
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ Vaccine Development and Health Research
- ◆ Vitamin A for Health (VITAL)
- ◆ WASH (Water and Sanitation for Health)
- ◆ WIN (Women and Infant Nutrition: Wellstart)

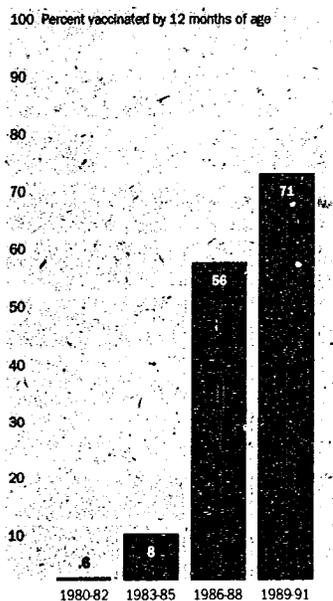
Infant and Under 5 Mortality Trends



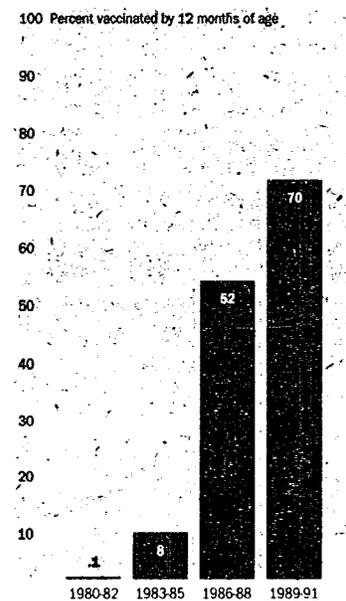
ORT Use Rates



DPT3 Coverage



Measles Coverage



Bilateral Projects

- ◆ Child Survival and Family Planning Services
- ◆ PVO Co-Financing II
- ◆ Development Training

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

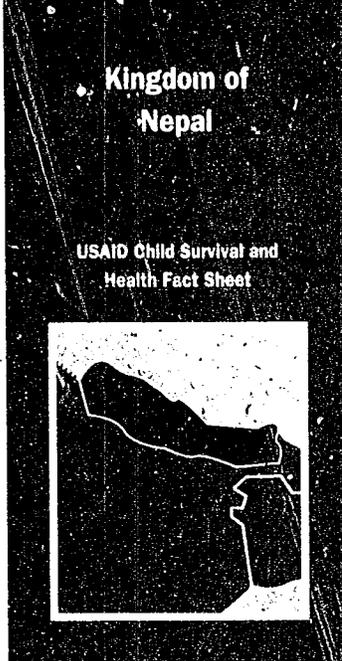
- ◆ Adventist Development and Relief Agency (Child Survival Grant)
- ◆ Freedom From Hunger Foundation (Child Survival Grant)
- ◆ Save the Children Federation (Child Survival Grant)
- ◆ VITAP (Vitamin A Technical Assistance Program/Helen Keller International)

Bureau for Research and Development

- ◆ Demographic and Health Surveys
- ◆ REACH (Resources for Child Health)

Short-Term Technical Assistance and Support

- ◆ Health Financing and Sustainability
- ◆ QRT Help (Peace Corps)
- ◆ VBC (Vector Biology and Control)
- ◆ Vitamin A for Health (VITAL)



Demographic Indicators

Total Population	19,618,705 (91)
Life Expectancy at Birth	53 Yrs (91)
Children Under 1	669,496 (91)
Annual Infant Deaths	88,665 (91)
Infant Mortality	121/1,000 (91)
Under 5 Mortality	183/1,000 (91)
Maternal Mortality	850/100,000 (86)
Total Fertility	5.7 (91)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access	80% (91)
ORT Use	14% (91)
Adequate Nutritional Status	
Appropriate Infant Feeding	N/A
Exclusive Breastfeeding	N/A
Complementary Feeding	N/A
Continued Breastfeeding	N/A
Contraceptive Prevalence	18% (90)

Vaccination Coverage

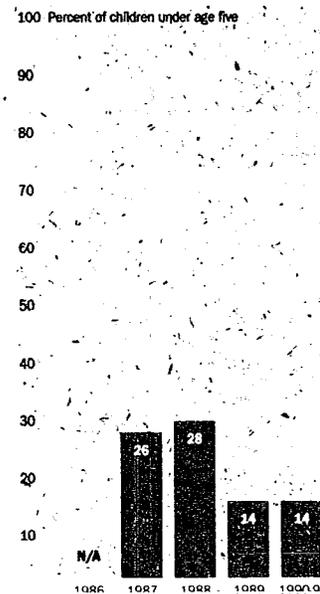
BCG	88% (89)
DPT3	71% (89)
Measles	58% (89)
Polio3	71% (89)
Tetanus2+	29% (89)
DPT Drop-Out	N/A

Other Health Indicators

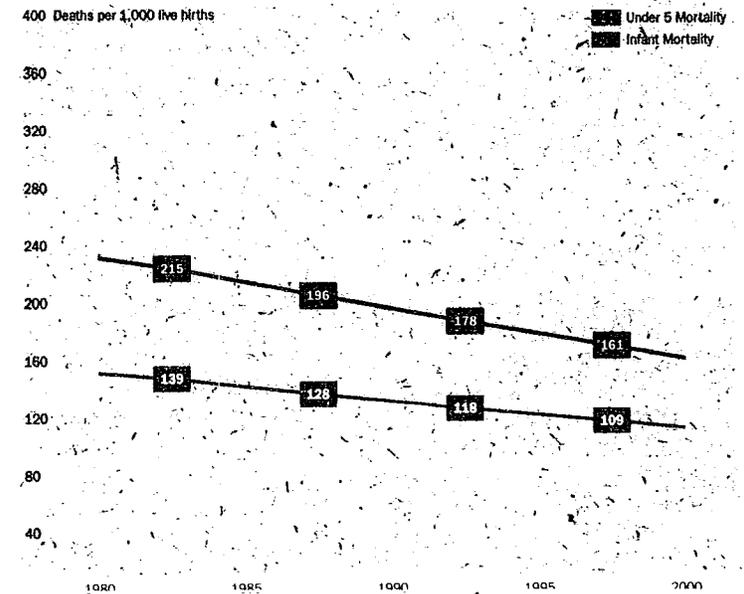
Access to Improved Water	
Urban	67% (88)
Rural	33% (88)
Access to Sanitation	
Urban	17% (85)
Rural	1% (85)
HIV-1 Seroprevalence	
Urban	N/A
Rural	N/A
Deliveries by Trained Attendants	
	6% (88)

See Data Notes

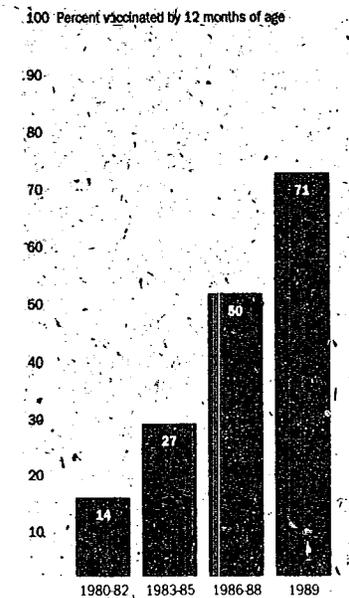
ORT Use Rates



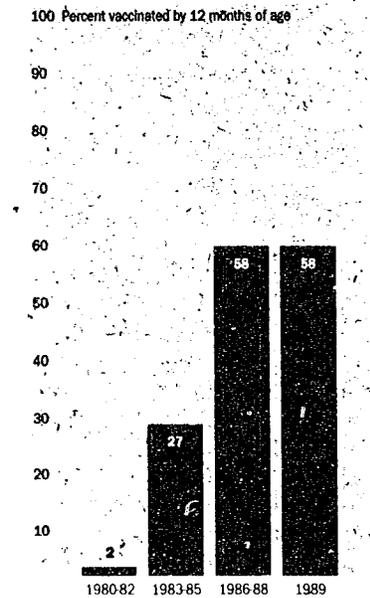
Infant and Under 5 Mortality Trends



DPT3 Coverage



Measles Coverage



Demographic Indicators

Total Population.....	126,405,044 (91)
Life Expectancy at Birth.....	58 Yrs (91)
Children Under 1.....	5,095,186 (91)
Annual Infant Deaths.....	557,011 (91)
Infant Mortality.....	102/1,000 (91)
Under 5 Mortality.....	152/1,000 (91)
Maternal Mortality.....	270/100,000 (88)
Total Fertility.....	5.5 (90)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access.....	85% (91)
ORT Use.....	43% (90)
Adequate Nutritional Status... 84% (85)	
Appropriate Infant Feeding.....	N/A
Exclusive Breastfeeding.....	N/A
Complementary Feeding.....	N/A
Continued Breastfeeding.....	N/A
Contraceptive Prevalence.....	9% (90)

Vaccination Coverage

BCG.....	70% (90)
DPT3.....	46% (90)
Measles.....	50% (90)
Polio3.....	46% (90)
Tetanus2+.....	30% (90)
DPT Drop-Out.....	31% (90)

Other Health Indicators

Access to Improved Water	
Urban.....	83% (85)
Rural.....	27% (85)
Access to Sanitation	
Urban.....	51% (85)
Rural.....	6% (85)
HIV-1 Seroprevalence	
Urban.....	N/A
Rural.....	N/A
Deliveries by Trained Attendants.....	
	44% (90)

See Data Notes

Islamic Republic of Pakistan

USAID Child Survival and Health Fact Sheet



Bilateral Projects

- ◆ Child Survival
- ◆ Malaria Control II
- ◆ Northwest Frontier Province Area Development

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ Adventist Development and Relief Agency (Child Survival Grant)
- ◆ Aga Khan Foundation (Child Survival Grant)
- ◆ World Vision Relief and Development (Child Survival Grant)

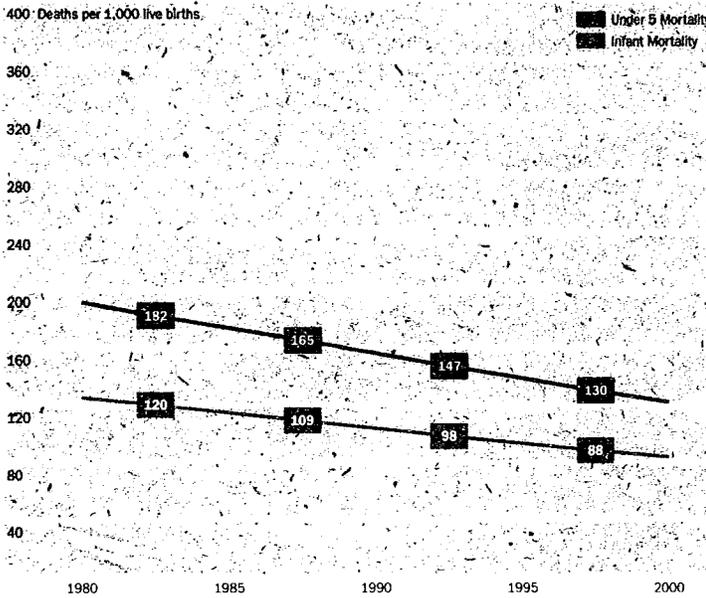
Bureau for Research and Development

- ◆ Applied Diarrheal Disease Research
- ◆ Demographic and Health Surveys
- ◆ PRITECH (Technologies for Primary Health Care)

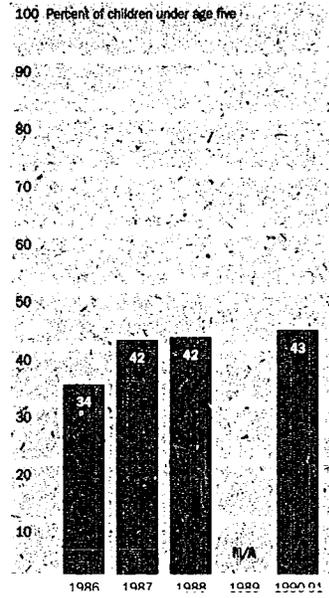
Short-Term Technical Assistance and Support

- ◆ ORT Help (Peace Corps)
- ◆ VBC (Vector Biology and Control)
- ◆ WIN (Women and Infant Nutrition: Wellstart)

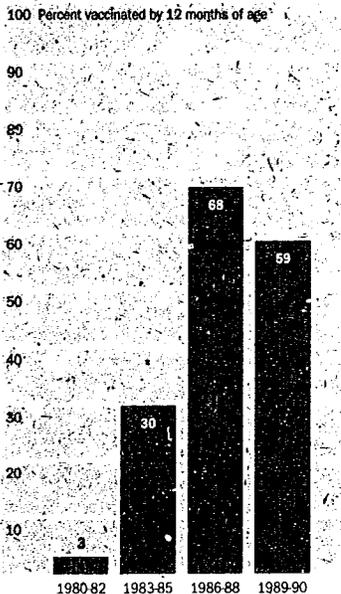
Infant and Under 5 Mortality Trends



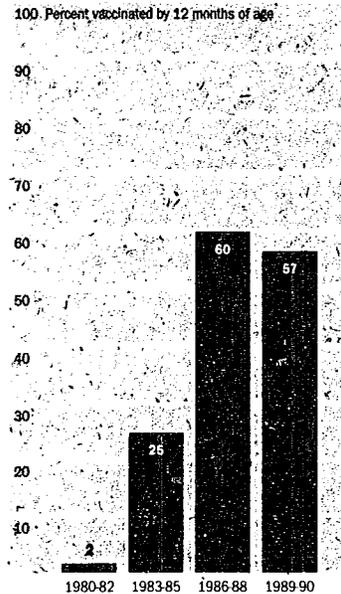
ORT Use Rates



DPT3 Coverage



Measles Coverage



Latin America and Caribbean Region



In the Latin America and Caribbean (LAC) region, the positive effects of the child survival program are becoming evident, though substantial challenges remain. In 1991, three additional countries – Dominican Republic, El Salvador, and Nicaragua – were designated as USAID child survival emphasis countries. They joined the six emphasis countries previously targeted in the LAC region – Bolivia, Ecuador, Guatemala, Haiti, Honduras, and Peru.

Perhaps the most notable child health gains in the LAC region have been achieved in the area of vaccine-preventable diseases and vaccination coverage. The Accelerated Immunization Program, a regional project of the Pan American Health Organization, supported by USAID in collaboration with other donors, began in 1986. One of the primary goals was to eradicate polio in the region by 1990. As a result of the polio initiative, the disease has been virtually eradicated in the LAC countries, with the number of confirmed cases dropping from 946 in 1986 to only 7 in 1991. The strategy to eradicate polio includes three major components: 1) achieving and maintaining high vaccination coverage; 2) intensive surveillance and case investigation; and 3) aggressive containment of case outbreaks. Polio vaccination coverage rates exceed 80 percent in the Dominican Republic, Honduras, and Nicaragua, and are more than 60 percent in all USAID emphasis

countries except Haiti and Bolivia.

The polio surveillance system developed under the eradication strategy has been an extremely successful component of the project. Nearly 15,000 health facilities and eight laboratories in the region are currently involved in the detection, monitoring, and reporting of polio cases. The highly effective computerized polio surveillance system will be replicated in the LAC region for measles and tetanus, and the World Health Organization has recommended that the entire LAC strategy be used as a reference for other countries undertaking a polio eradication effort.

In addition to the polio initiative, the fight continues against measles in the region. In several English-speaking Caribbean countries, where measles is targeted for elimination by 1995, no cases of measles have been reported for five years or more. Remaining challenges to combat vaccine-preventable diseases include reducing missed opportunities and high vaccination dropout rates, and improving the surveillance of diseases other than polio. Neonatal tetanus also continues to be a child

health threat, as maternal tetanus vaccination coverage rates of two doses or more are below 25 percent in most emphasis countries.

Cholera – documented in several LAC countries in 1991 by strengthened surveillance systems – underscored the importance of diarrheal disease interventions. Efforts over the past several decades to increase awareness of oral rehydration therapy (ORT), hygiene and sanitary practices, as well as previous activities in diarrheal disease research and training, contributed substantially to reducing the mortality burden of the cholera epidemic.

Control of the epidemic and low case-fatality rate, about one percent, can also be attributed to swift, coordinated response and preparation by government ministries, donors, and other agencies. Dissemination of educational messages by private voluntary organizations on preventive measures, diagnosis, and treatment of cholera have been particularly effective. Under the LAC Cholera Response Program, USAID has provided technical assistance in case management, water and sanitation improvement, epidemiological surveillance, surveys of knowledge, attitudes, and practices, and communication; it has also supported procurement of oral rehydration salts (ORS). Child survival activities may have suffered during 1991 as resources and attention were diverted to the cholera epidemic; how-

ever, the increased awareness of the causes and prevention of diarrheal disease will undoubtedly have a positive impact on child survival in the region.

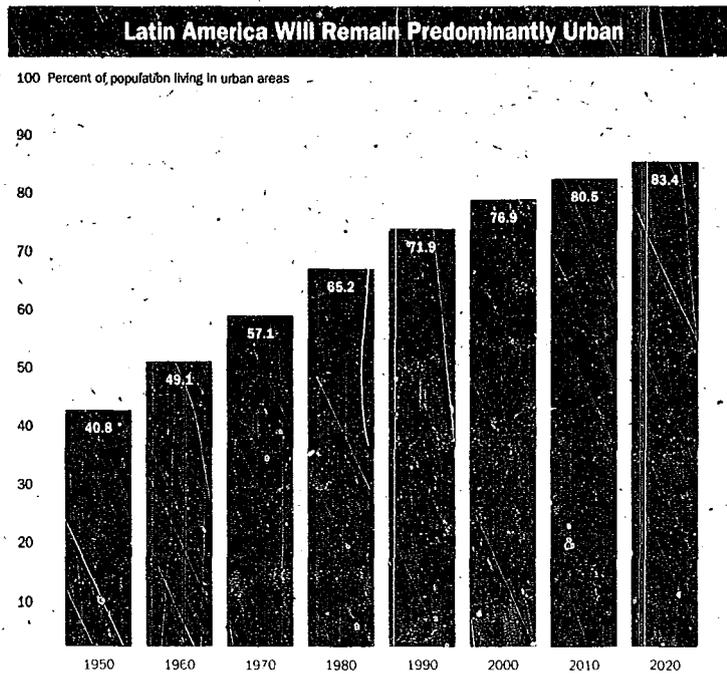
Although cholera is often viewed as far more serious than other forms of diarrhea, more common diarrhea is the leading cause of infant mortality in the region. Currently, 37 projects in nine countries support activities combining three approaches to reduce morbidity and mortality associated with diarrhea: the use of ORT to treat dehydration, the promotion of appropriate feeding practices during diarrhea, and hygiene education.

Significant progress is being made toward increasing the awareness of, access to, and early use of ORT during episodes of diarrhea. Tens of thousands of mothers and community health workers have been trained through USAID-funded projects to recognize the symptoms of dehydration and to administer ORT. The agency's target ORT use rate of 45 percent has been reached by Ecuador (70 percent) and Honduras (70 percent), but ORT use rates remain below 25 percent in El Salvador, Haiti, and Guatemala.

To ensure sustainability of diarrheal disease interventions, USAID has supported local production of ORS in several countries. In Guatemala, a production facility at the University of San Carlos will eventually have the capacity to meet nearly all the ORS needs

of government hospitals and health posts. With USAID assistance, Laboratorios Unidos (LUSA), a local production facility in Peru, has been instrumental in meeting increased demand for ORS caused by the cholera epidemic. Local ORS production has also been supported by USAID through the ministries of health in El Salvador and Honduras, and the private voluntary organizations Plan International and Adventist Development and Relief Agency in Haiti.

The achievements made in child health and survival in the LAC region since 1985 are impressive and compare favorably to other USAID-assisted regions. Infant mortality rates continue to fall; nearly half the emphasis countries have now reached the LAC Bureau's target infant mortality rate of 60 deaths per 1,000 live births: Dominican Republic (59), Ecuador (51), El Salvador (56), and Nicaragua (54), with Honduras (61) not far behind. The challenges that remain, however, are ominous. Economic crises in most countries of the region have left governments with limited budgets for health and other social services, prompting in-



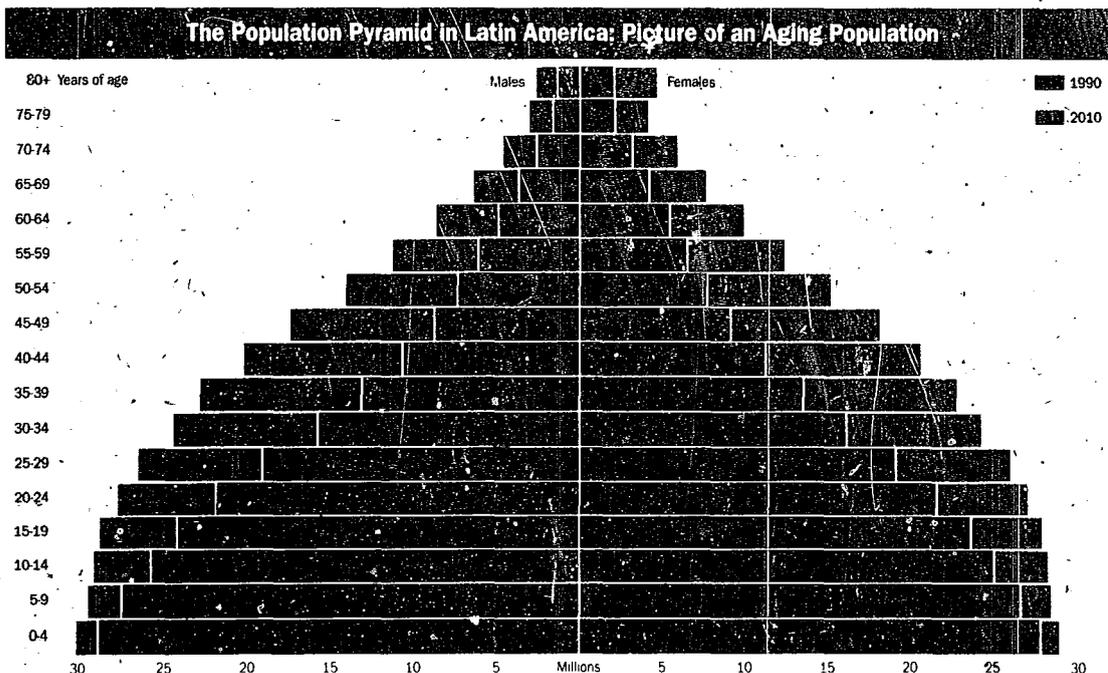
creased emphasis on efficiency and financing issues. The Health Financing and Sustainability project assisted six countries in the region to explore health care financing options.

Rapid urbanization in the region has further exacerbated the problems associated with excessive population growth and has precipitated a distinct array of health concerns. Poor environmental sanitation and overcrowding pose serious health threats to the marginalized peri-urban populations.

Violence, substance abuse, and AIDS continue to demand increased attention from the health care system. Several USAID-supported projects aim specifically to overcome the threats of unhealthy environments and the breakdown of traditional social structures in urban slum areas. The Food-Assisted Integrated Development project, administered by CARE in Lima, Peru, works with groups of women in peri-urban slums to organize community development activities (for example, upgrading

water supply systems) and self-sustaining feeding centers where integrated health education, family planning, and child survival services are also available. La Leche League works in marginal urban communities in Guatemala and Honduras to train women as breastfeeding advocates. The volunteers counsel mothers on optimal breastfeeding practices, lead mother support groups, and refer mothers to the public health system for a variety of other child survival services.

As child survival interventions are reaching more children in the region, infant mortality rates are decreasing concurrently with declining fertility rates. The result will be a change in the age structure of the population, bringing with it changing morbidity and mortality patterns. As indicated in the population pyramid, the highest rate of growth will occur in the 65 and over age group, which will grow by 89 percent. The absolute number of children under five, however, will remain extremely large. The health care system will face increased pressure to respond to the needs of a maturing population in addition to the continuing pressure of a new contingent of children. The challenge to health care systems and assistance organizations will be to meet the changing health needs of the population without neglecting the requirements of each new group of newborn children. USAID will continue to support the development of sustainable child survival service delivery systems in the LAC region, with increasing private sector involvement where appropriate, to strengthen the foundation for expanded, integrated primary health care systems that will efficiently reach all people.



Latin America and Caribbean Region

Project Support Active
in Fiscal Year 1991

	Bolivia	Dominican Rep.	Ecuador	El Salvador	Guatemala	Haiti	Honduras	Nicaragua	Peru	Antigua	Barbados	Belize	Brazil	Chile	Colombia	Costa Rica	Dominica	Jamaica	Mexico	Paraguay	St. Lucia	St. Vincent	Trinidad	Uruguay	Venezuela
Bilateral	♦♦		♦♦		♦♦		♦♦		♦		♦		♦				♦								
Regional																									
Accelerated Immunization	♦♦		♦♦		♦♦		♦♦		♦		♦		♦♦		♦♦				♦♦					♦♦	♦♦
Andean Peace Scholarships	♦		♦		♦				♦						♦♦									♦	
Health and Nutrition Technical Service		♦		♦	♦		♦								♦♦	♦								♦	
Intercountry Technology Transfer													♦		♦				♦♦						
ROCAP																									
Food Assistance Program				♦	♦		♦									♦									
ORT, Growth Monitoring and Nutrition Education				♦	♦		♦♦									♦									
Regional Development Office/Caribbean																									
AIDS Communication and Technical Assistance										♦	♦						♦					♦♦			
Private Voluntary Organizations	♦♦		♦♦		♦♦		♦♦		♦			♦				♦		♦							
Central Project Support																									
AIDSCOM	♦♦		♦♦		♦♦				♦				♦		♦		♦		♦						
AIDSTECH	♦♦		♦♦		♦♦				♦	♦			♦♦		♦		♦♦		♦			♦♦		♦	
Applied Diarrheal Disease Research			♦		♦				♦				♦♦		♦		♦♦		♦						
Applied Research and Child Survival Services					♦								♦												
Breastfeeding and Maternal and Neonatal Health	♦♦		♦♦		♦♦									♦				♦							
Demographic and Health Surveys	♦♦		♦♦		♦		♦		♦				♦♦		♦		♦		♦♦						♦
Diarrheal Disease Research					♦								♦♦						♦						
HBCU Research Grants					♦		♦		♦			♦					♦							♦	
HEALTHCOM																			♦						
Health Financing and Sustainability		♦		♦	♦				♦			♦													
Health Resources Support							♦						♦												
HealthTech	♦																	♦							
Nutrition Education and Social Marketing	♦				♦		♦																		
ORT Help		♦		♦	♦		♦																		
PRITECH II	♦♦		♦		♦♦		♦♦													♦♦					
Project SUPPORT																									
REACH	♦♦				♦		♦													♦					
Technical Advisors in AIDS and Child Survival	♦		♦				♦																		
University Development Linkages Project					♦										♦									♦	
Vaccine Development and Health Research									♦											♦					
Vector Biology and Control	♦♦		♦♦		♦		♦♦													♦					
Vitamin A for Health	♦♦		♦♦		♦♦				♦				♦												
Water and Sanitation for Health	♦♦		♦♦		♦		♦		♦			♦													
Women and Infant Nutrition	♦♦		♦♦		♦		♦		♦				♦♦		♦♦					♦					

Demographic Indicators

Total Population	7,535,218 (91)
Life Expectancy at Birth	55 Yrs (91)
Children Under 1	293,294 (91)
Annual Infant Deaths	30,894 (91)
Infant Mortality	98/1,000 (91)
Under 5 Mortality	151/1,000 (91)
Maternal Mortality	480/100,000 (91)
Total Fertility	5.9 (94)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access	56% (91)
ORT Use	34% (89)
Adequate Nutritional Status	81% (89)
Appropriate Infant Feeding	51% (89)
Exclusive Breastfeeding	59% (89)
Complementary Feeding	57% (89)
Continued Breastfeeding	73% (89)
Contraceptive Prevalence	12% (89)

Vaccination Coverage

BCG	48% (90)
DPT3	41% (90)
Measles	53% (90)
Polio3	50% (90)
Tetanus2+	20% (89)
DPT Drop-Out	46% (89)

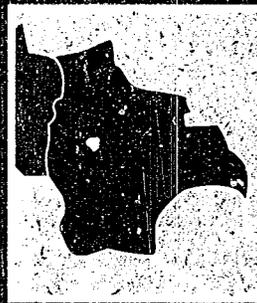
Other Health Indicators

Access to Improved Water	
Urban	81% (90)
Rural	29% (90)
Access to Sanitation	
Urban	45% (90)
Rural	16% (90)
HIV-1 Seroprevalence	
Urban	N/A
Rural	N/A
Deliveries by Trained Attendants	42% (89)

See Data Notes

Republic of Bolivia

USAID Child Survival and Health Fact Sheet



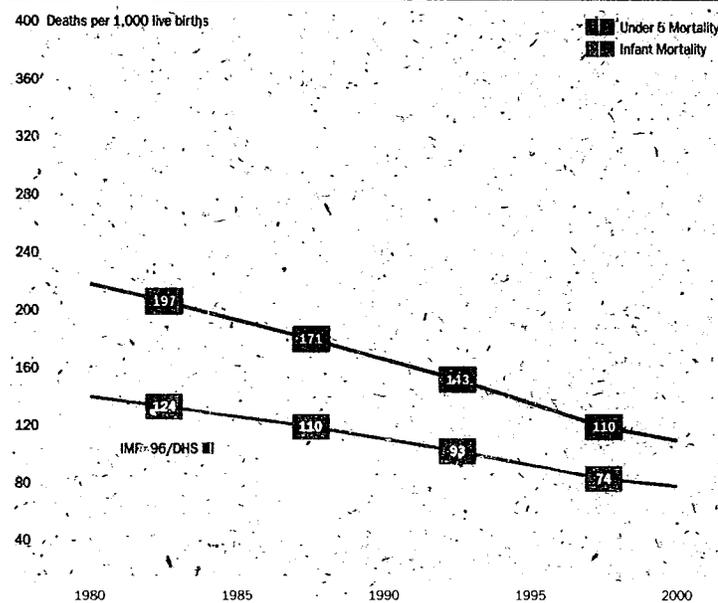
Bilateral Projects

- ◆ Child Survival PVO Network
- ◆ PVO Child Survival II
- ◆ Community and Child Health
- ◆ Self-Financing Primary Health Care II
- ◆ Water and Health II
- ◆ Reproductive Health
- ◆ Planning Assistance Grant
- ◆ Interactive Radio Learning
- ◆ Radio Education
- ◆ AIDS Prevention and Control
- ◆ Alternative Development
- ◆ Chapare Regional Development

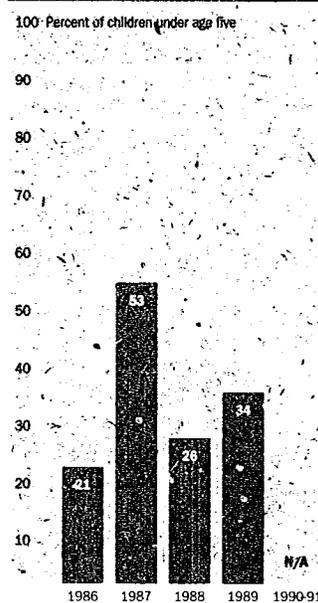
Regional Projects

- ◆ Accelerated Immunization
- ◆ Andean Peace Scholarships

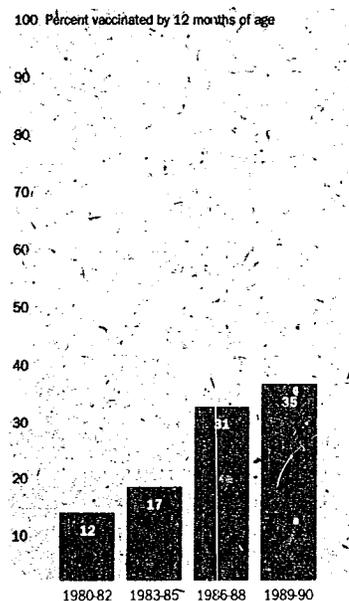
Infant and Under 5 Mortality Trends



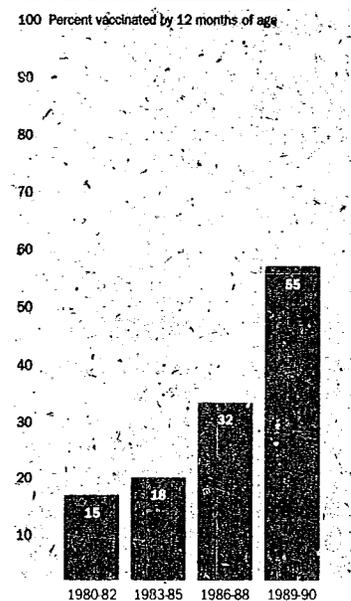
ORT Use Rates



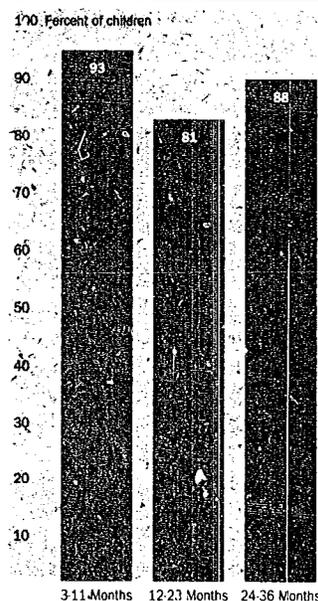
DPT3 Coverage



Measles Coverage



Adequate Nutritional Status



USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ Andean Rural Health Care (Child Survival Grant)
- ◆ Esperanca (Child Survival Grant)
- ◆ Food for the Hungry International (Child Survival Grant)
- ◆ Foster Parents Plan (Child Survival Grant)
- ◆ Freedom From Hunger Foundation (Child Survival Grant)
- ◆ Project Concern International (Child Survival and Vitamin A Grants)
- ◆ Save the Children Federation (Child Survival Grant)

Bureau for Research and Development

- ◆ AIDSCOM
- ◆ Breastfeeding and Maternal and Neonatal Health
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ TAACS (Technical Advisors in AIDS and Child Survival)

Short-Term Technical Assistance and Support

- ◆ CSAP Support (John Snow)
- ◆ Demographic and Health Surveys
- ◆ HealthTech (Technologies for Child Health)
- ◆ Nutrition Education and Social Marketing
- ◆ REACH (Resources for Child Health)
- ◆ VBC (Vector Biology and Control)
- ◆ Vitamin A for Health (VITAL)
- ◆ WASH (Water and Sanitation for Health)
- ◆ WIN (Women and Infant Nutrition: Wellstart)

Bilateral Projects

- ◆ Child Survival
- ◆ Health Systems Management
- ◆ PVO Co-Financing
- ◆ AIDS Support

Regional Project

- ◆ Accelerated Immunization

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

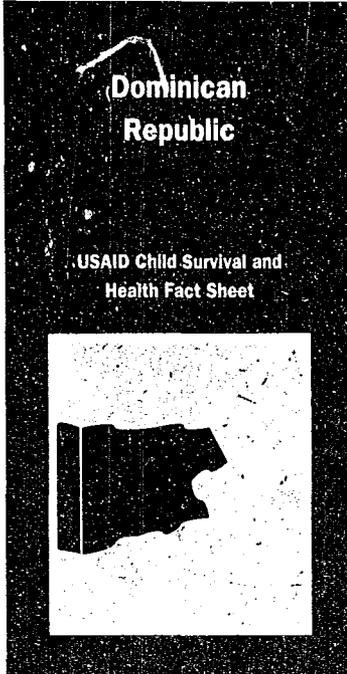
- ◆ Foster Parents Plan (Child Survival Grant)
- ◆ World Vision Relief and Development (Child Survival Grant)

Bureau for Research and Development

- ◆ AIDSCOM
- ◆ AIDSTECH
- ◆ Demographic and Health Surveys

Short-Term Technical Assistance and Support

- ◆ Breastfeeding and Maternal and Neonatal Health
- ◆ Health Financing and Sustainability
- ◆ ORT Help (Peace Corps)
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ REACH (Resources for Child Health)
- ◆ VBC (Vector Biology and Control)
- ◆ Vitamin A for Health (VITAL)
- ◆ WIN (Women and Infant Nutrition: Wellstart)



Demographic Indicators

Total Population.....	7,318,940 (91)
Life Expectancy at Birth.....	67 Yrs (91)
Children Under 1.....	204,827 (91)
Annual Infant Deaths.....	12,695 (91)
Infant Mortality.....	59/1,000 (91)
Under 5 Mortality.....	75/1,000 (91)
Maternal Mortality.....	300/100,000 (85)
Total Fertility.....	3.5 (91)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access.....	13% (89)
ORT Use.....	31% (91)
Adequate Nutritional Status... 87% (86)	
Appropriate Infant Feeding.....	N/A
Exclusive Breastfeeding.....	14% (86)
Complementary Feeding.....	24% (86)
Continued Breastfeeding.....	23% (86)
Contraceptive Prevalence.....	47% (86)

Vaccination Coverage

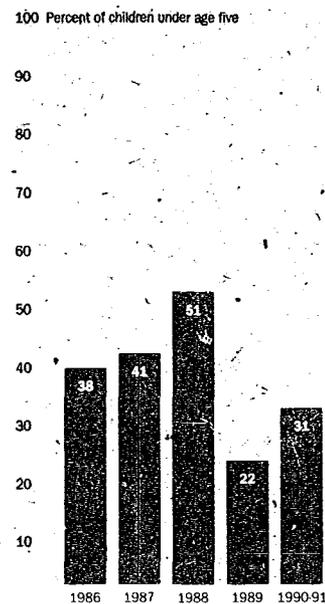
BCG.....	68% (90)
DPT3.....	69% (90)
Measles.....	96% (90)
Polio3.....	90% (90)
Tetanus2+.....	24% (89)
DPT Drop-Out.....	28% (90)

Other Health Indicators

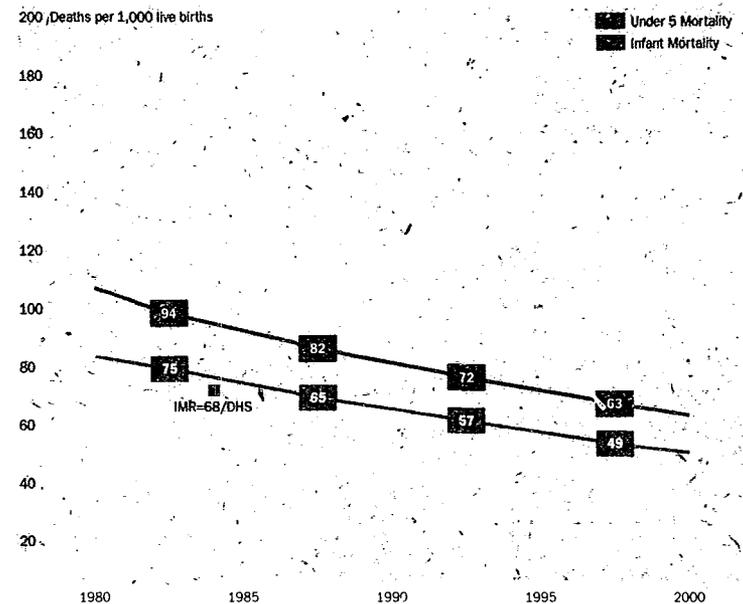
Access to Improved Water	
Urban.....	97% (90)
Rural.....	30% (90)
Access to Sanitation	
Urban.....	45% (90)
Rural.....	38% (90)
HIV-1 Seroprevalence	
Urban.....	1.6% (90)
Rural.....	N/A
Deliveries by Trained Attendants.....	
	90% (86)

See Data Notes

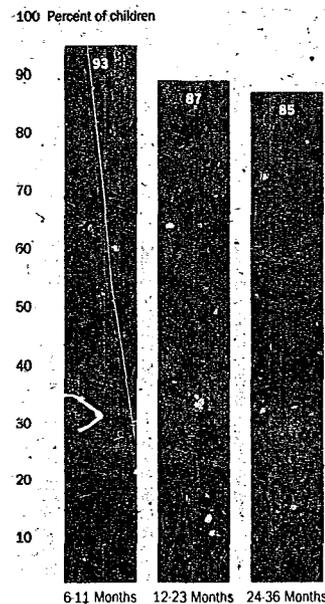
ORT Use Rates



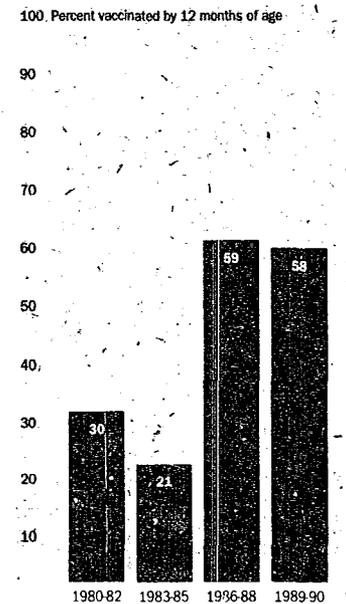
Infant and Under 5 Mortality Trends



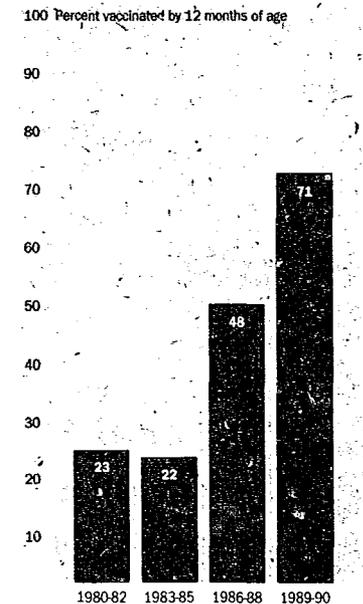
Adequate Nutritional Status



DPT3 Coverage



Measles Coverage



Demographic Indicators

Total Population	10,856,597 (91)
Life Expectancy at Birth	66 Yrs (91)
Children Under 1	325,675 (90)
Annual Infant Deaths	17,224 (90)
Infant Mortality	51/1,000 (87)
Under 5 Mortality	81/1,000 (91)
Maternal Mortality	300/100,000 (90)
Total Fertility	3.8 (89)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access	55% (91)
ORT Use	70% (91)
Adequate Nutritional Status	76% (87)
Appropriate Infant Feeding	24% (87)/A
Exclusive Breastfeeding	31% (87)
Complementary Feeding	31% (87)
Continued Breastfeeding	51% (87)
Contraceptive Prevalence	42% (89)

Vaccination Coverage

BCG	88% (90)
DPT3	68% (90)
Measles	61% (90)
Polio3	67% (90)
Tetanus2+	23% (89)
DPT Drop-Out	37% (89)

Other Health Indicators

Access to Improved Water	
Urban	85% (90)
Rural	50% (90)
Access to Sanitation	
Urban	85% (90)
Rural	50% (90)
HIV-1 Seroprevalence	
Urban	N/A
Rural	N/A
Deliveries by Trained Attendants	62% (87)

See Data Notes

Republic of Ecuador

USAID Child Survival and Health Fact Sheet



Bilateral Projects

- ◆ Child Survival and Health
- ◆ Private Sector Health Delivery Model
- ◆ Malaria Control
- ◆ Cholera Control
- ◆ Water and Sanitation for Health Education
- ◆ Private Pharmaceutical Distribution
- ◆ Private and Volunteer Organizations

Regional Projects

- ◆ Accelerated Immunization
- ◆ Andean Peace Scholarships

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ Catholic Relief Services (Child Survival Grant)
- ◆ Project HOPE (Child Survival Grant)

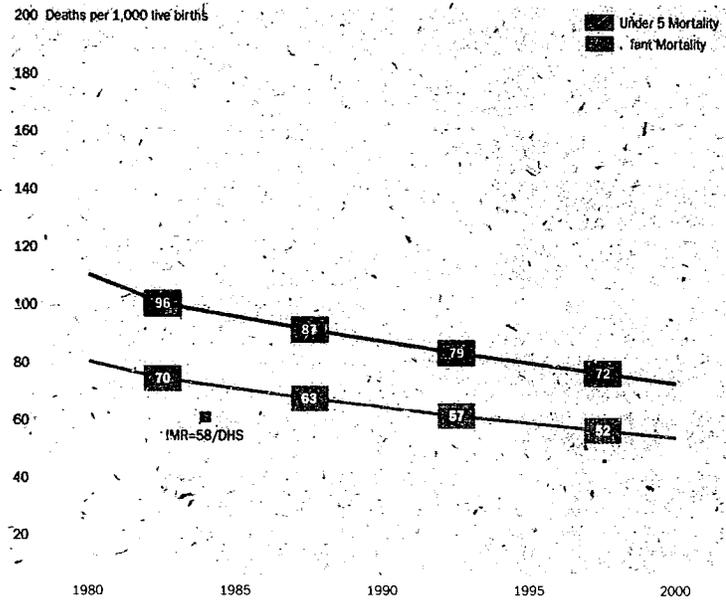
Bureau for Research and Development

- ◆ AIDSCOM
- ◆ Applied Diarrheal Disease Research
- ◆ Health Financing and Sustainability
- ◆ TAACS (Technical Advisors in AIDS and Child Survival)

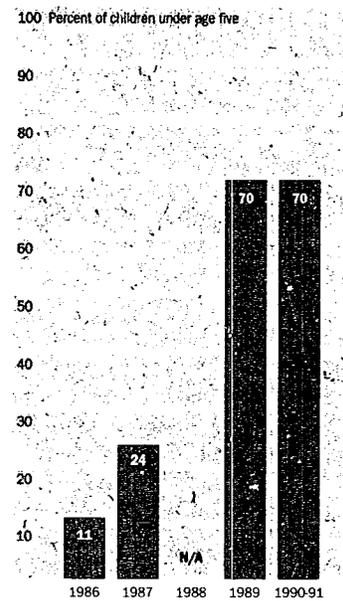
Short-Term Technical Assistance and Support

- ◆ AIDSTECH
- ◆ Breastfeeding and Maternal and Neonatal Health
- ◆ Demographic and Health Surveys
- ◆ Health Financing and Sustainability
- ◆ ORT Help (Peace Corps)
- ◆ VBC (Vector Biology and Control)
- ◆ Vitamin A for Health (VITAL)
- ◆ WASH (Water and Sanitation for Health)
- ◆ WIN (Women and Infant Nutrition: Wellstart)

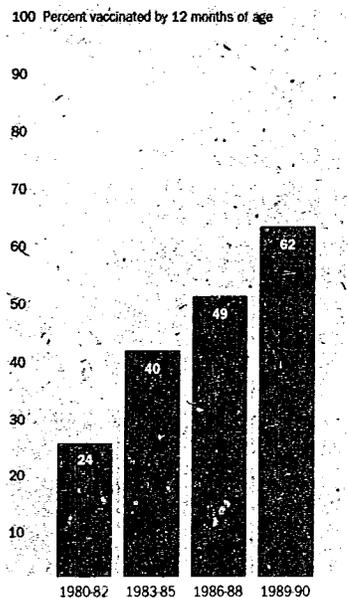
Infant and Under 5 Mortality Trends



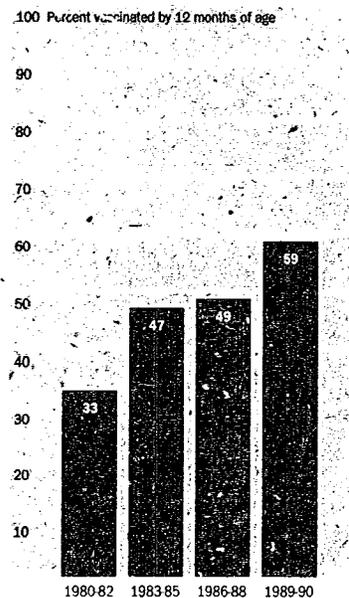
ORT Use Rates



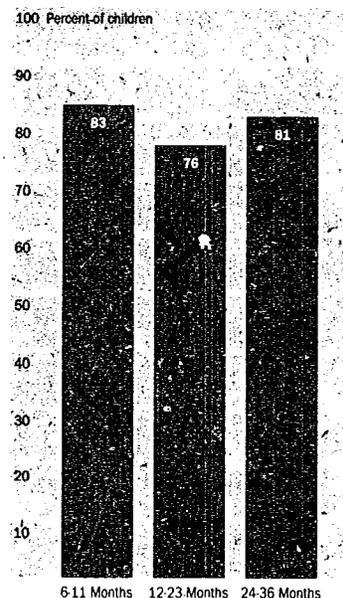
DPT3 Coverage



Measles Coverage



Adequate Nutritional Status



57

Bilateral Projects

- ◆ Maternal Health and Child Survival Services
- ◆ Mother Child Feeding
- ◆ Health Systems Support
- ◆ Family Health Services/Maternal Child Health
- ◆ Salvadoran Demographic Association
- ◆ Health and Jobs for Displaced Families
- ◆ Public Services Improvement
- ◆ Rehabilitation Services
- ◆ Community Based Integrated Rural Development
- ◆ Private and Voluntary Organizations

Regional Project

- ◆ Accelerated Immunization

USAID/Washington Support

Bureau for Research and Development

- ◆ AIDSCOM
- ◆ Short-Term Technical Assistance and Support
- ◆ AIDSTECH
- ◆ Breastfeeding and Maternal and Neonatal Health
- ◆ Demographic and Health Surveys
- ◆ VBC (Vector Biology and Control)
- ◆ Vitamin A for Health (VITAL)
- ◆ WASH (Water and Sanitation for Health)

Republic of El Salvador

USAID Child Survival and Health Fact Sheet



Demographic Indicators

Total Population	5,389,995 (91)
Life Expectancy at Birth	65 Yrs (91)
Children Under 1	187,035 (91)
Annual Infant Deaths	10,962 (91)
Infant Mortality	56/1,000 (91)
Under 5 Mortality	74/1,000 (91)
Maternal Mortality	148/100,000 (90)
Total Fertility	4.6 (91)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access	84% (89)
ORT Use	13% (88)
Adequate Nutritional Status	77% (88)
Appropriate Infant Feeding	N/A
Exclusive Breastfeeding	N/A
Complementary Feeding	N/A
Continued Breastfeeding	N/A
Contraceptive Prevalence	45% (88)

Vaccination Coverage

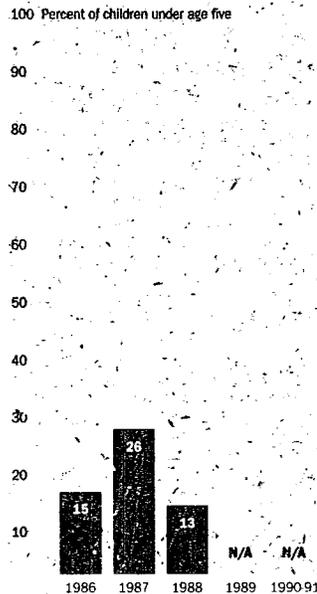
BCG	60% (90)
DPT3	76% (90)
Measles	75% (90)
Polio3	76% (90)
Tetanus2+	19% (89)
DPT Drop-Out	24% (86)

Other Health Indicators

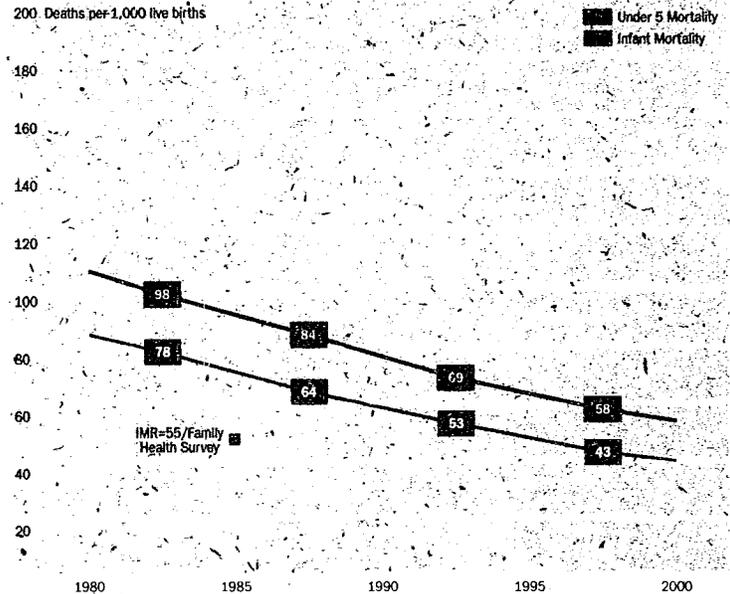
Access to Improved Water	
Urban	84% (90)
Rural	13% (90)
Access to Sanitation	
Urban	87% (90)
Rural	40% (90)
HIV-1 Seroprevalence	
Urban	N/A
Rural	N/A
Deliveries by Trained Attendants	53% (88)

See Data Notes

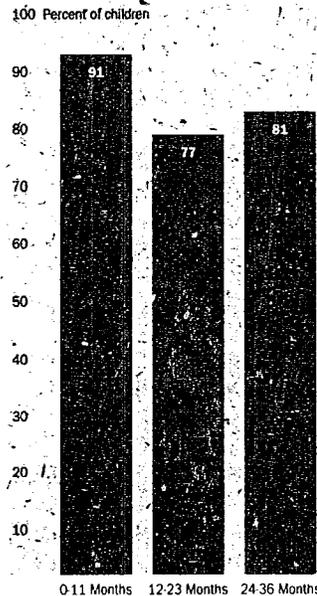
ORT Use Rates



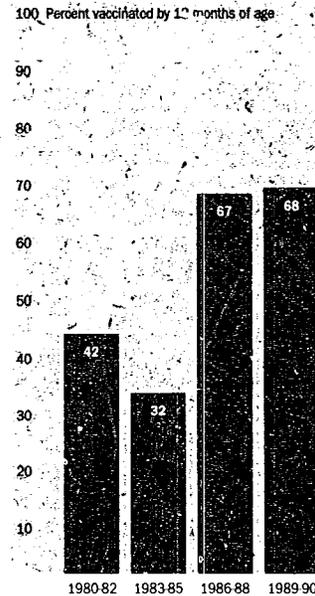
Infant and Under 5 Mortality Trends



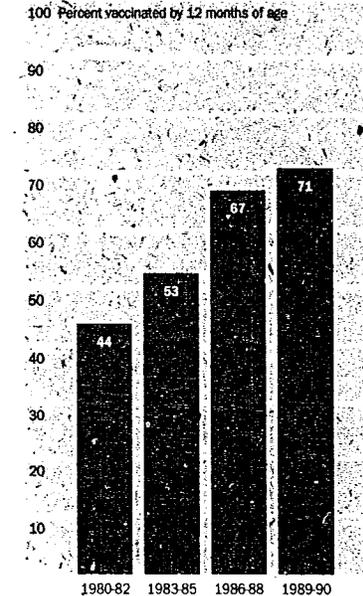
Adequate Nutritional Status



DPT3 Coverage



Measles Coverage



Demographic Indicators

Total Population	9,482,121 (91)
Life Expectancy at Birth	64 Yrs (91)
Children Under 1	353,803 (91)
Annual Infant Deaths	26,826 (91)
Infant Mortality	72/1,000 (87)
Under 5 Mortality	110/1,000 (87)
Maternal Mortality	248/100,000 (91)
Total Fertility	5.5 (91)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access	40% (91)
ORT Use	19% (91)
Adequate Nutritional Status	56% (87)
Appropriate Infant Feeding	N/A
Exclusive Breastfeeding	N/A
Complementary Feeding	N/A
Continued Breastfeeding	N/A
Contraceptive Prevalence	19% (87)

Vaccination Coverage

BCG	62% (90)
DPT3	67% (90)
Measles	68% (90)
Polio3	74% (90)
Tetanus2+	18% (89)
DPT Drop-Out	51% (87)

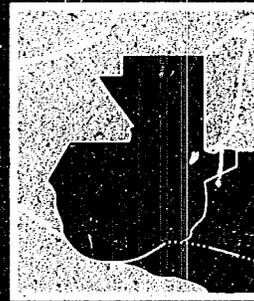
Other Health Indicators

Access to Improved Water	
Urban	92% (90)
Rural	31% (90)
Access to Sanitation	
Urban	72% (90)
Rural	33% (90)
HIV-1 Seroprevalence	
Urban	N/A
Rural	N/A
Deliveries by Trained Attendants	
	29% (87)

See Data Notes

Republic of Guatemala

USAID Child Survival and Health Fact Sheet



Bilateral Projects

- ◆ Immunization and ORT Services for Child Survival
- ◆ Rural Health
- ◆ Expansion of Family Planning Services
- ◆ Highlands Water and Sanitation
- ◆ Water and Sanitation
- ◆ Orphans and Displaced Children

Regional Project

- ◆ Accelerated Immunization
- ◆ Health and Nutrition Technical Services

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ CARE (Child Survival Grant)
- ◆ Foster Parents Plan (Child Survival Grant)
- ◆ International Eye Foundation (Vitamin A Grant)
- ◆ La Leche League (Child Survival Grant)
- ◆ Project Concern International (Child Survival Grant)
- ◆ Project HOPE (Child Survival and Vitamin A Grants)
- ◆ VITAP (Vitamin A Technical Assistance Program/Helen Keller International)

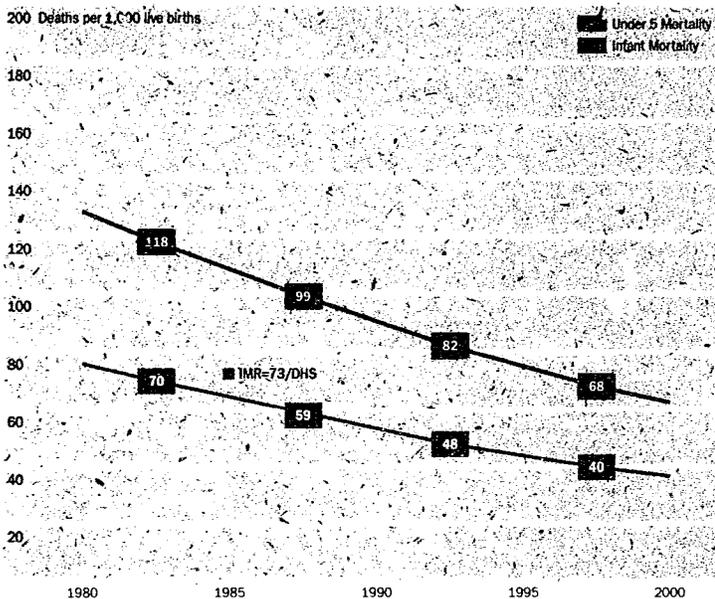
Bureau for Research and Development

- ◆ AIDSCOM
- ◆ Applied Diarrheal Disease Research
- ◆ Breastfeeding and Maternal and Neonatal Health
- ◆ Diarrheal Disease Research (WHO)
- ◆ HEALTHCOM (Communication and Marketing for Child Survival)
- ◆ Project SUPPORT (Supply, Production and Promotion of ORT)

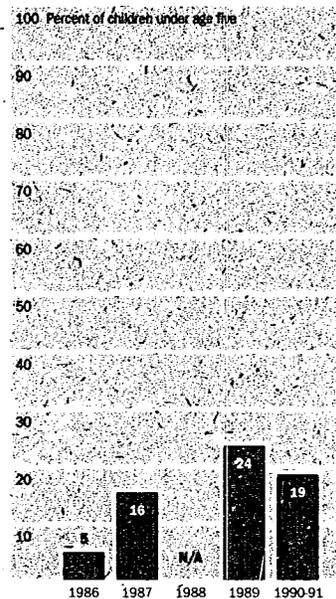
Short-Term Technical Assistance and Support

- ◆ AIDSTECH
- ◆ Applied Research and Child Survival Services
- ◆ Demographic and Health Surveys
- ◆ Nutrition Education and Social Marketing
- ◆ ORT Help (Peace Corps)
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ Vitamin A for Health (VITAL, International Eye Foundation)
- ◆ WIN (Women and Infant Nutrition: Wellstart)

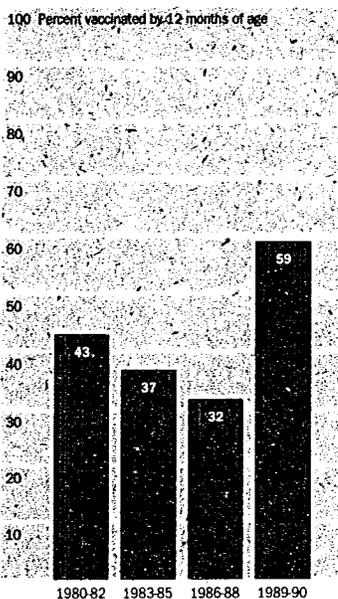
Infant and Under 5 Mortality Trends



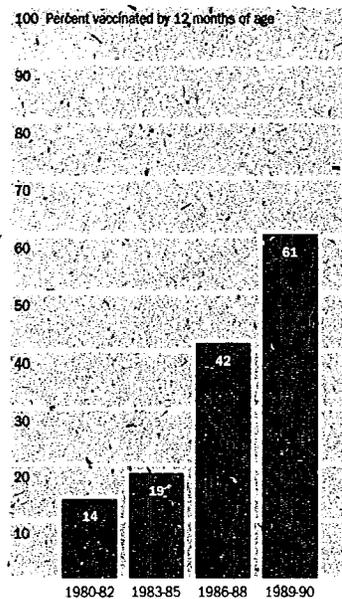
ORT Use Rates



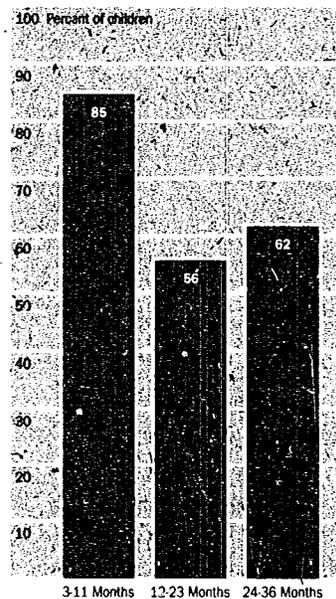
DPT3 Coverage



Measles Coverage



Adequate Nutritional Status



Bilateral Projects

- ◆ Expanded Urban Health Services
- ◆ Voluntary Agencies for Child Survival
- ◆ Awareness and Prevention of Drug Abuse
- ◆ AIDS Control
- ◆ CLASP II
- ◆ Presidential Training Initiative of the Islands Caribbean

Regional Project

- ◆ Accelerated Immunization

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ Adventist Development and Relief Agency (Child Survival Grant)
- ◆ Foster Parents Plan (Child Survival Grant)
- ◆ Helen Keller International (Vitamin A Grant)
- ◆ Save the Children Foundation (Vitamin A Grant)
- ◆ VITAP (Vitamin A Technical Assistance Program/Helen Keller International)
- ◆ World Relief Corporation (Child Survival Grant)
- ◆ World Vision Relief and Development (Child Survival and Vitamin A Grants)

Bureau for Research and Development

- ◆ AIDSCOM
- ◆ CSAP Support (Health and Child Survival Fellows)
- ◆ REACH (Resources for Child Health)

Short-Term Technical Assistance and Support

- ◆ AIDSTECH
- ◆ Breastfeeding and Maternal and Neonatal Health
- ◆ Health Financing and Sustainability
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ VBC (Vector Biology and Control)
- ◆ Vitamin A for Health (VITAL)
- ◆ WASH (Water and Sanitation for Health)

Republic of Haiti

USAID Child Survival and Health Fact Sheet



Demographic Indicators

Total Population.....	6,653,149 (91)
Life Expectancy at Birth.....	56 Yrs (91)
Children Under 1.....	214,395 (90)
Annual Infant Deaths.....	26,055 (90)
Infant Mortality.....	112/1,000 (90)
Under 5 Mortality.....	158/1,000 (91)
Maternal Mortality.....	600/100,000 (90)
Total Fertility.....	6.4 (90)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access.....	52% (91)
ORT Use.....	20% (91)
Adequate Nutritional Status..... N/A	
Appropriate Infant Feeding..... N/A	
Exclusive Breastfeeding..... N/A	
Complementary Feeding..... N/A	
Continued Breastfeeding..... N/A	
Contraceptive Prevalence..... 9% (89)	

Vaccination Coverage

BCG.....	72% (90)
DPT3.....	41% (90)
Measles.....	31% (90)
Polio3.....	40% (90)
Tetanus2+.....	22% (88)
DPT Drop-Out.....	38% (87)

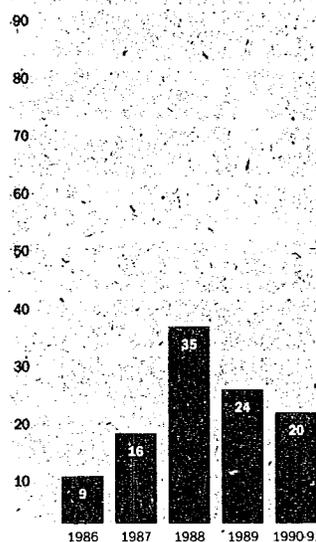
Other Health Indicators

Access to Improved Water	
Urban.....	54% (89)
Rural.....	29% (89)
Access to Sanitation	
Urban.....	38% (89)
Rural.....	12% (89)
HIV-1 Seroprevalence	
Urban.....	5.0% (90)
Rural.....	3.0% (90)
Deliveries by Trained Attendants.....	
	40% (88)

See Data Notes

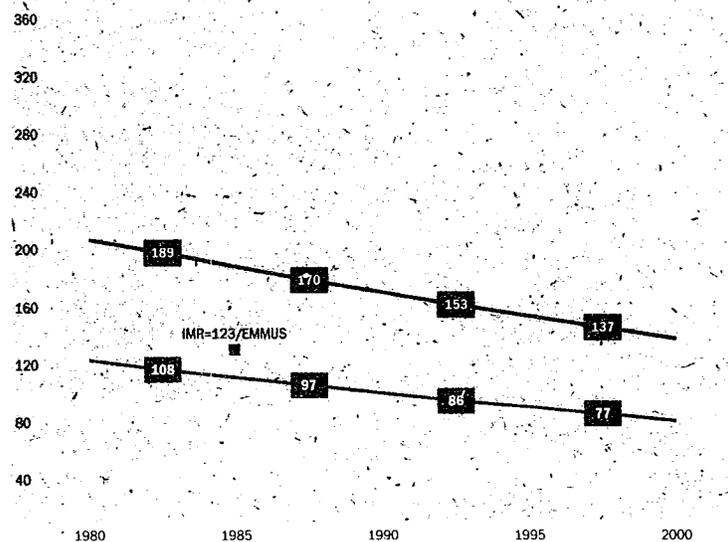
ORT Use Rates

100 Percent of children under age five



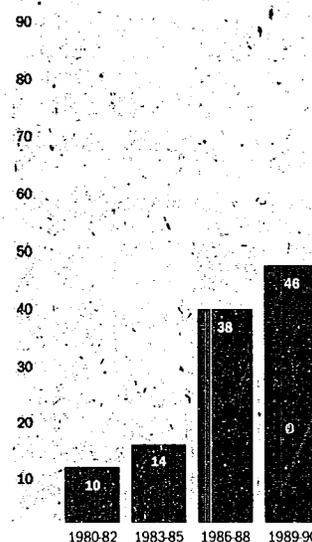
Infant and Under 5 Mortality Trends

400 Deaths per 1,000 live births



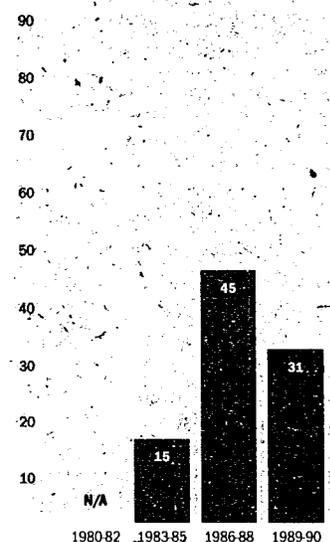
DPT3 Coverage

100 Percent vaccinated by 12 months of age



Measles Coverage

100 Percent vaccinated by 12 months of age



Demographic Indicators

Total Population..... 4,698,362 (89)
 Life Expectancy at Birth..... 62 Yrs (87)
 Children Under 1..... 172,848 (89)
 Annual Infant Deaths 11,014 (89)
 Infant Mortality 61/1,000 (87)
 Under 5 Mortality 94/1,000 (91)
 Maternal Mortality..... 300/100,000 (90)
 Total Fertility..... 5.6 (87)

Child Survival Indicators

Oral Rehydration Therapy
 ORS Access..... 65% (91)
 ORT Use 70% (91)
 Adequate Nutritional Status... 77% (87)
 Appropriate Infant Feeding N/A
 Exclusive Breastfeeding N/A
 Complementary Feeding N/A
 Continued Breastfeeding..... N/A
 Contraceptive Prevalence..... 33% (87)

Vaccination Coverage

BCG 95% (91)
 DPT3..... 88% (91)
 Measles 82% (91)
 Polio3..... 90% (91)
 Tetanus2+ 16% (89)
 DPT Drop-Out 9% (90)

Other Health Indicators

Access to Improved Water
 Urban..... 84% (90)
 Rural! 59% (90)
 Access to Sanitation
 Urban..... 82% (90)
 Rural..... 67% (90)
 HIV-1 Seroprevalence
 Urban..... N/A
 Rural..... N/A
 Deliveries by Trained Attendants..... 90% (87)

See Data Notes

Republic of Honduras

USAID Child Survival and Health Fact Sheet



Bilateral Project

- ◆ Health Sector II

Regional Project

- ◆ Accelerated Immunization

USAID/Washington Support

U.S. Private Voluntary Organizations/FVA/PVC

- ◆ CARE (Child Survival Grant)
- ◆ International Eye Foundation (Vitamin A Grant)
- ◆ La Leche League (Child Survival Grant)
- ◆ Project HOPE (Child Survival Grant)
- ◆ Save the Children Federation (Child Survival Grant)
- ◆ VITAP (Vitamin A Technical Assistance Program/Helen Keller International)
- ◆ World Relief Corporation (Child Survival Grants)

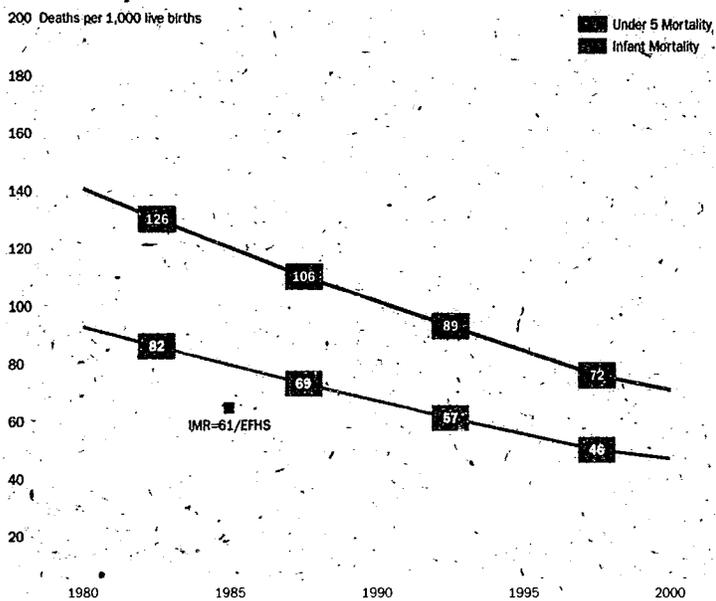
Bureau for Research and Development

- ◆ HEALTHCOM (Communication and Marketing for Child Survival)
- ◆ TAACS (Technical Advisors in AIDS and Child Survival)

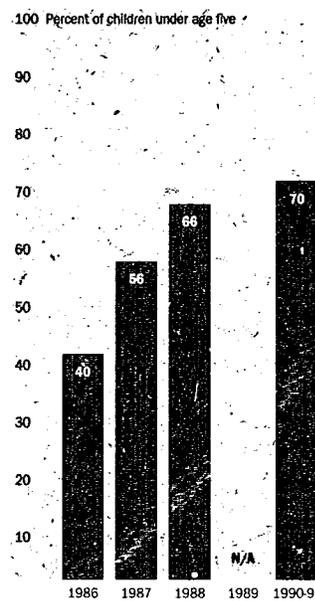
Short-Term Technical Assistance and Support

- ◆ Nutrition Education and Social Marketing
- ◆ ORT Help (Peace Corps)
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ VBC (Vector Biology and Control)
- ◆ WIN (Women and Infant Nutrition: Wellstart)

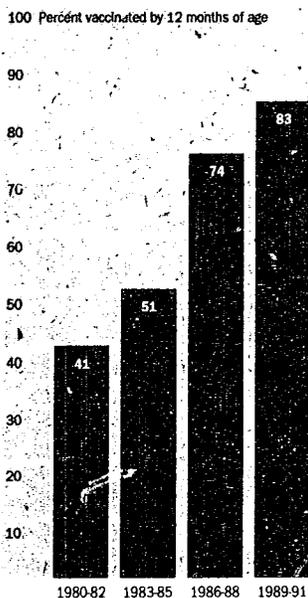
Infant and Under 5 Mortality Trends



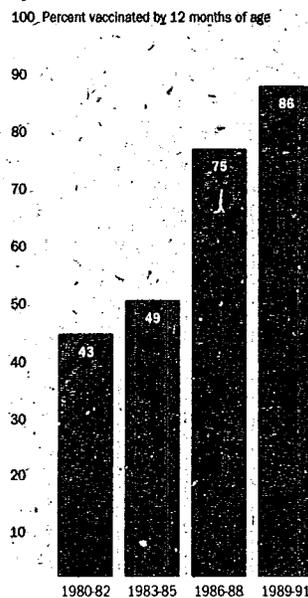
ORT Use Rates



DPT3 Coverage



Measles Coverage



Bilateral Projects

- ◆ Expanded Program of Immunization
- ◆ Assistance for Displaced Children
- ◆ Pro-Familia Family Planning
- ◆ PVO Co-Financing
- ◆ Economic Growth and Development

Regional Project

- ◆ Accelerated Immunization
- ◆ Health and Nutrition Technical Service

USAID/Washington Support

U.S. Private Voluntary Organizations/FYA/PVC

- ◆ Adventist Development and Relief Agency (Child Survival Grant)
- ◆ Project Concern International (Child Survival Grant)
- ◆ Project HOPE (Child Survival and Vitamin A Grants)

Bureau for Research and Development

Short-Term Technical Assistance and Support

- ◆ Demographic and Health Surveys
- ◆ Health Resources Support
- ◆ PRITECH (Technologies for Primary Health Care)
- ◆ VBC (Vector Biology and Control)
- ◆ WASH (Water and Sanitation for Health)

Republic of Nicaragua

USAID Child Survival and Health Fact Sheet



Demographic Indicators

Total Population	4,004,556 (91)
Life Expectancy at Birth	65 Yrs (91)
Children Under 1	152,746 (91)
Annual Infant Deaths	8,506 (91)
Infant Mortality	54/1,000 (91)
Under 5 Mortality	81/1,000 (91)
Maternal Mortality	300/100,000 (87)
Total Fertility	5.2 (91)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access	75% (91)
ORT Use	40% (91)
Adequate Nutritional Status	90% (80)
Appropriate Infant Feeding	N/A
Exclusive Breastfeeding	N/A
Complementary Feeding	N/A
Continued Breastfeeding	N/A
Contraceptive Prevalence	23% (81)

Vaccination Coverage

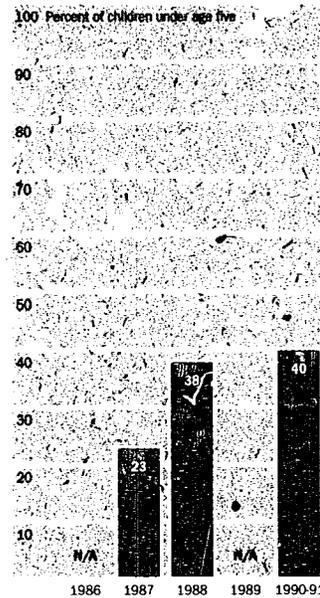
BCG	81% (90)
DPT3	65% (90)
Measles	82% (90)
Polio3	86% (90)
Tetanus2+	25% (89)
DPT Drop-Out	55% (86)

Other Health Indicators

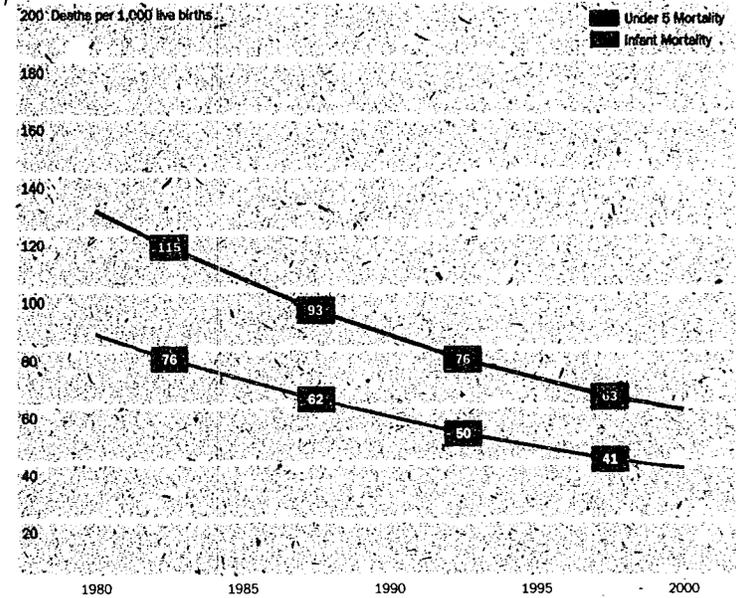
Access to Improved Water	
Urban	49% (90)
Rural	18% (90)
Access to Sanitation	
Urban	30% (90)
Rural	15% (90)
HIV-1 Seroprevalence	
Urban	N/A
Rural	N/A
Deliveries by Trained Attendants	N/A

See Data Notes

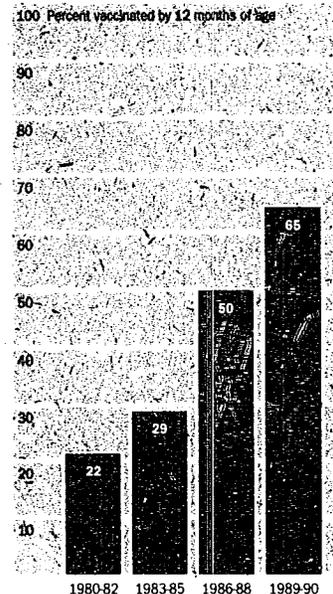
ORT Use Rates



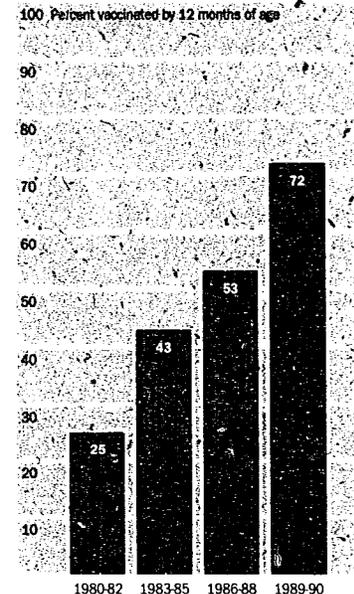
Infant and Under 5 Mortality Trends



DPT3 Coverage



Measles Coverage



Demographic Indicators

Total Population.....	22,011,059 (91)
Life Expectancy at Birth.....	64 Yrs (91)
Children Under 1.....	623,408 (91)
Annual Infant Deaths.....	53,531 (91)
Infant Mortality.....	81/1,000 (90)
Under 5 Mortality.....	107/1,000 (91)
Maternal Mortality.....	300/100,000 (83)
Total Fertility.....	3.7 (91)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access.....	23% (88)
ORT Use.....	25% (89)
Adequate Nutritional Status... 78% (84)	
Appropriate Infant Feeding....	28% (86)
Exclusive Breastfeeding.....	32% (86)
Complementary Feeding.....	49% (86)
Continued Breastfeeding.....	57% (86)
Contraceptive Prevalence.....	24% (86)

Vaccination Coverage

BCG.....	83% (90)
DPT3.....	72% (90)
Measles.....	64% (90)
Polio3.....	73% (90)
Tetanus2+.....	9% (89)
DPT Drop-Out.....	27% (86)

Other Health Indicators

Access to Improved Water		
Urban.....	83% (90)	
Rural.....	54% (90)	
Access to Sanitation		
Urban.....	81% (90)	
Rural.....	53% (90)	
HIV-1 Seroprevalence		
Urban.....	0.1% (90)	
Rural.....	N/A	
Deliveries by Trained Attendants.....		49% (86)

See Data Notes

Republic of Peru

USAID Child Survival and Health Fact Sheet



Bilateral Projects

- ◆ Child Survival Action
- ◆ PRISMA: Supplemental Feeding
- ◆ Strengthening Private Sector Health Institutions
- ◆ Private Voluntary Sector Family Planning Services Expansion
- ◆ Private Sector Nutrition
- ◆ Nutrition and Food for Work
- ◆ Strengthening of CARITAS/Peru
- ◆ Food Assisted Integrated Development
- ◆ HIV/AIDS Education & Prevention
- ◆ Upper Huallaga Area Development
- ◆ Narcotics Education and Public Awareness

Regional Projects

- ◆ Accelerated Immunization
- ◆ Andean Peace Scholarships

USAID/Washington Support

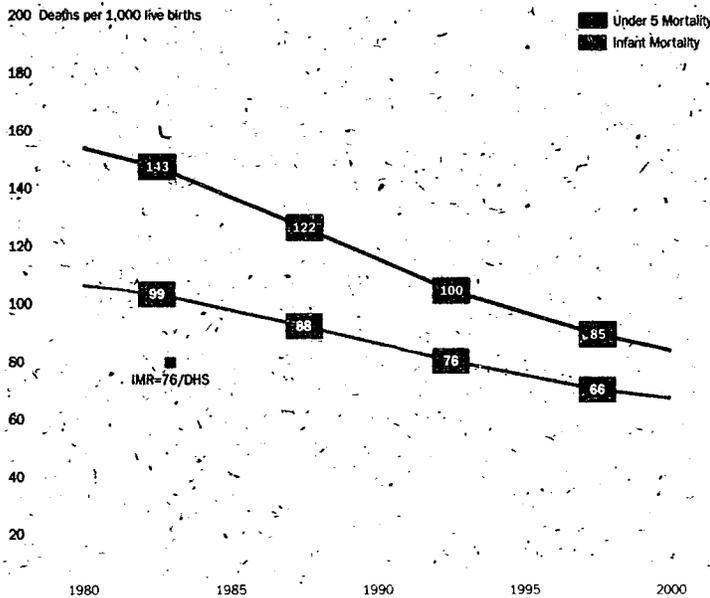
Bureau for Research and Development

- ◆ AIDSCOM
- ◆ Applied Diarrheal Disease Research
- ◆ Demographic and Health Surveys
- ◆ Diarrheal Disease Research (WHO)
- ◆ Project SUPPORT (Supply, Production and Promotion of ORT)
- ◆ Vaccine Development and Health Research

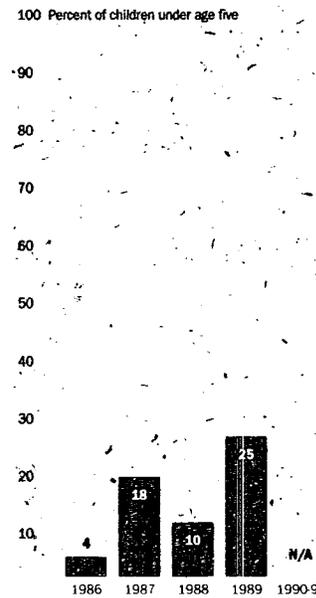
Short-term Technical Assistance and Support

- ◆ CSAP Support (John Short)
- ◆ HEALTHCOM (Communication and Marketing for Child Survival)
- ◆ Health Financing and Sustainability
- ◆ Vitamin A for Health (VITAL)
- ◆ WASH (Water and Sanitation for Health)
- ◆ WIN (Women and Infant Nutrition: Wellstart)

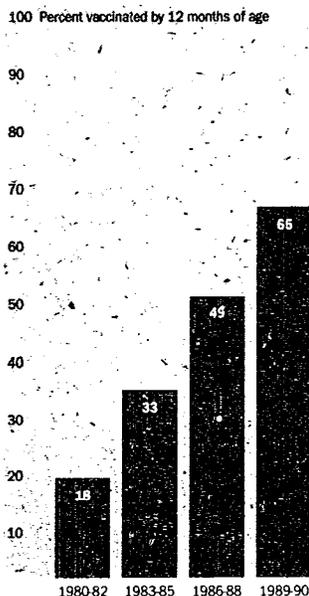
Infant and Under 5 Mortality Trends



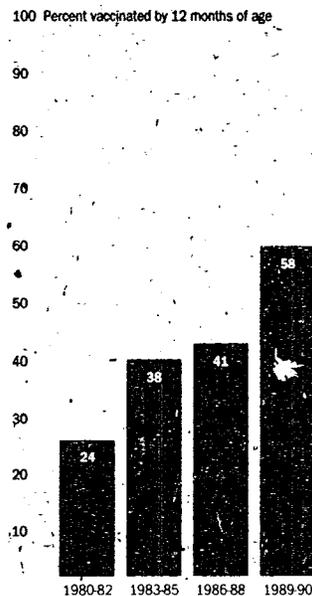
ORT Use Rates



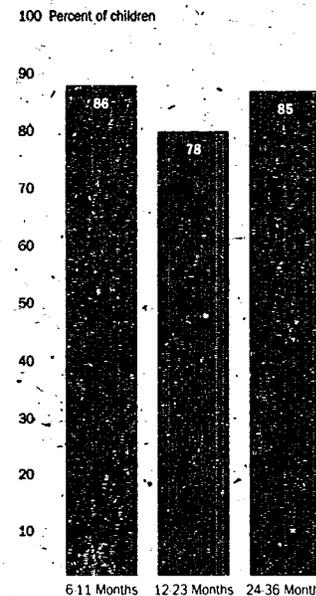
DPT3 Coverage



Measles Coverage



Adequate Nutritional Status



Near East Region



In many Near East countries, considerable improvements made in the health status of infants and children have cleared the path for emerging challenges to child survival strategies. In two of the three Near East countries designated by USAID as child survival emphasis countries – Egypt and Morocco – child survival goals have been achieved and even exceeded. The foremost challenge will be to consolidate and sustain these gains, while extending coverage to areas that remain underserved.

Except for Yemen, all USAID-assisted countries in the region have reached the target infant mortality rate of 75 deaths per 1,000 live births. Egypt has shown the most remarkable improvement; infant mortality fell from 123 deaths per 1,000 live births in 1980 to 43 in 1988. The emphasis countries have also exceeded the target vaccination coverage rate of 80 percent for DPT3 and Polio3. Egypt and Morocco have exceeded the target coverage rate for vaccination against measles, and Yemen does not lag far behind, with a coverage rate of 74 percent.

The use of oral rehydration therapy (ORT) during episodes of diarrhea varies widely in the region. Although ORT use rates in some countries such as Yemen and Morocco have increased only slightly, use rates are well over 50 percent in Egypt, Jordan, and Tunisia. In Egypt, the National Control of Diarrheal Disease program, sup-

ported by USAID, the World Health Organization, and the United Nations Children's Fund⁷ has had a measurable impact on diarrhea-related infant mortality. Between 1982 and 1989, mortality due to diarrhea was reduced by over 64 percent for infants and by almost 73 percent for children under five. Due in part to the program's success, diarrheal disease accounts for a smaller proportion of child deaths than acute respiratory infection (ARI), now the leading

cause of child mortality in Egypt. Since USAID support for the diarrheal disease control program ended, there has been demonstrated political commitment to the program. Oral rehydration salts (ORS) are now on the government's list of essential drugs, and incremental price increases are encouraging local production by private pharmaceutical companies. These measures ensure continued availability of ORS following the withdrawal of donor support.

While taking care to sustain these accomplishments in immunization and ORT use, USAID is expanding child survival programs in the Near East region to address additional health needs such as ARI, child spacing, nutrition, optimal breastfeeding practices, and women's health issues. Effectively meeting these needs will require the

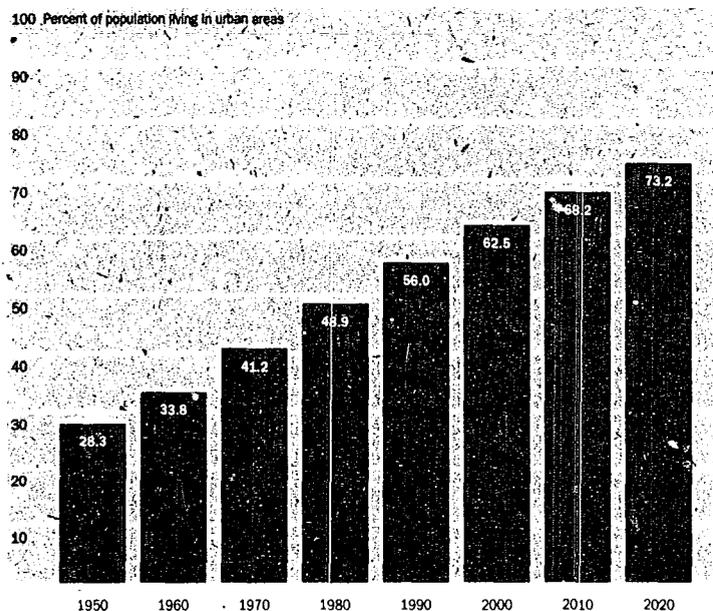
development of new technological and programmatic solutions.

The successful use of mass media to improve health practices was shown in Jordan, where HEALTHCOM worked with the Queen Noor al Hussein Foundation on a nationwide breastfeeding and child spacing campaign during 1989 and 1990. Television and radio spots reached 94 percent of mothers interviewed; the proportion of mothers displaying correct knowledge about the proper timing of the initiation of breastfeeding and the importance of colostrum (first milk) increased from 41 to 74 percent.

To help sustain child survival and other health programs, a major new focus of USAID health assistance to the region is development of health sector financing and institution-building strategies. The goal is to improve financial management and increase involvement of the private sector in health care so that a larger portion of government budgets can be cost effectively allocated to programs for people with the least ability to pay for services. Private sector activities, including assistance in the privatization of public health services and involvement of for-profit businesses in project activities, have been initiated by eight USAID-supported projects in Egypt, Jordan, Morocco, and Yemen.

The USAID-funded Cost Recovery Programs for Health project in Egypt, for example, will target selected

Continued Urbanization Expected in the Near East



hospitals and clinics for conversion to fee-for-service facilities. In Morocco, social marketing activities help promote privately produced family planning and child survival products such as the PRO-TEX condom and Biosel, an oral rehydration salt. One social marketing program was initially directed toward family planning products and later expanded to include ORS and weaning food.

In the area of women's health, efforts have been made to reduce maternal risk and to improve women's access to health care. In October, Morocco hosted the Maghrebian Conference on Safe Motherhood, which followed the establishment of the Maghrebian Association of Midwives in September. Representatives to the conference from various international organizations, including USAID, and North African countries, including Morocco and Tunisia, discussed the medical, economic, and socio-cultural causes of maternal morbidity and mortality, and developed strategies to reduce them, focussing particularly on the role of the midwife in maternal care.

In Yemen, one approach to im-

prove women's access to health services has been to increase the number of trained female health care providers. With the assistance of REACH, USAID's Accelerated Cooperation for Child Survival project supports nurse-midwife training courses. In 1991, about 25 percent of the students enrolled in these courses were women, a major achievement in a country where only 29 females for every 100 males are enrolled in primary education.

Improved access to health services for women and children in Morocco has been achieved through the Visite à Domicile de Motivation Systématique, a community-based outreach program that provides integrated family planning and child survival services to women living more than three kilometers from fixed health facilities. The program operates in 30 of Morocco's 40 provinces, reaching 70 percent of the rural population. To further expand services into previously inaccessible areas, USAID has funded all-terrain vehicles to be used by the Ministry of Health as mobile service delivery units.

Other challenges facing the

Near East Region

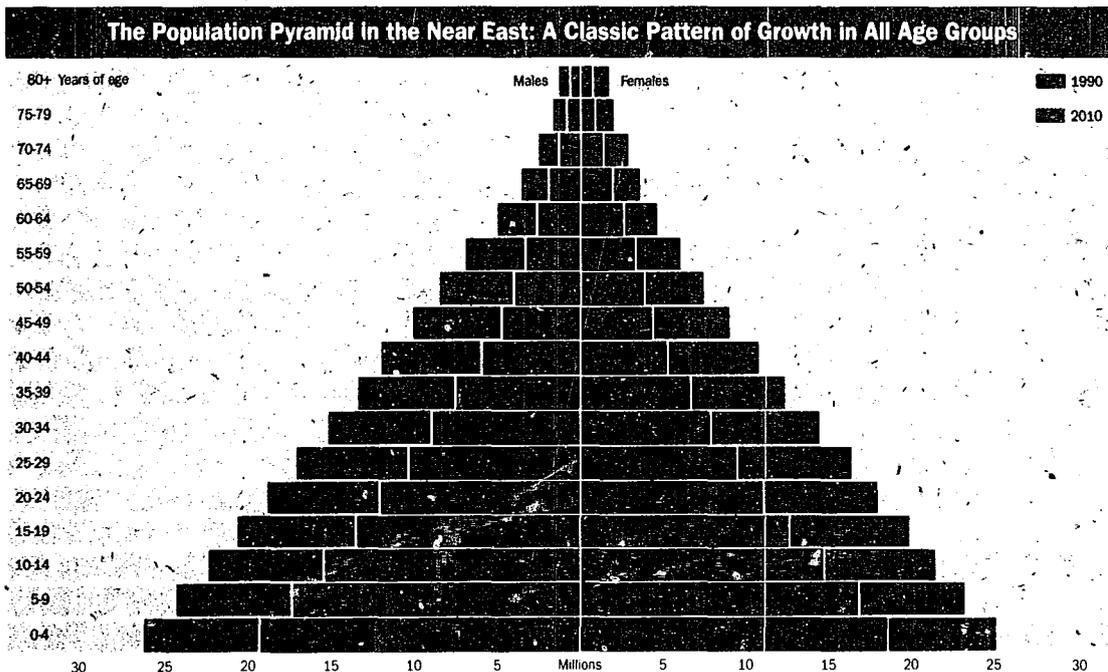
Project Support Active
In Fiscal Year 1991

	Egypt	Morocco	Yemen	Jordan	Lebanon	Oman	Tunisia	Turkey
Bilateral	◆	◆	◆	◆	◆		◆	
Regional	◆	◆	◆	◆				
Private Voluntary Organizations				◆	◆			
Central Project Support								
AIDSCOM		◆						
AIDSTECH		◆						
CSAP Support	◆							
Demographic and Health Surveys	◆	◆	◆	◆			◆	
HEALTHCOM	◆		◆					
Health Financing and Sustainability	◆	◆						
HealthTech	◆							
ORT Help			◆					
Project SUPPORT								◆
REACH		◆	◆					
Technical Advisors in AIDS and Child Survival		◆						
Water and Sanitation for Health	◆		◆		◆		◆	◆
Women and Infant Nutrition								

Near East region in the decade to come resemble those of most developing nations: the consistent pressure of population growth, rapid urbanization, and the

changing morbidity and mortality patterns associated with the evolving age structure of the population. To respond to these challenges, child survival programs must continue to devote increasing attention to developing cost-effective, carefully targeted interventions that ensure that the basic health needs of the most vulnerable groups are met.

The successes achieved thus far can be attributed to three main factors: the use of appropriate technologies, effective mobilization of public and private local resources to complement public and donor contributions, and the effective use of mass media and social marketing. As strategies are developed to meet future challenges in the region, it will be important to continue to incorporate these approaches.



Bilateral Projects

- ◆ Child Survival
- ◆ Control of Diarrheal Diseases
- ◆ Cost Recovery for Health
- ◆ Schistosomiasis Research
- ◆ PVO Development Program

USAID/Washington Support

Bureau for Research and Development

- ◆ CSAP Support (Johns Hopkins University, Health and Child Survival Fellows)
- ◆ Demographic and Health Surveys
- ◆ Health Financing and Sustainability

Short-Term Technical Assistance and Support

- ◆ HEALTHCOM (Communication and Marketing for Child Survival)
- ◆ HealthTech (Technologies for Child Health)
- ◆ WIN (Women and Infant Nutrition: Wellstart)

Arab Republic of Egypt

USAID Child Survival and Health Fact Sheet



Demographic Indicators

Total Population	54,059,000	(89)
Life Expectancy at Birth	61 Yrs	(91)
Children Under 1	1,683,064	(91)
Annual Infant Deaths	75,155	(91)
Infant Mortality	43/1,000	(88)
Under 5 Mortality	49/1,000	(88)
Maternal Mortality	299/100,000	(84)
Total Fertility	4.4	(88)

Child Survival Indicators

Oral Rehydration Therapy		
ORS Access	95%	(91)
ORT Use	58%	(91)
Adequate Nutritional Status		
Appropriate Infant Feeding	N/A	
Exclusive Breastfeeding	N/A	
Complementary Feeding	N/A	
Continued Breastfeeding	N/A	
Contraceptive Prevalence	37%	(88)

Vaccination Coverage

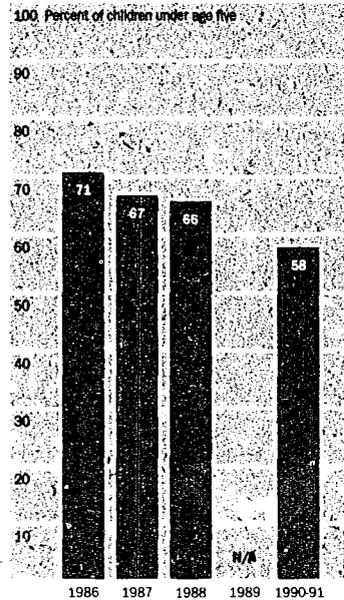
BCG	89%	(90)
DPT3	87%	(90)
Measles	88%	(90)
Polio3	87%	(90)
Tetanus2+	28%	(90)
DPT Drop-Out	10%	(90)

Other Health Indicators

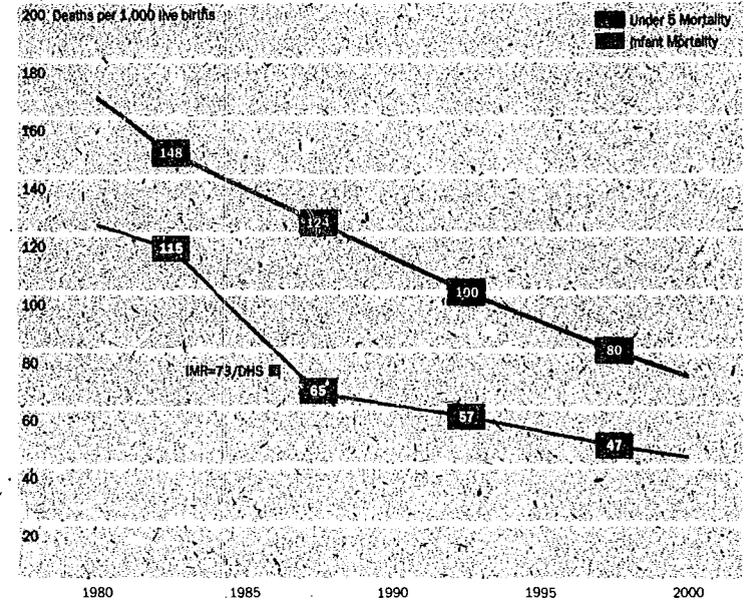
Access to Improved Water		
Urban	96%	(88)
Rural	82%	(88)
Access to Sanitation		
Urban	100%	(88)
Rural	34%	(88)
HIV-1 Seroprevalence		
Urban	N/A	
Rural	N/A	
Deliveries by Trained Attendants		
	35%	(88)

See Data Notes

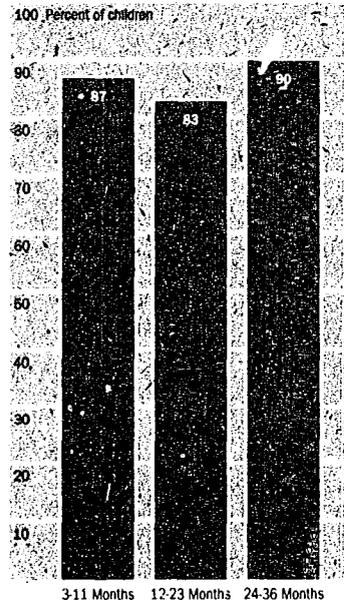
ORT Use Rates



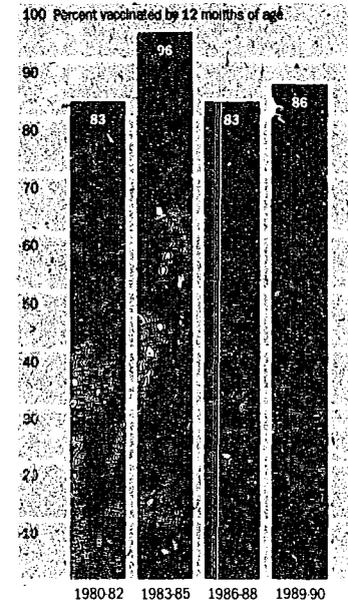
Infant and Under 5 Mortality Trends



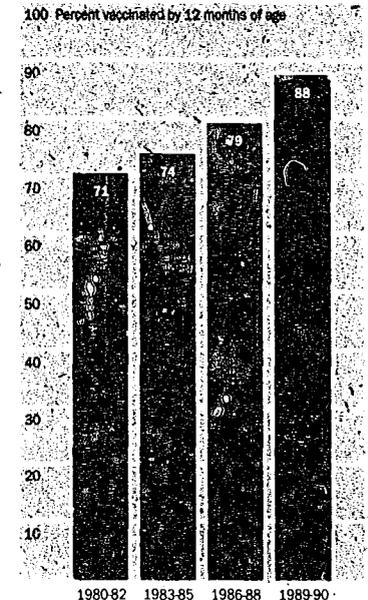
Adequate Nutritional Status



DPT3 Coverage



Measles Coverage



Demographic Indicators

Total Population.....	25,708,632 (91)
Life Expectancy at Birth.....	63 Yrs (91)
Children Under 1.....	809,888 (90)
Annual Infant Deaths.....	62,576 (90)
Infant Mortality.....	73/1,000 (87)
Under 5 Mortality.....	102/1,000 (87)
Maternal Mortality.....	300/100,000 (74)
Total Fertility.....	4.6 (87)

Child Survival Indicators

Oral Rehydration Therapy

ORS Access.....	70% (91)
ORT Use.....	8% (91)

Adequate Nutritional Status... 80% (87)

Appropriate Infant Feeding...	47% (87)
Exclusive Breastfeeding.....	48% (87)
Complementary Feeding.....	48% (87)
Continued Breastfeeding.....	62% (87)
Contraceptive Prevalence.....	30% (87)

Vaccination Coverage

BCG.....	98% (91)
DPT3.....	91% (91)
Measles.....	92% (91)
Polio3.....	91% (91)
Tetanus2+.....	64% (90)
DPT Drop-Out.....	15% (87)

Other Health Indicators

Access to Improved Water

Urban.....	100% (88)
Rural.....	25% (85)

Access to Sanitation

Urban.....	100% (88)
Rural.....	16% (85)

HIV-1 Seroprevalence

Urban.....	N/A
Rural.....	N/A

Deliveries by Trained Attendants..... 26% (87)

See Data Notes

Kingdom of Morocco

USAID Child Survival and Health Fact Sheet



Bilateral Projects

- ◆ Population and Child Survival
- ◆ Family Planning Support III
- ◆ Sector Support Training

USAID/Washington Support

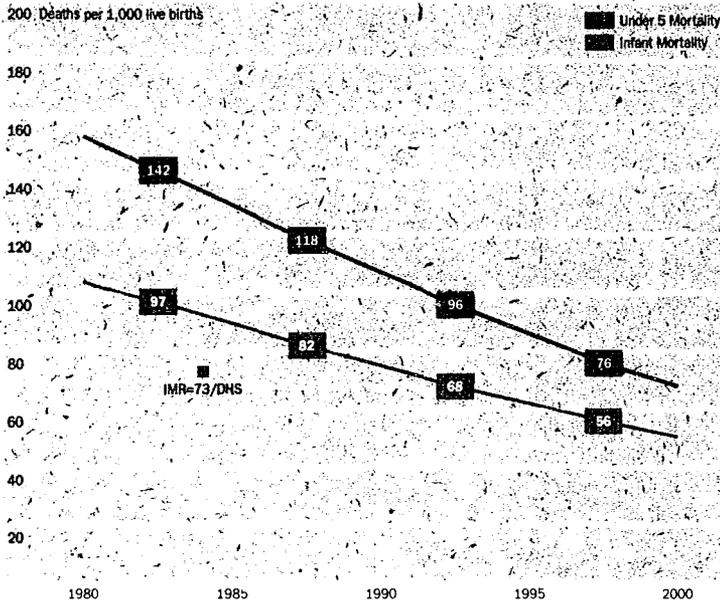
Bureau for Research and Development

- ◆ AIDSCOM
- ◆ Demographic and Health Surveys
- ◆ TAACS (Technical Advisors in AIDS and Child Survival)

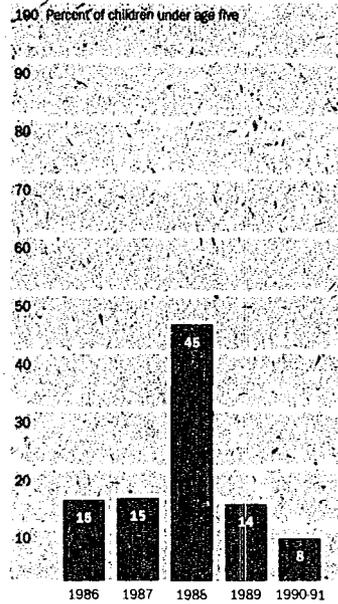
Short-Term Technical Assistance and Support

- ◆ AIDSTECH
- ◆ Health Financing and Sustainability
- ◆ REACH (Resources for Child Health)

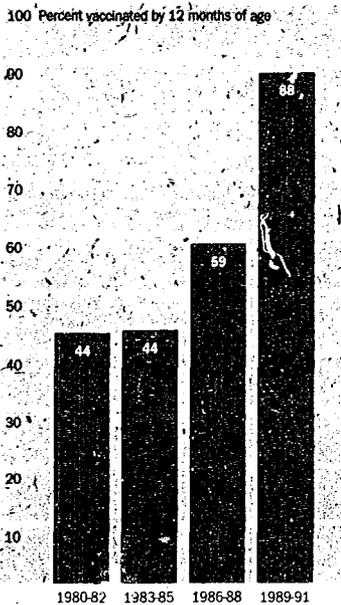
Infant and Under 5 Mortality Trends



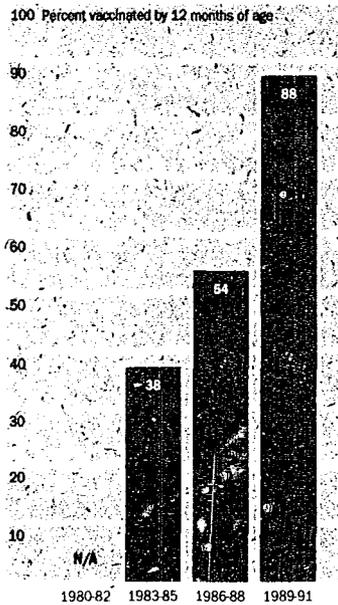
ORT Use Rates



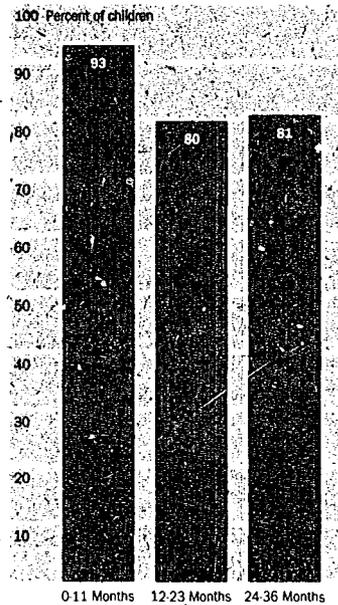
DPT3 Coverage



Measles Coverage



Adequate Nutritional Status



Bilateral Projects

- ◆ Accelerated Cooperation for Child Survival
- ◆ Technical Services and Feasibility Studies

USAID/Washington Support

Bureau for Research and Development

- ◆ Demographic and Health Surveys
- ◆ HEALTHCOM (Communication and Marketing for Child Survival)
- ◆ REACH (Resources for Child Health)

Short-Term Technical Assistance and Support

- ◆ ORT Help (Peace Corps)
- ◆ WASH (Water and Sanitation for Health)

Yemen Arab Republic

USAID Child Survival and Health Fact Sheet



Demographic Indicators

Total Population	9,274,173 (89)
Life Expectancy at Birth	44 Yrs (89)
Children Under 1	408,064 (89)
Annual Infant Deaths	60,541 (89)
Infant Mortality	136/1,000 (89)
Under 5 Mortality	179/1,000 (91)
Maternal Mortality	1,040/100,000 (85)
Total Fertility	8.7 (89)

Child Survival Indicators

Oral Rehydration Therapy	
ORS Access	16% (89)
ORT Use	6% (89)
Adequate Nutritional Status	
Appropriate Infant Feeding	N/A
Exclusive Breastfeeding	N/A
Complementary Feeding	N/A
Continued Breastfeeding	N/A
Contraceptive Prevalence	4% (89)

Vaccination Coverage

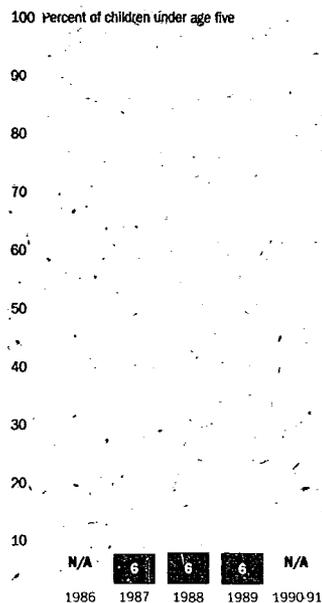
BCG	99% (90)
DPT3	89% (90)
Measles	74% (90)
Polio3	89% (90)
Tetanus2+	20% (90)
DPT Drop-Out	N/A

Other Health Indicators

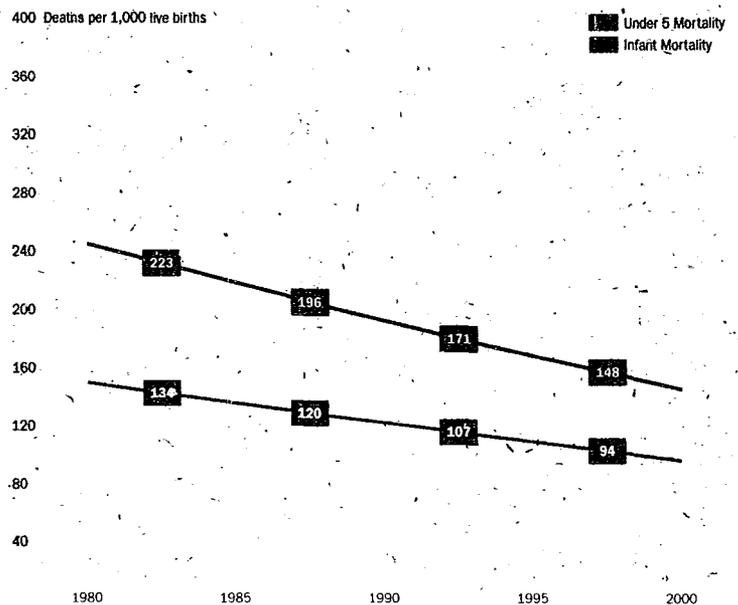
Access to Improved Water	
Urban	100% (88)
Rural	48% (88)
Access to Sanitation	
Urban	66% (88)
Rural	N/A
HIV-1 Seroprevalence	
Urban	N/A
Rural	N/A
Deliveries by Trained Attendants	
	10% (82)

See Data Notes

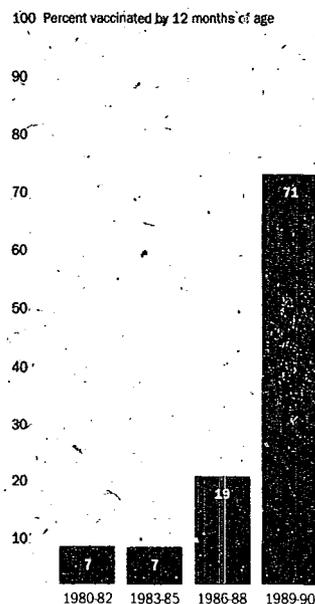
ORT Use Rates



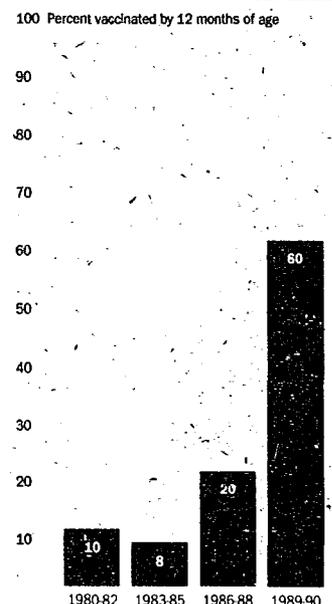
Infant and Under 5 Mortality Trends



DPT3 Coverage



Measles Coverage



Appendix I

FY 1991 Funding for the Child Survival Action Program

CSF: Child Survival Fund; **HE:** Health; **ARDN:** Agriculture, Rural Development, and Nutrition; **DFA:** Development Fund for Africa; **ESF:** Economic Support Fund. All numbers are in thousands of dollars.

Country	Project	CSF	HE	ARDN	DFA	ESF
Africa Region						
Benin	Rural Water Supply: Increases access to safe water by construction of wells in rural areas and promotes health education and improved sanitation practices through communication with mothers.	0	0	0	198	0
Botswana	Program Development and Support: Provides technical assistance for design and evaluation of health and child survival projects.	0	0	0	32	0
Burkina Faso	Health Financing and Family Health: Addresses maternal and child health issues through nutrition education, training of health workers in oral rehydration therapy, prevention of high risk births, and social marketing of condoms for HIV/AIDS control.	0	0	0	275	0
	FY91 Vitamin A Grant to Helen Keller International: Targets over one million women and children in eight provinces to reduce vitamin A deficiency by promoting increased consumption of vitamin A-rich foods.	0	0	402	0	0
Burundi	Program Development and Support: Provides technical assistance for design and evaluation of health and child survival projects which include diarrheal disease control and immunization activities.	0	0	0	46	0
Cameroon	Maternal Child Health/Child Survival: Works through a consortium, including Harvard and Drew Universities and the Academy for Educational Development, to support health care delivery services, such as oral rehydration therapy, immunization, and nutrition in the southern province of Adamaoua.	0	0	0	954	0
	National Family Health: Supports and sustains efforts to limit high risk births through strengthened primary health care services.	0	0	0	688	0
	FY91 Child Survival Grant to Population Services International: Works with the private commercial sector to make essential health products and child survival services more easily accessible and available through information, education, communication, and social marketing.	200	0	0	0	0
Chad	Child Survival Project: Strengthens the administration and delivery of maternal and child health and family planning services in selected prefectures and assists the Ministry of Public Health to operate and maintain a national health information system.	0	0	0	950	0
Côte d'Ivoire	Family Planning and Health Project: Aims to increase maternal and child health services with a focus on reducing high risk births.	0	0	0	409	0
Ethiopia	Orphans Assistance: Helps children currently in institutions to develop skills to prepare them to leave their institutions and rejoin society.	0	0	0	505	0
Gambia	Program Development and Support: Provides technical assistance for design and evaluation of health and child survival projects which include diarrheal disease control and immunization activities.	0	0	0	60	0
Ghana	Family Planning and Health and HIV/AIDS Prevention: Promotes primary health care and child survival with oral rehydration therapy, immunization, and programs to prevent high risk births.	0	0	0	535	0
Kenya	Family Planning Services and Support: Supports nationwide family planning efforts to promote health and family planning services including child spacing, diarrhea management, immunization, and nutrition.	0	0	0	536	0
	PVO Co-Financing: Promotes health and child survival services in Kenya through U.S. and local private voluntary organizations.	0	0	0	250	0
	FY91 Child Survival Grant to Minnesota International Health Volunteers: Provides services through the Chandaria Community Health Center including maternal child health services, family planning, antenatal care, and immunizations with a fee-for-service system to help make it self-sustaining.	550	0	0	0	0
Madagascar	Avotra Orphanage: Grant to AVOTRA, a local private voluntary agency, to improve and expand its two orphan centers.	0	0	0	182	0
Malawi	Promoting Health Interventions for Child Survival: Assists the Ministry of Health to improve maternal and child health and water and sanitation services and to increase the availability and use of these services in rural areas.	0	0	0	1251	0
	Services for Health, Agriculture and Rural Enterprise Development: Strengthens and expands capacity of local and U.S. private voluntary organizations to provide primary health care, child spacing, and HIV/AIDS services.	0	0	0	195	0
	FY91 Child Survival and Vitamin A Grants to International Eye Foundation: Works with the Ministry of Health to establish a community-based system to provide child survival services in 45 villages of the Chikwawa and Nsanje districts of the Lower Shire Valley including blindness prevention with semi-annual vitamin A supplementation.	250	0	500	0	0

Country	Project	CSF	HE	ARDN	DFA	ESF
Malawi	FY91 Child Survival Grant to Project HOPE: Provides child survival services in private tea and coffee estates in the Thyolo District of Malawi focusing on children under five and women of child-bearing age.	200	0	0	0	0
Mali	PVO Co-Financing: Supports indigenous and U.S. non-governmental organizations to implement village-level outreach activities including child survival.	0	0	0	2655	0
	Community Health and Population Services: Targets women and children facing potential health risks by providing health and family planning services at district and community health centers, private clinics, and pharmacies.	0	0	0	3849	0
	FY91 Child Survival and Vitamin A Grants to World Vision Relief and Development: Helps the Ministry of Health work with mothers in the Sikasso Region to reduce the high rate of children vaccination drop-outs and to reduce vitamin A deficiency through increased production and consumption of vitamin A-rich foods.	350	0	25	0	0
Mozambique	PVO Support Program: Involves private voluntary organizations in emergency activities including health and child survival services to children.	0	0	0	3678	0
	Primary Health Care Support Project: Provides technical assistance to the Ministry of Health to develop policy reform in the health sector including budget allocations to primary health care, and to promote private sector involvement in the pharmaceutical industry and in the provision of health care services.	0	0	0	9340	0
Niger	Health Sector Support: Supports the Ministry of Health in the development and implementation of appropriate health care policies and the management of health care resources and services, especially in child survival interventions.	0	0	0	1438	0
	Family Health and Demography: Increases family planning services through integration into the nationwide health services delivery system.	0	0	0	705	0
Senegal	Family Health and Population: Provides family planning services to reduce high risk births through family planning service centers and by increasing the role of the private sector such as the private pharmacies which distribute family planning supplies.	0	0	0	250	0
	PVO/NGO Support: Supports local and U.S. not-for-profit agencies working in health and child survival activities.	0	0	0	286	0
	FY91 Child Survival Grant to World Vision Relief and Development: Trains village health workers to provide child survival services to mothers and children within an integrated, sustainable community development program in rural Senegal.	500	0	0	0	0
Togo	Program Development and Support: Provides technical assistance for design and evaluation of child survival projects.	0	0	0	24	0
	Health Sector Support for Child Survival: Assists the Ministry of Health to plan, administer, and deliver child survival and primary health care services.	0	0	0	984	0
	Togo Child Survival: Consolidates and strengthens child survival services through improved management of public health services and mobilization of private and local community resources.	0	0	0	1554	0
Uganda	West Nile Community Self-Reliance II: Includes a water supply development component which addresses the lack of protected sources of water for approximately 90 percent of the rural population.	0	0	0	210	0
	Control of Diarrheal Diseases/Nutrition: Continues support through UNICEF for the purchase of packets of oral rehydration salts for children to be distributed through health clinics and dispensaries.	0	0	0	2000	0
	FY91 Child Survival Grant to Adventist Development and Relief Agency: Uses community-based health care clinic services to deliver key child survival interventions toward reducing the deaths of mothers and under-five children in the southeast of Luwero District, an area devastated during civil conflicts.	600	0	0	0	0
Zaire	School of Public Health: Assists an independent and fully accredited School of Public Health train an expanded cadre of health workers in child survival interventions through Tulane University!	0	0	0	260	0
	Small Projects Assistance: Supports small health and child survival activities.	0	0	0	25	0
Zimbabwe	FY91 Child Survival Grant to World Vision Relief and Development: Assists the Ministry of Health reduce infant, child and maternal mortality and morbidity by strengthening the child survival and primary health care programs in the Shamva District, northeast of the capital, Harare.	400	0	0	0	0
Regional	Africa Child Survival Initiative - Control of Communicable Childhood Diseases: Supports a multi-donor effort by the U.S. Center for Disease Control, UNICEF, WHO and others to combat childhood diseases in nine sub-Saharan African countries through appropriate diarrhea case management, immunization, and malaria control activities; and to develop training, health education, health information systems, and health care financing capabilities in those countries.	0	0	0	18563	0
	African Development Support: Provides technical assistance to missions and regional offices for design, implementation, and evaluation of health and child survival programs.	0	0	0	135	0
	Operations Level Management Development: Supports the design, testing, and development of MEDEX management technologies within the Ministries of Health in Botswana and Lesotho.	0	0	0	17	0
	AAAS Malaria: Supports a regional technical advisor for malaria.	0	0	0	24	0
	Private Voluntary Organization Support: Strengthens U.S. and African private voluntary organizations' activities including those engaged in child survival programs.	0	0	0	203	0
Africa Subtotals		3050	0	927	53365	0

Country	Project	CSF	HE	ARDN	DFA	ESF
Asia Region						
Afghanistan	Health Sector Support: Provides training and medical supplies cross-border to health care units which support immunization and diarrheal disease control through primary care services to mothers and children.	0	2079	0	0	4599
	Technical Services and Support: Provides support for health and child survival activities.	0	0	32	0	0
	PVO Support Project: Expands child survival and health program activities through grants to U.S. and local private voluntary organizations for services within Afghanistan.	0	25	644	0	1087
	Commodity Support Program: Makes available food, pharmaceuticals, and medical supplies among other humanitarian goods for distribution in rural Afghanistan.	0	0	312	0	234
Bangladesh	Family Planning and Health Services: Promotes the marketing of oral rehydration salts through maternal and child health programs and 100,000 outlets nationwide, and expands immunization coverage in the urban slums.	650	1900	0	0	0
	Urban Volunteer Program: Trains women health volunteers to promote the use of oral rehydration therapy and to make referrals for immunization and nutrition services to residents of the Dhaka slums.	2000	0	0	0	0
	FY91 Child Survival Grant to World Relief Corporation: Provides child survival services to 89,000 people in rural areas of Julma and Khalilmagar districts in cooperation with the local private voluntary organization, Christian Service Society.	450	0	0	0	0
	FY91 Child Survival Grant to CARE: Promotes sustainable child survival services working with Ministry of Health and Family Welfare to train field workers in immunization, maternal health, vitamin A delivery, control of diarrheal disease, and high risk birth interventions.	250	0	0	0	0
	FY91 Child Survival and Vitamin A Grants to World Vision Relief and Development: Provides immunization, oral rehydration therapy, nutrition (including vitamin A supplementation), and birth spacing services to women and children living in two densely-populated urban areas of Dhaka.	525	0	25	0	0
Cambodia	Humanitarian Aid for Cambodian Children: Meets the special health needs of Cambodian children with expanded immunization, nutrition, oral rehydration therapy, malaria prevention, and health education programs provided through U.S. private voluntary organizations.	5000	0	0	0	0
India	Child Survival Health Support: Assists the Ministry of Health, through UNICEF and local non-governmental organizations, in a major expansion of child survival initiatives by promoting oral rehydration therapy, immunization, control of acute respiratory infections, and high risk birth management.	1091	3739	0	0	0
	Quality Control for Health Technologies: Supports creation of an independent biological testing laboratory to improve the quality of preventive health care by ensuring safe and effective vaccines are delivered to children and mothers.	0	1000	0	0	0
Indonesia	Strengthening Institutional Development: Strengthens independent non-governmental organizations' participation in health and child survival development initiatives, including training and other institution building activities.	2250	1421	247	0	0
	FY91 Child Survival Grant to Project Concern International: Provides vaccinations to women and children and seeks to increase use of oral rehydration therapy and to improve nutritional status of children in the Maluku and Riau Provinces through training traditional birth attendants to provide maternal and child health services.	1015	0	0	0	0
	FY91 Child Survival and Vitamin A Grants to Adventist Development and Relief Agency: Focuses on the role of traditional birth attendants in 38 government Puskesmas centers to provide improved antenatal care, vaccinations, child nutrition (including increased consumption of vitamin A through home gardening and supplementation), and family planning.	300	0	50	0	0
Nepal	Child Survival and Family Planning Services: Stresses maternal and child health and family planning activities with higher quality services for rural and disadvantaged populations.	0	1454	0	0	0
	PVO Co-Financing II: Provides U.S. and local private voluntary agencies with grant support to expand child survival and health activities.	0	20	19	0	0
	FY91 Child Survival Grant to Save the Children Federation: Emphasizes the role of the female community health volunteers and mother's groups in reaching families with educational messages on diarrheal disease management, immunization, growth monitoring and nutrition, maternal health, and in early recognition of acute respiratory infections.	445	0	0	0	0
Pakistan	Malaria Control II: Supports the Ministry of Health's nationwide malaria control program including insecticide spraying, case detection, training health workers, and operations research activities.	0	0	0	0	1200
	Northwest Frontier Province Area Development: Includes support for developing potable water supplies in the Gaddon-Amazai area.	0	0	0	0	94
Philippines	Enterprise in Community Development: Focuses on primary health care, including child survival programs implemented by local communities.	0	1050	150	0	0
	Child Survival Program: Supports improved access to child survival services such as oral rehydration, immunization, and maternal and child health care services.	2000	11000	0	0	0
	PVO Co-Financing III: Strengthens indigenous private voluntary organizations in health promotion and child survival activities.	0	610	0	0	0
	National Health Finance Development Project: Assists the Philippine Department of Health in the reform of its medicare program and in the development of the legal and regulatory basis for health maintenance organizations toward developing alternative delivery systems.	0	1345	0	0	0

Country	Project	CSF	HE	ARDN	DFA	ESF
Philippines	Urban and Industrial Environment Management: Information regarding child survival activities is not currently available.	0	500	0	0	0
Solomon Islands	FY91 Child Survival Grant to Foundation for the People of the South Pacific: Assists the government with the design, implementation and evaluation of a National Control of Diarrheal Disease Program targeting over 65,000 children under five in the Solomon Islands.	500	0	0	0	0
Sri Lanka	PVO Co-Financing II: Strengthens private voluntary organizations' ability to contribute to expanding health services through the many health institutions in Sri Lanka.	300	79	0	0	0
South Pacific Region	Papau New Guinea Child Survival Support: Assists the Foundation for the People of the South Pacific to train community health nurses in Vanuatu for health care services to include immunization, the control of diarrheal diseases, nutrition, and improved weaning practices.	434	800	0	0	0
Asia Subtotals		17210	27022	1478	0	7214

Latin America and Caribbean Region

Belize	Program Development and Support: Provides technical assistance for design and evaluation of health and child survival projects.	83	0	0	0	0
	Increased Productivity Through Better Health: Supports the Ministries of Health and Natural Resources in reducing the morbidity and mortality of women and children by controlling the incidence of malaria, dengue fever and gastrointestinal diseases.	0	191	0	0	0
	Child Survival Support: Supports the Ministry of Health, with assistance from Project HOPE, in providing child survival services including oral rehydration therapy, immunization, growth monitoring, improved infant and child feeding practices, and the control of acute respiratory infections.	124	0	0	0	0
Bolivia	Program Development and Support: Provides support for health care financing studies.	88	0	0	0	0
	Reproductive Health: Supports the Ministry of Health and local organizations extend voluntary family planning services to prevent high risk births.	584	0	0	0	0
	Self-Financing Primary Health Care II: Through PROSALUD, a local private organization, works to improve the health status of agricultural workers and their families in the La Paz, Cochabamba, and Santa Cruz regions through a network of private clinics operating within the existing agricultural cooperatives.	562	0	0	0	0
	Alternative Development: Includes support for development of potable water supplies in the Cochabamba region to improve family health.	0	0	86	0	58
	Water and Health II: Works with communities, through CARE, to expand potable water and sanitation systems in La Paz and Cochabamba using educational campaigns to promote the use of oral rehydration therapy, immunization, and improved nutrition.	2000	0	0	0	0
	Interactive Radio Learning: Develops radio health programs directed toward primary school children to communicate health education messages which have proven effective in improving and changing family health behavior.	0	90	0	0	0
	PVO Child Survival II: Provides technical assistance and training to a network of voluntary organizations engaged in activities which address ways to reduce infant and maternal mortality through child survival programs.	3165	0	0	0	0
	FY91 Child Survival and Vitamin A Grants to Project Concern International: Extends primary health care and child survival services, including vitamin A supplementation, in rural and peri-urban communities in the highlands of Bolivia targeting over 35,000 women and children using local health teams to mobilize community participation.	675	0	25	0	0
	Special Development Activities: Supports health and child survival development activities through local organizations.	0	18	0	0	0
Central Contraceptive Procurement: Supports child survival birth spacing activities.	120	0	0	0	0	
Chile	Immediate Improvement of Primary Health Care: Supports efforts to strengthen primary health care.	0	1040	0	0	0
Dominican Republic	Child Survival: Assists nationwide programs, through U.S. and local private voluntary organizations, to reduce infant and child morbidity and mortality with child survival interventions including oral rehydration therapy, nutrition education and prevention and control of acute respiratory infections.	565	180	0	0	0
	PVO Co-Financing: Supports private voluntary organizations to promote better health care, nutrition, water supplies and improved sanitation.	0	127	0	0	0
	FY91 Child Survival Grant to World Vision Relief and Development: Works with the Ministry of Health and other private voluntary organizations, private practitioners, and the community to provide health and child survival services in selected peri-urban communities in Barahona Province.	225	0	0	0	0
Ecuador	Child Survival and Health: Supports Ministry of Health efforts to reduce infant and child mortality focusing on key interventions to combat neonatal mortality-related problems, malnutrition, acute respiratory infections, diarrheal diseases, and vaccine preventable diseases.	2376	0	0	0	0
	Water and Sanitation for Health Education: Assists rural communities install cost effective safe water supplies and latrines to improve family health.	0	153	0	0	0

Country	Project	CSF	HE	ARDN	DFA	ESF
Ecuador	Cholera Control: Provides for procurement of packets of oral rehydration salts and technical assistance in support of a national cholera control program.	120	500	0	0	0
El Salvador	Health and Jobs for Displaced Families: Supports the Ministry of Health's program to provide health and nutrition services for displaced and relocated families.	0	0	2071	0	0
	Health Systems Support: Assists the Ministry of Health with its efforts to increase child survival and related activities in local health systems nationwide, including the recruitment and training of community health promoters.	0	1040	0	0	0
	Rehabilitation Services: Supports rehabilitation activities through a local private voluntary organization, Teleton Foundation (FUNTER), which provides technical assistance, training programs, and development of prosthetic devices including services to handicapped children.	0	750	0	0	0
	Family Health Services/Maternal and Child Health: Expands the activities of the nongovernmental family planning service system and provides family planning and maternal/child health services to rural communities through the Salvadoran Demographic Association.	0	705	0	0	0
	Community-Based Integrated Rural Development: In cooperation with the Ministry of Health, Save the Children Federation provides families in eastern and northern regions of the country with immunization, oral rehydration therapy, nutrition education, and potable water.	0	1380	0	0	0
Guatemala	Maternal Health and Child Survival Services: Promotes preventive health and child survival services through private voluntary organizations in rural areas where such services are weak or nonexistent.	3885	1000	0	0	500
	Expansion of Family Planning Services: In cooperation with indigenous private voluntary organizations and the private sector, assists the Ministry of Health to integrate child survival interventions into national family planning services.	370	0	0	0	0
	Highlands Water and Sanitation: Provides water supply service, excreta disposal facilities and health education to 500 participating rural communities in the western highlands benefitting approximately 220,000 persons, including women and children.	200	1371	0	0	0
	Water and Sanitation: Works through CARE at the community level in the western part of Guatemala to support health post staff, community leaders and voluntary community health workers to distribute oral rehydration salts packets and to conduct effective educational sessions in all targeted communities including latrine construction and use.	0	300	0	0	0
	Special Development Fund: Assists local organizations develop small water and sanitation programs to improve health and child survival.	0	9	0	0	0
	Orphans/Displaced Children: Supports efforts to coordinate assistance to orphans and displaced children through private and voluntary agencies, other international donors and local organizations.	0	300	0	0	0
	FY91 Child Survival Grant to La Leche League: Carries out a breastfeeding promotion project in the peri-urban area of Guatemala City.	100	0	0	0	0
	FY91 Child Survival Grant to Project Concern International: Extends the provision of health services to rural and urban municipalities along the border of Lake Atitlan addressing health problems such as acute respiratory infections, vaccine preventable diseases, malnutrition, diarrheal disease, high risk births; and vitamin A deficiency.	700	0	0	0	0
Haiti	FY91 Child Survival and Vitamin A Grants to Project HOPE: Works in the Department of Tonicaplan in the western Highlands, training village health workers and traditional birth attendants to deliver child survival services, including vitamin A supplementation and nutrition education.	525	0	25	0	0
	Special Development Activities: Assists local organizations develop small, self-help community health and potable water activities.	0	1	0	0	0
	Voluntary Agencies for Child Survival: Provides technical assistance to numerous local and U.S. private voluntary organizations to strengthen their child survival interventions including training health workers and physicians.	3000	1660	125	0	0
	Expanded Urban Health Services: Supports the Center for Development and Health, a local private voluntary organization, to provide a wide range of child survival and other health services, especially the expansion of vaccination coverage to mothers and children in low-income urban areas of Haiti.	1910	217	0	0	0
Honduras	FY91 Child Survival and Vitamin A Grants to World Vision Relief and Development: Provides assistance to improve the health services available, especially to women and children on the island of Gonave, including activities to reduce vitamin A deficiency through nutrition education and supplementation.	390	0	20	0	0
	Health Sector II: Supports the Ministry of Health to provide comprehensive health care services emphasizing child survival interventions and rural water and sanitation services.	4352	0	0	0	0
	FY91 Child Survival Grant to La Leche League: Promotes increasing the rate and duration of breastfeeding in the first six months of life through training health personnel and supporting local support groups in San Pedro Sula and the Departments of Cortes, Santa Barbara, and Copan.	100	0	0	0	0
Jamaica	FY91 Child Survival Grant to Project HOPE: Works with the Ministry of Health in peri-urban slums of Tegucigalpa to increase immunization coverage and other child survival activities using community health volunteers to promote an increased demand for preventive services.	500	0	0	0	0
	AIDS/STD Prevention and Control: Supports efforts to prevent and control the spread of acquired immunodeficiency syndrome and other sexually transmitted diseases.	0	55	0	0	0
	North Coast Development Support: Information regarding child survival activities is not currently available.	0	654	0	0	0

Country	Project	CSF	HE	ARDN	DFA	ESF
Nicaragua	PVO Co-Financing: Supports private voluntary organizations working in community health, child survival, orphan assistance, and emergency medicine.	2896	1385	0	0	0
	Expanded Program of Immunization: Provides support for the national immunization program targeting women and children.	1219	0	0	0	0
	FY91 Child Survival Grant to Project Concern International: Establishes a support system for delivering child survival interventions to mothers and children in the peri-urban barrio of Acabualinca in the city of Managua.	275	0	0	0	0
	FY91 Child Survival Grant to Adventist Development and Relief Agency: Works in three districts of north-central Nicaragua to provide mothers and children with basic health services including increased vaccination coverage, promoting dietary management of diarrhea at the household level, growth monitoring, and nutrition education.	800	0	0	0	0
	FY91 Child Survival and Vitamin A Grants to Project HOPE: Extends hospital-based activities in Boaco into the surrounding community focusing on a mix of child survival interventions, including immunizations, vitamin A supplementation, diarrheal disease control, control of pneumonia, and promotion of good nutritional practices.	500	0	50	0	0
Peru	Narcotics Education and Public Awareness: Targets mothers and women of reproductive age with educational messages through drug education and public awareness programs.	0	12	0	0	77
	Strengthening Private Sector Health Institutions: Strengthens the role of the private sector in improving child survival services through expanded training of private sector health professionals, operations research through private institutions, and support for social marketing activities through local organizations.	3025	0	0	0	0
Regional	Accelerated Immunization II: Continues support to Pan American Health Organization for assistance to countries in the region to control transmission of the polio virus and supports national immunization efforts for six WHO-designated vaccine-preventable diseases including neonatal tetanus.	2000	0	0	0	0
	Program Development and Support: Provides design and evaluation support for health projects in countries of the region.	13	34	0	0	0
	Intercountry Technology Transfer: Support improvements in delivering health and child survival interventions, including vitamin A research, in the advanced developing countries of the region.	592	0	0	0	0
	Health & Nutrition Technical Services Support: Supports health, child survival, vitamin A and other nutrition activities, HIV/AIDS prevention, and water and sanitation services in the region.	3756	2569	575	0	0
	Advanced Developing Country Training: Provides resources for training professionals in advanced developing countries for programs including health and child survival.	107	35	0	0	0
	Partners in Development and Volunteerism: Promotes linkages between U.S. and local private and voluntary organizations for development activities in the region, including health and child survival.	0	75	0	0	0
ROCAP	Program Development and Support: Provides design and evaluation support for child survival and health projects in the region.	0	75	0	0	0
	INCAP Instructional Strengthening: Assists regional and national institutions strengthen nutrition training programs for policy makers, including health officials.	0	1396	400	0	0
Latin America and Caribbean Subtotals		41902	17323	3377	0	635
Near East Region						
Egypt	Child Survival: Supports a nation-wide child health program, including services and research related to immunization, breastfeeding, growth monitoring, maternal health and nutrition, birth spacing, and acute respiratory infections.	0	0	0	0	8000
Jordan	Family Health Services: Enhances the ability of the government and nongovernmental organizations to improve the delivery of health services.	0	0	0	0	3500
Morocco	Population and Child Survival: Continues support for the Ministry of Health's programs for immunization, control of diarrheal diseases, birth spacing, and nutrition through information campaigns and mobilization of the private sector.	2000	0	0	0	0
Yemen	Accelerated Cooperation for Child Survival: With assistance from the REACH and HEALTHCOM projects, assists the Ministry of Health expand child survival activities in five governorates.	0	1000	0	0	0
Near East Subtotals		2000	1000	0	0	11500
Global	Matching Grants to PVOs: U.S. private voluntary organizations implement health and child survival programs in developing countries through matching grant funds.	48	0	0	0	0
	Ocean Freight Reimbursement for PVO Health Activities: U.S. private voluntary organizations are reimbursed for costs of shipping donated goods overseas for health and child survival projects.	0	92	0	0	0
	PVO Vitamin A Support Grant to Helen Keller International: Technical assistance is provided to private voluntary organizations in the design, monitoring and implementation of vitamin A programs.	0	0	1941	0	0
	Technical Support/Child Survival: Johns Hopkins University, and other organizations provide technical assistance to private voluntary organizations in management and evaluation of child survival programs.	906	0	0	0	0

Country	Project	CSF	HE	ARDN	DFA	ESF
Global	PVO Child Survival Operations Program: Johns Hopkins University provides technical support in selection and management of child survival projects implemented through U.S. private voluntary agencies.	525	0	0	0	0
	Child Survival Grant to Rotary Foundation: Worldwide immunization programs are supported with incremental funding through a grant to Rotary Foundation International.	791	0	0	0	0
	Food Aid Institutional Development Support: Growth monitoring and maternal health activities associated with the U.S.'s food aid program are promoted worldwide.	0	0	1027	0	0
	FAD: Growth monitoring and maternal nutrition through food aid programs worldwide continue to be supported through this project.	0	0	186	0	0
	Village Health Services: Selected studies and analyses addressing child survival issues are conducted as problems are identified.	0	116	0	0	0
	Integrated Studies and Systems: Comprehensive evaluations of health and child survival programs are undertaken to monitor progress toward goals and objectives.	0	355	785	0	0
	Information as a Tool in Development: Technical and statistical information on child survival from USAID and other donors is acquired, processed, and transferred to host country institutions and USAID missions to improve the planning and implementation of child survival programs.	265	414	0	0	0
	Tropical Disease Research: The World Health Organization Social Program for Research and Training in Tropical Diseases researches more effective methods for the diagnosis, treatment, prevention, and control of six major tropical diseases, all of which affect children.	0	500	0	0	0
	Demographic and Health Surveys (DHS): The Institute for Resource Development assists countries in developing national capacities to collect and analyze demographic and health data through surveys which provide information on the status of child survival interventions and infant and child mortality.	0	712	0	0	0
	Health Resources Support: The U.S. Department of Health and Human Services, through an agreement with USAID, provides technical support in implementation and evaluation of health and child survival programs.	385	826	0	0	0
	ORT Health Education and Long-term Planning (ORT HELP): Multiple agencies support information exchange among developing country leaders and health providers on aspects of diarrheal disease control.	1142	40	0	0	0
	Vaccine Development and Health Research: The U.S. Department of Health and Human Services implements programs to test and improve vaccines to combat childhood diseases such as measles and rotavirus.	1225	60	0	0	0
	Vector Biology and Control: Medical Service Corporation International and associated organizations provide technical assistance and applied field research in the areas of vector biology, epidemiology, and operations for vector-borne disease control programs in developing countries.	0	1427	0	0	0
	Asia/Pacific Public Health Management Program: The University of Hawaii School of Public Health implements a program of grants to schools of public health in the region to improve the delivery of health services through applied research, technical assistance, and training of faculty.	0	83	0	0	0
	Child Survival Action Program-Support (CSAP-Support): Johns Hopkins University and other implementing agencies promote child survival programs through advisors and fellows, operations support, applied and evaluation research, and information management and dissemination.	2220	1138	0	109	0
	Applied Diarrheal Disease Research (ADDR): Harvard University supports country-specific applied research on priority diarrheal disease problems.	1000	140	0	0	0
	Breastfeeding, Maternal and Neonatal Health and Nutrition: John Snow, Inc. and other agencies provide worldwide field and applied research support to improve maternal and neonatal care and pregnancy outcomes.	3950	0	0	90	0
	Malaria Vaccine Field Studies: This project provides a venue, in agreement with host countries, to conduct field studies for developing malaria vaccines capable of having a positive impact on malaria morbidity and mortality, especially in children.	0	50	0	0	0
	Technologies for Child Health (HEALTHTECH): Program for Appropriate Technology in Health addresses critical needs in product development for child survival technologies, including more effective immunization technologies.	2150	0	0	0	0
	Technologies for Primary Health Care II (PRITECH): Management Sciences for Health and other cooperating agencies, serve as a central resource for technical assistance in implementing diarrheal disease control programs worldwide.	2500	150	0	415	0
Technical Advisors in AIDS and Child Survival (TAACS): Technical advisors recruited from federal and state agencies and schools of public health, in cooperation with the U.S. Department of Health and Human Services, assist in implementing child survival programs.	140	448	0	0	0	
Water and Sanitation for Health III (WASH): Camp Dresser and McKee International Inc. and a consortium of other specialized organizations provide technical assistance on a broad range of services to help plan, implement, and evaluate environmental, rural and urban water and sanitation programs.	0	1305	0	162	0	
Health Financing and Sustainability (HFS): Abt Associates, Inc. and other implementing agencies provide technical assistance, conduct applied research and disseminate information on health care financing and sustainability issues.	2942	0	0	0	0	
Malaria Vaccine Research & Development: Multiple organizations support the development of vaccines against human malaria to impact malaria morbidity and mortality, especially in children.	0	2186	0	0	0	

Country	Project	CSF	HE	ARDN	DFA	ESF
Global	Resources for Child Health II (REACH): John Snow, Inc. provides expertise for immunization, including participation in the special measles initiative, and acute respiratory infection programs through operations research, cost analysis, and disease surveillance.	2735	1000	0	0	0
	NURSECARE: The MEDEX program of the University of Hawaii School of Medicine trains nurses in the delivery of child survival and maternal health services through primary health care programs in Africa and Latin America.	750	0	0	0	0
	Communication and Marketing for Child Survival II (HEALTHCOM): The Academy for Educational Development provides worldwide field support for communication and social marketing efforts in the health sector to increase the use of child survival interventions such as oral rehydration therapy and immunization, including the special measles initiative.	2977	1080	0	0	0
	Supply, Promotion and Production of ORT (Project SUPPORT): Program for Appropriate Technology in Health provides technical assistance for promoting local manufacturing, quality control, and distribution of oral rehydration salts through the private sector.	220	0	0	0	0
	Diarrheal Disease and Research and Coordination: The World Health Organization and International Center for Diarrhoeal Disease Research, Bangladesh support research, training, and information dissemination on control and treatment of diarrheal diseases.	2550	0	0	0	0
	Data for Decision Making in the Health Sector (DDM): Harvard Institute for International Development and associated institutions provide technical assistance to developing countries to make better use of data collected by the health and other sectors for decision and policy making purposes resulting in better allocation of health resources.	1000	0	0	0	0
	Applied Research and Child Survival Services (ARCSS): The Center for Human Services, with other cooperating agencies, undertakes applied research to improve the cost-effectiveness and quality of health care, particularly child survival services, including the special measles initiative.	0	1320	0	0	0
	Functional Implications of Marginal Malnutrition: A Collaborative Research Support Program (CRSP) provides information on the effect of marginal food intake on human performance in developing countries.	0	411	0	0	0
	Food and Nutrition Monitoring and Support: International Science and Technology Institute, International Food Policy Research Institute, and the University of Arizona promote the integration of human food consumption and nutrition considerations in development policies, programs, and projects.	326	250	741	0	0
	Nutrition Education and Social Marketing Field Support: The Academy for Educational Development supports host country efforts to design, implement and evaluate nutrition education programs.	0	300	100	0	0
	Combatting Iron Deficiency: The Nutrition Foundation and Kansas University support efforts to reduce the incidence of iron-deficiency anemia in mothers and children.	50	0	0	0	0
	Vitamin A for Health: Private voluntary organizations, research foundations, and other implementing agencies conduct research activities, provide service delivery and technical assistance on the prevention of vitamin A deficiency.	0	0	3624	0	0
	Women and Infant Nutrition: A Family Focus (WIN): WELLSTART and other cooperating agencies provide an integrated package of appropriate feeding services and technical assistance to improve the nutritional status of women, infants, and children.	1679	431	515	0	0
	Food Technology and Enterprise for Development: This project will create or adapt existing food processing and marketing technologies to increase the quantity, nutritional quality, safety, and affordability of foods consumed by malnourished women and children in selected developing countries.	0	0	72	0	0
	Training Evaluation and Support Services: This project provides vital links among missions, participants, training providers, and the American host community.	0	315	0	0	0
	Small Projects Assistance: Peace Corps volunteers carry out oral rehydration therapy and immunization activities through small assistance grants.	0	400	0	0	0
	HBCU Research Grants: Historically Black Colleges and Universities support biomedical and operational research activities related to child survival initiatives, including immunization and diarrheal disease control.	0	782	0	0	0
A.I.D. Israel Cooperative Development Research: Israeli research, technical assistance and training address a range of development activities, including immunization for health and child survival.	0	1000	0	0	0	
Eastern Europe Region: The Bureau reports child survival activity as part of emerging and humanitarian assistance.	0	3424	0	0	125	
Global Subtotals		32476	20755	8991	776	125
Grand Totals		96638¹	66100²	14773	54141³	19474

N.b. Amounts listed are estimates that are attributed to child survival, but may be a small proportion of project totals.

1. In addition, \$1,283,000 of Child Survival Fund allocations were reserved for earmarked non-child survival activities in Cambodia and Lebanon.

2. Includes the following accounts: Education: \$1,195,000 for Indonesia, El Salvador and one Global project. Selected Development: \$3,242,000 for Indonesia, Philippines, Bolivia, Guatemala, Haiti, Jamaica, LAC Regional, Peru and two Global projects. Special Assistance Initiative: \$3,759,000 for the Philippines and Eastern Europe Region.

3. Includes the following accounts: Selected Development: \$1,175,000 for Ethiopia, Madagascar and Mozambique. Sahel: \$250,000 for Senegal.

Appendix II

Participation in USAID's Health and Child Survival Programs

U.S. Private Voluntary Organizations

- ◆ Adventist Development and Relief Agency
- ◆ African Medical and Research Foundation
- ◆ Africare
- ◆ Aga Khan Foundation/USA
- ◆ Andean Rural Health Care
- ◆ Association for Voluntary Surgical Contraception
- ◆ CARE
- ◆ Catholic Relief Services
- ◆ Centre for Development and Population Activities
- ◆ CHILDHOPE
- ◆ Christian Service Society
- ◆ Church World Service
- ◆ Coordination in Development Inc.
- ◆ Esperanca Inc.
- ◆ Experiment in International Living
- ◆ Eye Care International
- ◆ Food for the Hungry International
- ◆ Foundation for the Peoples of the South Pacific
- ◆ Freedom from Hunger Foundation
- ◆ Health Volunteers Overseas
- ◆ Helen Keller International
- ◆ International Child Care Inc.
- ◆ International Eye Foundation
- ◆ International Medical Corps
- ◆ La Leche League International
- ◆ Medical Assistance Program International
- ◆ Minnesota International Health Volunteers
- ◆ National Council for International Health
- ◆ Pan American Development Foundation
- ◆ Parents Resources Institute for Drug Education
- ◆ Pathfinder Fund
- ◆ PLAN International
- ◆ Population Services International
- ◆ Program for Appropriate Technology in Health
- ◆ Project Concern International

- ◆ Project HOPE
- ◆ Rotary International
- ◆ Salvation Army World Service Organization
- ◆ Save the Children Federation
- ◆ World Relief Corporation
- ◆ World Vision Relief and Development

U.S. Universities

- ◆ Atlanta University
- ◆ Boston University
- ◆ Case Western Reserve University
- ◆ Charles R. Drew University
- ◆ Clark Atlanta University
- ◆ Cleveland State University
- ◆ Columbia University
- ◆ Emory University
- ◆ Florida A&M University
- ◆ Florida State University
- ◆ Georgetown University
- ◆ Hannemann University
- ◆ Harvard University
- ◆ Howard University
- ◆ Jackson State University
- ◆ Johns Hopkins University
- ◆ Kansas University
- ◆ Lincoln University
- ◆ Meharry Medical College
- ◆ Michigan State University
- ◆ Morehouse College
- ◆ Morgan State University
- ◆ New York University
- ◆ Purdue University
- ◆ Rutgers University
- ◆ State University of New York
- ◆ Tennessee State University
- ◆ Texas Southern University
- ◆ Tufts University
- ◆ Tulane University
- ◆ Tuskegee University
- ◆ Uniformed Services University for Health Sciences
- ◆ University of Arizona
- ◆ University of California
- ◆ University of Hawaii
- ◆ University of Illinois
- ◆ University of Maryland
- ◆ University of North Carolina
- ◆ University of Pennsylvania
- ◆ University of South Alabama
- ◆ University of Southern California
- ◆ University of Virginia
- ◆ Virginia Polytechnical Institute
- ◆ Xavier University of Louisiana

Appendix III

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Appendix IV

Data Notes and Sources

The group of USAID-assisted countries includes all countries receiving USAID assistance for health activities at some time during the child survival initiative.

Project-specific information is drawn from the 1991 Health and Child Survival Project Questionnaires and other reporting documents such as annual reports and evaluation reports submitted by USAID-funded projects.

Mortality and population data do not reflect the impact of the HIV/AIDS epidemic except where noted.

Global and regional aggregates for infant and under five mortality, immunization coverage, use of oral rehydration therapy (ORT), and access to oral rehydration salts (ORS) for emphasis countries, USAID-assisted countries, and developing countries are calculated from individual country values extracted from the USAID Health Information System, CIHI/ISTI. The system retrieves data from a number of primary sources including the Estimates and Projections Section of the Population Division of the Department of International Economic and Social Affairs, the United Nations; the World Health Organization (WHO); the Center for International Research of the U.S. Department of Commerce Bureau of the Census; Demographic and Health Surveys of the Institute for Resource Development/Macro Systems, Inc.; the USAID Missions; and other cooperating agencies of USAID.

The numbers appearing in some of the bar graphs and pie charts are rounded to the nearest whole number while the graphs are drawn to include fractional parts of numbers. Thus, two "bars" or "slices" may appear to be of different sizes while the numbers attributed to those "bars" or "slices" may be the same.

Graphs and Figures

Global Fact Sheet

"Under 5 Deaths Averted by EPI" - WHO/EPI/CEIS/91.1

"Killers of Children Under 5" - Estimates provided by WHO/CDD, 1991.

"Child Survival Funding FY91" - USAID Health Information System, CIHI/ISTI, March, 1992. Note: Funds from the Population Account and Public Law 480 are not included. The category Other Child Survival (OCS) is derived from the sum of the child survival portion of the following health activities: water and sanitation for health, malaria, other disease control, acute respiratory infections, and health systems development, including health care financing.

Essay and Regional Summaries

"Impact of Vaccination" - Michael A. Koenig. "Mortality Reductions from Measles and Tetanus Immunization: A Review of the Evidence." A paper prepared for the Johns Hopkins Institute for International Programs/World Bank Seminar on Child Health Priorities in the 1990s, Baltimore, MD, 1991.

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"1991: Adjusted Impact of AIDS on Under 5 Mortality" - Note: Data provided by the Center for International Research of the U.S. Department of Commerce Bureau of the Census. The under 5 mortality rates adjusted for the impact of HIV/AIDS are derived from a simple model currently under development by the U.S. Department of Commerce Bureau of the Census; AIDS Division, Bureau for Research and Development, USAID; and CIHI/ISTI. The model incorporates assumptions regarding the transmission rates from mothers to their children and the subsequent mortality rates of those children born with the disease. The assumptions are based on the best available data from studies reported in the literature. Where data are available, prevalence rates are based on surveys of pregnant women in urban areas and in rural areas. Where surveys are available in urban areas only, rates in rural areas are assumed to be a fraction of those in urban areas. The impact of AIDS on child survival is most striking in those countries where the majority of births occur among women living in high prevalence urban areas (Zambia) or where the prevalence is high in both rural and urban areas (Uganda).

Fact Sheets

Vaccination Coverage Graphs are based on three year averages. Where data were not available for all three years, the average or single figure was used for the three year period.

Definitions

Demographic Indicators

Total Population: The mid-year estimate of the total number of individuals in a country.

Life Expectancy at Birth: An estimate of

the average number of years a newborn can expect to live. Life expectancy is computed from age-specific death rates for a given year. It should be noted that low life expectancies in developing countries are, in large part, due to high infant mortality.

Children Under Age 1: The mid-year estimate of the total number of children under age one.

Annual Infant Deaths: An estimate of the number of deaths occurring to children under age one in a given year.

Infant Mortality Rate (IMR): The estimated number of deaths in infants (children under age one) in a given year per thousand live births in that same year. An IMR may be calculated by direct methods (counting births and deaths) or by indirect methods (applying well-established demographic models).

Under 5 Mortality Rate: The estimated number of children born in a given year who will die before reaching age five per thousand live births in that same year. The under 5 mortality rate may also be calculated by direct or indirect methods.

Maternal Mortality Ratio: The estimated number of maternal deaths per 100,000 live births where a maternal death is one which occurs when a woman is pregnant or within 42 days of termination of pregnancy from any cause related to or aggravated by the pregnancy or its management. Although sometimes referred to as a rate, this measure is actually a ratio because the unit of measurement of the numerator (maternal deaths) is different than that of the denominator (live births). The measure would be a rate if the units were the same. Extremely difficult to measure, maternal mortality can be derived from vital registration systems (usually underestimated), community studies and surveys (requires very large sample sizes) or hospital registration (usually overestimated).

Total Fertility Rate: An estimate of the average number of children a woman would bear during her lifetime given current age-specific fertility rates.

Child Survival Indicators

ORS Access Rate: An estimate of the proportion of the population under age five with reasonable access to a trained provider of ORS who receives adequate supplies. This is a particularly difficult indicator to measure; therefore, it may fluctuate dramatically from year to year as improved methods of estimation are devised.

ORT Use Rate: An estimate of the proportion of all cases of diarrhea in children under age five treated with ORS and/or a recommended home fluid. ORT use may be determined using administrative means or surveys. In general, administrative estimates are based on estimates of the number of episodes of diarrhea in the target population for a given year and the quantity of ORS available. Thus, the changes in the estimates of the frequency of diarrhea episodes can alter the ORT use rate as well as "real" changes in the pattern of use. Surveys are more precise in that they focus on actual behavior of mothers in treating diarrhea during the two week period prior to the survey.

Adequate Nutritional Status: An individu-

al child of a certain age is said to be adequately nourished if his/her weight is greater than the weight corresponding to "two Z-scores" (two standard deviations) below the median weight achieved by children of that age. The median weight and the distribution of weights around that median in a healthy population are taken from a standard established by the National Center for Health Statistics, endorsed by WHO. The indicator for the population as a whole is the proportion of children 12 through 23 months of age who are adequately nourished.

Appropriate Infant Feeding: A composite estimate of the proportion of infants (children under age one) being breastfed and receiving other foods at an appropriate age according to the following criteria: breastfed through infancy with no bottle-feeding, exclusively breastfed through four months (120 days) of age, and receiving other foods if over six months of age (181 days). Water is not acceptable in the first four months (120 days). ORS is considered acceptable at any age. Surveys are the only source of data to form this indicator. Surveys yield an estimate of how many infants are being fed correctly at the moment of the survey. They do not give an indication of the proportion of individual children fed appropriately throughout their first year of life.

The breastfeeding indicators listed below have been recalculated in 1992 from the original data sources according to the definitions developed by the WHO Working Group on Infant Feeding.

Exclusive Breastfeeding: An estimate of the proportion of infants less than four months (120 days) of age who receive no foods or liquids other than breast milk.

Complementary Feeding: An estimate of the proportion of infants six to nine months of age (181 to 299 days) still breastfeeding but also receiving complementary weaning foods.

Continued Breastfeeding: An estimate of the proportion of children breastfed for at least one year. In this report, all values presented for this indicator are the proportion of children 12 to 15 months of age at the time of the survey still receiving breast milk.

Contraceptive Prevalence Rate: An estimate of the proportion of women, aged 15 through 44, in union or married, currently using a modern method of contraception, unless otherwise noted.

Vaccination Coverage in Children: An estimate of the proportion of living children between the ages of 12 and 23 months who were vaccinated before their first birthday - three times in the cases of polio and DPT (diphtheria, pertussis and tetanus) and once for both measles and BCG (tuberculosis). Vaccination coverage rates are calculated in two ways. Administrative estimates are based on reports of the number of vaccines administered divided by an estimate of the pool of children eligible for vaccination. Survey estimates are based on sample surveys of children in the target age group and may or may not include children without vaccination cards whose mothers recall that their children had been vaccinated.

Vaccination Coverage in Mothers: An estimate of the proportion of women in a given time period who have received two doses of tetanus toxoid during their pregnancies. Currently under worldwide review, this indicator is being changed to account for the cumulative effect of tetanus toxoid boosters. A woman and her baby are protected against tetanus when a mother has had only one or, perhaps, no boosters during a given pregnancy so long as the woman had received the appropriate number of boosters in the years preceding the pregnancy in question (The appropriate number of boosters required during any given pregnancy varies with the number received previously and the time elapsed). The revised indicator is referred to as TT2. Rates are computed using administrative methods or surveys.

DPT Drop-Out: An estimate of the proportion of living children between the ages of 12 and 23 months who received at least one DPT vaccination but who did not receive the entire series of three vaccinations before their first birthdays.

Other Health Indicators

Urban Water Supply Coverage: An estimate of the proportion of all persons living in urban areas (defined roughly as population centers of 2,000 or more persons) who live within 200 meters of a stand pipe or fountain source of water.

Rural Water Supply Coverage: An estimate of the proportion of all persons not living in urban areas with a source of water close enough to home that family members do not spend a disproportionate amount of time fetching water.

Urban Adequate Sanitation Supply Coverage: An estimate of the proportion of all persons living in urban areas with sanitation service provided through sewer systems, or individual in-house or in-compound excreta disposal facilities (latrines).

Rural Adequate Sanitation Coverage: An estimate of the proportion of all persons not living in urban areas with sanitation coverage provided through individual in-house or in-compound excreta disposal facilities (latrines).

HIV-1 Seroprevalence - Urban: An estimate of the proportion of all persons (pregnant women, blood donors, and other persons with no known risk factors) living in urban areas infected with HIV-1, the most virulent and globally prevalent strain of the human immunodeficiency virus.

HIV-1 Seroprevalence - Rural: An estimate of the proportion of all persons living in rural areas infected with HIV-1.

Deliveries by Trained Attendants: An estimate of the proportion of deliveries attended by at least one physician, nurse, midwife, or trained traditional birth attendant.

Sources and Comments

Each year, data on the child survival indicators are collected from USAID missions on the Mission Response Form (referred to as MRF with the given year) disseminated along with the above mentioned questionnaires.

Another major source of information is the Demographic and Health Surveys (re-

ferred to as DHS with the year of the survey), Institute for Resource Development/Macro Systems, Inc.

Demographic Indicators: The primary, and unless otherwise noted, source for the demographic indicators is *World Population Prospects: 1990* U.N. Tape #PRO206, (referred to as WPP) prepared by the Estimates and Projections Section of the Population Division of the Department of International Economic and Social Affairs, United Nations. The source for Under 5 Mortality data, unless otherwise noted, is *Mortality of Children Under Age 5: World Estimates and Projections, 1950-2025*, ST/ESA/SER.A/105, 1988 published by the same section (also referred to as WPP).

Vaccination Coverage: The primary, and unless otherwise noted, sources for vaccination coverage data are the annual reports of the Expanded Programme on Immunization of WHO (referred to as WHO).

ORT: The primary, and unless otherwise noted, sources of data on ORT, both access and use, are the annual reports of the Diarrheal Disease Control Programme of WHO (referred to as WHO). An advanced copy of the indicators to be published in the next report was provided by that program. These data are provisional and subject to change.

Maternal Mortality and Deliveries by Trained Attendants: The primary, and unless otherwise noted, source of data on maternal mortality and on the percentage of deliveries performed by a trained attendant is the WHO Publication, *Maternal Mortality. A Global Factbook* (referred to as WHO/MCH/MSM/91.3).

HIV/AIDS: All HIV seroprevalence data is drawn from the HIV/AIDS Surveillance Database, compiled by the Center for International Research, U.S. Department of Commerce Bureau of the Census. The reported prevalences are the results of the latest surveys in populations without special risk factors.

Water and Sanitation: Water and Sanitation data come primarily from two sources, a data diskette provided by WHO (referred to as WHO Diskette, 10/29/91) and field reports of the USAID supported Water and Sanitation for Health project (referred to as WASH).

Kenya

Demographic Indicators: Population and Infant Mortality - the 1989 Census, as yet unpublished, reported in MRF-90. Children Under Age 1 and Annual Infant Deaths - derived from WPP and 1989 Census data. Maternal Mortality - community study in a rural district cited in WHO/MCH/MSM/91.3. Total Fertility - DHS, 1989. **Child Survival Indicators:** ORT Use, Nutrition, Contraceptive Prevalence, and DPT-Drop-out - DHS, 1989. TT2 - 1989 National Immunization Survey cited in MRF-90. **Other Health Indicators:** Water and Sanitation - WASH. Deliveries/TA - DHS, 1989.

Malawi

Demographic Indicators: Maternal Mortality - survey using the sisterhood method in a densely populated district cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** Adequate Nutritional Status -

The National Sample Survey of Agriculture, 1980/81, National Statistics Office, Zomba, Vol. III, 1984 recorded in the WHO Anthropometry Database. Contraceptive Prevalence (15-49) - unpublished 1984 Family Formation Survey cited in USAID/Malawi cable 00015 dated 1/89. **Other Health Indicators:** Water and Sanitation - WASH.

Mali

Demographic Indicators: Population - *Direction Nationale de la Statistique et de l'Informatique*, based on 1987 census, cited in MRF-91. Children Under Age 1 and Annual Infant Deaths - derived from WPP and DHS, 1987. Infant Mortality - DHS, 1987 (Note: Taking the DHS data into account, the U.S. Bureau of the Census has recalculated the IMR for Mali using indirect methods as 116/1,000 for 1990). Under 5 Mortality and Total Fertility Rate - DHS, 1987. Maternal Mortality - civil registration cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** Nutrition - DHS, 1987. Contraceptive Prevalence - Family Planning Logistics Management Project cited in MRF-91. Vaccination Coverage for Children - National Survey, March 1991 cited in MRF-91. TT2 and DPT Drop-Out - *Rapport D'Evaluation De La Couverture Vaccinale Au Mali*, MSP-AS, UNICEF, PNUD/OMS, Bamako, February, 1990 cited in MRF-90. **Other Health Indicators:** Water and Sanitation - WASH. Deliveries/TA - DHS, 1987.

Niger

Demographic Indicators: Population and Infant Mortality - extrapolations from the 1988 Census cited in MRF-91. Life Expectancy and Under 5 Mortality - BUCEN/CIR. Children Under Age 1 and Annual Infant Deaths - derived from WPP and 1988 Census data. Maternal Mortality - paper presented at 1989 conference cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** Adequate Nutritional Status - *Le Systeme de Santé et la Politique de Développement Sanitaire au Niger*, May 1989 cited in MRF-90. Contraceptive Prevalence (method and age group unspecified) - mid-term evaluation of the USAID-funded Family Health and Demographic Project cited in MRF-91. **Other Health Indicators:** Water and Sanitation - WASH.

Nigeria

Demographic Indicators: Maternal Mortality - WHO Regional Bureau cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** ORT Use, Contraceptive Prevalence (15-49), and Vaccination Coverage for Children - DHS, 1990. **Other Health Indicators:** Water and Sanitation - WASH. Deliveries/TA - DHS, 1990.

Senegal

Demographic Indicators: Maternal Mortality - study of 24 villages cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** Nutrition and Contraceptive Prevalence - DHS, 1986. **Other Health Indicators:** Water and Sanitation - WASH. Deliveries/TA - DHS, 1986.

Sudan

Demographic Indicators: Maternal Mortality - citation from article in *Arab Medical Journal* cited in WHO/MCH/MSM/91.3.

Total Fertility - DHS, 1989/90. **Child Survival Indicators:** ORT Use, Nutrition, Contraceptive Prevalence, and Vaccination Coverage for Children - DHS, 1989/90. **Other Health Indicators:** Water and Sanitation - WASH. Deliveries/TA - DHS, 1989/90.

Zaire

Demographic Indicators: Maternal Mortality - institutional rate cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** standard sources. **Other Health Indicators:** Water and Sanitation - WASH.

Bangladesh

Demographic Indicators: Maternal Mortality - study of 149 villages in one region cited in WHO/MCH/MSM/91.3. Total Fertility - Bangladesh Fertility Survey, 1989 cited in MRF-90. **Child Survival Indicators:** Adequate Nutritional Status - National Survey, 1989 conducted by the Bangladesh Bureau of Statistics and UNICEF. Contraceptive Prevalence (women under 50) - Contraceptive Prevalence Survey, 1989 reported by USAID/Bangladesh. Vaccination Coverage - National EPI Coverage Survey, February 1991 (DPT Drop-Out - WHO). **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - WHO/EB83/2 Add. 1, 1988 cited in WHO/MCH/MSM/91.3.

India

Demographic Indicators: Maternal Mortality - *WHO Regional Health Information Bulletin* cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** Contraceptive Prevalence (age unspecified) - Family Planning Practices in India: Third All India Survey cited in MRF-90. **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - *World Health Statistics Annual - Vital Statistics and Causes of Death* cited in WHO/MCH/MSM/91.3.

Indonesia

Demographic Indicators: Total Population - Census done by the Central Bureau of Statistics (BPS), 10/90 cited in MRF-90. Children Under Age 1 and Annual Infant Deaths - derived from WPP and Census data. Maternal Mortality - Indonesian Midwives Association cited in WHO/MCH/MSM/91.3. Total Fertility - DHS, 1991. **Child Survival Indicators:** ORT Use, Nutrition, Contraceptive Prevalence (15-49), and Vaccination Coverage - DHS, 1991. **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - DHS, 1991.

Nepal

Demographic Indicators: Maternal Mortality - WHO 1986 *Regional Information Bulletin* cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** Contraceptive Prevalence (methods and age unspecified) - surveys done by the Ministry of Health and New Era reported by USAID/Nepal. **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - WHO/EB83/2 Add. 1, 1988 cited in WHO/MCH/MSM/91.3.

Pakistan

Demographic Indicators: Maternal Mortality - National Demographic Survey using the sisterhood method cited in WHO/

MCH/MSM/91.3. Total Fertility - DHS, 1990/91. **Child Survival Indicators:** ORT Use, Contraceptive Prevalence (15-49), and Vaccination Coverage - DHS, 1990/91 (Note: The results of a national EPI review in Pakistan in 1991 were substantially different from the DHS results: BCG - 98%; DPT3 - 96%; Measles - 97%; Polio3 - 96%; and TT2 - 87% with 86% of all children fully vaccinated.). Nutrition - National Nutrition Survey, 1985-1987 carried out by the Government of Pakistan cited in MRF-89. **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - DHS, 1990/91.

Egypt

Demographic Indicators: Total Population, Infant Mortality, Under 5 Mortality - Central Agency for Population Mobilization and Statistics (CAPMAS), 1989 cited MRF-90. Children Under Age 1 and Annual Infant Deaths - derived from WPP and CAPMAS. Maternal Mortality - study in three governorates in upper Egypt reported in unpublished document WHO/FHE/PMM/85.9.18 cited in WHO/MCH/MSM/91.3. Total Fertility - DHS, 1988. **Child Survival Indicators:** Nutrition and Contraceptive Prevalence - DHS, 1988. Vaccination Coverage - clinic-based monthly reporting to the Ministry of Health for 7/90 to 6/91 cited in MRF-91. DPT Drop-Out - 1990 coverage survey cited in *Annual Report, 1991*, UNICEF. **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - DHS, 1988

Morocco

Demographic Indicators: Children Under 1 and Annual Infant Deaths - derived from WPP and DHS, 1987. Infant Mortality, Under 5 Mortality, and Total Fertility - DHS, 1987. Maternal Mortality - paper presented at 1978 conference cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** ORT Use - MOPH/WHO cited in MRF-91. Nutrition, Contraceptive Prevalence, and DPT Drop-Out - DHS, 1987. Vaccination Coverage for Children - 1991 MOPH Coverage Survey cited in MRF-91. **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - DHS, 1987.

Yemen

Demographic Indicators: Total Population, Life Expectancy at Birth, Children Under Age 1, Annual Infant Deaths, Infant Mortality, and Total Fertility - The Central Planning Organization (YARG) cited in the MRF-89 and USAID/Yemen facsimile 967-2-251578 (Note: These figures are based on a reanalysis of recent census data). Maternal Mortality - small community study cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** Contraceptive Prevalence (methods and age unspecified) - YARG and the Population Strategy Team cited in USAID/ Yemen facsimile 967-2-251578. **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - *World Health Statistics Annual - Vital Statistics and Causes of Death* cited in WHO/MCH/MSM/91.3.

Bolivia

Demographic Indicators: Infant Mortality - standard source (Note: The DHS, 1989

reports an IMR of 96). Maternal Mortality - estimate put forth by the Government of Bolivia (Note: A figure of 600 appears in the *Regional Plan of Action for the Reduction of Maternal Mortality in the Americas*, Document No. CSP23/10, XXIII Pan American Sanitary Conference cited in WHO/MCH/MSM/91.3). **Child Survival Indicators:** ORT Use, Nutrition, Contraceptive Prevalence (15-49), and DPT Drop-Out - DHS, 1989. **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - DHS, 1989.

Dominican Republic

Demographic Indicators: Maternal Mortality - a Pan American Health Organization (PAHO) report cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** Nutrition and Contraceptive Prevalence - DHS, 1986. DPT Drop-Out - PAHO facsimile, 12/19/91. **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - DHS, 1986.

Ecuador

Demographic Indicators: Children Under 1 and Annual Infant Deaths - derived from WPP and Rutstein, et. al. Infant Mortality - Rutstein, S., A. Fermo, and A. Crespo, *Child Survival in Ecuador, A Report to the USAID Mission in Ecuador*, November, 1987. Maternal Mortality - *Regional Plan of Action for the Reduction of Maternal Mortality in the Americas*, Document No. CSP23/10, XXIII Pan American Sanitary Conference cited in WHO/MCH/MSM/91.3. Total Fertility - preliminary results from *Encuesta Nacional Demográfica y de Mortalidad Materno y Infantil, 1989* reported by USAID/Ecuador. **Child Survival Indicators:** Nutrition - DHS, 1987. Adequate Nutritional Status - National Nutrition Survey, 1987. Ministry of Health. Contraceptive Prevalence (15-49) - preliminary results from *Encuesta Nacional Demográfica y de Mortalidad Materno y Infantil, 1989* as reported by USAID/Ecuador. TT2 - EPI National Program Monitoring System reported in a 1990 Health and Child Survival Project Questionnaire. DPT Drop-Out - PAHO facsimile, 12/19/91. **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - DHS, 1987.

El Salvador

Demographic Indicators: Maternal Mortality - estimate put forth by the Government of El Salvador (Note: A figure of 300 appears in the *Regional Plan of Action for the Reduction of Maternal Mortality in the Americas*, Document No. CSP23/10, XXIII Pan American Sanitary Conference cited in WHO/MCH/MSM/91.3). **Child Survival Indicators:** ORT Use and Contraceptive Prevalence - Family Health Survey, 1988. Nutrition - *Evaluación de la Situación Alimentaria Nutricional en El Salvador*. DPT Drop-Out - PAHO facsimile, 12/19/91. **Other Health Indicators:** Water and Sanitation - WASH. Deliveries/TA - Family Health Survey, 1988.

Guatemala

Demographic Indicators: Children Under Age 1 and Annual Infant Deaths - derived from WPP and DHS. Infant Mortality and Under 5 Mortality - DHS, 1987. Maternal Mortality - National Study of Maternal

Mortality, 1989-1991 conducted by Gerardo Medina Giron. **Child Survival Indicators:** ORT Use - National Health Information System cited in 1991 USAID Health and Child Survival Project Questionnaire for Project 520-0288. Nutrition, Contraceptive Prevalence, and DPT Drop-Out - DHS, 1987. **Other Health Indicators:** Water and Sanitation - WASH. Deliveries/TA - DHS, 1987.

Haiti

Demographic Indicators: Children Under 1 and Annual Infant Deaths - derived from WPP, 1990 and WPP, 1988. Infant Mortality Rate - WPP, 1988 (Note: In a personal communication, the United Nations acknowledged that they had reversed a decision made in preparing WPP, 1990 and now preferred a trend forecast more similar to that of 1988). Maternal Mortality - *Regional Plan of Action for the Reduction of Maternal Mortality in the Americas*, Document No. CSP23/10, XXIII Pan American Sanitary Conference cited in WHO/MCH/MSM/91.3. Total Fertility - Cayemittes, Michel and Anouch Chahnazarian, *Survie et Santé De L'Enfant En Haiti, Institut Haitien de L'Enfance*, 1989. **Child Survival Indicators:** Contraceptive Prevalence - *Enquête Nationale Haitienne sur la Contraception: Résultats Préliminaires*. Institut Haitien de L'Enfance and U.S. Centers for Disease Control, Atlanta, GA, 1990. DPT Drop-Out - PAHO facsimile, 12/19/91. **Other Health Indicators:** Water and Sanitation - WASH. Deliveries/TA - WHO/EB83/2 Add. 1, 1988 cited in WHO/MCH/MSM/91.3.

Honduras

Demographic Indicators: Total Population - projection based on the National Census, 1988, Ministry of Planning, Coordination, and Budget cited in MRF-90. Life Expectancy at Birth, Infant Mortality, and Total Fertility - National Epidemiological and Health Survey, 1987. Science and Technology Unit, Ministry of Health. Children Under 1 and Annual Infant Deaths - derived from the National Epidemiological and Health Survey, 1987 and WPP. Maternal Mortality - *Regional Plan of Action for the Reduction of Maternal Mortality in the Americas*, Document No. CSP23/10, XXIII Pan American Sanitary Conference cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** Oral Rehydration Therapy - standard source (Note: The most recent empirical estimate of ORT Use is found in Epidemiological and Family Health Survey: Honduras, 1987. The report, prepared by the Honduran Ministry of Health, the Association for Family Planning in Honduras (ASHONPLAFA), Management Sciences For Health, and Family Health International, cites a use rate for Litrosol, the name given to ORS packets in Honduras, of 17.5% and a use rate for herbal remedies, including various home remedies, of 18.2%). Adequate Nutritional Status - National Nutrition Survey, 1987 cited in USAID/Honduras Cable 00525. Contraceptive Prevalence (15-49) - National Epidemiological and Health Survey: Honduras, 1987. Vaccination Coverage for Children - EPI Management Information System cited in the 1991 USAID Health and Child Survival Project Questionnaire for Project 522-0216. DPT Drop-

Out - PAHO facsimile, 12/19/91. **Other Health Indicators:** Water and Sanitation - WASH. Deliveries/TA - National Epidemiological and Health Survey, 1987.

Nicaragua

Demographic Indicators: Maternal Mortality - *Regional Plan of Action for the Reduction of Maternal Mortality in the Americas*, Document No. CSP23/10, XXIII Pan American Sanitary Conference cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** Adequate Nutritional Status - Ministry of Health as cited in the WHO Anthropometric Database. Contraceptive Prevalence (15-49) - Contraceptive Prevalence Survey cited in *World Population Profile, 1989* compiled by BUCEN. DPT Drop-Out - PAHO facsimile, 12/19/91. **Other Health Indicators:** Water and Sanitation - WASH.

Peru

Demographic Indicators: Children Under 1 and Annual Infant Deaths - derived from WPP and USAID Health Sector Assessment, 1990. Infant Mortality - USAID Health Sector Assessment, 1990. Maternal Mortality - *Regional Plan of Action for the Reduction of Maternal Mortality in the Americas*, Document No. CSP23/10, XXIII Pan American Sanitary Conference cited in WHO/MCH/MSM/91.3. **Child Survival Indicators:** Nutrition - DHS, 1986 except for Adequate Nutritional Status - *Encuesta Nacional de Nutrición y Salud, 1984*. Contraceptive Prevalence - DHS, 1986. TT2+ - USAID/Peru reports this figure as coming from the Ministry of Health and notes that it reflects the number of women given two doses of tetanus toxoid during the calendar year and not the percentage of women protected. DPT Drop-Out - PAHO facsimile, 12/19/91. **Other Health Indicators:** Water and Sanitation - WHO Diskette, 10/29/91. Deliveries/TA - DHS, 1986.

Credits

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Africa



Under 40 deaths 61 to 80 deaths
41 to 60 deaths 81 to 122 deaths

Deaths per 1,000 live births

Figures do not reflect any possible impact that HIV/AIDS may have.

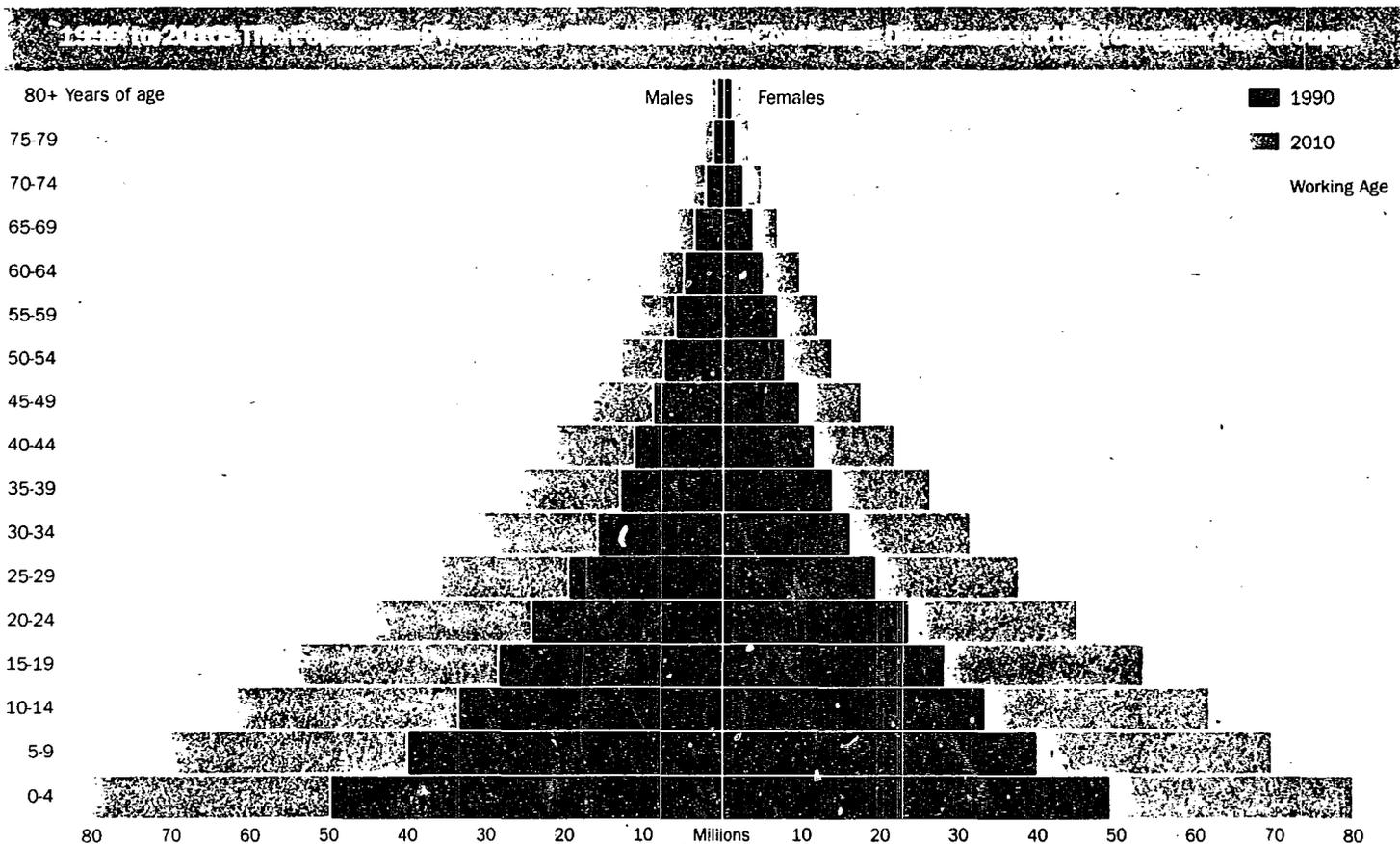


	Total Population	Infant Mortality	Under 5 Mortality	DPT3 Coverage	Measles Coverage	Polio3 Coverage	ORT Use	Total Fertility	Contraceptive Prevalence	% Unimmunized	% Exclusively Breastfed	Percent Reduction in Under 5 Mortality Rate 1980 through 1990
Cape Verde	383,365	39	75	79a	88a	87a	5	5.4	—	19f	—	33
South Africa	36,095,184	65	85	63a	67a	69a	—	4.3	45j	—	—	27
Botswana	1,352,694	61	82	78a	86a	82a	64	6.6	32c	—	41c	23
Kenya	3,000,000b	74b	103	59a	74a	71a	63b	6.7b	18b	—	24b	22
Sudan	25,988,310	102	160	61b	60b	61b	36b	5.0b	6b	—	14b	22
Lesotho	1,829,581	92	124	76a	76a	75a	69a	5.8	4e	—	—	21
Côte d'Ivoire	12,504,984	90	138	35b	42b	35b	16c	7.4	1	20e	—	20
Zimbabwe	10,034,799	58	103	69a	73a	72a	88	5.5	36c	15c	11c	20
Togo	3,652,247	88	141	57	61	61	33b	6.6	3c	34c	10c	19
Zambia	8,805,971	74	117	76	79	77	89	7.2	—	—	—	18
Congo	2,352,162	67	105	75a	79a	79a	26	6.3	—	31d	—	18
Swaziland	819,297	110	160	85b	89b	89b	85b	6.5	17c	—	—	18
Nigeria	112,372,386	99	162	46a	33a	33a	27a	6.7	4a	—	—	18
Cameroon	11,433,000a	88a	143	56a	56a	54a	84	6.0a	1	—	—	18
Zaire	36,817,288	94a	150	44b	38b	38b	45	6.1	—	—	—	18
Gabon	1,213,723	97	158	76	78	78	10b	5.2	—	—	—	18
Tanzania	28,448,706	99	163	83b	85b	82b	83	7.1	6c	—	—	17
Ghana	15,543,872	84	134	60a	57a	56a	21b	6.3	5c	38c	2c	17
Benin	4,788,433	87	172	70	67	67	45	7.1	1i	—	—	17
Liberia	2,666,185	131	193	47b	27b	28c	9c	6.7	6e	—	15e	17
Malawi	9,102,020	142	246	80a	81a	79a	14c	7.6	1g	30k	—	17

Country	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Rwanda	7,509,698	115	192	83a	84a	83a	24c	8.1	8a	—	—
Angola	10,322,436	130	219	38a	23a	23b	12d	6.3	—	—	—
Niger	8,038,000	140	208	21a	13a	13a	54	7.1	—	12b	—
Chad	5,832,215	125	210	34b	22b	22b	15	5.8	—	—	—
Mozambique	16,109,001	150a	226	84	84	84	30	7.1	—	—	—
Burundi	5,649,793	113	178	75a	86a	86a	49	6.8	1d	44d	89d
Mauritania	2,086,610	120	201	33a	28a	28a	54b	6.5	—	—	—
Uganda	19,568,648	97	158	40a	42a	42a	30	7.3	3c	32c	70c
Guinea	5,944,290	138	236	18a	17a	17a	65	7.0	—	—	—
Burkina Faso	9,276,168	126	222	42	37	37	16c	7.2	—	—	—
Gambia	832,000a	135	267	73	90	93	75	6.7	—	—	—
Sierra Leone	4,268,430	146	277	75a	83a	83a	60	6.5	—	—	—
Mali	8,990,000	108d	249d	56	58	58	41b	5.6d	3	40d	8d
Cen. Afr. Rep.	3,133,368	98	210	82	82	82	24	6.2	—	—	—
Ethiopia	50,820,190	126	239	37a	44a	44a	32b	6.8	—	—	—
Somalia	7,685,646	125	239	30b	18b	18b	78	6.6	—	—	—
Madagascar	12,425,577	113	174a	33	46	46	11b	6.5	—	56h	—

All data are for 1991 except where indicated: a=1990; b=1989; c=1988; d=1987; e=1986; f=1985; g=1984; h=1983; i=1982; j=1981; k=1980. Mortality figures are rates per 1,000 live births. Contraceptive prevalence is for modern methods only. Contact the Center for International Health Information (CIHI) for notes and sources.

By 2010 Africa's total population will approach one billion.
 Fifty-four percent of the population will be of working age – increasing 90 percent between 1990 and 2010.
 Forty-three percent of the population will be under 15 years of age.



Figures include USAID-assisted and non-assisted countries in the sub-Saharan Africa geographical region; figures do not reflect any impact that HIV/AIDS may have. Source: BUCEN 1991.



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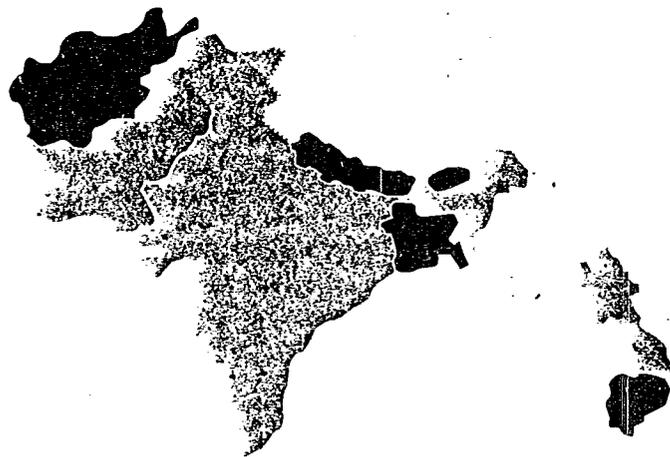


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Asia



Projected Infant Mortality Rates, 1990

Under 30 deaths 51 to 70 deaths
31 to 50 deaths 71 to 130 deaths

Deaths per 1,000 live births

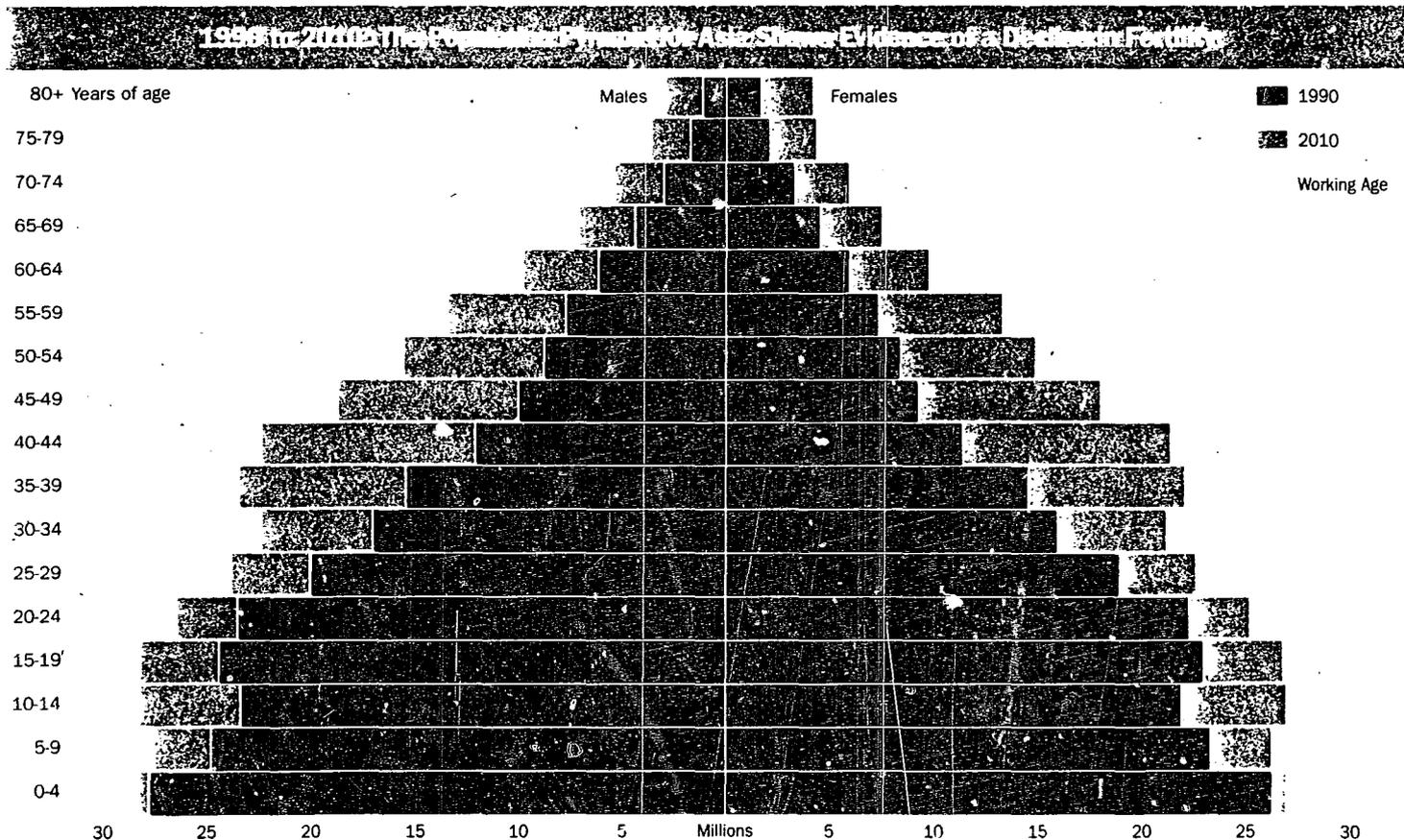
Health Care Coverage and Access in USAID Health Assistance Countries

	Total Population	Infant Mortality	Under 5 Mortality	DPT3 Coverage	Measles Coverage	Polio3 Coverage	ORT Use	Total Fertility	Contraceptive Prevalence	% Undermournished	% Exclusively Breastfed	Percent Reduction in Under 5 Mortality Rate 1980 through 1990
Thailand	54,532,000a	33a	42	80a	92a	92a	43	2.3	64d	30d	4d	35%
Sri Lanka	17,441,650	25	38	81b	89b	87b	76	2.5	41d	43d	14d	32%
Papua New Guinea	3,967,754	55	72	52b	53b	52b	46	5.0	—	—	—	32%
Fiji	776,009	25	28	84a	97a	96a	16	2.9	—	—	—	25%

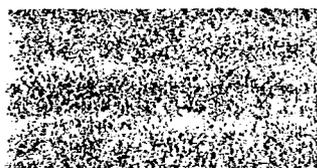
Indonesia	179,321,641a	68	104	58	56	56	57	3.0a	47	—	39d	26%
India	871,818,749	91	135	56b	79b	74b	14	4.2	40b	—	—	2%
Philippines	60,477,000a	41	65	85a	89a	88a	25	3.7a	22e	35i	—	2%
Pakistan	126,405,044	102	152	50a	46a	46a	43a	5.5a	9a	16f	—	1%
Bangladesh	118,918,663	111	174	54	62	62	26	4.9b	40	78b	—	1%
Nepal	19,618,705	121	183	58b	71b	71b	14	5.7	—	—	—	1%
Afghanistan	17,869,726	165	304	20a	25a	25a	26	6.8	—	—	—	9%
Cambodia	8,437,714	120	176	38b	47b	47b	6c	4.5	—	—	—	
Tonga	120,000a	25b	—	81c	92c	92c	25	4.0b	—	—	—	

All data are for 1991 except where indicated: a=1990; b=1989; c=1988; d=1987; e=1986; f=1985; g=1984; h=1983; i=1982; j=1981; k=1980. Mortality figures are rates per 1,000 live births. In Cambodia, the under 5 mortality rate fluctuated greatly during the civil unrest of the 1970s and 80s, thus percent reduction is not shown here. Contraceptive prevalence is for modern methods only. Contact the Center for International Health Information (CIHI) for notes and sources.

The population of Asia will increase by one billion between the years 1990 and 2010. The population between the ages of fifteen and sixty-four will increase by 782 million persons and in 2010 will represent sixty-six percent of the region's population.



Population figures include all USAID-assisted and non-assisted countries in the Asia geographical region, including China. Population figures for Tonga, Papua New Guinea and Fiji, however, are not included. Source: BUCEN/1991.



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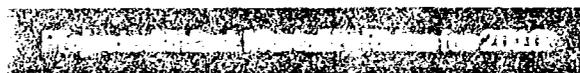


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Near East



Under 15 deaths 31 to 45 deaths
16 to 30 deaths 46 to 65 deaths

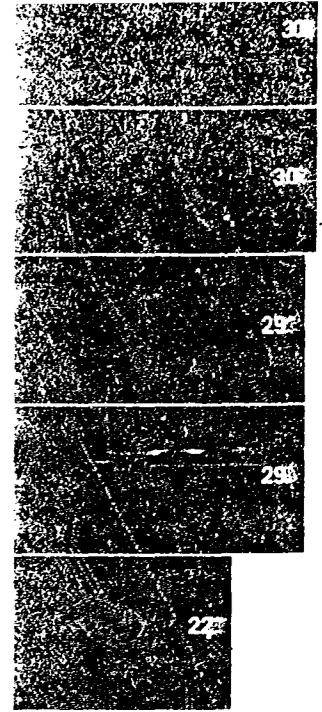
Deaths per 1,000 live births



Health Statistics for Selected Health Assistance Countries

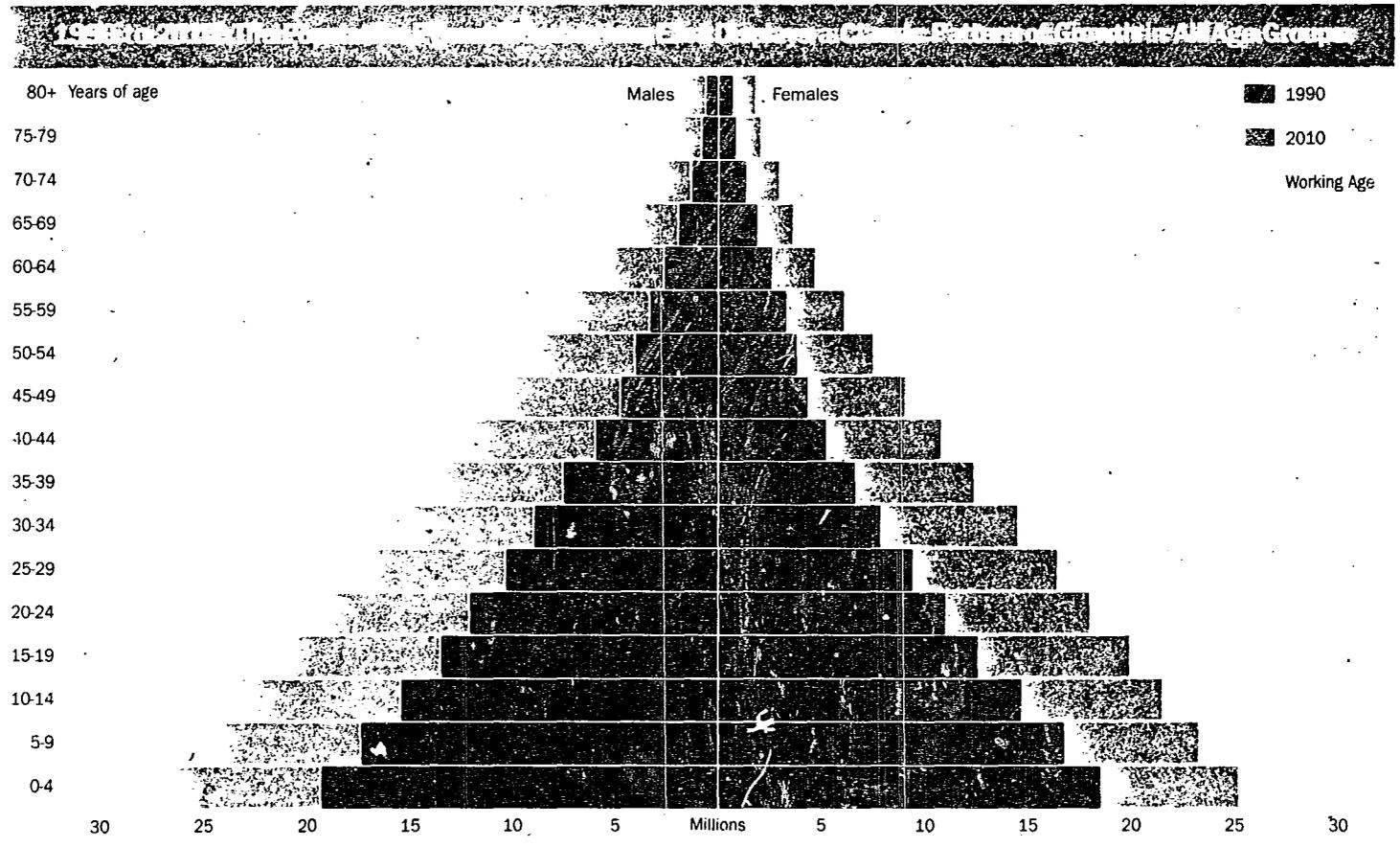
	Total Population	Infant Mortality	Under 5 Mortality	DPT3 Coverage	Measles Coverage	Polio3 Coverage	ORT Use	Total Fertility	Contraceptive Prevalence	% Undernourished	% Exclusively Breastfed	Percent Reduction in Under 5 Mortality Rate 1980 through 1990
Jordan	4,154,829	37	42	89	94	95	77	5.6	27	—	—	36%
Tunisia	8,358,927	46	85	81a	87a	87a	63	3.6	40c	12c	21c	34%
Egypt	54,059,000b	43c	49c	88a	87a	87a	58	4.4c	37c	17c	—	33%

Morocco	25,708,632	73d	102d	92	91	91	8	4.6d	30d	20d	48d
Cyprus	707,261	11	15	76b	93b	93b	4b	2.3	--	--	--
Oman	1,563,554	36	137	96a	96a	96a	19e	7.1	--	--	--
Lebanon	2,763,465	43	42	39	82	82	10c	3.5	--	--	--
Yemen	9,274,173b	136b	179	74a	89a	89a	6b	8.7b	--	--	--



All data are for 1991 except where indicated: a=1990; b=1989; c=1988; d=1987; e=1986; f=1985; g=1984; h=1983; i=1982; j=1981; k=1980. Mortality figures are rates per 1,000 live births. Contraceptive prevalence is for modern methods only. Contact the Center for International Health Information (CIHI) for notes and sources.

The total population in the Near East region will increase an estimated sixty-three percent by the year 2010. It is projected that there will be even growth among all age categories.



Figures include USAID-assisted and non-assisted countries in the Near East and North Africa geographical region. Source: BUCEN 1991.

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Latin America & Caribbean

Projected Infant Mortality Rates for 2010



Deaths per 1,000 live births

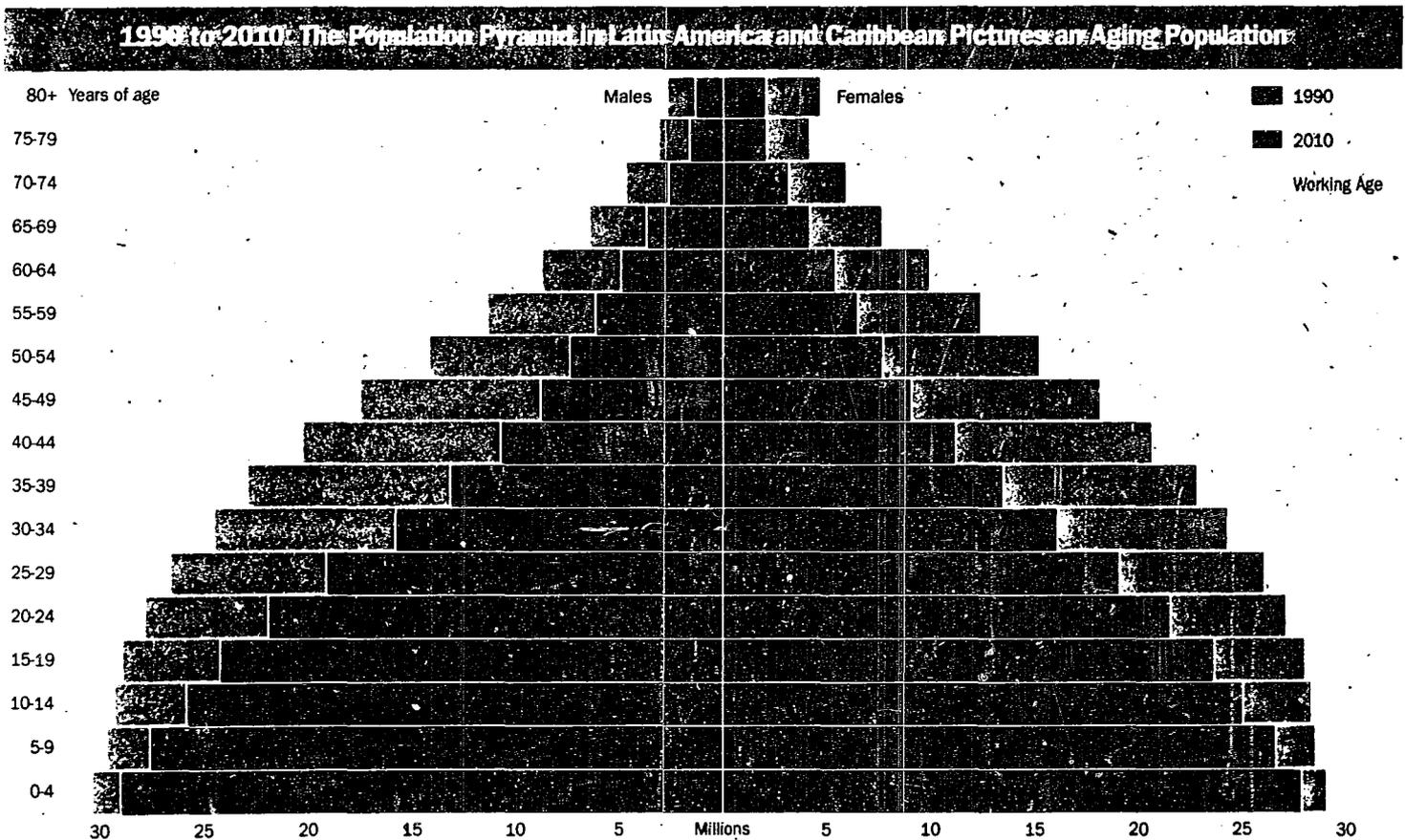
Health and Social Statistics in USAID Health Assisted Countries

	Total Population	Infant Mortality	Under 5 Mortality	DPT3 Coverage	Measles Coverage	Polio3 Coverage	ORT Use	Total Fertility	Contraceptive Prevalence	% Undernourished	% Exclusively Breastfed	Percent Reduction in Under 5 Mortality Rate 1980 through 1990
Barbados	255,629	10	13	87a	91a	90a	15	1.8	46k	5j	—	46
Chile	13,386,134	19	23	98a	99a	99a	1c	2.7	—	4e	—	40
Guyana	802,482	50	33	73b	83b	79b	15	2.5	—	25j	—	37
Nicaragua	4,004,556	54	81	82a	65a	86a	40	5.2	23j	10k	—	34
Uruguay	3,112,517	21	28	82a	88a	88a	96	2.4	—	—	—	31
Guatemala	9,482,121	72d	110d	68a	67a	74a	19	5.5	19d	44d	—	29
St. Lucia	153,000a	18b	24a	82a	89a	90a	75	3.8a	4j	—	—	29
Honduras	4,698,362b	61d	94	82	88	90	70	5.6d	33d	23d	—	28
El Salvador	5,389,995	56	74	75a	76a	70a	13c	4.6	45c	33c	—	27
Jamaica	2,485,083	15	21	74a	86a	87a	10	2.5	51b	—	—	27
Costa Rica	3,086,482	17	21	90a	95a	95a	78c	3.1	57e	7i	—	27
Trinidad & Tobago	1,300,360	14	21	70a	82a	87a	70	2.8	46d	9d	10d	27
Peru	22,011,059	81a	107	64a	72a	73a	25b	3.7	24e	22g	32e	26
Dominican Republic	7,318,940	59	75	96a	69a	90a	31	3.5	47e	13e	14e	25
Bolivia	7,535,218	98	151	53a	41a	50a	34b	5.9	12b	19b	59b	25
Panama	2,466,184	22	31	99a	86a	86a	55	3.0	54g	17k	—	24

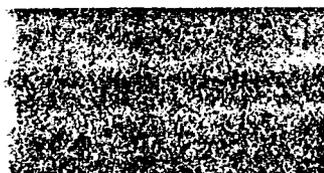
Ecuador	10,856,597	51d	81	61a	68a	67a	70	3.8b	42b	24d	31d	22
Mexico	90,471,739	38	62	78a	66a	96a	66	3.3	45d	—	38d	22
St. Vincent	106,000a	26b	40a	96b	98b	92b	98b	2.9a	40j	—	—	20
Antigua & Barbuda	64,000a	11b	28a	89a	99a	99a	—	1.7a	37j	15j	—	20
Dominica	85,000a	14b	16a	88b	94b	94b	50	2.6a	47j	8f	—	20
Belize	190,000	25d	43a	81a	84a	80a	65	5.2	32f	—	—	20
Brazil	153,310,957	59	80	78a	81a	93a	62	3.3	57e	—	4e	20
Argentina	32,710,332	30	35	95a	85a	89a	70	2.8	—	—	—	20
Venezuela	20,230,473	34	41	62a	63a	72a	80	3.6	—	8j	—	19
Haiti	6,653,149	112a	158	31a	41a	40a	20	6.4a	9b	—	—	18
Colombia	33,618,909	38	63	82a	87a	93a	40	3.0	54e	14e	19e	18
Paraguay	4,399,857	40	57	69a	78a	76a	42	4.4	35a	7a	—	18
Grenada	84,000a	30b	—	85a	80a	69a	70	4.9a	27f	—	—	—
St. Kitts & Nevis	40,000a	41b	—	99a	99a	99a	5	2.7a	38g	—	—	—

All data are for 1991 except where indicated: a=1990; b=1989; c=1988; d=1987; e=1986; f=1985; g=1984; h=1983; i=1982; j=1981; k=1980. Mortality figures are rates per 1,000 live births. Contraceptive prevalence is for modern methods only. Contact the Center for International Health Information (CIHI) for notes and sources.

Over the next two decades, the working adult population of the Latin America and Caribbean region is expected to increase fifty-four percent. The fastest growing age group, those sixty-five years and older, will increase by eighty-nine percent.



Figures include all USAID-assisted and non-assisted countries in the Latin America and Caribbean geographical region. Source: BUCEN 1991.



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