

# Two Decades of Progress: USAID'S CHILD SURVIVAL AND MATERNAL HEALTH PROGRAM





Launching the "child survival revolution," 1985 – (left to right) UNICEF Executive Director James P. Grant; USAID Administrator M. Peter McPherson; USAID Assistant Administrator for Science and Technology Nyles Brady.

## USAID's Child Survival and Maternal Health Program – Sustained Commitment, Unprecedented Success

Two decades have passed since the United States Agency for International Development (USAID) and the United Nations Children's Fund (UNICEF), with the support of the U.S. Congress, launched a "child survival revolution" aimed at reducing the number of deaths among young children in developing countries. At the time, an estimated 15 million children under age 5 in the developing world died from common preventable diseases each year. Across the developing world, more than one in 10 children did not survive to see their fifth birthday; in some countries, it was one in five.

Recognizing the effects of this mortality on individuals, families, communities, and countries, Congress in 1985 increased its support for USAID to fight preventable childhood diseases. One year later, the Agency introduced a "child survival strategy" – expanded in the late 1980s to include maternal health – that it would put in place in the following decades. USAID has since implemented and built upon this strategy, focusing on:

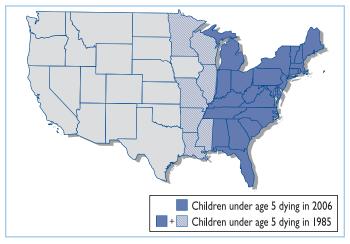
- High-impact child health interventions such as oral rehydration therapy (ORT) and immunization
- Results-oriented research to develop new interventions and strengthen programs

- Countries with high burdens of child mortality and malnutrition
- Partnerships with governments, nongovernmental organizations (NGOs), and private sector partners
- Capacity building to enable countries, communities, and institutions to save the lives of women and children

Since the inception of its child survival and maternal health program, the United States has committed nearly \$7 billion in more than 80 countries in support of this strategy. In collaboration with numerous international, national, and private sector partners, this effort has yielded unprecedented successes:

- Almost a billion episodes of child diarrhea are treated with lifesaving ORT each year, reducing child deaths from diarrheal disease by more than 50 percent since 1990.
- More than 100 million children receive basic immunizations each year, and tens of millions more receive supplemental immunizations against polio, measles, and other killer diseases.
- More than 75 million infants and children with pneumonia receive treatment from trained health workers annually.
- Malnutrition among children under age 5 has been reduced from one in three to one in four, a 25 percent reduction.
- More than 70 percent of women receive at least some care during pregnancy.

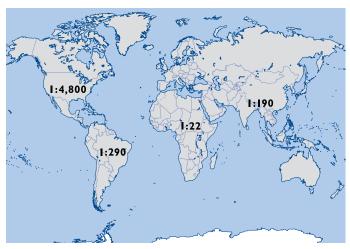
## The Scale of Child Mortality - A U.S. Perspective



Source: U.S. Census Bureau for under-5 state populations.

The deaths of 9.7 million children under age 5 in developing countries in 2006 were the equivalent of <u>all</u> the under-5 children in 23 eastern U.S. states and the District of Columbia dying. In 1985, under-5 deaths in developing countries were the equivalent of all under-5 children dying in 30 states and the District of Columbia.

#### Lifetime Risk of Maternal Death



Source: WHO, UNICEF, UNFPA, World Bank. (2007). Maternal Mortality in 2005.

A woman in sub-Saharan Africa has a 1-in-22 chance of dying over her lifetime as a result of pregnancy. This risk is more than 200 times greater than the risk of a woman in the United States.

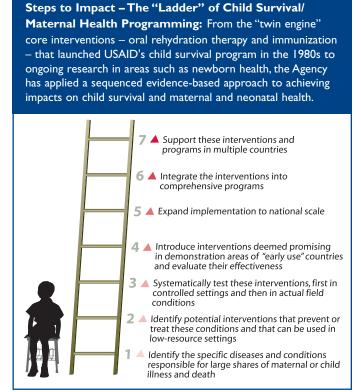
- Almost 60 percent of women have appropriately trained attendants when they give birth.
- In 2006, for the first time ever, there were fewer than 10 million deaths worldwide among children under age 5.

These successes and others have dramatically improved child survival and maternal health. If, in fact, the rate of child mortality had not changed since the 1980s, more than 17 million children under age 5 would have died in 2006; instead, an estimated 9.7 million died – still far too many, but meaning that more than 7 million children's lives are now being saved each year.

## **Delivering High-Impact Interventions**

The major causes of poor health and premature death among women and children in the developing world are not rare or exotic diseases. Millions of children in developing countries die each year from common illnesses such as measles, pertussis (whooping cough), diarrhea, pneumonia, and — especially in sub-Saharan Africa — malaria. Newborns die from delivery complications, cold, tetanus, and infections. For women, the complications of pregnancy and childbirth are among the greatest threats to life, and inadequate nutrition increases the threat to the survival and health of both women and children. In developed countries, health care systems generally prevent or treat these conditions effectively. In the developing world, however, health services are often inadequate or simply not available to many families.

Over the past two decades, USAID has consistently applied three key approaches to the challenge of delivering high-impact



interventions to address these threats to the health of children and mothers:

- 1) Developing evidence-based interventions that work
- 2) Bringing these interventions as close as possible to the families who need them
- 3) Monitoring progress

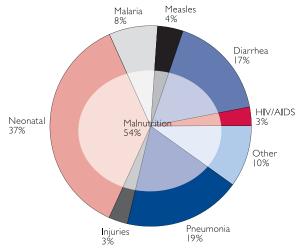
These approaches have produced technically sound interventions against major health threats that can be provided at low costs that developing countries, their partners, and donors can afford.

### **Child Survival**

Together, the childhood diseases targeted by USAID cause more than 75 percent of deaths of children under age 5 in the developing world. All of them are potentially preventable or treatable.

Treating and Preventing Diarrheal Diseases: In the early 1980s, the World Health Organization (WHO) estimated that diarrheal diseases killed more than 4 million children a year. Reducing that mortality was one of the first challenges taken on by USAID's child survival program. USAID recognized that the standard treatment for diarrheal dehydration in the developed world – intravenous fluid therapy – could not be delivered to millions

## Major Causes of Death, Children Under Age 5, 2005



Note: Percents do not total 100 due to rounding.

Source: Adapted from "WHO estimates of the causes of death in children." (2005). The Lancet 365:1147-1152.

The major causes of under-5 mortality include common preventable or treatable diseases such as measles, diarrhea, and pneumonia. Malnutrition increases children's vulnerability to these conditions.

of children in developing countries. The response was ORT, a low-cost, low-technology, lifesaving intervention administered via a formulation - safe for children - of prepackaged oral rehydration salts that could be reconstituted with water into oral rehydration solution (ORS). USAID put a special emphasis on providing information and training on ORT to millions of mothers and thousands of community health workers throughout the developing world. With research showing that homemade solutions of sugar and salt or other ingredients could also prevent dehydration and treat mild cases, programs began

teaching mothers to prepare such solutions using local ingredients. These home-based approaches further reduced the numbers of children appearing in health centers with dehydration. Increased fluids, including breastmilk, and continued feeding during diarrheal illness also became part of ORT. More recent efforts have focused on reducing the severity, duration, and frequency of diarrheal diseases through an improved ORS formulation, the use of zinc supplements to treat child diarrhea, and home water purification.

Immunization: In the early 1980s, only about one-third of the world's children received recommended childhood immunizations, leaving tens of millions at risk of death or disability from measles and other diseases rarely, if ever, seen in the United States and Europe. These vaccine-preventable diseases together caused 25 percent of all deaths of children under age 5.



Oral rehydration therapy, Bangladesh. ORT empowers families to save their own children.

CHILD SURVIVAL: TO CONGRESS AID PROGRAM

USAID introduces child survival strategy.

Studies in Indonesia suggest broad benefits of vitamin A supplements.

USAID develops its first maternal/newborn health project.

USAID Health Care Financing Project focuses on sustainability.

WHO endorses oral antibiotics as standard management of child pneumonia.

WHO announces "universal child immunization" based on 75% coverage.

WHO, UNICEF introduce Baby-Friendly Hospital Initiative.

SoloShot available for global immunization programs.

997

Americas certified polio free.

994



1985

child survival funding.

Congress increases USAID

986

987

World Health Assembly launches Global Polio Eradication Initiative.

ORT use increases from 18% of diarrhea cases in 1985 to more than 30%.

ORT programs in 80 countries.



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Measles elimination effort launched in Latin America and Caribbean.

USAID provides major support to Pan American

Health Organization initiative to eradicate polio in Americas.

Global Safe Motherhood Initiative launched.

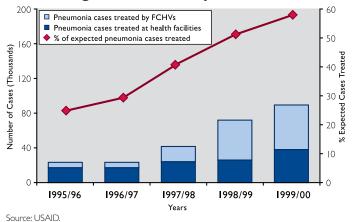
SoloShot single-use syringes proven safe and effective for field use.

To meet this need, immunization joined ORT as one of the "twin engines" of child survival. The global Expanded Program on Immunization, first launched in 1974, was reinvigorated, and during the late 1980s, extraordinary efforts by UNICEF, USAID, other donors, and recipient countries achieved rapid increases in immunization coverage. When immunization coverage later showed signs of stagnating, USAID launched its Boost Immunization initiative in 1999 to strengthen national immunization programs in countries with low or declining immunization rates. The Agency has also been a leading supporter of the global campaign to eradicate polio, which is estimated to have prevented more than 5 million child deaths or cases of lifelong paralysis and is credited with eliminating polio from all but a few of the world's countries. In addition, in the 1990s USAID helped lead an accelerated measles control initiative in the Latin America/Caribbean region that



Hundreds of thousands of health workers have been trained in administering safe injections.

## Community-Based Pneumonia Treatment, USAID Program Districts, Nepal, 1995-2000



By using trained Female Community Health Volunteers (FCHVs), Nepal more than doubled the number of child pneumonia cases treated in program districts and increased the percentage of expected cases treated to almost 60 percent.

many countries in other parts of the world later used as a model for their own campaigns. Combined with routine immunizations, global measles control programs are estimated to have saved 7.5 million lives between 1999 and 2005. USAID has also supported the development of technologies such as the SoloShot and Uniject single-use syringes and vaccine vial monitors that enhance the effectiveness and safety of immunization services, as well as the development and introduction of new vaccines, most recently through the GAVI Alliance.\*

Acute Respiratory Infection: In the late 1980s, USAID-supported research indicated that many cases of child pneumonia in



USAID rolls out Global Vitamin A Alliance.



Uniject single-use syringes available.

USAID, WHO, others review strategies for reducing deaths from child pneumonia.

USAID introduces newborn survival strategy.

Global Public-Private Partnership to Promote Handwashing with Soap launched.

Community management of acute malnutrition introduced.

United Nations Special Session for Children credits 50% reduction in deaths from diarrhea largely to ORT.

Europe and Eurasia certified polio free.

Global Alliance for Improved Nutrition gain

Prevention of Postpartum Hemorrhage Initiative launched.

(GAIN) established.

President's Malaria Initiative announced, with USAID as lead implementing agency.

997 999 **2004** 2000

USAID Polio Eradication Initiative launched.

Vaccine vial monitors endorsed by WHO and incorporated into immunization programs. USAID/ UNICEF/ Kiwanis global campaign against iodine deficiency launched.

USAID's Boost Immunization initiative launched.

Global Alliance for Vaccines and **I**mmunization (GAVI) launched. GA

WHO reports annual under-5 mortality at about II million. New ORS formulation endorsed by WHO, UNICEF.

USAID country programs introduce zinc as diarrhea treatment.

USAID begins support for fistula treatment

WHO/UNICEF joint statement on community management of pneumonia released.

Number of deaths of children under 5 (9.7 million) falls below 10 million for the first time.

Originally the Global Alliance for Vaccines and Immunization.

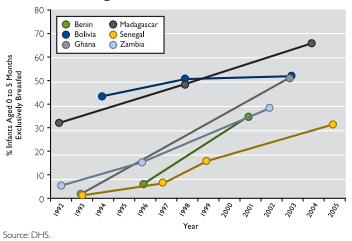
developing countries - as in the developed world - could be treated with common antibiotics. In developed countries, such cases were routinely treated in hospitals with intravenous or injectable pediatric antibiotics. As with diarrhea, however, such medical treatment for child pneumonia was not generally available in the developing world. Further research by WHO, universities, and developing-country researchers, carried out with USAID support, concluded that oral antibiotics could successfully treat most cases and that front-line health workers, including community health workers, could identify children needing treatment. These findings led to new treatment recommendations, and by 1995 nearly 60 countries had acute respiratory infection programs. Further study by USAID found, however, that most of these programs were facility based and that many families did not have access to them. USAID-supported community-based programs in Honduras, Nepal, and Pakistan demonstrated that community-based treatment could increase the number of cases treated and that trained volunteers could effectively detect and treat child pneumonia. These programs gained global recognition, with WHO and UNICEF now endorsing community-based treatment of child pneumonia where facility-based treatment is not feasible. With USAID support, community-based treatment programs are now operating or in the planning stages in 15 countries.

Malaria: Over the last two decades, the focus of USAID's malaria program has expanded from control of insect vectors to include reducing malaria's impact through prevention and treatment. This shift brought malaria interventions into the mainstream of USAID's child survival and maternal health programming, especially in Africa. Prevention efforts focused on developing and testing insecticide-treated mosquito nets for families to use for protection in their homes and on distributing the nets through



A mother and her infant prepare for bed under an insecticide-treated mosquito net.

# Exclusive Breastfeeding Trends, USAID-Assisted Countries With Multichannel Breastfeeding Promotion Programs, 1992–2005



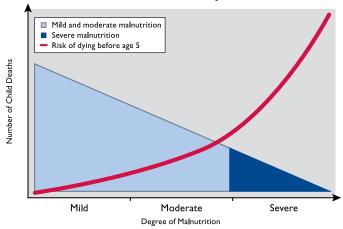
Rates of exclusive breastfeeding until 6 months of age in USAID-assisted countries with multichannel breastfeeding promotion programs have shown impressive gains since the early 1990s.

social marketing and public-private partnerships. In the 1990s, USAID helped many African countries introduce a new drug regimen that was highly effective in areas where resistance to chloroquine, the previous drug of choice, was causing widespread treatment failure. More recent efforts have responded to the continuing emergence and spread of multidrug-resistant strains of malaria using artemisinin-based combination therapies (ACTs) as the preferred treatment. USAID was instrumental in validating the use of ACTs through support for the largest clinical field trials ever held in Africa. USAID was also instrumental in introducing in many African countries "intermittent preventive therapy" for pregnant women to reduce the threat of malaria to their health and the health of their newborns. In 2005, USAID became the lead implementing agency for the President's Malaria Initiative, which aims to reduce malaria mortality by 50 percent in 15 African countries by 2010.

## Improving Nutrition in Infants and Children Under Age 5:

Breastfeeding is a cornerstone of child nutrition and health and, along with ORT and immunization, has been part of USAID's child survival portfolio from the beginning. In the 1980s, efforts focused on research, promoting policies that supported breastfeeding, and training providers who, in turn, trained more than 300,000 others to help support breastfeeding. Since the early 1990s, USAID has supported multichannel breastfeeding promotion programs involving community workers, media, health services, and policymakers. These programs have achieved steady, and in some instances dramatic, increases in exclusive breastfeeding of infants under 6 months of age in a number of countries.

## **Malnutrition and Child Mortality**



Source: Adapted from Shrimpton et al., "The worldwide timing of growth faltering: Implications for nutritional interventions." *Pediatrics* 2001; 107(5) e75.

Worsening malnutrition increases the risk of child death exponentially, but most malnutrition-associated child deaths occur among the large number of children who suffer mild and moderate malnutrition.

USAID also contributed to major changes in the approach to preventing child malnutrition through infant and young child feeding programs. One of these changes followed the recognition that child malnutrition is more often caused by inadequate feeding practices and the adverse nutritional effects of common illnesses such as diarrhea than by the unavailability of food (a finding that ran counter to the prevailing opinion in the 1980s that lack of food was the key factor in child malnutrition). Another change in direction was based on a USAID-supported review of global research in the early 1990s that determined that far more malnutrition-associated deaths were occurring among the large number of mildly and moderately malnourished children than among the smaller population of severely malnourished children. Within a few years of these insights, global thinking about malnutrition changed. The child survival program began to focus on mild and moderate malnutrition, and infant and young child feeding programs evolved from center-based food supplementation programs to integrated community-based programs with strong behavior change components. By the late 1990s, USAID's emphasis was on empowering communities and families to make optimal use of available food and breastmilk. In famines and other settings of extreme deprivation, USAID also pioneered the use of community management of acute malnutrition in the early 2000s.

Since the beginning of its child survival program, USAID has also been a leader in combating the deficiencies in micronutrients – especially iron, iodine, and vitamin A – that affect one-third of the world's people and contribute to about 20 percent of child deaths globally each year. USAID has had a special interest in vitamin A, supporting groundbreaking research on

vitamin A deficiency and the potential of vitamin A supplements to reduce child morbidity and mortality from a wide range of conditions, including blindness, measles, and diarrhea. USAID support for vitamin A distribution has contributed to the estimated saving of more than 500,000 children's lives each year.

#### **Neonatal Health**

Most of the significant gains of the first two decades of the child survival revolution were realized among infants and children between the ages of I month and 5 years. Much less progress occurred in the survival of infants in the first month of life, who are more vulnerable to threats to their health and survival even in developed countries. In the developing world, where more than half of all babies are born at home — often without medically trained attendants — newborns are even more vulnerable. In a series of reports in 2005 on neonatal survival, *The Lancet* medical journal reported that 450 newborns die every hour — 4 million every year — mainly from preventable causes; 99 percent of these deaths occur in developing countries.

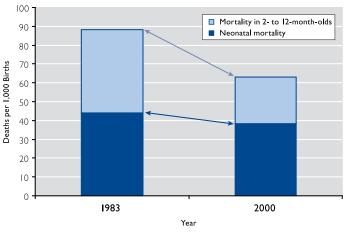
USAID-supported research in the late 1980s and early 1990s helped identify the major causes of neonatal death – tetanus, birth injuries, lack of oxygen (asphyxia), hypothermia, infections, and low birthweight – as preventable or treatable with simple, cost-effective interventions such as tetanus injections, safe and clean delivery, and appropriate antibiotics for infections. Early interventions included "clean birth kits" and training for birth attendants. USAID-supported studies also demonstrated that both community birth attendants and facility staff could master



"Kangaroo mother care" in Ukraine. This variation of the skin-to-skin approach to sharing maternal body warmth is effective at preventing hypothermia in even very small newborns.

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# Mortality Reduction Among Newborns and 2- to 12-Month-Old Infants, 1983–2000



Sources: Save the Children, UNICEF, WHO

## Mortality has been reduced much more among older infants than among newborns.

and apply basic interventions and that families and community health workers could recognize and seek care for newborns with symptoms of serious infection. Today, in addition to emphasizing the use of skilled birth attendants at delivery, USAID's strategy focuses on antenatal care, "essential newborn care" for all newborns, infection detection and treatment, and special care for low-birthweight newborns. Focusing on these interventions, USAID has expanded newborn care in its child survival programs, and by 2007, 26 national programs included essential newborn care. USAID is also supporting the development of new technologies for better newborn care, including antiseptic solutions to reduce infections during and after birth, syringes prefilled with injectable antibiotics, and resuscitation devices to stimulate breathing in asphyxiated babies. In addition, USAID has supported research documenting the benefits of newborn vitamin A supplementation in reducing newborn mortality.

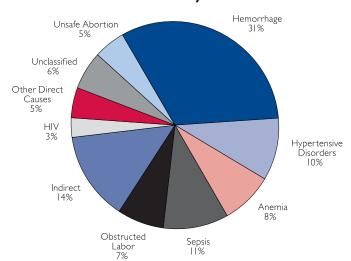
### **Maternal Health**

Consistent with its approach to child survival, USAID's maternal health efforts have focused on interventions and approaches that can work in the low-resource settings where many women give birth. Part of this approach involves understanding the barriers women and families face in identifying problems and getting routine and emergency care. Research and analysis funded by USAID has also improved the understanding that maternal deaths are only the "tip of the iceberg" and that pregnancy and childbirth may also result in multiple health problems that contribute to poor pregnancy outcomes or to complications that cause serious disabilities.

Essential Obstetric Care: In the mid-1980s, the magnitude of maternal mortality and the risks women face during pregnancy and childbirth began to draw global attention. In response, international agencies and donors, countries, and NGOs launched the global Safe Motherhood Initiative in Nairobi, Kenya, in 1987. In its first maternal health project, USAID supported research in 1989 to identify barriers to maternal health and survival and demonstrate the feasibility of interventions to reduce the risk and mortality associated with pregnancy and childbirth. Recognizing that the major causes of maternal deaths were common and largely preventable or treatable, USAID promoted a set of essential obstetric care services for all women. These services included not only emergency care but also prevention and early treatment of complications before they become emergencies; they targeted anemia, infection, hemorrhage, prolonged labor, hypertension, and – through voluntary family planning services – unwanted pregnancy. USAID also focused on training to increase the skills of those attending births. In the early 1990s, USAID supported the development of a lifesaving skills curriculum for midwives that has been adapted in many countries to also train doctors. By the end of the 1990s, USAID had established new approaches emphasizing increased access to and quality of care; positive practices by health providers, families, and communities; policies that favor safe motherhood; and community mobilization.

Targeting Complications of Pregnancy and Childbirth: In recent years, USAID has tightened its focus, spotlighting a set of highly effective, proven interventions targeting the specific high-

## **Causes of Maternal Mortality**



Source: Adapted from "WHO analysis of causes of maternal death: A systematic review." (2006). The Lancet 367:1066–1074.

Maternal health interventions supported by USAID target conditions that cause 67 percent of maternal deaths – hemorrhage, hypertensive disorders, anemia, infections (sepsis), and obstructed or prolonged labor.

mortality complications of pregnancy and labor - namely, hemorrhage, hypertension, infections, anemia, and prolonged labor. Together, these complications account for two-thirds of maternal mortality. Hemorrhage alone accounts for almost one-third, and USAID has been in the forefront of promoting "active management of the third stage of labor," a highly effective technique for preventing postpartum hemorrhage. To expand its use, USAID launched its Prevention of Postpartum Hemorrhage Initiative in 2002. In addition, USAID has been a leader in addressing obstetric fistula, a potential consequence of prolonged labor that can cause a woman to leak urine or feces. The health and social consequences of this incontinence, including divorce and social ostracism, can be devastating.

In addition, since the early 1990s USAID has supported programs that mobilize women's groups, men, and community and religious leaders to educate communities about the complications of pregnancy and labor and emergency preparations, including transportation and financial arrangements. These programs also address cultural barriers that may prevent women from seeking care.



Fistula repair center in Ethiopia, one of 22 supported by USAID in 11 countries in Africa and Asia.

## The Challenge of Safe Motherhood

More than 500,000 women are estimated to die each year from complications of pregnancy or childbirth. Such conditions are the second most common cause of death among women of reproductive age, after AIDS. Although childbirth is a natural event in a woman's life, pregnancyrelated mortality shows the greatest disparity of all health indicators between the developed and developing worlds. For example, the one-in-22 chance a woman in sub-Saharan Africa has over her lifetime of dying as a result of pregnancy is

more than 200 times greater than the one-in-4,800 chance of a woman in the United States. Recognizing this peril, many African mothers say good-bye to their older children before giving birth. According to a proverb from Chad, "a pregnant woman has one foot in the grave."

The tragedy of a woman's premature death is compounded by the severe consequences it can have for her children. In developing countries, maternal death or a mother's chronic poor health increases her children's risks of death and poor growth and development. The impact can be staggering - research published in 2003 showed that infants in Nepal whose mothers died during childbirth were 52 times more likely to die between the fourth and 24th week of life than children whose mothers survived childbirth. Surviving children face consequences of family impoverishment (diminished resources for the children in particular), malnutrition, and decreased educational opportunities as older children leave school to earn money or care for their homes and younger siblings.

In addition, lack of access to effective obstetric care exposes many women who survive childbirth to other maternal health risks. Maternal conditions are the largest contributor to the global disease burden of women of reproductive age. As a result of this lack of care, conditions such as anemia, fistula, nerve damage, and infertility disable an estimated 15 million women a year.

		Child Survival/Maternal Health High-Impact Inte					
	USAID Contributions						
Child Survival	Treating and Preventing Diarrheal Diseases	<ul> <li>Support for research on development and use of oral rehydration therapy (ORT) in young children, leading to prepackaged oral rehydration salts and programs for control of diarrheal diseases</li> <li>Information/training on ORT for millions of mothers and thousands of health workers</li> <li>Focus on 22 countries with very high diarrheal disease mortality</li> <li>Support for research on use of zinc to reduce severity/duration of child diarrheal illnesses</li> <li>Partner with other U.S. Government agencies, international organizations, NGOs, foundations, universities, and the private sector to expand access to point-of-use (POU) water disinfection technologies</li> </ul>					
	Immunization	<ul> <li>Partner in re-energization of Expanded Program on Immunization in mid-1980s</li> <li>Increased support for immunization in Africa to sustain progress in 1990s</li> <li>Boost Immunization initiative (1999)</li> <li>Safe immunization technologies</li> <li>Partner in global polio eradication and other global/regional disease control and eradication programs</li> <li>Support for GAVI Alliance (originally the Global Alliance for Vaccines and Immunization)</li> <li>Through GAVI Alliance, support for introducing new vaccines</li> </ul>					
	Acute Respiratory Infection	<ul> <li>Support for research demonstrating effectiveness of common oral antibiotics in most child pneumonia cases</li> <li>Support for programs demonstrating that community-based health workers could diagnose and treat child pneumonia</li> <li>Introduction of community-based pneumonia treatment in Africa</li> </ul>					
	Malaria	<ul> <li>Partner in early U.S. Government multi-agency Malaria Vaccine Development Program</li> <li>Support for studies of malaria's economic impact and contribution to child and maternal mortality in Africa</li> <li>Support for trials demonstrating effectiveness of insecticide-treated mosquito nets (ITNs) in preventing malaria; social marketing and public-private partnerships to expand ITN distribution; development of long-lasting ITNs</li> <li>Global leader in malaria funding through the Global Fund to Fight AIDS, Tuberculosis and Malaria</li> <li>Lead implementing agency for President's Malaria Initiative (PMI)</li> <li>Support for evaluating drug treatment/resistance and introducing artemisinin-based combination therapies</li> <li>Support for research demonstrating effectiveness of intermittent preventive treatment during pregnancy (IPTp)</li> </ul>					
	Improving Nutrition in Infants and Children Under Age 5	<ul> <li>Breastfeeding promotion through UNICEF Baby-Friendly Hospital Initiative, community-based volunteers, mother-to-mother support groups, mass media, and cultural activities</li> <li>Support for research showing impact of mild and moderate malnutrition on child mortality</li> <li>"Essential nutrition actions" approach identifying six key nutrition interventions</li> <li>In partnership with World Bank, national community-based growth promotion programs to prevent young child malnutrition in Honduras, Guatemala, and Nicaragua</li> <li>Community management of acute malnutrition for children with severe acute malnutrition</li> <li>Support for micronutrient (iron, iodine, vitamin A) supplementation and food fortification</li> <li>Partner in Global Vitamin A Initiative and Global Alliance for Improved Nutrition</li> </ul>					
Neonatal	Newborn Care	<ul> <li>Support for research identifying major causes of neonatal mortality as preventable and treatable, even in areas lacking health facilities, and for development of prevention and treatment strategies</li> <li>Support for implementation of newborn survival strategy emphasizing focused antenatal care, essential care for all newborns (including immediate breastfeeding, warmth, and clean cord care), infection detection and treatment, and special care for low-birthweight newborns</li> <li>Research documenting reductions in newborn deaths through use of community-based approaches, including management of severe infection</li> </ul>					
Maternal	Essential Obstetric Care	<ul> <li>"Essential obstetric care" approach to prevention/early treatment of complications of pregnancy and delivery</li> <li>Training to increase skills of birth attendants</li> <li>Support for lifesaving skills curriculum for midwives and competency-based preservice curricula</li> <li>Support for WHO guideline publication Managing Complications of Pregnancy and Childbirth</li> </ul>					
	Targeting Complica- tions of Pregnancy and Childbirth	<ul> <li>Focus on interventions targeting hemorrhage, hypertension, infections, anemia, and prolonged labor</li> <li>Joint declaration with international obstetrics and midwifery organizations on active management of third stage of labor (AMTSL); Prevention of Postpartum Hemorrhage Initiative (2002) to introduce and expand AMTSL</li> <li>Quality improvement to promote hygiene; training for community health workers in clean delivery practices</li> <li>Promotion of use of partograph to detect prolonged labor; support for fistula prevention and treatment</li> <li>Support for iron supplementation to prevent anemia during pregnancy</li> </ul>					

## rentions: USAID Contributions and Key Results

## Key Results

- 16 national programs and one regional program for control of diarrheal diseases established by 1987; 80 programs by 1990
- 750 million episodes of child diarrhea in developing world more than half of 1.5 billion annual cases treated with ORT (fluid therapy); 60% of cases in USAID-assisted countries treated (2005)
- World Summit for Children goal of reducing diarrheal deaths by half, set in 1990, achieved by 2002
- Zinc treatment for diarrhea introduced in 20 countries since 2004 through public and private sector programs
- Use of POU products, along with promotion of associated hygiene behaviors, introduced or expanded in 16 countries; nearly 5 billion liters of drinking water treated at household level (2007)
- Nearly a fourfold increase in immunization coverage in developing countries, from about 20% to 77%, between 1980 and 2006
- Increase of almost 4 million from 1998 to 2004 in number of children with complete immunizations in 12 Boost Immunization countries
- More than 2.5 billion SoloShot and Uniject single-use syringes and 900 million vaccine vial monitors distributed globally by 2004
- Nearly 600 million children immunized annually against polio; more than 5 million children saved from death or paralysis from polio since 1988; decline in annual polio cases from estimated 350,000 in 1988 to about 2,000 in 2006
- Elimination of indigenous measles from Americas and Caribbean (2002)
- Through GAVI Alliance, estimated 159 million children immunized against hepatitis B and 28 million against *Haemophilus influenzae* type b; estimated 28 million increase in number of children receiving basic vaccines; estimated 2.9 million lives saved since 2000
- Nearly 60 national programs targeting child pneumonia by 1995; 50% of children with pneumonia symptoms taken for care
- Number of children in Nepal with pneumonia treated by Female Community Health Volunteers more than doubled
- More than 2 million annual child pneumonia deaths prevented (WHO, 2005)
- Community-based child pneumonia treatment established in Senegal, with potential to reach more than 20% of country's under-5 children; also introduced in Democratic Republic of the Congo, Benin, Ethiopia, Madagascar, Cambodia, Rwanda, Nicaragua, Niger, and Togo
- 20% reduction in under-5 malaria mortality in Malawi in 1990s with introduction of new drug regimen
- Through PMI, 6.7 million ITNs procured and distributed
- Through PMI, I 2.6 million artemisinin-based combination therapies procured and more than half distributed
- IPTp established as part of antenatal care in more than a dozen sub-Saharan African countries
- Major reductions in malaria infection and illness in Malawi, Rwanda, Tanzania, and Uganda
- Doubling of rate of exclusive breastfeeding in sub-Saharan Africa between 1990 and 2004; average increases of nearly 34 percentage points in five USAID-assisted countries between 1992 and 2005
- 8.6 million beneficiaries of community-based food aid in 27 countries; stunting reduced by an average 12 percentage points over five years
- Global decline in underweight children from 33% to 28% between 1990 and 2004
- Global increase in proportion of children receiving two doses of vitamin A from 16% in 1999 to 72% in 2005; vitamin A supplementation programs in more than 60 countries
- Salt iodization programs implemented in 120 countries, with 34 achieving goal of 90% coverage and 29 reaching 70% coverage; 84 million newborns protected from disability since 1990
- National food fortification programs introduced or expanded in 30 countries; 90% of food oil in Uganda fortified with vitamin A; self-sustaining commercial vitamin A-fortified sugar production in Zambia and Central America
- Reduction in annual tetanus-related newborn deaths from 800,000 in 1980s to fewer than 180,000 in 2002
- Increase from 6% to 56% of mothers in Uttar Pradesh, India, initiating breastfeeding in the first two hours after delivery; average 23% increase in initiation of breastfeeding within one hour of birth in Ethiopia, Ghana, Madagascar, and Zambia
- Neonatal care incorporated into maternal and child health programs in 26 USAID-assisted countries
- Substantial increases in use of interventions targeting major causes of newborn deaths in USAID-supported projects in El Salvador (asphyxia), India (hypothermia), Ukraine (hypothermia), and Bolivia (tetanus)
- Maternal mortality reduced by 21% to 52% in 10 USAID-assisted countries; 26% reduction in Latin America/Caribbean, 20% in Asia
- Maternal mortality in Egypt reduced from 174 deaths per 100,000 live births in 1992/93 to 84 deaths per 100,000 live births in 2000/01
- Major reduction in maternal mortality in Indonesia through support for skills improvement for village midwives
- Substantial increases in coverage by essential obstetric care interventions in USAID-supported projects in Egypt (skilled birth attendance),
   Guatemala (use of obstetric services), and Angola (prenatal care)
- Substantial increases in USAID-supported projects in use of interventions targeting complications of pregnancy and labor, including postpartum hemorrhage (16 countries), hypertension (Russia), prolonged labor (Nicaragua), and anemia (India, Nicaragua)
- 22 USAID-supported fistula repair centers in 11 countries in Africa and Asia; 2,500 women assisted in 2006 with fistula repair surgery
- Anemia programs in more than 25 countries since 1995; decline in anemia in women in Nicaragua from 34% to 10% between 1993 and 2004

## **Building National Capacity**

The ultimate measure of success for USAID's child survival and maternal health programming is improved health and nutrition for children and women. Yet USAID also invests in building the capacity of countries in such areas as financing, quality improvement, human resources, communications, and others to enable them to deliver effective, sustainable health care services.

Information Systems and Monitoring: To obtain valid data to design, implement, and monitor its programs, USAID developed comprehensive national Demographic and Health Surveys (DHS), which every four to six years collect data from large, nationally representative samples of households with women of reproductive age and young children. DHS has become one of the major tools in use worldwide for monitoring progress in child survival and maternal health.

Health Financing: USAID has been a leader in applying principles of health care economics and financing to developing-country health programs. These activities have focused on three areas – tracking resources, removing cost barriers to care, and drug and vaccine financing. National Health Accounts and community-based insurance programs have been particularly effective at improving health care funding and making health care more accessible to developing-country populations.

**Pharmaceutical Management:** USAID works with countries to identify and address systems problems that affect the availability and use of drugs. Its programs help countries in such areas as needs estimates, drug selection, procurement, monitoring, logistics, and prescribing practices.

**Quality Improvement:** USAID has been a pioneer in assessing delivery systems, identifying what works, and exploring ways to

## Child Survival/Maternal Health Capacity

#### **USAID** Contributions

## Information Systems/Monitoring

■ Support for national Demographic and Health Surveys (DHS) for gathering high-quality child and maternal health data

#### Health Financing

- Support for National Health Accounts (NHAs) for tracking resources, including subaccount analyses for child health
- Support for insurance and other mechanisms for overcoming cost-related barriers to care
- Partner with UNICEF, World Bank, and WHO in negotiating and stabilizing vaccine prices
- Major contributor of funding and technical support to GAVI Alliance
- Support for performance-based financing to increase and sustain results in use of child surival/maternal health services

## Pharmaceutical Management

- Identifying and addressing systems problems affecting availability and use of drugs
- Development of "Drug Management for Childhood Illness" (DMCI) and "Community DMCI" tools
- Partner with U.S. Pharmacopeia in ensuring drug quality, developing standards for zinc supplements, and evaluating uterotonic drugs used to control postpartum hemorrhage

## Quality Improvement

- Models and indicators to measure performance of activities for delivering child and maternal health interventions
- Adaptation of U.S. quality assurance practices, including quality improvement collaboratives, to developing-country health programs
- Training to promote evidence-based best practices

### Human Resources

- Development of preservice training curricula
- In-service training for professional and volunteer health care providers, community health workers, and health officials
- Continuing education for professionals through national professional associations

#### Communication

- Effectiveness established of health communications for changing behaviors and adopting new practices to improve child health, including community treatment of diarrhea, immunizations, and child nutrition and hygiene practices
- Communication established as a component of virtually all child survival and maternal health training activities
- Tools developed for national and community-level health advocacy programs using mass media, religious and civic leaders, and entertainment and sports figures

## Public-Private Partnerships

- Engagement of vaccine manufacturers, soap manufacturers, food producers as partners in global health
- Social marketing of subsidized health commodities in commercial sector
- Evaluation of partnering with health *mutuelles* to expand and sustain use of child survival products

## Working With Nongovernmental Organizations

- Grants program to promote sustained improvements in health outcomes through U.S. private voluntary organizations/NGOs and their local partners, including ministries of health
- Global leadership, improved capacity, increased collaboration between global alliances and country-level networks
- Assistance in establishing and partnering with host-country professional associations

improve quality and cost-effectiveness. It links research and performance assessment with training, supervision, job aids, and other quality improvement interventions, and adapts U.S. quality improvement methods to developing-country settings.

Human Resources: Over the past 20 years, USAID has invested enormously in human resource development, supporting the training of thousands of professional health care providers and tens of thousands of community health workers. Activities have included training in new technologies, use of practice guidelines, and counseling mothers on such topics as breastfeeding, nutrition, pregnancy and childbirth care, and child health practices.

**Communication:** USAID has used research to design successful communication and behavior change efforts targeting policymakers, clinicians, and consumers. USAID helped lead the way in the use of mass media and popular celebrities, sports

stars, religious and civic leaders, and children to promote healthy behaviors.

**Public-Private Partnerships:** In even the poorest countries, the private sector is a major provider of goods, services, and information for maternal and child health. USAID has engaged in pragmatic partnerships with the commercial private sector at the international, national, and local levels in such areas as vaccine manufacture, handwashing promotion, and food fortification.

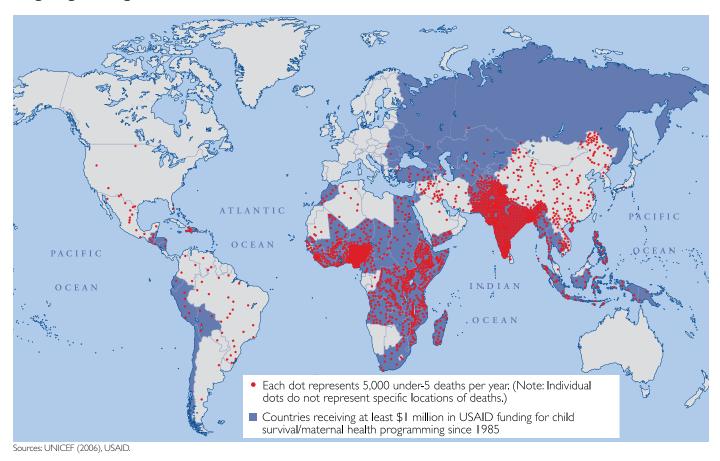
Working With Nongovernmental Organizations: Many USAID programs provide substantial portions of their support through NGOs, which characteristically focus on the more vulnerable segments of a country's population, including women and children.

## **Building: USAID Contributions and Key Results**

## Key Results

- DHS in more than 70 countries; new programs, improvements in measurement and health outcomes resulting from findings
- More than 200,000 respondents to India's 2005/2006 National Family Health Survey, the world's largest DHS
- NHAs in use in 100 countries, 28 of them with direct USAID assistance; 55 countries provided with USAID regional technical assistance
- New insurance policies and programs in Jordan, Egypt, and Kenya based on NHA findings
- 944 community-based health insurance plans in 10 African countries serving 17.6 million people (2004–2007), including 392 health mutuelles in Rwanda serving 6.3 million people (74 percent of the population)
- Access to care improved in Ghana, Senegal, and Mali through participation in insurance plans
- "DMCI" and "Community DMCI" tools used in 15 countries to revise national essential medicines lists; develop treatment guidelines and inventory controls; study household and community drug use and availability; and perform community, health facility, and malaria assessments
- Quality standards for zinc supplements, facilitating UNICEF/WHO recommendation of zinc to treat child diarrhea
- 20 countries assisted in bringing measurable improvements to facility- and community-based services and outcomes
- 25% reduction in neonatal mortality in 28 maternity hospitals in El Salvador through quality improvement approaches
- Quality improvement collaboratives in 12 countries; increased AMTSL use in Ecuador and Nicaragua; improved malaria care in Rwanda
- Substantial decreases in child deaths in Nicaragua from malaria (86% decrease), diarrhea (57%), and pneumonia (38%) in hospitals introducing quality improvement practices
- Tens of thousands trained worldwide to provide facility- and community-based child and maternal health services
- Notable successes in training community-based providers to deliver maternal and child health interventions in many countries, including Bangladesh (ORT); Nepal (pneumonia treatment, vitamin A); El Salvador (diarrhea treatment); Indonesia (postpartum and neonatal home care, nutrition); Bolivia (skilled birth); Thailand (nutrition); Honduras (nutrition); Angola (prenatal care); Senegal (pneumonia treatment); the Gambia (ORT); Nigeria (diarrhea treatment); Guatemala (obstetric services); Tanzania (drug dispensing)
- Substantial increases in many countries in knowledge and positive health behaviors after USAID-supported communication campaigns, including ORT use (Honduras, the Gambia, Egypt, Pakistan); healthy pregnancy and obstetric complications (Bolivia); vitamin A supplements (Nepal); handwashing (Guatemala); iron supplements (India, Malawi)
- High-visibility global communication campaigns to promote eradication of polio and vitamin A deficiency
- Social mobilization campaigns such as National/Subnational Immunization Days and Child Health Weeks to bring polio immunizations and other child health interventions to unserved areas of sub-Saharan Africa and Asia
- International partnerships, including GAVI Alliance, Global Alliance for Improved Nutrition, Global Public-Private Partnership to Promote Handwashing with Soap
- Social marketing programs for essential child and maternal health commodities in more than 50 countries
- Average estimated mortality reduction of 23 percent among children under age 5 in recently completed grant projects; consistent improvements in coverage rates to levels higher than national average
- CORE Group of 49 NGOs with programs in over 180 countries and eight technical working groups for collaborative learning and action
- Professional midwifery associations established in Afghanistan and Yemen

## Targeting the Regions of Greatest Need

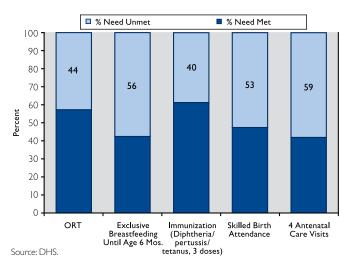


The South Asian subcontinent and sub-Saharan Africa remain the "hottest spots" of child mortality and are the sites of some of USAID's largest child survival and maternal health programs.

# Bringing interventions to those who need them

Wherever possible, USAID supports programs that move key services from expensive hospitals to primary care clinics and, where such clinics are inaccessible, to communities themselves. While helping over the long term to build countries' health care capabilities, USAID responds to the urgency of maternal and child mortality by raising coverage of key services as quickly as possible. USAID balances its support for government services with support for nongovernmental organizations reaching underserved communities, for social marketing programs promoting awareness and use of essential basic health care products, and for private sector partners providing essential goods, services, and information.

# Unmet Need for Child Survival/Maternal Health Interventions, USAID-Assisted Countries



Because USAID targets countries with the greatest needs, the unmet need for child survival and maternal health interventions in USAID-assisted countries is usually greater than the global average.

## **Regional Progress**

Asia and Middle East: With more than 60 percent of the world's population, the countries of USAID's Asia and Middle East regions are home to 13 of 25 of the world's "megacities" and also have thousands of communities spread across harsh mountains, vast deserts, island archipelagos, and huge rural areas. These regions were the sites of some of USAID's earliest successes in child survival, notably ORT in Bangladesh and community-based treatment of child pneumonia in Nepal, and later successes in signficantly reducing maternal mortality in such countries as Egypt and Indonesia. Some countries, such as Indonesia, have made substantial progress in health and economic indicators. Others, such as Bangladesh, remain desperately poor but, thanks to major improvements in child survival, have made the "demographic transition." By lowering both birth rates and under-5 mortality rates, they have begun to stabilize population growth. In many Asian and Middle Eastern countries, the use of female community health workers has contributed to improved health and status for women.

Africa: Since the beginning of USAID's child survival program, Africa has faced enormous challenges in improving the survival and health of mothers and children. One legacy of the region's long-standing conditions of drought, famine, political instability, corruption, and conflict was a regional under-5 mortality rate of almost 200 deaths per 1,000 live births in 1985. Since then, HIV/AIDS, resurgent malaria, and continuing natural disasters and conflicts have further complicated Africa's health situation. USAID assistance to countries in sub-Saharan Africa has strengthened their public health capacity through support for training in program management and monitoring and evaluation, emphasizing highimpact maternal and child health interventions and linking them to communication campaigns to promote their use. A number of countries have achieved substantial reductions in under-5 mortality during the past five to seven years. In many countries, National Immunization Days and Child Health Weeks have penetrated some of the most challenging settings in the world, bringing such lifesaving interventions as immunizations, vitamin A, and insecticide-treated mosquito nets to previously unserved populations.



Polio eradication worker in Africa transporting oral polio vaccine in cooler.

Europe and Eurasia: USAID's support for child survival and maternal health in its Europe/Eurasia region has fostered important advances in the countries of the former Soviet Union. As these countries emerged from the profound political changes that followed the breakup of the Soviet Union, the demise of highly centralized systems had enormous consequences for their health service infrastructures and delivery systems. Declines in immunization and other basic services led to a resurgence of communicable diseases. Much of USAID's assistance has supported program restructuring; infrastructure development; management capacity in national and local governments; decentralized procurement and delivery systems for vaccines and pharmaceuticals; and evidence-based, client-centered practices to improve maternal and newborn care. USAID has also focused on reproductive health, in part because the Europe/Eurasia region has some of the world's highest abortion rates. Successes in Russia and Romania at reducing these rates are now being shared throughout the region.

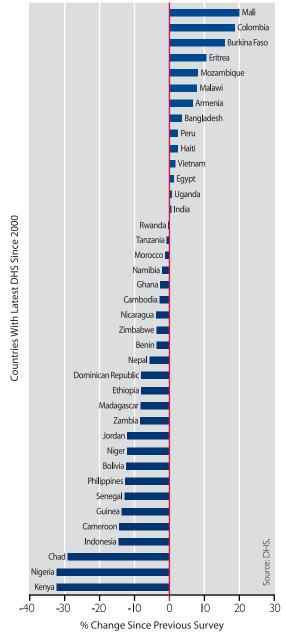
Latin America and the Caribbean: USAID's Latin America/Caribbean region has made significant progress in child survival and maternal health. From 1990 to 2005, the average infant mortality rate for the region decreased from 47 deaths per 1,000 live births to 28, while maternal mortality declined by 26 percent. As the region has progressed, USAID has supported investments to strengthen health systems in such areas as management, quality improvement, information, logistics, and human capacity. With USAID support, a number of countries have improved their health care financing, and many countries have decentralized their health systems. Challenges remain, however, in the large gaps that exist in health care between the rich and poor in such areas as skilled birth attendance, treatment of child illness, nutritional status, and even immunizations. Significant disparities in maternal, newborn, and child mortality result from these gaps and are an especially important issue for indigenous populations, who are often poor and marginalized by limited access to health, education, and other services. With heightened awareness of these problems, all countries of the region have adopted policies directed toward the needs of their poor.

## It Isn't All Good News

Global child survival and maternal health efforts have achieved unprecedented success. However, several trends show us that the work is not over, that progress is not guaranteed, and that continued efforts are needed. For example:

**ORT use is dropping in some countries.** Surveys in a number of countries have found declining ORT use, despite an upward global trend. Upon further analysis, USAID found that continuing increases in ORT use in many large countries in Asia

# Changes in ORT Use (Fluid Therapy Only), Countries With DHS Since 2000



Eleven of 39 countries with a DHS since 2000 had decreases in ORT coverage of more than 10 percent since their preceding survey.

were driving the worldwide trend upward. In Latin America and Africa, however, the overall trend appeared downward. Eleven countries with a DHS since 2000 – including some very large ones such as Nigeria, Kenya, and Indonesia – had decreases in ORT coverage of more than 10 percent since the country's previous DHS.

The Good News: Declining ORT use is an alarm bell – ORT is a simple intervention that should reach every child who needs it. New initiatives – including zinc supplements for treating diarrhea and an improved ORS formulation – provide the opportunity to reinvigorate ORT while further improving treatment and prevention of diarrheal illness. These new treatments have led to revised WHO/UNICEF guidance that re-emphasizes the fundamental importance of ORT and continued feeding for children with diarrhea. In addition, clean water and sanitation interventions that did not exist 15 to 20 years ago are bringing renewed attention to the threat of child diarrhea. Interventions such as point-of-use water treatment and community approaches to sanitation now provide new hope of reducing the frequency of diarrhea in young children living in communities still years way from piped water and modern septic systems.

Progress in child survival and maternal health has been less among those who need it more. Child survival and maternal health programs have targeted the diseases of poverty that are the most important causes of illness and premature death of mothers and children in the developing world. For many years, however, the reality that in poor countries — as in many wealthier ones — health services do not reach all families equally was not sufficiently acknowledged and addressed. In the late 1990s, a series of analyses based on DHS data found that in country after country, basic health services — including critical child and maternal health interventions such as immunizations and skilled attendance at delivery — were consistently less likely to reach poorer segments of the population.



Trained community health workers in Senegal provide pneumonia treatment to a sick child.

OSAIL

As a result, declines in average mortality rates have been inequitable – women and children in a country's poorest families are more likely to die from preventable causes of death than those in better-off families. As one author of the analyses stated, "Because we are targeting the diseases of the poor does not mean we are reaching the poor."

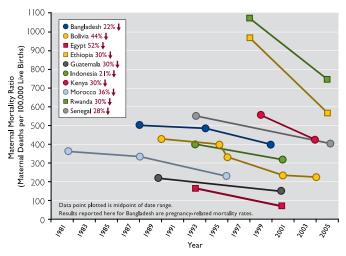
The Good News: As a result of these and later analyses, more countries and agencies, including USAID, are periodically examining health service and mortality data in relation to poverty and setting targets that specify levels of improvement among the poorer segments of the population. The recognition that programs were not reaching some of their most vulnerable intended beneficiaries has also given new impetus to approaches that take key interventions beyond health facilities (often underutilized by poor families) to communities, with a renewed emphasis on the essential role of trained community health workers in providing advice and first-line treatment.

## Worldwide, maternal mortality has not been substantially reduced; in Africa, skilled birth attendance is stagnant.

Global estimates of maternal mortality still stand at more than 500,000 deaths annually, and several countries in sub-Saharan Africa have had substantial increases in maternal mortality. In USAID-assisted countries in sub-Saharan Africa, skilled attendance at birth has remained constant at about 42 to 44 percent since 1990, in contrast with countries in Asia and the Near East, which have increased from 21 to 47 percent over the same period.

The Good News: Although the global estimate of over 500,000 annual maternal deaths remains unchanged, in reality many deaths have been averted since 1985 through family planning and the resulting decrease in the average number of pregnancies per woman. If fertility had remained constant, there would have been 4.1 million more maternal deaths between 1985 and 2005, as well as many additional deaths of infants and young children. Furthermore, while many thought it would take at least a generation to achieve significant changes in maternal mortality, USAID programs in several countries have shown that maternal mortality can be reduced by as much as 20 to 50 percent within a decade. For example, recent DHS results from Senegal show a 28 percent decline in the maternal mortality ratio between 1992 and 2005, and Kenya had a 30 percent decline between 1998 and 2003. These are hopeful signs for future progress in other countries. Such progress is not automatic, however – it requires clearly defined policies, focused programs, and sustained commitment from governments, donors, and other stakeholders. With expanded support for community mobilization, family planning, skilled delivery, postpartum care,

# Successes in Reducing Maternal Mortality, USAID-Assisted Countries, 1981–2005



Sources: DHS, except Bangladesh: National Institute of Population Research and Training (2002).

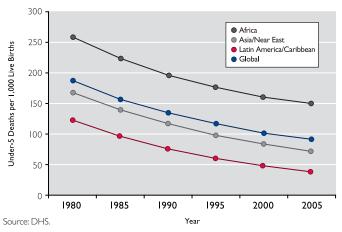
**USAID**-supported programs in a number of countries show that maternal mortality can be reduced within a decade.

and access to care for complications and emergencies, the prospects for further decreases in maternal mortality are good.

## For child survival, the rate of progress has been slowing.

While mortality rates for children under age 5 have continued to drop, the pace of this decline has been slowing. This might be expected as regions approach lower mortality levels, as in the Americas and East Asia. Even Africa, however — with the greatest room for improvement — has experienced a slowdown. This could be the result of countries and programs reaching the limits of existing interventions, the limits of their current approaches to delivering interventions, or the limits of national and donor resources. Political attention may also have shifted

# Mortality Trends for Children Under Age 5, 1980–2005



While under-5 mortality rates continue to decline globally and in USAID regions, the pace of their decline has slowed.

Under-5 (U5) Mortality Reduction in USAID-Assisted Countries										
Country, Years	U5 Mortality* Earlier Year	U5 Mortality* Later Year	Percent Reduction							
Afghanistan, 2001/2006	257	191	26							
Bangladesh, 1996/2007	116	65**	44							
Cambodia, 2000/2005	124	83	33							
Ethiopia, 2000/2005	166	123	26							
Madagascar, 1997/2003	164	94	41							
Malawi, 2000/2004	189	133	30							
Nepal, 1996/2006	139	61	56							
Tanzania, 1999/2004	147	112	24							

<sup>\*</sup> Deaths per 1,000 births

Sources: DHS except Afghanistan 2001 (UNICEF) and 2006 (Johns Hopkins University).

The recent successes of these and other countries show that infant and child mortality can be reduced at rates that, if sustained, will enable them to approach the Child Survival Millennium Development Goal.

from child survival to other health and development issues. In some countries, HIV/AIDS may be reversing gains already made.

The Good News: As great as these challenges are, there are several reasons to hope for increased progress. There is important progress in developing new interventions. For newborn survival, research is almost complete on new approaches to detecting and treating newborn infections at the community level. New technologies to provide antibiotic injections for newborns and simple antiseptics that may reduce childbirth-related infections in both mothers and newborns are also moving up the research -development-implementation ladder. Other interventions, such as safe household water to prevent diarrhea and zinc treatment of child diarrhea, have already moved up the ladder and are entering maternal and child health programs. New vaccines for pneumococcus, a major cause of child pneumonia, and rotavirus, a major cause of diarrhea, are approaching use in developing countries. Together, these vaccines have an estimated potential to save over 2 million additional lives each year. Communitybased treatment of child pneumonia has spread from just a few countries to more than 10 in Asia and Africa; in Africa, it can be linked to malaria treatment services. Also in Africa, an extensive network of trained community health workers is being formed to strengthen the region's health care workforce.

There are also signs that political attention to maternal and child health may be on the rise again, without compromising other important health issues. In response to the Millennium Development Goals, many countries are developing maternal and child health strategies and incorporating them into their national poverty reduction strategies and funding. In Africa, United Nations agencies have helped countries develop "roadmaps" to follow in order to speed up their progress in improving reproductive (including maternal and newborn) health. In September 2006, the African Union approved a framework for accelerating the reduction of under-5 mortality in the region; in response, UNICEF, WHO, and the World Bank are launching a new wave of child survival programming in 20 countries.

Perhaps the most hopeful news comes from countries themselves. As is often the case, countries are showing the way, proving in their own programs that they can achieve continued and even accelerated progress. Despite the many challenges, including those of funding and human resource limitations, a number of countries — including several that are very poor but very committed — have shown they can reduce their infant and child mortality rates at or near the pace needed to reach the 2015 Millennium Development Goals.

Total USAID Child Survival/Maternal Health Funding, Fiscal Years 1985–2005 (\$ millions) <sup>1</sup>											
Year	Amount	Year	Amount	Year	Amount	Year	Amount	Year	Amount		
1985	132.2	1989	203.3	1993	281.5	1998	338.3	2002	391.7		
1986	155.6	1990	185.6	1994	240.3	1999 <sup>5</sup>	380.9	2003	389.7		
1987	184.5	1991	251.1	1995 <sup>3</sup>	296.8	2000	363.0	2004	442.9		
1988	172.6	1992 <sup>2</sup>	269.0	19974	360.9	2001	361.1	2005	458.7		

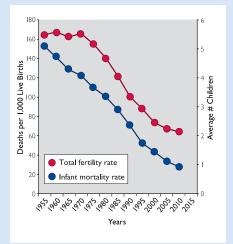
Notes: 1) Dollar amounts rounded to nearest \$100,000. 2) 1992–1995 does not include orphans and vulnerable children. 3) 1995 includes disaster relief funds. 4) 1996 not available by Child Survival or Child Survival/Maternal Health accounts. 5) 1999–2004 includes all accounts (Child Survival/Maternal Health and Polio).

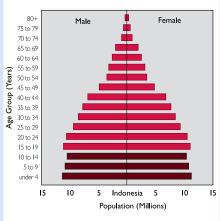
<sup>\*\*</sup> Bangladesh 2007 - preliminary data

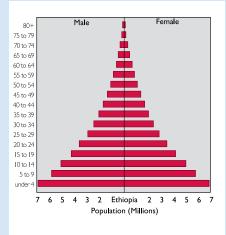
## Why Child Survival and Maternal and Newborn Health?

The American people support them, and they are key elements of human development. The highly visible plight of children in developing countries has long concerned the American people. Although Americans may question other aspects of foreign assistance, they consistently express strong support for using U.S. dollars to alleviate hunger, save the lives of mothers and children, and improve health in less-developed countries. In a 2007 survey, more than 90 percent of respondents described child survival as an important world problem and priority for the United States. In addition, preserving the lives and health of children and mothers is an integral component of "investing in people" and human development. The United States recognizes that national development is closely related to human development — countries progress when their people are healthy and can grow, thrive, and be productive. Preserving the lives and health of children and mothers is a cornerstone of this process.

They help countries achieve the "demographic transition." The "demographic transition" is a critical milestone in a country's development. With this transition, a country passes from the high fertility and mortality of poorer countries to the lower fertility and mortality of middle-income and developed countries. This transition usually begins with a sustained decline in infant and child mortality. Once families gain confidence that their children will survive, fertility begins to drop. This transition has health payoffs for both children and women, who experience fewer high-risk births and often wait longer between births. There is also a development payoff for countries. During the time when infant and child deaths are dropping but fertility remains high, the number of children continues to grow. When fertility decline follows, a "baby boom" results, not from increased birth rates but from increased child survival. Economists find that this baby boom has economic power as its members enter the workforce.







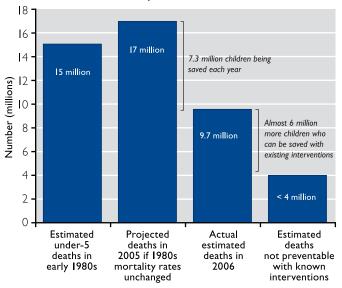
Sources: UN World Population Prospects (left), U. S. Census Bureau International Data Base (center and right).

Left: In Indonesia, infant mortality began to fall in the 1950s, followed by fertility starting about 1970. As countries achieve the demographic transition, the number of children decreases, as seen at the bottom of Indonesia's demographic profile (center). This contrasts with Ethiopia (right), which has not yet made the demographic transition.

The "burden of disease" falls disproportionately on children and mothers. Analyses of the global "burden of disease" have found that overall, almost half of the loss of life and individual potential from the infectious diseases and conditions that are the major causes of death and disability in the developing world (where 81 percent of the world's population lives) occurs among children under age 5, although they make up less than 15 percent of the world's population. Another burden falls on women when they enter motherhood. The risk of dying for women increases during their reproductive years — a risk directly associated with the life-threatening complications of pregnancy, childbirth, and the first weeks after birth.

There is an individual burden as well. The most important place to reduce this burden is in the lives of children and mothers themselves. The effects of illness and inadequate nutrition in young children increase their risk of dying before reaching age 5, and surviving children have reduced ability to learn and lead productive lives. For some women, childbearing inflicts a different and equally terrible burden. Women who experience difficult, prolonged, or obstructed childbirth are at risk of losing their babies and their lives. Those who survive the complications of pregnancy and childbirth may be permanently disabled.

## Children's Lives Saved, Current and Potential



Source: The Lancet, UNICEF.

10LY FAMILY HOSPITAL, BETHLEHEM

Current child survival efforts save more than 7 million lives a year, but wider use of existing interventions could save almost 6 million more.

## **Looking Forward**

The direction of the achievements and challenges laid out in this report is clear. For more than 20 years, USAID has sustained its commitment to improving the health and survival of children, mothers, and newborns in developing countries, contributing to measurable progress. Illness and mortality among children under age 5 have declined dramatically, and improvements in the health and survival of mothers and newborns have

To find

A young West Bank couple hopes for health and prosperity for their baby.

taken root. Many countries are increasingly able to sustain effective child, maternal, and newborn health programs on their own.

Yet there is more to do. We know that the tools we have at hand today can save millions more children and hundreds of thousands of women each year, if we reach them. A framework for accelerated progress has been established through the Millennium Development Goals, and governments are making serious commitments to achieving these goals. New partnerships are appearing, and new funding is becoming available, including funding from countries themselves. Coordination among international and in-country partners, with host-country governments taking the lead, is becoming the norm in planning and carrying out maternal and child health programs.

For young families all over the world, having children is still an act of faith and hope. That hope rests in the expectation of survival, health, and growth for those children and their mothers. When these fundamental values and expectations for families and their futures are met, the world is a more secure place. In the words of Queen Rania Al Abdullah of Jordan at a 2006 international consultation on achieving the Child Survival Millennium Development Goal, "No child can be secure in a world where millions of children are at risk."\* For more than two decades, USAID's child survival and maternal health program has represented the values and traditions of the American people and their government, helping families realize the hope they hold for their children. The hope — and the need — persist, and USAID continues to respond.

<sup>\*</sup> Quoted with permission of Her Royal Highness Queen Rania Al Abdullah



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An expanded version of this report will be available on the USAID Web site.