

A.I.D. EVALUATION HIGHLIGHTS NO. 23

EVALUATION OF A.I.D.'S CHILD SURVIVAL PROGRAM: A SYNTHESIS OF FINDINGS FROM SIX COUNTRY CASE STUDIES

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SUMMARY

Since 1985, the U.S. Agency for International Development (A.I.D.) has committed \$1.56 billion to its worldwide child survival program. Working most intensively in 22 "emphasis countries," the program uses simple, low-cost primary health care services for mothers and children to reduce infant mortality rates.

In 1993, A.I.D.'s Center for Development Information and Evaluation (CDIE) completed field evaluations of A.I.D.'s child survival activities in six A.I.D. emphasis countries: Bolivia, Egypt, Haiti, Indonesia, Malawi, and Morocco. Selected to reasonably represent A.I.D.'s efforts worldwide, this *Evaluation Highlights* summarizes the findings and recommendations of these country case studies and of selected A.I.D. Child Survival Program documents.

A.I.D.'s Child Survival Program has been generally successful in achieving quick results in many countries. The coverage of many basic health care services for needy mothers and children has increased rapidly in most A.I.D.-assisted countries. For example, between 1985 and 1991, DPT3 vaccination coverage for children 12 to 23 months rose from 39 percent to 67 percent and measles coverage more than doubled, from 24 to 60 percent in the approximately 62 A.I.D.-assisted countries. During this same period, infant mortality rates fell by 10 percent in those countries. The evaluation was not able to determine exactly how much of the improvement in mortality rates is directly attributable to better health services in general or to A.I.D.'s assistance in particular, but it was clear from several different kinds of evidence that A.I.D.'s contribution is making a substantial difference.

In addition to supporting health services for mothers and children, the program has worked in some countries to strengthen health care institutions and to promote financial sustainability of services. The evaluation found A.I.D.'s work in these areas to be uneven, with some notable successes along with some serious problems and neglect. In several countries, A.I.D. has helped develop innovative low-cost institutional mechanisms to deliver basic lifesaving health services to mothers and children, and in

one country, Bolivia, A.I.D. has led breakthrough efforts to make child survival services financially self-sustaining using fee-for-service arrangements and a large endowment for nongovernmental providers. However, the evaluation found that A.I.D. was having difficulty extricating itself from a number of older country programs where heavy support for service delivery, without commensurate attention to institutional development and financial sustainability, had resulted in the creation of large national health services that could not sustain themselves. Heavy donor support (including A.I.D.'s) for child survival has created serious donor dependency in many countries. The gains that have been made in increasing the coverage of health services and reducing infant mortality could be jeopardized if the areas of institutional capability and permanent financial sustainability are not addressed more thoroughly in future A.I.D. assistance.

Overall, the evaluation judged A.I.D.'s Child Survival Program to have been a success in terms of producing developmental and "people level" results. Some operational problems and strategic issues were identified, however, and the evaluation recommends that A.I.D. update its original 1985 Child Survival Strategy to take into account lessons learned during the first 8 years of the program. An updated strategy should deal with overarching program objectives, the priority given to different specific health interventions, identification of emphasis countries, the role of country strategies and phase-out criteria, A.I.D.'s management and staffing of the program, and assistance for institutional strengthening and financial sustainability.

BACKGROUND

In 1985 A.I.D. launched its Child Survival Program to improve the health of children in developing countries. Working with national governments and other international donors, A.I.D. set as its objective to reduce infant mortality rates in A.I.D.-assisted countries from the 1985 average of 97 deaths per 1,000 live births to 75 deaths or fewer by the year 2000.

This *Evaluation Highlights* summarizes the findings and recommendations of an evaluation of the A.I.D. Child Survival Program conducted by A.I.D.'s Center for Development Information and Evaluation (CDIE). CDIE evaluated A.I.D.-supported child survival programs in Bolivia, Egypt, Haiti, Indonesia, Malawi, and Morocco, selected to be representative of different regions of the world and different approaches to programming A.I.D. child survival funds. The country case studies are supplemented by analysis of other selected A.I.D. Child Survival Program documents and statistical data.

A.I.D.'S APPROACH

A.I.D.'s strategy in the worldwide Child Survival Program has been to support a limited number of effective, low-cost health interventions for mothers and children. The first four health services given A.I.D. support were (1) immunizations against childhood diseases, (2) oral rehydration therapy (ORT) to reduce infant and child deaths from diarrhea, (3) improved nutrition, and (4) child spacing to reduce high-risk births. In order to concentrate resources and to demonstrate significant impact, A.I.D. selected 22 "emphasis countries," which together comprise two-thirds of infant mortality worldwide, for priority assistance. In addition to the 22 emphasis countries, A.I.D. has supported child survival activities in at least 40 other countries. Because child survival is popular with many donor agencies, the program has required an unusually high degree of donor coordination. Also, A.I.D. has tried to involve nongovernmental organizations and other private sector providers in its program. Since 1985, A.I.D. has committed more than \$1.56 billion to the program.

FINDINGS

The CDIE evaluation of A.I.D.'s Child Survival Program is based on statistical data and qualitative information gathered during team field visits to six of the 22 emphasis countries, supplemented by a review of selected documents and statistics from the A.I.D. Child Survival Program in other countries. Findings of the evaluation are summarized here in three categories: (1) evidence concerning overall program performance, including program effectiveness, impact, sustainability, and efficiency; (2) findings concerning specific child survival health interventions for mothers and children; and (3) findings concerning management aspects of the Child Survival Program.

Overall Program Performance

Effectiveness

In this study "effectiveness" refers to the coverage of child survival services to beneficiaries; thus considered, the A.I.D. Child Survival Program has had some very effective components. Coverage of several essential primary health care services for mothers and infants has increased substantially in a number of A.I.D.-assisted countries. Immunizations have been the most uniformly effective program intervention for the approximately 62 countries that received A.I.D. support. Figure 1 illustrates the improvement in coverage of immunizations, which is attributable, in part, to the A.I.D. program. The coverage of some of the other child survival interventions supported by A.I.D. has increased, although sometimes not as quickly as expected and with considerable variation from country to country. The evaluation found that the quality of services is spotty and sometimes poor, since the emphasis in most countries has been on expanding the quantity and coverage of services as quickly as possible.

Impact

"Impact" is defined as long-term improvement in infant mortality and morbidity rates resulting from the Child Survival Program. In the approximately 62 A.I.D.-assisted countries, average infant mortality rates have declined by 10 percent since the program began, from 97 infant deaths per 1,000 births in 1985 to 87 per 1,000 births in 1991 (see Figure 2). In some countries with strong programs, declines were as high as 25 to 50 percent.

Although the evaluation could not determine the size of the impact of A.I.D.'s child survival activities on infant mortality rates independent of other influences, evidence from different qualitative and statistical sources converges to make a convincing case that the program is contributing significantly to national-level improvements in child health conditions and infant mortality rates in most of the countries that are receiving A.I.D. assistance.

Efficiency

"Efficiency" refers to the cost-effectiveness of A.I.D.-supported child survival activities. The evaluation confirmed the well-documented cost-effectiveness of preventive primary health care interventions compared with curative services. Child survival interventions were initially selected for their low cost and their potential for high impact. Some interventions such as immunizations appear to be very efficient in terms of cost-per-infant-death averted. Others, such as those dealing with acute respiratory infections, appear less efficient.

Sustainability

"Sustainability" refers to the ability of host country providers of child survival services to continue to operate effectively after A.I.D. assistance ends. The evaluation found growing concern among A.I.D. staff and host country providers concerning the long-term sustainability of child survival services. In a number of countries, an unexpected consequence of generous funding from A.I.D. and other donors has been deepening dependence on outside financial support for basic health services. The strong progress that is being made in reducing child mortality could be reversed if the sustainability challenge is not met.

Achieving permanent sustainability requires local health care providers to develop the resources and capabilities to operate effectively on their own. It also requires that sufficient domestic revenues be generated to cover operating costs. A few notable success stories documented in the evaluation show that A.I.D. can stimulate breakthrough efforts in developing innovative low-cost institutional arrangements and in

achieving self-financing services. Overall, however, the evaluation concluded that A.I.D.'s attention to sustainability has not been adequate.

The evaluation found that A.I.D. was having trouble phasing out its support to several successful national child survival programs that became overly dependent on A.I.D. support. The lesson learned from these experiences is that A.I.D.'s country child survival strategies should take into account institutional strengthening and financial sustainability from the beginning.

Specific Health Services for Mothers and Children

Immunizations

Immunization against childhood diseases has been a very successful child survival intervention, although A.I.D. has not been the lead donor in most countries. In different countries, A.I.D. has provided commodity support (syringes, vaccines, refrigerators), training for local staff, technical advisers, and funding for operating costs, usually in close coordination with UNICEF and other donors. In A.I.D.-assisted countries, DPT3 vaccination coverage for children ages 12 to 23 months rose from 39 percent in 1985 to 67 percent in 1992. Measles coverage more than doubled from 24 to 60 percent during the same period. It is estimated that immunization programs now avert 3.2 million child deaths each year from measles, pertussis, and neonatal tetanus. Vaccinating infants, children, and mothers in even the poorest countries has proven to be feasible, affordable, and politically popular.

Oral Rehydration Therapy

The evaluation findings were mixed concerning control of diarrheal diseases. While ORT can be a cost-effective technology for reducing child deaths from diarrhea, A.I.D.'s implementation of ORT components in its child survival projects has often been weak. Worldwide use of ORT increased from 12 percent of diarrheal episodes in 1984 to 36 percent in 1991, saving 1 million lives per year. Some countries, like Egypt, have achieved widespread coverage of ORT with A.I.D. support and have demonstrated that the treatment can effectively reduce infant and child mortality at low cost. However, in four of the six country case studies carried out for this evaluation—Bolivia, Haiti, Malawi, and Morocco—the oral rehydration components of A.I.D. child survival programs had performed poorly. The most common implementation weaknesses of this component were insufficient attention to logistical requirements, for example, distribution of oral rehydration salts to families, and inadequate training of mothers and health workers. The evaluation concluded that considerable room exists for improving A.I.D.'s performance in this area, and there is good reason to expect that improved performance would lead to substantially greater impact. Dehydration from diarrhea continues to be the second leading cause of infant death in A.I.D.-assisted countries,

claiming the lives of 3 million children each year.

Acute Respiratory Infections

In the countries evaluated for this study, acute respiratory infections were not being given priority attention and there was little evidence of impact. In most of the countries evaluated, A.I.D.'s Child Survival Program has supported experimental and other small-scale activities, but lack of a simple, low-cost technology has been a stubborn obstacle to cost-effective, larger scale interventions. Acute respiratory infections have emerged as the leading cause of child mortality, responsible for one-third (4.3 million) of child deaths in A.I.D.-assisted countries. About one-fifth of these deaths are due to respiratory complications from measles and pertussis, which child survival vaccination services are reducing. However, many other acute respiratory infections require a costly "case management" approach in which a trained health worker identifies cases, prescribes and supports home treatment with antibiotics, and refers severe cases to a hospital. Some A.I.D. child survival projects, such as those in Egypt and Bolivia, are supporting field research to develop more cost-effective case management approaches than are currently available.

Nutrition

Malnutrition is too large a problem for A.I.D.'s Child Survival Program to solve by itself. One child in three in the developing world suffers from malnutrition, a contributing factor in 60 percent of all child deaths. A.I.D. has used different nutrition interventions in its country programs, including feeding programs, nutrition education, vitamin A supplementation, exclusive breast-feeding promotion, and growth monitoring. However, improvement in nutritional status appears to depend as much or more on economic growth and on agricultural productivity than on health services, and the evaluation did not find evidence of significant impact of A.I.D.'s Child Survival Program on overall nutritional levels or on nutrition-related mortality. Promotion of exclusive breast-feeding, sometimes classified as a nutrition intervention, has been shown to reduce the incidence of diarrheal diseases, infectious diseases, and high-risk births in addition to improving infants' nutritional status. Most A.I.D.-supported supplemental feeding is supported by the Public Law 480 program, not by the Child Survival Account. Better coordination between PL 480 and child survival activities might result in greater impact on reducing nutrition-related infant and child mortality.

Child Spacing

The evaluation found that in many countries A.I.D. is effectively reducing the incidence of high-risk births: births that are spaced too closely together or that happen when the mother is too young, too old, or already has had many prior pregnancies.

Reducing high-risk births through family planning was found to be a very effective child survival intervention. The evaluation found that increasing the interval between births, for example, is strongly associated with lower infant mortality.

Administratively, most A.I.D. family planning activities are funded and managed separately as population sector activities, but coordination with child survival and health projects is increasing. A.I.D. has had encouraging successes in reducing high-risk births through its family planning and child survival programs in many countries: Bolivia, Indonesia, Morocco, for example. In other countries: Haiti and Malawi, for example: A.I.D. has not succeeded in making much progress. Although family planning is an area in which A.I.D. has a comparative advantage over other donors by virtue of its long experience and commitment, it is not a "quick fix" child survival intervention that produces immediate reduction in infant mortality rates.

Water and Sanitation

The evaluation found that water and sanitation systems can help reduce infant mortality in areas in which they are installed, but high costs make it impossible for A.I.D. to implement these systems in most countries on a national scale. Many A.I.D. country programs have supported construction of rural community water systems and latrines, sometimes using local currency generated through other A.I.D. programs rather than money from the Child Survival Account. The child survival rationale is that these facilities directly attack the causes of diarrhea and other childhood diseases by providing uncontaminated water. Beneficiaries report that health conditions in their communities improved following water and sanitation installations, although the magnitude of this impact could not be determined in any of the six case studies. One clear finding was that strong education, promotion, and community involvement activities are essential in order for water and sanitation infrastructure to have lasting health benefits in communities in which they are supplied. Unfortunately, the cost of water installations, even simple ones, is high, and A.I.D.'s Child Survival Program resources are insufficient to construct enough water systems to have a measurable impact on national health indicators in any of the countries visited by the evaluation teams, with the possible exception of Egypt. The evaluation recommended that water and sanitation infrastructure be financed by the major multilateral donors, with A.I.D. contributing support for related educational and promotional activities.

Local Health Problems and Epidemics

The evaluation found that A.I.D. Missions have often been able to respond to special local health conditions and epidemics that affect child survival. Cholera and Chagas' disease in Bolivia, malaria and AIDS in Malawi, and dengue fever in Indonesia are examples of localized threats to child survival that have been addressed through local A.I.D. child survival interventions. Adapting interventions to local circumstances,

rather than providing a standardized package of services, is an important comparative advantage A.I.D., with its strong field presence, has over some other donors.

Policy Dialogue

A.I.D. has achieved good results in some countries persuading host governments to modify operational policies in the health sector. For example, in some countries A.I.D. has successfully promoted government support of child spacing and family planning, administrative decentralization, use of health data for planning and policymaking, and joint private-public sector provision of health services. A.I.D. has been less successful in addressing larger policy issues, such as persuading governments to budget more money for the health sector.

Institutional Strengthening

Institutional strengthening is a little-known A.I.D. success story. In three of the six countries evaluated—Bolivia, Indonesia, and Morocco—A.I.D. support was instrumental in the development of innovative health care institutions designed to meet the special needs of mothers and children living in deprived areas. In these countries, different kinds of nontraditional outreach capabilities, local paraprofessional health staff, and public-private sector alliances have evolved with A.I.D. support and appear to be making basic health services more widely accessible and more affordable than they were in the past.

Management Aspects of A.I.D.'s Child Survival Program

Staffing

Because of a scarcity of U.S. direct hire health officers, A.I.D. is increasingly staffing its Child Survival Program with temporary employees contracted through consulting companies, other U.S. Government agencies, and universities. The advantage of these arrangements is that they give the Agency flexibility to bring in specialists whose expertise is not needed permanently. Disadvantages are that lines of administrative authority and accountability in country programs sometimes become confused; no one speaks authoritatively for A.I.D. in policy dialogue; and A.I.D. loses continuity, experience, and institutional memory. Should A.I.D. determine that its strategy is simply to concentrate on short-term health gains, it can probably manage its program adequately with a skeleton permanent staff supplemented by temporary employees. But an approach focusing more on institutional strengthening or financial sustainability requires greater depth and permanence of professional staff. Decisions about staffing then, should be made in the context of overall strategy formulation for the

Agency's Child Survival Program.

Strategy

A.I.D.'s Child Survival Strategy was written at the beginning of the Child Survival Program in 1985. The evaluation concluded that it would be useful to update the Agency strategy during 1993 and 1994 based on 8 years of experience and new U.S. Government foreign assistance objectives. A.I.D.'s Child Survival Program needs to examine and update its overarching objectives; develop uniform Agency procedures, requirements, and indicators for A.I.D. child survival country strategies; develop criteria for undertaking country-specific health initiatives; identify new emphasis countries; develop phase-out criteria; identify activities and approaches that work and do not work based on accumulated experience; recommend staffing levels; and determine priorities for less traditional child survival activities such as institution building, sustainability, and health policy reform.

Administrative Requirements

In all six field evaluations, A.I.D.'s burdensome and inefficient administrative procedures were repeatedly identified as a source of frustration and less than optimal program performance. A.I.D. health staff spend much time completing A.I.D. paperwork and dealing with A.I.D.'s administrative complexities. Country staff reported that inappropriate and expensive commodities were sometimes purchased, good employees lost, relationships with counterparts strained, and needed services delayed because of U.S. Government and A.I.D. administrative requirements.

Emphasis Countries

Concentrating resources on a limited number of well-suited countries to achieve measurable impact has worked fairly well. Although A.I.D.'s ability to concentrate resources in the emphasis countries has not been uniform, it has been able to produce and document significant changes in important health indicators as a result of the program's focus on a limited number of countries.

Private Sector

The evaluation found that private sector organizations often have advantages over public sector organizations as implementors of A.I.D. child survival assistance, including management continuity, administrative agility, a humanitarian rather than political mission, better quality health services, a local community orientation, and a proficient and permanent staff. However, many private providers also have

limitations including the small scale of their field operations, poor coordination with government services and among themselves, and long-term dependence on outside financing that reduce their effectiveness in some countries and make them inappropriate as "lead" agencies in national child survival programs. A.I.D.'s present utilization of different private sector organizations in the Child Survival Program is correctly conceived and sized, and should continue without major modifications in the future.

Donor Coordination

In all six country case studies, there was little evidence of duplication of donor activities or critical gaps, and tasks were usually divided so that each donor was providing what it was best at providing. Donors, usually in consultation with the host government, negotiate among themselves and coordinate their efforts so that their resources are complementary and reasonably complete. Compared with other child survival donors, A.I.D. appears to have some special strengths, including its experience with long-term institution-building inputs, its policy dialogue clout, its desire to work through the private sector, its willingness to promote family planning, and the flexibility and analytical strength that come from its in-country professional presence. A.I.D. is weak, however, compared with other child survival donors, as a provider of infrastructure, operating expenses, quick-fix activities that can respond to day-to-day crises, and small-scale single-community activities.

RECOMMENDATIONS

The evaluation of A.I.D.'s Child Survival Program concludes that the program is successful and should be continued. The program appears to be making a significant contribution to expanding the coverage of child survival services and to reducing infant mortality on a national scale in many countries. Its interventions are cost-effective. Its people-level impact is compelling, visible, quick, and measurable.

Based on the findings of the six country case studies, the evaluation made recommendations for future child survival programming. Several recommendations deal with the allocation of funding support among three assistance areas: health services for mothers and children, institutional strengthening, and financial sustainability. The evaluation recommends that A.I.D. country child survival strategies take into account all three assistance areas from the onset and that assistance normally be initiated only when prospects for significant progress in all three areas are good. Most country programs should provide some support for activities in all three areas, with the main emphasis determined by country circumstances, as illustrated in Figure 3. Factors that should affect the allocation of A.I.D.'s resources include the level of development of health services and institutions, health conditions, and other donor activities. In many countries, A.I.D.'s emphasis should move in phases, gradually shifting from health services for mothers and children to institutional strengthening and then to financial

sustainability as A.I.D. assistance matures and moves toward its completion.

Some of the evaluation's other recommendations for A.I.D. are as follows:

- ! Develop an ORT assistance package that fully incorporates the logistical and educational requirements of ORT.
- ! Link family planning assistance more closely with child survival objectives.
- ! Support research and development activities leading to more cost-effective interventions for acute respiratory infections.
- ! Give increased priority to exclusive breast-feeding in country child survival programs.
- ! Do not provide major support for water and sanitation infrastructure from the Child Survival Account. Coordinate with the multilateral donors in establishing water and sanitation systems, with A.I.D. providing such support services as education, promotion, and community mobilization.
- ! Implement a new overall staffing plan based on a comprehensive review of Agency child survival objectives and strategy.
- ! Add an analysis of administrative bottlenecks that affect the Child Survival Program to the 1994 Annual Report to Congress, identifying specific actions for streamlining administrative procedures.
- ! Update A.I.D.'s Child Survival Strategy.

This Evaluation Highlights summarizes the findings from the forthcoming report A.I.D.'s Child Survival Program: A Synthesis of Findings From Six Country Case Studies, A.I.D. Program and Operations Assessment Report No. 5, by Richard Martin. The Synthesis Report can be ordered from the DISC, 1611 North Kent Street, Suite 200, Arlington, VA 22209-2111, telephone (703) 351-4006; fax (703) 351-4039.