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BASICS

BASIC SUPPORT FOR INSTITUTIONALIZING CHILD SURVIVAL

May 11, 2001

Dr. Alfred Bartlett
G/PHN/HN/CS
United States Agency for International Development
Room 3.06-160
1300 Pennsylvania Avenue, NW
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Subject: Final Report – Basic Support for Institutionalizing Child Survival Project
USAID/PCHC (BASICS) Contract No. HRN-6006-C-003031-00

Dear Dr. Bartlett:

As specified under Sections C.4. (f) Final Report, and F.6. (3) Final Report of subject Contract, The Partnership for Child Health Care, Inc. hereby submits the Final Report for the Basic Support for Institutionalizing Child Survival Project.

This report summarizes the accomplishments of the project, methods of work used and recommendations.

Please contact Frederick J. White, Deputy Director for the BASICS II Project should you require additional information or have any questions. Mr. White may be contacted by telephone (703) 312-6816, by facsimile (703-312-6900 or by email (fwhite@basics.org).

Sincerely,

Richard Moore
Project Director
The Partnership for Child Health Care BASICS

A USAID-financed project administered by the Partnership for Child Health Care, Inc.
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BASICS FINAL REPORT

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Nearly all world leaders agree that children are society's most precious resource and that they have a right not only to relief from illness but to healthy development.

–Eleanor Roosevelt

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Acknowledgments

The principal compiler of this report was Richard Moore, the project director of the BASICS Project at its conclusion at the end of August 1999. The author uses the term compiler advisedly, since all the contents of the report were written or were otherwise generated by the staff of the technical, operations, and finance and administration divisions of the project. This, of course, includes the field staff of the project. Let me thank all who provided the high quality ingredients for this report so promptly and in good spirit. For her invaluable leadership in assisting project staff to pull together the summaries of project achievements and Lessons Learned, I wish to thank Dr. Sally Stansfield. I particularly wish to thank Julie Nelson for her editorial and myriad other services in completing this report.

Acronyms

AED	Academy for Educational Development
ARI	Acute Respiratory Infection
BASICS	Basic Support for Institutionalizing Child Survival
CDC	Centers for Disease Control
CDD	Control of Diarrheal Diseases
CS	Child Survival
DPT	Diphtheria, Pertussis, Tetanus
EMRO	Eastern Mediterranean Regional Office
EPI	Expanded Program on Immunization
IEC	Information, Education, Communication
IMCI	Integrated Management of Childhood Illnesses
JSI	John Snow, Inc.
LAC	Latin American Countries
MINPAK	Nutrition Minimum Package
MOH	Ministry of Health
MOST	Management and Organization Sustainability Tool (MSH publication)
MSH	Management Sciences for Health
NGO	Non-Governmental Organization
NIDs	National Immunization Days
NIS	Newly Independent States
OMNI	(USAID project)

ORS	Oral Rehydration Solution
PAHO	Pan-American Health Organization
PAIN	Paquet d'Activites Integrees du Nutrition
PATH	Program for Appropriate Technology in Health
PVOs	Private Voluntary Organizations
REACH	(USAID project)
RPM	Rational Pharmaceutical Management project
SANA	(USAID project)
SARA	(USAID project)
TIPs	Trials of Improved Practices
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Executive Summary

This is the Final Report of the BASICS Project, as part of the contractual obligation to USAID. The purpose of the report is to summarize, in a single document, the substantive, administrative, and financial dimensions of this very large and complex undertaking. Given the complexity and size, this report will confine itself to only the briefest summary and compilation of what the author believes are the salient items of information.

a) The Report

This report is organized as follows:

- Section I: *The Introduction and Overview of the BASICS Project.* This section summarizes information from the original contract with USAID as regards: key contractual and budgetary information; goals; USAID's own conclusions which influenced its design of the project and provided guidelines as regards the project's mandate and expected outputs.
- Section II: *Achievements and Lessons Learned in key Technical and Cross-Cutting Areas.* The key technical areas of the project, and those included here, are Immunization, IMCI, and Nutrition.
- Section III: *Achievements at the Country and Regional Level.* These are the country and regional achievements of the project, provided as short capsule descriptions of individual countries and regions, with supporting examples and data (where available).
-

In addition to the above, the report provides as appendices a full, annotated list of all

organizational partners to the project, a complete list of publications, and the volume prepared near the end of the project entitled Pathways & Partnerships, which provides a substantive overview of BASICS.

b) Summary Achievements

Enumerations and descriptions of BASICS achievements are found throughout this document. For convenience, they are summarized here.

Background

A child in the developing world is ten times more likely to die than a child in an industrialized country. More than ten million children die each year in developing countries from easily treatable or preventable diseases such as pneumonia, diarrhea, measles, malaria, and malnutrition. Over 70 percent of these deaths can be prevented.

BASICS achieved sustainable improvements in child health by working with partners to ensure:

- Technical excellence of interventions and strategies.
- Policies which promote child health.
- Better quality health services.
- Mobilization of the private sector for child health.
- Improved practices for prevention and care of childhood illness.

As part of its commitment to child survival, the U. S. Agency for International Development (USAID) initiated the Basic Support for Institutionalizing Child Survival (BASICS) project in 1993. Over the last five years, the project served as a technical resource to strengthen local capacity to design and manage more effective systems for child health. BASICS

collaborated with developing country governments, the World Health Organization (WHO), UNICEF and many non-governmental organizations. The project worked in more than 60 countries, making simple, effective technologies available to reduce child illness and death, focusing on immunization, improved nutrition, and integrated management of childhood illness (IMCI).

BASICS has facilitated the development of public-private partnerships to benefit child health. In four Central American countries, for example, private sector soap manufacturers were mobilized to organize campaigns to promote handwashing. Correct handwashing has been shown to result in a 57% reduction in episodes of diarrhea, which is a frequent cause of death in children.

To promote more effective use of these interventions, BASICS worked with governments, multilateral agencies, donors, public health institutions, non-governmental organizations, and communities in USAID-assisted countries. BASICS served as a technical resource to strengthen local capacity to design and manage effective systems for child health and works to ensure that child health programs complement ongoing national and global efforts to reform health systems and promote those specific health sector reforms that have a beneficial impact on child health.

BASICS has been effective in helping partners mobilize additional resources from international and local, private and public agencies for child health. The project developed approaches to help countries assess and strengthen the role of the private sector, including commercial and non-governmental organizations and private practitioners. In Zambia, for example, more than $2.6 million in supplemental contributions were "leveraged" for child health

from non-US sources in a single year.

BASICS promoted use of modern communications to change child care practices within the family. BASICS worked to identify "emphasis behaviors" which are simple, "do-able," and provide definite health benefits. These emphasis behaviors empower parents and communities to choose specific actions that are known to be effective in protecting their children from sickness and death. The emphasis behaviors have been used in more than 20 countries to help design messages to reach as many families as possible.

Immunization

BASICS strengthened the routine delivery of immunization against measles, polio, tuberculosis, diphtheria, pertussis (whooping cough), and tetanus–diseases that are preventable by immunization but still cause more than 20 percent of child deaths in developing countries. BASICS worked in 37 counties on immunization, but its impact on increasing access, utilization, and quality was felt most strongly in the Newly Independent States, Africa, and Bangladesh.

Some BASICS achievements in immunization are highlighted below:

- In urban Bangladesh, more than 28,000 children are now saved each year through the BASICS-assisted immunization program.
- The immunization schedules in six Newly Independent States were streamlined, resulting in more effective immunization and a cost savings each year of more than $1.3 million in vaccines and syringes alone. This cost savings represents 18 percent of the combined annual budgets for childhood vaccines and syringes in these countries.
- BASICS worked with partners to eliminate polio in 15 countries, mostly in Africa. Once polio is eradicated and immunization can be discontinued, the U.S. will save over $200

million annually in polio prevention and control.

- BASICS, with help from other international donor organizations, contributed to the control of a diphtheria epidemic in the Newly Independent States–considered the world's largest diphtheria epidemic since World War II. According to WHO, more than 500,000 cases and 15,000 deaths were prevented.

Integrated Management of Childhood Illness

BASICS helped to improve survival of children by improving parents' recognition of life-threatening illnesses. The proportion of parents who take a child with suspected pneumonia to a health center or hospital increased by 188% in Bolivia, for example, where radio dramas were used to help parents recognize the need to seek care for severe illness in their children.

Good health practices, such as proper diet and immunization, can help to keep children healthy. When a child becomes ill, his death can be prevented if he is brought to a health center or hospital for life-saving treatment. Yet many families in developing countries do not know how to protect their children from illness, or how to recognize an illness which has become life threatening.

BASICS helped 36 countries improve the treatment of sick children through promotion of Integrated Management of Childhood Illness (IMCI), a strategy developed by WHO and UNICEF. IMCI helps health workers, parents and communities to work together to improve both the prevention and treatment of common childhood illnesses.

Some BASICS achievements in IMCI are highlighted below:

- In Zambia, after BASICS assistance, correct treatment of children with pneumonia increased by 105 percent and treatment of malaria improved by 40 percent. The

proportion of health workers counseling parents correctly about giving medications nearly doubled. Counseling about feeding during and after illness improved more than four-fold. More than four thousand children's lives are saved annually due to these improvements in quality of care. Over $130,000 is saved each year due to reduced misuse of essential drugs.

- BASICS improved parents' recognition of life-threatening illnesses. The proportion of parents who take a child with suspected pneumonia to hospitals has tripled in Bolivia, where radio dramas were used to help parents recognize the need to seek care for severe illness in their children.
- BASICS developed new approaches to engage the private sector in improving the prevention and treatment of childhood illnesses. For example, BASICS' approaches were effective in improving the quality of care given by private practitioners in India and Pakistan. In Zambia, BASICS mobilized more than $2.6 million in supplemental contributions for child health from private and other non-U.S. sources. Commercial soap manufacturers became partners in promoting correct handwashing in four Central American countries, reducing episodes of diarrhea by 57 percent.
- BASICS' Pathway to Child Survival and linked Child Mortality Studies created a recognition that a substantial reduction in child mortality would require investments to strengthen health systems and improve family and community practices for IMCI.
- IMCI training reduces inappropriate use of drugs.
- Giving medications correctly and extra feeding for sick children hasten recovery from illness and prevent malnutrition and growth faltering after illness.

Nutrition

BASICS worked to improve childhood nutrition in 27 countries. About half of all child deaths in developing countries occur among children whose resistance to common childhood diseases is lowered by malnutrition.

Some BASICS achievements in improving nutrition are highlighted below:

- BASICS developed the Nutrition Minimum Package, or MINPAK, a set of six feasible and inexpensive nutritional actions to reduce sickness and death among children. These were incorporated into child health programs in more than ten countries. In six BASICS-assisted countries, it is estimated that these interventions averted more than 100,000 child deaths.
- The World Health Organization (WHO) and other organizations are using methods developed by BASICS for helping health workers communicate more effectively with families about feeding sick children.
- BASICS incorporated vitamin A supplement distribution into National Immunization Days in six countries. By treating deficiencies that place children at increased risk of death, these distributions are likely to avert more than 100,000 child deaths each year.
- The quality of health services for children has been improved in 27 countries through integration of nutrition interventions into routine health services.
- Nine West African countries have strengthened nutrition policies and programs with BASICS support. A policy review and advocacy tool called PROFILES has been used to help decision-makers estimate the cost and potential impact of improvements in nutrition policies and programs.

- BASICS developed methods for listening to mothers to get the practical information needed for effective counseling of families about feeding and fluids for sick children. These methods are now used routinely by partners, including the World Health Organization, to develop guidelines for health workers to communicate effectively with mothers.

c) Summary Lessons Learned

During the final year of the project, a formal Lessons Learned exercise was conducted with all available headquarters staff, but which also included the inputs of field colleagues. This exercise was important in pulling together all of the rich but heretofore scattered learning and wisdom of project staff. A summary of the results of this exercise is provided here. Additional lessons are provided in Section II, which was prepared later.

Partnerships

Partnership with USAID

Technical assistance projects such as BASICS derive enhanced credibility through close partnership with USAID/Global and USAID/Missions.

BASICS was more quickly received as a "key player" at the global and country levels because of its close association with USAID. Ministries of health, multilateral and bilateral assistance agencies, and PVOs all sought BASICS' assistance and participation because of its linkage to USAID.

However, even within USAID, BASICS has multiple clients, serving the differing objectives of USAID/Global, the regional bureaus, and the USAID missions. BASICS and USAID/Global need an improved strategy and plan for working with USAID missions to

advocate and promote high impact CS interventions.

Partnership with Child Survival Agencies

Partnerships with the international agencies supporting child survival programs have made BASICS achievements possible.

In nearly every BASICS-supported activity, collaboration with WHO (including global, regional and country offices), UNICEF, PVOs, and USAID cooperating agencies has been instrumental. Because of their complementary capabilities, partnerships among these and other agencies have made it possible to achieve progress that would have been impossible if each of these agencies had operated alone. Future efforts should expand these partnerships and also involve greater participation of the World Bank and the regional development banks.

Partnerships with PVOs and Community Groups

PVOs and community groups are powerful partners in child survival interventions. BASICS established a mutually beneficial relationship with U.S. PVOs, whereby BASICS assisted them in documenting and disseminating their innovations for child survival.

BASICS drew upon the innovations and achievements of US PVOs. The Hearth model, for example, was developed by a US PVO but documented and disseminated with BASICS' assistance. BASICS' work with communities was founded upon the extensive experience of U.S. PVOs in promoting community participation in health. Future priorities should include expanding partnerships with indigenous religious and local community groups that are already accepted and active in target communities.

Accelerating Implementation through Broad Partnerships

Formation of technical working groups composed of representatives from multiple organizations

was effective in breaking down the barriers of institutional ownership, fostering broad consensus, and speeding program implementation.

Particularly in the case of the Integrated Management of Childhood Illness (IMCI) initiative, close cooperation accelerated implementation and enhanced effectiveness. Both globally and at the country level, IMCI required a broad integration of efforts. This need for a comprehensive approach fostered the development of many multi-institutional working groups. Managers and policymakers frequently remarked upon the unanticipated benefits of these new and expanding partnerships, including benefits to programs beyond IMCI. Priority should be given to expansion of these partnerships to include agencies outside the health sector, such as those involved in agriculture, education, microenterprise, water and sanitation.

Public-Private Partnerships

BASICS' experience indicates that public-private partnerships are effective in leveraging additional resources for child health and accelerating the delivery of commodity-based interventions.

Governments rarely have the skills or have even accepted it as their responsibility to ensure that private sector transactions contribute positively to the health of the population. More effort is needed to document and disseminate positive models of public-private partnerships in order to promote use of this strategy by MOH decision-makers. BASICS has begun to develop and document these models, such as the partnership with soap manufacturers in Central America to promote handwashing and reduce incidence of diarrhea.

Importance of People

The sustained involvement of dedicated individuals facilitated the development of mutual trust

with key partners, both globally and at the field level. These professionals, with their long-term commitment to child survival, provide continuity and credibility and are able to build upon their relationships with specific institutions and specific individuals.

BASICS' programs were most effective where staff made sustained investments of time. Field staff were especially critical to program uptake. BASICS capitalized on their credibility and good relationships with partners to enhance the effectiveness of BASICS activities.

Technical Innovation

Value of a Conceptual Framework

A clearly articulated conceptual framework for innovations helps to set the technical agenda, guide the development of field-level interventions, and promote broad acceptance of new approaches.

Working with USAID and others, BASICS helped develop a conceptual framework for child health called the Pathway to Survival. The Pathway helped the project to visualize the role it might play, to organize its resources, to explain and present itself to outside groups, to shape the interventions at field level, and to identify areas requiring further development, including health systems and community components of IMCI. Other BASICS innovations, such as MINPAK and the Emphasis Behaviors approach, also exerted a more powerful influence globally because each had a clearly articulated conceptual framework.

Providing Practical Tools

The development of a well-conceived and tested "product line" enhanced the reach and impact of project innovations.

One measure of a project's success is the extent to which its ideas, strategies, approaches,

and products find acceptance and use by others, achieving impact beyond the project. BASICS' tools that have been adopted for use beyond BASICS-supported programs include PROFILES, MINPAK, the Emphasis Behaviors, and the Health Facility Survey. PROFILES and MINPAK continue to guide policy and program development beyond BASICS, and the Health Facility Survey continues to help focus efforts on assessing and improving quality of care. Such tools have been effective in defining trends and enhancing the breadth and sustainability of BASICS' influence.

The effectiveness and reach of BASICS' innovations might have been further enhanced by the development of a specific strategy for the transfer to or adaptation of BASICS' products and ideas by other organizations. A more clearly articulated "marketing" strategy would have helped to identify target groups for products, strategies for reaching targeted groups, desired impact, and a means for evaluating actual impact.

Implementation Strategies

Child Survival and Health Sector Reform

Consistent with ongoing health sector reforms, ministries of health are moving toward integrated approaches such as IMCI. Such integrated approaches provide an opportunity to address nutrition and community interventions, which have been historically seen as too complex or difficult.

Child survival programs have flourished in many countries that are engaged in health sector reform. The greatest successes are achieved where program managers are able to promote high-level political commitment to child survival. Effective managers have been able to assure

that child survival programs and health sector reform are mutually enhancing, by supporting reforms that benefit children, and by designing child survival intervention strategies that also promote the goals of health sector reform.

BASICS, as an integrated child survival project, was able to use IMCI as a driving force to introduce more comprehensive and effective approaches to child survival. For example, BASICS was effective in promoting the incorporation of nutritional interventions into health services. With its partners, BASICS broadened the concept of IMCI beyond improving health workers' skills to include community-level interventions to improve disease prevention, recognition of severe illness, and care seeking behavior.

Comprehensive Health Systems Strengthening

It is impossible to strengthen child health alone in a weak health system. However, child health can be used as a vehicle or entry point for strengthening the health system. Strengthening health systems requires a broad strategy that includes but is not limited to individual capacity building and training.

Training is an important strategy for improving health care quality, but training alone rarely results in sustained change of health worker behavior. The most successful interventions to change health worker performance have addressed the need to change the systems and incentives that sustain poor practices. Comprehensive approaches that engage health care providers in identifying the conditions necessary to changing behavior are most effective in improving the quality of care. Several promising approaches used by BASICS deserve further exploration and testing, including team approaches to quality improvement, pharmaceutical detailing, and the negotiated improvements for private providers model (PRACTION) piloted in

Asia.

Other components of the health system require greater attention. For IMCI, as well as for other interventions, there is a need for tools to assess and improve policies, information systems, logistics, and referral systems for child health objectives.

Advocacy

Advocacy is an important ingredient of BASICS' more successful programs. Successful advocacy requires timely dialogue with the highest level decision makers.

IMCI, for example, has profited from the global advocacy and information dissemination that helped generate interest, commitment, and support. Advocacy tools such as PROFILES have helped focused attention on the need for changes in nutrition policies and programs. Future efforts should be devoted to developing more such tools to guide review and revision of programs.

Enhanced Effectiveness through Intervention at Multiple Levels

Central technical assistance projects such as BASICS are uniquely able to take global innovations and strategies, create regional awareness, mobilize national support, and facilitate local implementation. Such multi-level involvement can accelerate spread of innovations, delivery of interventions, and achievement of health impact.

BASICS was able to provide a "bridge" from the global to the local. BASICS' partners were often constrained to working primarily at the local level, like PVOs, or at the national, regional, or global levels, like WHO and UNICEF. BASICS had the advantage of being able to work at all these levels. BASICS, therefore, brought the global state of the art to the most peripheral health facilities and communities, while ensuring that global strategies were informed

by the solid experience of field implementation.

Effectiveness of Regional Training

Regional training models are a very effective strategy to achieve broad impact and capacity building.

BASICS experience in regional training for radio in West Africa and the WHO/UNICEF communication training workshops for polio eradication in Africa suggest that these are effective strategies for individual and institutional capacity building. Such programs are strongest when they include a clear focus on country-specific implementation plans; are followed by technical, financial, and political assistance for implementation in the participating countries; and promote development of sustainable networks among the participating institutions.

Field Experience Lends Credibility

BASICS' field presence gave the project credibility by ensuring that the project's innovations and strategies were relevant to local needs and proven in the field.

Nearly all strategies and tools that BASICS developed found their inspiration in the field. Though a large centrally funded project may be a relatively inefficient way to run field programs, the field presence is critical for overall project effectiveness. For example, BASICS' Community Planning and Health Facility Survey tools were forged and tested in light of field needs and circumstances. Because of this "reality-testing," BASICS recommendations regarding implementation strategies were accorded substantial credibility.

Working with Communities and Households

Substantial reduction of infant and child mortality requires intervention at the community and household levels.

BASICS helped shift global attention toward the importance of community and household behaviors. Though BASICS' mortality studies documented the importance of household and community level factors, it was difficult to shift a proportional investment of attention and resources to address these factors.

Community involvement in the design, planning, implementation and monitoring of programs increases both the effectiveness of a program and the sustainability of the impact. In addition, working successfully with communities requires an integrated approach that includes economic and social development to complement and facilitate improvements in child health.

Management

Integration of Technical and Crosscutting Areas

BASICS activities were principally organized around technical intervention areas such as immunization, IMCI, and nutrition. Coordination among the technical areas and with crosscutting issues such as behavior change, private sector, and health sector reform could be improved.

There were missed opportunities to integrate interventions and capitalize on BASICS' expertise in crosscutting issues. For example, IMCI could have been used more effectively as an entry point to strengthen immunization activities and private sector partnerships might be used to deliver nutrition interventions. The most successful examples of such integration were from sites with field staff who had broad expertise and were well-informed about BASICS' activities globally. The future challenge will be to optimize synergy among these key technical interventions and BASICS' crosscutting areas of expertise. Improved mechanisms were needed to ensure that BASICS maintained a shared vision of common priorities for implementation.

Communications and Information Sharing

From the outset, projects should routinely document, synthesize, and share critical information both internally and externally. The communication plan should include a mechanism for communicating innovations, strategies, and lessons learned across geographic and technical areas and the plan should be periodically reviewed and revised.

Project leadership should play the role of catalyst for this information sharing, both within BASICS and with BASICS' clients and partners. USAID was effective in this role, for example, convening key partners to share information regarding the community component of IMCI. Though communication was strong within regional clusters, such as for LAC and West Africa, BASICS missed opportunities for stronger synergy among some of its technical working groups.

Collection and Use of Data

A central technical assistance project should document effective programs using quality data and should use the data to influence policy and programs more widely.

BASICS' best-documented programs had a broader impact because demonstrated effectiveness promotes replication. Small surveys conducted in collaboration with district health management teams were often most effective. In these settings, BASICS also helped to build local capacity for the collection and use of data and to promote the demand for information among decision makers.

Institutionalizing Child Survival

The five-year time frame hindered BASICS' effectiveness and the sustainability of its impact.

The five-year duration of the project introduced benefits such as a greater emphasis on

results and products and an increased reliance on partnerships. Because it was a project and not an institution, BASICS was frequently forced to defer to international agencies with a longer range commitment to implementation. To compensate for the drawbacks of its five-year duration, BASICS worked to get its ideas firmly implanted on the agenda of other organizations as a strategy for sustainability. Overall, however, the project's short duration decreased its impact. Particularly in the final year of the project, BASICS was unable to make commitments to partner agencies and host countries.

I. Introduction and Overview of the BASICS Project

a) What is the BASICS Project?

The Basic Support for the Institutionalization of Child Survival (BASICS) Project was funded by the United States Agency for International Development (USAID). The contract between USAID and the implementing agency–the Partnership for Child Health Care, Inc.–was signed on 30 September 1993, for a five-year period. That contract was extended for an additional 11 months. The Core Contract was intended to provide up to $73.2 million over the life of the contract to finance up to 4,325 person months of direct employee, consultant, and subcontract labor. A second, complementary requirements, contract was also signed on that date to provide for buy-ins to the contract through Delivery Orders, funded by USAID missions for specific services. The headquarters of BASICS was established at 1600 Wilson Boulevard, Arlington, Virginia, 22209.

The Partnership for Child Health Care, Inc. is a joint venture formed by the Academy for Educational Development (AED), John Snow, Inc. (JSI), and Management Sciences for Health (MSH). Sub-contractor partners on the project included: Clark Atlanta University, Emory University, John Hopkins University, The Manoff Group, PATH, and Porter-Novelli. Significant collaborating organizations included The Kingsbury Group, Tina Sanghvi Ltd., and World Education.

b) The Strategic Context

The Goal

The goal of the BASICS project, as set forth in the Core Contract, is to continue and sustain

reductions in morbidity and mortality among infants and children in developing countries. **The purpose** is to expand access to and use of Child Survival interventions, principally immunization and prevention and treatment of diarrheal diseases, acute respiratory infection and malaria among infants and children, and to increase and institutionalize the effective, efficient and sustained use of these interventions.

The goals and concepts of the Core Contract were based on previous USAID experience in child survival activities. This experience led USAID to articulate eight conclusions which were intended to help guide BASICS programming.

Underlying Experience-based Conclusions

1. The clearly focused nature of the child survival interventions must be maintained and access and use of these interventions must be extended. Particular emphasis should be placed on immunization and oral rehydration therapy.
2. A limited number of additional interventions will be required to reduce infant and child mortality. These include pneumonia and malaria, and those aspects of maternal and child health which are closely related to child survival. Although general nutrition and birth spacing are outside the scope of the contract, nutrition as it applies to child survival is of concern to BASICS.
3. Child survival programs must more effectively link interventions together to form effective systems for delivery of preventative and curative services.
4. Child mortality can be reduced, and sustainability improved, by increasing the effectiveness of delivery systems for child health services.
5. Improving the efficiency of child survival programs remains a priority.

6. Child survival programs must look beyond the public sector, including private health practitioners, non-governmental organizations, and producers of essential products.

7. Communications and behavior change are essential to provide information and stimulate demand.

8. It is essential to develop strategies to identify and deliver child survival services to high-risk subsets of the populations.

Outputs

The outputs for BASICS were largely derived from the foregoing considerations, and a series of 11 outputs are called for in the Core Contract. These 11 outputs naturally conflate into 5 categories, which provides a good overview of the major priorities articulated in the Contract, and provides insights into expected results. These 5 categories are as follows:

1. *Strengthen the Policy Environment.* Systematic assessments of policy related to child health and child health service delivery, resulting in policy dialogue and modification.

2. *Strengthen Service Delivery Programs.*

    a. Increased coverage of, access to, and use of EPI, CDD, ARI, malaria and related child survival services, including limited attention to nutrition.

    b. Development and application of service provider performance standards for delivery of EPI, CDD, ARI, malaria and related child survival services based on internationally accepted logarithms and recommendations.

    c. Systematic assessments and improvements in the functioning of critical components of the health systems delivering child survival interventions.

    d. Development and evaluation of approaches to integrate delivery of child survival

services. In addition, link interventions to promote effective service delivery.

e. Identification and application of approaches to reduce waste, duplication, and missed opportunities, and to better use available resources, in the delivery of child survival services.

f. Development and implementation of strategies to identify and provide child survival services to high risk populations.

g. An increased number of health workers and professionals with training and experience in technical and managerial skills related to child survival service delivery.

h. Improved plans for child health program operation and sustainability.

3. *Stimulate Demand and Behavior Change*. Effective, resource-appropriate information, education, and communication strategies for inducing and supporting appropriate preventive and care-seeking behaviors by families and health care providers. In addition, stimulate demand as a contribution to programmatic sustainability, effectiveness, and efficiency.

4. *Expand the Provision of Services and Products via the Private Sector and Improve Service Quality*. Identification and application of approaches to increase the participation of commercial and non-commercial segments of the private sector in the production, promotion, and delivery of child health related goods and services, including appropriate immunization and case management and prevention of diarrheal diseases, acute respiratory infections, and malaria.

5. *Global Technical Leadership*. Although not specified, BASICS staff understood from the outset that the project purpose, and many of these outputs, could not be achieved without a dedicated and focused effort to contribute to the policies and strategies of key donors and technical agencies, at the global and regional levels. It was further understood that part of the BASICS contribution to global child survival had to be in the form of technical innovation and adaptation. These unwritten understandings heavily influenced the partnering efforts of BASICS staff and leadership, and also influenced a number of programming decisions in ways that had favorable consequences. Therefore, from the project's perspective, this fifth category–that of Global Technical Leadership–was a central element of the project's mandate.

II. Overall Achievements and Lessons Learned: Key Technical and Cross-Cutting Areas

In late May 1999, the BASICS Project organized a major conference in Washington, DC, where the staff presented the major achievements, lessons learned, and other important information about the project, and reflected on international child survival more generally. The first day's presentations focused on the project's work in the areas of immunization, IMCI, and nutrition. Although these technical areas were the principal focus of each presentation, an effort was made to incorporate into each the linkages across the three areas, and also to reflect the roles and contributions to each of important cross-cutting interventions, such as behavior change, community, and private sector.

In addition to these three presentations, the conference included presentations which expanded on BASICS work in these cross-cutting areas, on health sector reform, and on the project's experience in a variety of countries and regions.

Section II is the written summary of the three presentations on immunization, IMCI, and nutrition. The presentations at the conference necessarily relied heavily on visuals to get the message across, and I have incorporated selected visuals into the text where they helped to explain or document the written text.

The conference also included a Tools Fair on the second day. The list of tools presented at that fair is included in the Appendix as part of the list of project publications.

a) Introduction

This section of the report describes BASICS' work in three key technical areas: immunization, integrated management of childhood illness (IMCI), and nutrition. These three areas responded to the needs of USAID, as well as to promising opportunities to have a positive impact on child survival:

- Immunization was a focal point from the start of the project, in part because BASICS was built on USAID's REACH Project, and because of evidence that global immunization coverage was stagnating after many years of growth.
- IMCI was first articulated by WHO and UNICEF in 1995. BASICS played an important role in expanding IMCI from a clinical training program into a program that deals with health facilities, health systems, and community and household health.
- Nutrition, and its integration into health programs, was emphasized after the release of findings by Dr. David Pelletier and others in 1994, which showed the importance of looking at mild and moderate malnutrition in children as an underlying factor in a large percentage of child deaths.

One of the fundamental premises on which BASICS was established was that many safe and effective interventions for dealing with the common biomedical conditions that affect children in developing countries already existed. Rather than work towards the development of new technological interventions, the project was designed to help with their broad dissemination and incorporation into programs, and with evaluations of their effectiveness.

As has been documented elsewhere, a team from BASICS, USAID, and the Center for Disease Control developed a strategic approach to child health program implementation that

became known as the Pathway to Survival. The pathway follows a child through health, illness, and the return to good health following an illness. It delineates actions and behaviors that can and should happen in the home as well as those that must take place within the health system and in the community. Immunization, IMCI, and nutrition all fall at various points along the Pathway to Survival.

b) Immunization

Context

Prior to 1975, global immunization coverage was estimated at about 5 percent. Childhood immunization, one of the basic building blocks for child survival, was an unrealized opportunity for the reduction of morbidity and mortality from some of the major childhood diseases. In 1975, the world responded by establishing the Expanded Program on Immunization (EPI). The long-term goal was universal childhood immunization by the year 2000. It was also recognized that immunization programs could spearhead the development and extension of basic health services worldwide.

By 1990, the world was on target for the 2000 goal and was immunizing 80 percent of the world's children with six antigens. Since that time, however, the picture for immunization has not been so bright. The World Summit for Children had established the goal of universal childhood immunization by the year 2000, but this goal will not be reached. Reported global immunization coverage stagnated at around 80 percent in the 1990s. In Africa, coverage never surpassed 60 percent. Cold chain equipment is aging and the resources to replace this equipment are not readily available. Health sector reform presents a challenging new environment for immunization and, if not properly managed, could erode some of the critical functions of a

preventive service. Donor investments in immunization systems were significantly reduced and the global community had difficulty focusing on a common agenda for the improvement of immunization services. In addition to expanding coverage for existing vaccines, promising new vaccines are available with the potential to greatly reduce common diarrheal and respiratory illnesses and liver disease. But these new vaccines are considered unaffordable in the very countries that need them most, even though some of them cost less than one dollar per dose.

USAID has always played a central role in the immunization area, both in its financial support of partner agencies and technically through its centrally-funded projects. When it launched BASICS in 1993, it charged the project with providing support to the improvement of routine immunization services, assisting in global programs to eradicate and control specific diseases, and finding ways to promote greater sustainability in national immunization programs. From 1993 through 1999, BASICS was the key technical player in immunization for USAID.

BASICS addressed many of the issues facing immunization, working at the global and regional levels, and in more than 30 countries. At the country level, BASICS' approach to diagnosing immunization needs was based on a programmatic pathway (shown in Figure 1) that took into account improving access to services, raising demand, improving performance, and improving quality of services.

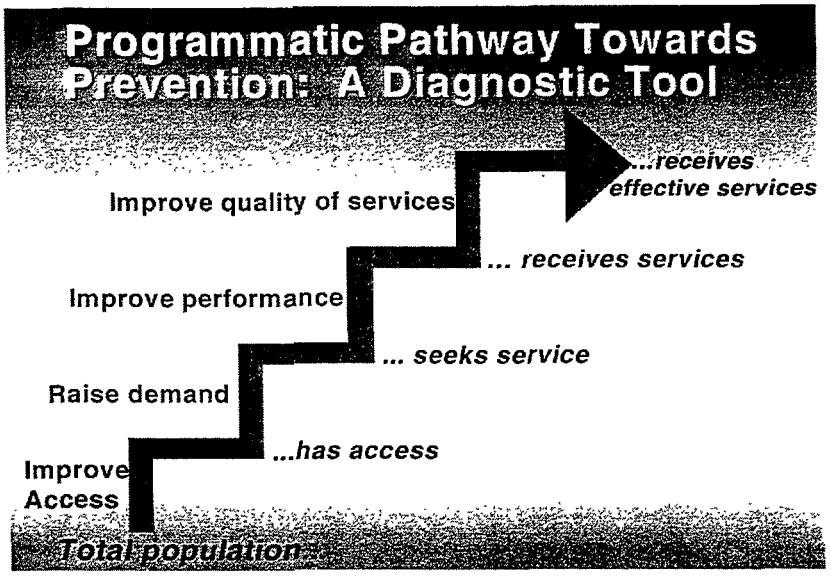


Figure 1. Programmatic pathway towards prevention: a diagnostic tool

Despite the utility of such a framework for diagnosis, however, solving the most intractable problems required a customized approach, rather than packaged solutions formulated from afar and applied uniformly across countries. Those challenges served as the basis for BASICS' three objectives for immunization.

1. The improvement of services so that all women and children are immunized effectively, efficiently, safely, and in a timely manner.
2. The introduction of appropriate strategies to reduce morbidity and mortality due to vaccine-preventable diseases.
3. The engagement of countries and global partners to assure the sustainability of immunization.

Objective 1: Improvement of Services

A well-managed immunization system is essential not only to deliver the vaccines currently included in the Expanded Program on Immunization, but also as a vehicle for the delivery of other primary health care measures and newer vaccines. To work toward the improvement of services, BASICS activities included the following:

- assisting in the development of national immunization policies,
- developing local monitoring and information management systems to aid health managers,
- upgrading quality of services, and
- linking preventive services: Vitamin A and NTDS.

To assist in improving immunization services, BASICS' work included the four following examples.

1. Revising of immunization policies: schedules and contraindications

When first asked to work in the NIS, BASICS was to be part of an emergency humanitarian response by the United States to donate vaccines. However, it became clear that vaccine donations were not a long-term answer. BASICS saw the transition in the NIS as an opportunity for the countries to recover and reform all aspects of their immunization programs. At the time, the NIS were following the old Soviet immunization schedule: they immunized each child with too many doses of vaccine and required too many visits to do so. BASICS worked in Moldova and the five Central Asian Republics on policy reforms that modernized and customized their immunization schedules to achieve efficiencies without compromising effectiveness.

With the new policies in place, Kazakhistan saved 16.5 percent of its total vaccine

budget; Kyrgystan, 6.7 percent; Moldova, 33.5 percent; Tajikistan, 15.6 percent; Turkmenistan, 11.9 percent; and Uzbekistan, 20.6 percent.

As a result, these six countries could realize an annual savings of about $1.3 million in vaccines and syringes. These savings are significant for national budgets with limited reserves of hard currency and many competing needs. The reduced need for resources increases the likelihood of achieving sustainability. In addition, they save even more resources from the fact that, because of policy revisions, children now need only 8 to 10 visits, rather than the previous 17 to complete their required vaccines.

BASICS provided similar technical guidance in Madagascar and Zambia to update policies, which also translated into vaccine savings.

In the NIS and elsewhere, many health specialists incorrectly believe that immunizations are too strong to give to some children. They deny children timely protection because of inappropriate medical contraindications to immunization.

BASICS organized seminars in seven NIS countries to give ministries of health the scientific evidence on which policies in the West are based. As there were no off-the-shelf models, BASICS created a special curriculum in Russian on vaccine safety and true and false contraindications. These materials have now been introduced into medical and nursing training in the NIS. The seminars also resulted in official decrees that reduced, simplified, and clarified the list of contraindications.

2. Better monitoring and information management

BASICS knew that changing lifelong patterns of medical practice takes more than official decrees. Improved monitoring was also needed. In the NIS, BASICS saw the need for a

monitoring and management system so that disaggregated data of better quality could be analyzed and used at the level of their collection for better management and problem-solving.

Despite copious medical records and an excellent system for tracking individuals, a monitoring system for immunization barely existed in the former Soviet Union. In a system used to top-down command and control, the bottom-up system proposed by BASICS was initially seen as suspect.

Before introduction of a monitoring system, for example, ministry staff in Kyrgystan did not think they had a problem with children being refused immunizations because of false contraindications. Yet in January 1995, before the start of a pilot monitoring project in a small area in Alamudin district, fully one-third of all infants were being denied DPT immunization. Within six months, the rate of denial had fallen to less than 5 percent. This permitted more timely immunizations and earlier protection against disease. When the monitoring was expanded to the rest of the district, the rate at which infants were denied DPT vaccinations fell from 17 percent in March 1995 to less than 5 percent one year later. With expansion of monitoring nationwide, only 2 percent of children were denied the immunization. The monitoring system also identified areas where DPT vaccine wastage was too high. This led to actions that resulted in 42 percent less vaccine wastage. Further, the Kyrgyz monitoring model was expanded to Ukraine, where the rate of denial fell from 19 percent to 8 percent in one province in one year.

The bottom-up monitoring system encouraged the continuing collection of accurate data and allowed staff to assess their own performance. This motivated them to improve performance without waiting for infrequent supervisory visits.

3. Quality of immunization services: improving injection safety

Immunization performance is frequently described by vaccine coverage rates, but quality is also an issue. With high levels of transmission of HIV and hepatitis B and C in developing countries, concern has increased about the safety of injections, including vaccines administered by injection.

Progress has been made in developing safer technology technologies, but the managerial, financial, and behavioral dimensions of the issue have been largely overlooked BASICS' contribution to injection safety included the following:

- An injection safety study in Eritrea that documented and analyzed the problem and its root causes. For example, BASICS heard from children who retrieved used syringes from a health center's garbage bin and from health workers who freely admitted giving used syringes to children as playthings.
- A worldwide electronic forum on injection safety and relative quality issues. The forum is now operated by WHO.
- A communications and advocacy strategy on injection safety, developed with WHO and the social marketing firm Porter-Novelli, which was then implemented by WHO, UNICEF, USAID, and CDC.

4. Linking preventive services: Vitamin A and National Immunization Days (NIDs)

The integration of different child health interventions has the potential to increase both the efficiency and effectiveness of health services. BASICS built on a World Bank finding, which identified the "EPI Plus" cluster (immunization plus vitamin A and iodine supplements) as the "most cost-effective health intervention available in the world today."

In 1998, BASICS took an active role in planning polio National Immunization Days (NIDs) in five countries: Madagascar, D. R. Congo, Zambia, Bangladesh, and Eritrea. Vitamin A was provided during these NIDs. At WHO's request, BASICS' nutrition and immunization groups jointly developed advocacy materials and a planning module on the addition of vitamin A to NIDs. In the midst of the chaos that generally accompanies massive campaigns, such materials helped ensure that the right children got the right amount of vitamin A and that the doses were recorded accurately.

National immunization days provide a temporary opportunity for immunization efforts to reach huge numbers of children with vitamin A. The greater challenge is to do this routinely despite the different target age groups and organizational obstacles between immunization and nutrition programs. As an integrated child health project, BASICS initiated the development of materials and approaches to break through the organizational barriers.

Objective 2: Introducing Appropriate Strategies to Reduce Morbidity & Mortality

While reduction of disease, disability, and death is the objective of immunization, the challenge is to achieve that objective in a manner that promotes sustainability and building of local management capacity. This longer-term view is constantly balanced against pressure for short-term improvements: for example, through special campaigns that relate only to a single disease entity.

The following three examples illustrate how BASICS sought ways to reinforce the local capacity for health planning by helping to establish measures to control specific diseases.

1. BASICS' contributions to global eradication of polio

The enormous effort to eradicate polio–a major public/private sector partnership–has entailed several years of nationwide and local campaigns, heightened disease surveillance, and strengthening of the routine immunization system.

BASICS technically supported the Polio Eradication Initiative by:

- providing technical guidance for USAID's polio results package, which served as the basis for programming of over $70 million of USAID funds in three years,
- strengthening routine systems as the platform for special disease control initiatives in 20 countries,
- assisting in planning of campaigns to break the chains of virus transmission, and
- helping to improve surveillance systems to pinpoint places needing special attention.

For example, in the Democratic Republic of Congo, a hotspot for global polio eradication, BASICS was asked to help plan local campaigns just three months after Laurent Kabila took power. The campaigns were conducted three months later. Through these campaigns, over 500,000 children received polio vaccine and vitamin A and 300,000 children were vaccinated against measles. In 1998 and 1999, BASICS, working closely with WHO, UNICEF, and the government, played a major role in planning NIDs for polio. Despite political turmoil and a four-month delay, the campaigns were carried out at some 5,000 sites and provided polio vaccine and vitamin A to over 97 percent of the 5 million children living in the politically stable half of the country.

Specifically, BASICS helped update technical policies and guidelines, conduct microplanning and training in some 174 zones, actively engage political and community leaders,

and strengthen the cold chain to distribute the vaccines. Future challenges will be to apply the planning and management efforts for NIDs to health services more broadly, while also conducting additional NIDs and stepping up surveillance efforts, in an environment of extremely difficult access and continued political instability.

2. BASICS' contributions in reaching the urban poor

A second example of BASICS' efforts to reduce morbidity and mortality was through focusing on high-risk groups, especially the urban poor.

The dense living conditions and poor sanitary circumstances facing the urban poor promote infections very early in life, when diseases are particularly devastating. The urban poor not only suffer unduly from infectious diseases, but also serve as a reservoir of infection for other groups. Yet, while such populations are very important in public health terms, they are generally viewed as being of little significance politically and economically: hence their health services are often limited and of low quality.

Immunization coverage figures for major cities often mask the true situation in slums. For example, a city-wide survey of Dhaka, Bangladesh in 1993 showed measles vaccination coverage of 65 percent. However, another 1993 survey within Dhaka's slums indicated coverage that was 19 percentage points lower, which is too low to really block transmission of measles.

BASICS advanced the use of special techniques for monitoring immunization coverage and disease incidence. The use of a method called lot quality technique allowed health officials to pinpoint particular areas in slums with substandard vaccination coverage, where additional effort and resources were needed. These data were used to raise coverage and mobilize local community and political leaders. Moreover, the support of these leaders led to the creation and

funding of positions for 53 new medical officers covering over half of Bangladesh's cities.

Through efforts designed to develop local health management capacity, some 13,000 measles deaths, 11,000 neonatal tetanus deaths, and 4,800 whooping cough deaths were averted last year alone in urban Bangladesh (Figure 2). The risk to infants of death from measles has been cut almost in half since USAID's urban immunization efforts began a decade ago.

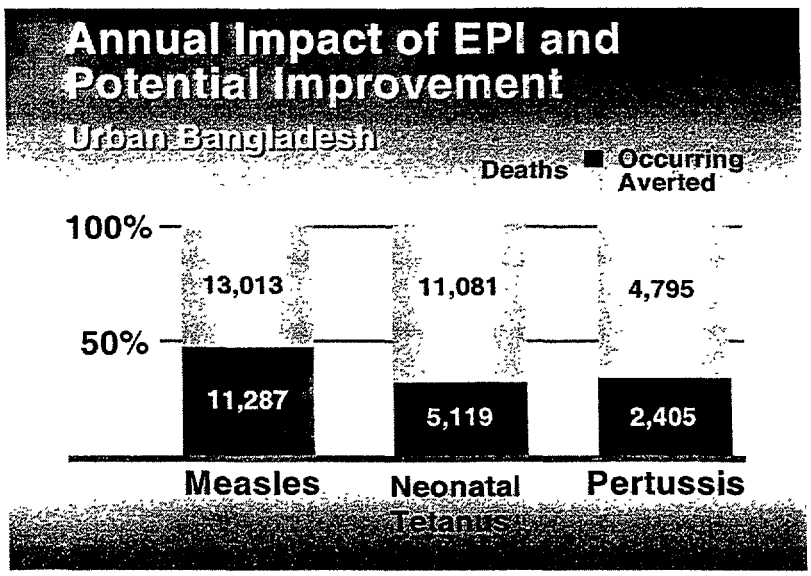


Figure 2. Annual impact of EPI and potential improvement in urban Bangladesh.

3. BASICS' contribution to diphtheria control in the NIS

BASICS' work in the NIS to control the largest epidemic of diphtheria the world has seen since World War II serves as an illustration of the project's prevention efforts. After being under control for 30 years, an epidemic of diphtheria swept through the former Soviet Union in 1990, spreading from Russia to all the NIS. By 1995, the area accounted for 90 percent of diphtheria in the entire world.

At the regional level BASICS participated with WHO in designing a strategy for diphtheria control. BASICS also identified and translated into Russian many key supporting documents to allay Ministry skepticism about the science behind WHO's new and unfamiliar policy pronouncements on diphtheria control. Based on the trends, WHO predicted that without preventative measures, 600,000 cases and 41,000 deaths would occur in the late 1990s. WHO later estimated that the countries, together with international partners including BASICS, prevented 560,000 diphtheria cases and 15,000 deaths.

As an example of country-level work, in Moldova, BASICS provided intensive logistics, communications, and management support for mass immunization campaigns, as well as guidance on improved clinical management of diphtheria cases and contacts. Moldova is noteworthy in that it experienced the shortest epidemic of any of the NIS. In Russia, BASICS used the diphtheria epidemic as an opportunity to expose colleagues to modern methods of public health communications to change behaviors. The Russians developed the capacity and strategies to use persuasion rather than coercion to raise immunization coverage.

Objective 3: Engaging Partners and Countries to Assure Sustainability of Immunization

At the country, regional, and global levels, BASICS coordinated with partners to develop and implement strategies for improving the sustainability of immunization. BASICS assisted countries in developing long-term immunization plans that identified resource requirements and funding sources and mobilized private and public sector partners for immunization service delivery.

BASICS also developed new approaches to strengthen national capacity for vaccine

procurement for countries to become self-sufficient in obtaining vaccine supplies. BASICS first developed a practical step-by-step manual with guidelines on how public sector programs can procure vaccines. BASICS and WHO jointly published this manual.

BASICS then led Moldova through an exercise to build capacity to contract and finance (i.e., to procure) quality vaccines at competitive prices on the international market. At the same time, USAID and the Government of Japan were exploring new ways to continue their pioneering collaboration on child immunization in the NIS, which they had begun in 1993. BASICS was able to link Japan's financial resources, which were usually available for simple one-time donations of vaccine, with the procurement training in Moldova. This culminated in Japan funding the Moldovans to procure, at a very good price, hepatitis B vaccine, a needed vaccine that they were unable to obtain through the standard UNICEF supply mechanism. Moldova subsequently used its procurement knowledge without any further technical assistance from BASICS to become more savvy customers on the international market. They procured other vaccines using their own funds.

BASICS adapted this approach to procurement to Africa. In Zimbabwe, BASICS consulted with staff responsible for vaccine procurement, to customize the manual and approach to African countries, where appropriate.

Dissemination

BASICS published its immunization findings in a number of peer-reviewed and other publications. The project also worked closely with WHO and UNICEF to co-publish approximately ten technical products. These partners co-owned the products, which helped expand their dissemination and use.

Lessons Learned

From its work in immunization, BASICS developed the following lessons learned:

- Improved policies–as shown in the adjustment of immunization schedules in the NIS–reduce resource requirements.
- Monitoring–such as the bottom-up monitoring system introduced in the NIS–improves motivation, performance, and data quality.
- Concerted advocacy efforts are needed to raise awareness and promote ownership and action for unpopular problems, such as injection safety.
- A "simple" idea, such as the integration of vitamin A and immunization, requires detailed analysis, informed by field experience, to become operational.
- From experience with the polio campaign, deliberate action is required for disease control efforts to strengthen routine health services.
- Improving health services in high risk urban areas requires a mix of strategies that address epidemiologic, institutional, and political issues.
- Global policies must be adapted and made operational in the local context.
- Innovative procurement approaches and financing mechanisms are needed so that countries can achieve self-sufficiency.

Future Challenges

Immunization as an integral part of child health faces serious challenges, as well as exciting new opportunities. Immunization coverage and quality with existing vaccines must expand to reach underserved areas and populations at highest risk. Sustained national financing must be

mobilized to maintain strong immunization systems, which then become the vehicle for introducing new vaccines. In addition, immunization programs need to adapt to remain dynamic and innovative. Health sector reforms must be properly managed to ensure that essential public services like immunization continue to achieve their health goals. Immunization services can also create opportunities not only to introduce vitamin A, but also essential health messages, e.g. on family planning and breastfeeding.

Although much has been achieved by BASICS and its partners, much remains to be done. While immunization services remain fragile in many countries, the future holds great promise. The international community must continue to build strong and competent routine immunization systems to improve the health of children alive today, as well as the health of tomorrow's children.

Immunization requires stable and adequate financing, as well as strategic technical assistance. An immunization program requires more than just the provision of vaccines. It is a vital structure with many parts in need of constant attention, service and maintenance. No one partner is single-handedly taking care of immunization–and no one partner can. The job is too big and multi-faceted for any single partner.

c) Integrated Management of Childhood Illness (IMCI)

Background

WHO and UNICEF introduced IMCI in November 1995 as a strategy for governments to integrate the care of sick children coming to first-level facilities. IMCI combines improved management of childhood illness with aspects of nutrition, immunization, and other important

factors influencing child health, including maternal health. BASICS began implementation of the IMCI strategy in early 1996.

In contributing to implementation of the IMCI strategy, BASICS:

- engaged and helped shape the global technical discussion with WHO, UNICEF , and other partners;
- helped regions and countries adapt and implement the IMCI strategy to their own local environments;
- documented and researched various technical and operational areas of the strategy with the aim of improving upon them; and
- developed–in collaboration with partners–support materials, methodologies, and approaches that did not exist when the IMCI strategy was first released.

One of the many tools that BASICS developed was a mortality study, which helped planners identify barriers faced by caregivers, communities, and health services in the care of sick children. A mortality study conducted in El Alto, Boliva, illustrated the importance of non-medical, non-biological factors in the care of sick children and the role that the IMCI strategy could play in child survival. In this community, of 146 children who died of pneumonia and diarrhea, the severity of the disease had only been recognized in 43 percent of the cases. Only 44 percent of caregivers sought outside help. Of these, only 22 percent went to public health facilities. Only 7 percent of the cases received quality care at the facility, and only 2 percent received appropriate home care. Behind these statistics lay individual stories of families who thought they were doing the best they could for their children but who faced obstacles both at home and at health facilities.

As described in the following sections, to solve many of these community–and facility–based problems, BASICS focused on three, interconnected components:

1. Improving health worker skills, including case management standards and guidelines; training of facility-based public health care providers; defining IMCI roles for private providers; and maintaining competence among trained health workers.
2. Improving health system support, including district planning and management, availability of essential drugs at health facilities, organization of work, quality improvement and supervision, referral pathways and services, and health information systems.
3. Improving family and community practices, including appropriate care seeking when needed, nutrition, home case management and adherence to recommended treatment, and community involvement in health services planning and monitoring.

Improving Health Worker Skills

The auxiliary nurse or other non-professional technician at a first-level health facility represents the primary contact between caregivers and the health system, yet this person is often not properly trained to deal with the cases that he or she sees. Young children are not often brought to a facility in a timely manner, due to concern by families that health workers are ill-prepared. When a child is not brought to a health center until all the family's other options are exhausted, he or she may already be in critical condition, and the nurse is at risk of being blamed for the child's death if it occurs.

To improve this situation, WHO and UNICEF spent several years developing an IMCI training course that provides clinical experience and emphasizes an integrated approach to health

care. It is built around an algorithm that guides the health worker through a systematic assessment of a child that does not stop with the presenting symptom, but rather provides a complete assessment of all classifications for which a child is at risk. This standard IMCI course is eleven days: sixty percent of the course is clinical-based and 40 percent takes place in a classroom, where participants work through a series of modules that cover different technical areas and provide exercises and practices.

One of IMCI's strengths is that it recognizes the central role that the mother or other principal caregiver plays. IMCI training encourages the health worker to enter into serious dialogue with the mother, to ask her additional questions about the child, to determine what care is feasible in the home, to demonstrate how to administer drugs, and to evaluate the mother's understanding of what she has heard.

Impact of IMCI training

Before conducting training in Bolivia in 1997, BASICS carried out a baseline survey with health workers to measure the degree to which they were practicing some of the clinical case management skills encouraged by IMCI. In April 1999, in conjunction with WHO and PAHO, BASICS carried out an evaluation in these same districts. At baseline, virtually no health workers asked about all disease classifications. By 1999, after training, 92 percent of health workers asked about all disease classifications (Figure 3). In 1997, just over half (52 percent) charted children's weight; that number increased to 89 percent after IMCI training.

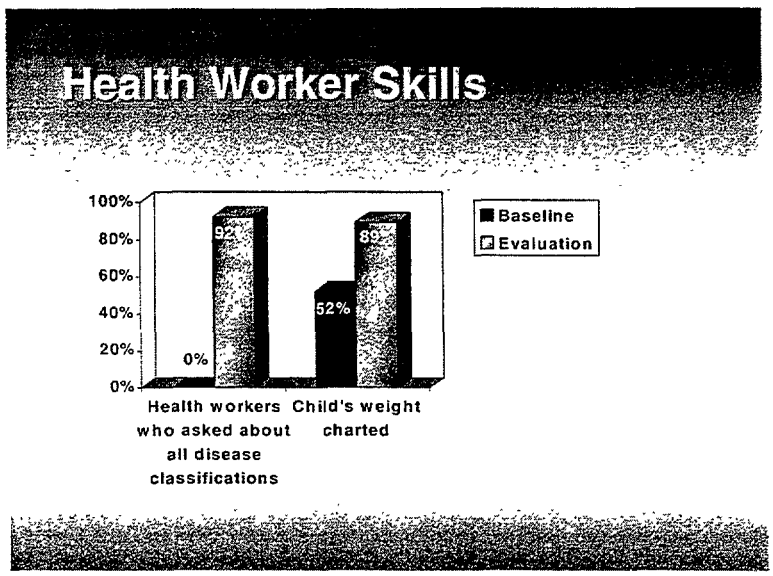


Figure 3. Increase in health worker skills in Bolivia after IMCI training.

Similarly, IMCI training helped bring about a marked reduction in inappropriate prescribing practices. This has implications not only in reducing drug resistance, but also in increasing drug availability for appropriate use. In the 1997 baseline, inappropriate use was observed in 30 percent of the districts observed. Following training, this was reduced to only 6 percent.

IMCI training can also have a positive impact on caregiver comprehension, a crucial aspect of follow-up care. During exit interviews with mothers at baseline in 1997, only 12 percent could correctly recall instructions for taking medications and only 7 percent could recall signs that indicated the child needed to return to the center. Following training of health workers, these numbers increased to 48 and 66 percent respectively.

BASICS' role in training was two-fold: facilitation of national adaptation of the standard

IMCI course in 30 countries and application of the materials at the district level to increase access. A good example that demonstrates the second role was the development of the IMCI complementary course.

IMCI complementary course

To reach the significant numbers of health workers in rural areas of Africa and Latin America whose less-developed reading skills could be a barrier to completing the standard course, BASICS felt an approach to complement the standard course was necessary. Together with World Education, which specializes in adult learning, BASICS developed a more experienced-based course, identifying what health workers were currently doing and building on those practices. It was designed to be highly interactive to engage people unaccustomed to learning in a classroom environment.

Work on what became known as the IMCI complementary course began in Zambia. Rural health workers and facilitators trained in the standard IMCI course received further training in adult education techniques by World Education. They helped develop a course with the same technical content, but which was more user-friendly for their rural co-workers. This course was later translated and further refined and field-tested in Bolivia. World Education was again brought in to work with Bolivian facilitators to develop a trainers' manual using the complementary course materials to improve trainers' facilitation skills. The complementary course is now the preferred methodology for training auxiliary workers in Bolivia and was incorporated into the pre-service curriculum of nursing schools. Equally important, the entire package is now free-standing and replicable by the Bolivians themselves. The Zambians and Bolivians involved in the development of the course incorporated adult learning techniques into

other materials and could serve as regional resources.

As in the complementary course, BASICS also worked with partners in other areas to adapt the IMCI course content to meet a variety of needs. In Guatemala and other countries, BASICS worked with PVOs to adapt IMCI to their continuing education programs. In many countries, the majority of care is delivered by private practitioners. In Pakistan, BASICS was involved with an intervention in which new standards of care were shared with practitioners. In a number of countries, BASICS worked with ministries interested in reducing the length of the IMCI course for professional staff, while retaining the quality of its technical support.

Improving Health Systems

Improving health systems means preparing health facilities to help clients when they need medical attention. Constraints include inadequate drug supply and quality of the facilities. Examples of BASICS' work in IMCI in the areas of improving health systems, improving drug supply and strengthening supervision are described below.

Improving drug supply

When a primary health care facility does not have essential drugs on hand, it loses a chance to administer treatment and also loses the confidence and the respect of clients. Having essential drugs in health facilities can literally make the difference between life and death.

BASICS assisted many countries to improve the availability of essential drugs. For example, in Niger, BASICS helped the Ministry of Public Health manage cost recovery with community participation. Collected fees were utilized to purchase essential drugs. The community participated in determining reasonable fees and in selecting community members as stock keepers; focusing limited resources on purchasing essential drugs; promoting rational drug

prescribing to ensure effective treatment and avoid drug wastage; and training health workers in simple techniques of stock management.

Health facility stock keepers were trained to keep a single stock card for each drug item; monitor the consumption of drugs; and take timely action to replenish the supply to avoid stock outs. This resulted in the improvement and the availability of three essential drugs: ORS, essential for treatment of dehydration; chloroquine, the recommended drug for treating malaria; and cotrimoxazole, the drug of choice for pneumonia.

In 1997, in the Konni district of Niger, ORS was only available for two months during the entire year. In 1998, after the intervention, ORS was available year-round. Improvements in the availability of chloroquine (available 11.4 months of the year before the intervention and all 12 months afterwards) and cotrimoxazole (available 9 months of the year before the intervention and 11 months afterwards) were also achieved (Figure 4). As a result of the improvement in the availability of drugs, health workers were able to treat more cases.

In Africa and Latin America, BASICS supported a wide range of interventions to improve drug supply, including development of essential drug lists, management of revolving drug funds, training in needs estimation and stock management, and promotion of rational use of

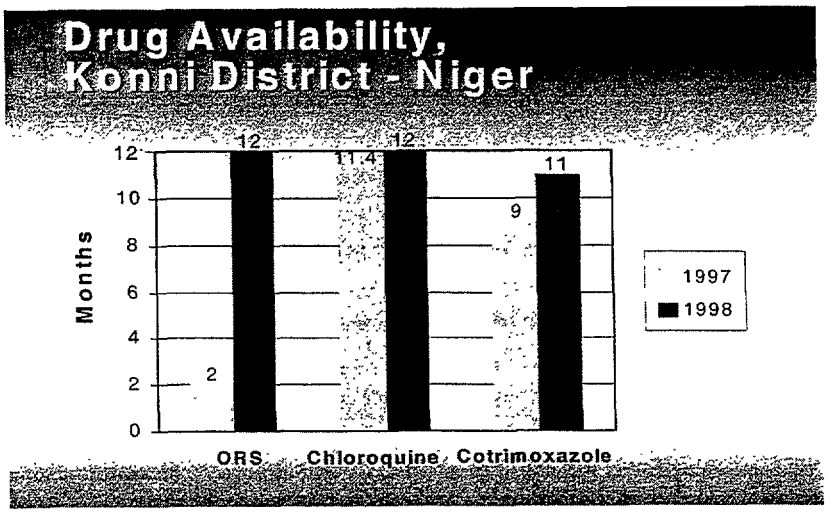


Figure 4. Increased availability of essential drugs in Konni district, Niger

drugs. To accomplish this, BASICS partnered with the Quality Assurance Project in Africa, especially in Niger and Zambia, and with PAHO and the Rational Pharmaceutical Management project (RPM) in Latin America, especially in Ecuador and Bolivia.

Strengthening supervision

While training health workers is essential, they cannot maintain their skills without an effective supervision system to reinforce skills they learn through training.

BASICS contributed to the improvement of the supervision system in countries in Latin America and Africa by training district-level supervisors in clinical IMCI and in effective supervision techniques and by promoting a more supportive supervision style, rather than the traditionally authoritarian style of many supervision systems.

BASICS developed tools to improve the effectiveness of supervisory visits, and better performance by health workers resulted. The impact can be seen after an intervention in

Zambia's Lusaka District. Before IMCI training in 1996, health workers counted the respiratory rate of very few children. After IMCI health worker training, the number rose to almost 80 percent. However, over time, the percentage started to drop again. When supervision was introduced to reinforce this clinical skill, the proportion of children who had their respiratory rate counted rose once again, to more than 80 percent (Figure 5).

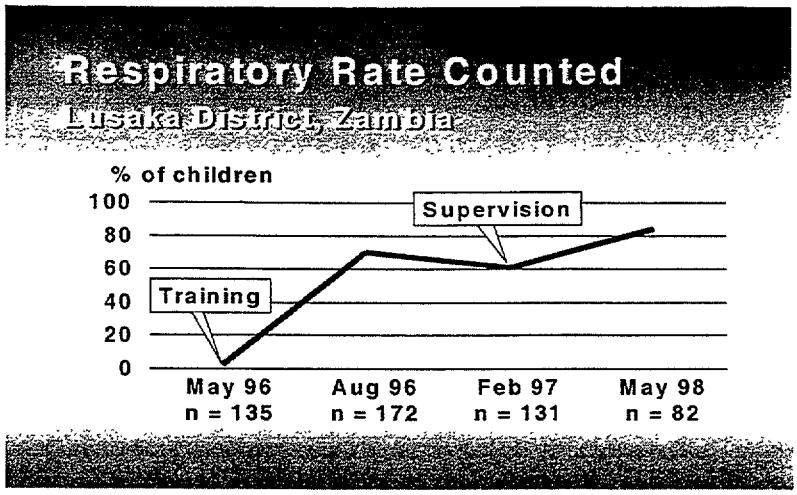


Figure 5. Effect of supervision on health worker performance in Lusaka district, Zambia

In another example from Zambia, inappropriate prescription of antibiotics for children with diarrhea decreased from more than 40 percent before IMCI training to approximately 10 percent after the training three months later. Yet, with time, health workers started to go back to their old prescribing pattern. Once again, supervision reinforced a clinical skill acquired through training and this negative practice declined again to only 10 percent.

BASICS assisted in transferring lessons learned about improving health systems from one country to another. For example, from its work in Zambia, BASICS learned to change the

sequence in the introduction of IMCI to an area. Specifically, it was realized that training of supervisors and addressing problems of drug supply were more suitable *before* training of trainers and health workers, rather than afterwards.

Improving referral systems

First-level health facilities are usually not equipped to treat very sick children, those who have one of the general danger signs. Hence, referral of such children to district hospitals is an important part of IMCI. BASICS contributed to documenting the effectiveness of the referral system in a number of countries and pointed to the importance of improving it. For example, in one study in Niger, it was shown that only 23 percent of children were referred to a hospital when their situation warranted it.

Improving Family and Community Practices: Community IMCI

Definitions and practices

The formal definition of community IMCI is improving family and community practices that are important for child survival, growth, and development. But the essence of community IMCI is what UNICEF and WHO have called twelve key family practices. These practices include preventive behaviors, such as improved feeding, immunization, and the use of treated bed nets; treatment practices, including the use of ORS and appropriate use of medications; care seeking outside the home for cases of serious illness; and reproductive health practices, including mothers taking iron tablets during pregnancy and making a minimum number of prenatal visits.

To achieve these practices, community IMCI focuses on three main elements:

- education of caregivers by health workers, community promoters, and through the mass media, so that parents can better manage a sick child in the home;

- mobilization of community resources, such as village leaders and community-based organizations; and
- improving case management of sick children by community health workers and other local health practitioners.

BASICS' community IMCI work

BASICS provided technical input to the global discussions on community IMCI and worked closely with UNICEF, WHO, PAHO, and PVOs to help define community IMCI and look at effective approaches. The mortality studies mentioned earlier, for example, were key in documenting important failures in the treatment of sick children in the home and community in many countries. BASICS also contributed the "emphasis behaviors" approach, which identifies the specific behaviors most commonly associated with morbidity and mortality. These were an important input into the definition of community IMCI's twelve key family practices.

BASICS also developed and tested a variety of community approaches and tools in more than ten countries. In Madagascar, for example, BASICS worked with the Ministry of Health on a community-based communication program, training hundreds of community volunteers to use counseling cards and village theater groups to support the IMCI strategy. The program resulted in impressive nutrition results (see Section on Nutrition, below) and the education of parents about the danger signs of ARI and other illnesses. In one area when an intensive intervention took place, parents' recognition of three important ARI danger signs increased significantly. (Figure 6).

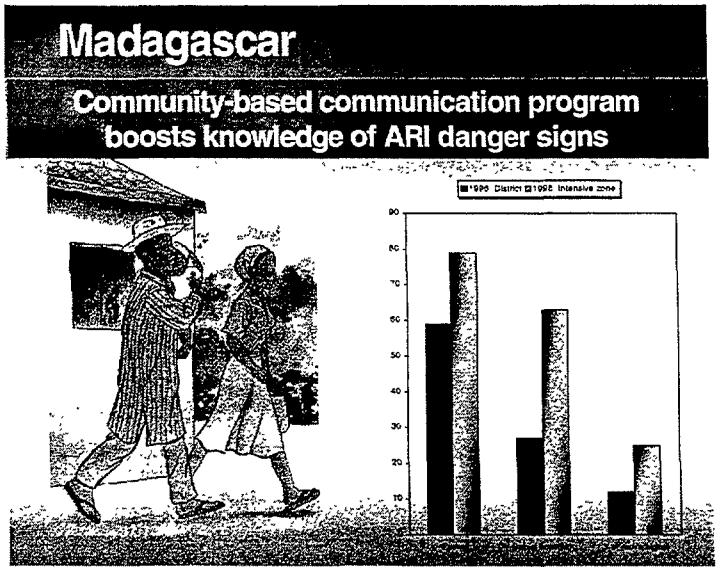


Figure 6. Increase in caregivers' knowledge of ARI danger signs as a result of community IMCI

In Honduras, a growth promotion program reached nearly 100 percent of young children and their mothers on a monthly basis in 180 communities (see Nutrition, below). What is significant, in addition to the nutrition component, is that the program was an effective mechanism for introducing community IMCI in the form of educating mothers about caring for sick children and how to prevent illness.

In Zambia, BASICS helped train neighborhood health committees in several provinces in health promotion techniques and also developed a community health worker curriculum and materials that were adopted nationally. As an example of this approach, the cumulative sale of mosquito bed nets by neighborhood health committees in the first four months after they were introduced in six pilot communities rose from about 200 to more than two thousand. PSI was a collaborating partner with BASICS in this promising social marketing effort.

In Morocco, BASICS worked with the Ministry of Health in developing and field testing

a tool for participatory community planning for IMCI. This was significant in a country with a very centralized health system. It generated a high level of interest in community-based approaches, both in Morocco and elsewhere in the EMRO Region. One particularly important finding from the use of this approach was that it produced visibly increased participation by local women in the planning process.

In Pakistan, a local NGO and community members were engaged in improving the practices of private providers, who are usually responsible for health care in South Asia. First, by interviewing patients, the NGO assessed the treatment the providers were currently giving. Based on this assessment, the providers were given abbreviated IMCI training, essentially to the treatment guidelines provided in the IMCI algorithm. Then, the NGO continued its assessment of the providers' practices and gave them feedback. Prescription of ORS for diarrhea, promotion of feeding for sick children, and timing respiratory rates to diagnose respiratory illness all increased significantly after the intervention (Figure 7).

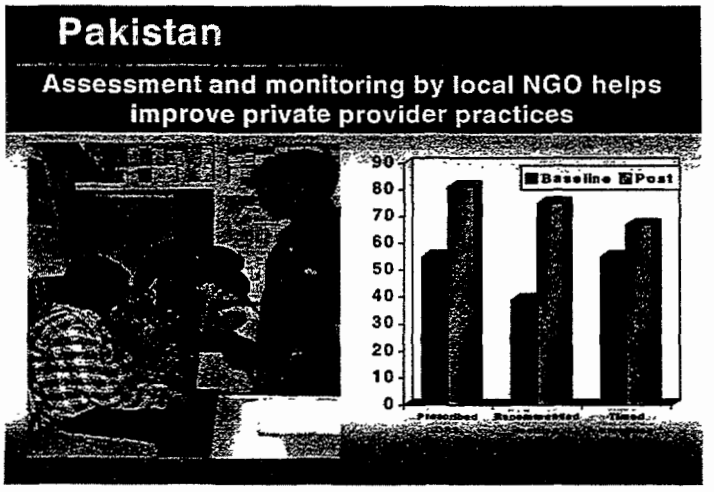


Figure 7. Improvement in private provider practices in Pakistan through community IMCI

In Ecuador, thanks to strong support for IMCI in the Ministry of Health and the strong partnership with donors, the community IMCI program in the province of Imbabura became a center of excellence for officials from other parts of the country to see a comprehensive community IMCI strategy.

An emerging issue in IMCI: perinatal care

The perinatal period starts at 22 weeks of pregnancy and ends seven days after birth. The neonatal period starts at deliver and ends at 28 days of life. Thus, the two definitions actually overlap in that first seven days of life.

The IMCI strategy currently begins when an infant is seven days old. Yet, of the 8 million infant deaths occurring annually, almost 3.4 million occur during the first week. Additionally, 4.3 million stillbirths occur every year. Ninety-eight percent of these perinatal deaths occur in developing countries: a rate almost six times higher than that of the developed countries.

These events are so common that many societies accept them as normal. Sixty-three percent of births in developing countries take place at home. And as WHO recognizes, vital registrations of these fetal deaths, still births, and live births are available only for about one-third of the world's population. Analysis shows that in countries with misreporting, or incomplete reporting, perinatal mortality is underestimated on average by 40 percent and neonatal data underestimated by 20 percent.

While some information about the medical causes of death exist, there are not much data on the careseeking behavior of the family and other key caregivers. Such information is particularly lacking for the perinatal and neonatal periods. BASICS, together with the Johns

Hopkins University and the MotherCare project, adapted the mortality tool used in Bolivia to look at late pregnancy and first-week deaths in Guatemala and Cambodia.

As deaths from causes such as ARI and diarrheal diseases decrease, perinatal mortality and neonatal mortality are representing an increasingly large proportion of the burden of deaths in children under 5 years.

And as such, the goal for the next decade for child survival will be to reduce deaths amongst these infants. IMCI will play a critical role in this strategy, particularly from the community perspective.

Lessons Learned

From its work in immunization, BASICS developed the following lessons learned:

Improving health worker skills

- The IMCI training course not only provides useful training, but also is an effective marketing tool. It shows in action the general discussion about the importance of integration in health programs.
- IMCI training responds to the needs of ministries and health workers. Ministries that were already struggling with the issues of training integration and defining a central package of services, welcomed the IMCI course as a viable option.
- Health workers, especially first-line health workers, value the course because it trains them to resolve problems they previously needed to refer.
- One standard course cannot meet all training needs. A facility-based, eleven-part course is not feasible for all health workers who need to be trained. While protecting the technical content, adaptions can provide more access to those who need training.

Improving health systems

- Training is essential, yet not sufficient without system support.
- Improving drug management and supervision are time-consuming tasks, hence both need to be addressed early in the process of IMCI introduction, before training of health workers.
- Supervision is more effective when conducted with structured tools. IMCI supervisors need to receive two types of training: clinical IMCI training and effective supervision techniques.
- Improving referral systems should be part of the IMCI introduction in a district.

Improved family and community practices

- It is important to work with existing community groups, such as women's associations and schools, rather than necessarily establish new groups. Local health providers, private doctors, drug sellers, and others are also important local groups to involve.
- Participatory community planning tools can help health workers engage communities in meaningful ways at the start of the community IMCI effort.
- It is necessary to accommodate community needs and interests in areas outside health. In many communities, health issues are not a top priority. Thus, ministries of health must work with other sectors to address these needs while continuing to focus on the primary causes of child illness and death.
- Health workers need to be trained not only in IMCI clinical skills, but also in community development skills that will help them work more effectively with community leaders and organizations.

- Community action needs to be linked to national support, so that proven interventions go beyond pilot programs in one or two communities.
- There must be greater attention to improving the communication and marketing skills of health workers and greater use of the mass media and community channels to communicate health messages to parents.

Future Challenges

The above represents a sampling of BASICS' work in IMCI over approximately a three-year period, from 1996 through 1999. Although it is impossible to measure mortality impact at this point, some significant milestones were reached.

By 1999, IMCI was being implemented in some form in approximately 65 countries around the world. In more than half of these, BASICS participated in some way.

When IMCI first was introduced, it was only a clinical skills course. It grew into three strong components. BASICS and projects similar to it, because of their capacity to link global technical discussion to national and community implementation, are in a special position to coordinate with international partners and with other USAID activities at regional and country levels, to bring IMCI to scale.

Although many advances were made, each of the IMCI strategy components needs to be further developed. Particular emphasis needs to be placed on the improvements of health system supports: improving drug supply and supervision systems, strengthening referral systems, developing centers of excellence where health workers can come and learn hands-on how to work more effectively with communities, and improving the practices of local providers.

The perinatal and neonatal components of child health must be better incorporated into

IMCI so that the care of the young infant is seen as a continuum that begins with the health of the mother. Governments must work with international agencies and other partners to assure both the political and financial sustainability of the IMCI strategy and of other integrated and integrating approaches to child health. To accomplish this, a long-range vision–looking ahead to the next decades–must be developed.

d) Nutrition

Context

BASICS transformed the science of nutrition into the practice of nutrition. The project contributed substantially to advancing the state of the art globally on how to address nutrition through the health sector. Over 20 countries gained from this work, including Bolivia, Ecuador, El Salvador, Guatemala, Honduras, and Peru in Latin America; Benin, Congo, Eritrea, Ghana, Madagascar, Mali, Senegal, and Zambia in Africa; and Bangladesh, Cambodia, Kazakhstan Kyrgystan, and Uzbekistan in Asia.

Although started late in the BASICS project, nutrition rapidly grew to become an important part of many BASICS country activities. With partners such as UNICEF, WHO, the World Bank, other USAID projects (Linkages, OMNI, MOST, SANA and SARA), and many others, countries benefitted from this work.

Several factors were behind the decision to focus on the integration of nutrition in health programs. As mentioned earlier, in 1994, shortly after BASICS began, Dr. David Pelletier and colleagues published results that showed convincingly that more than half of all childhood deaths are associated with malnutrition. It is not only clinically recognizable severe malnutrition that is at issue, although the risk of mortality in the severely malnourished is particularly high. The

bulk of those affected are the 80 percent of all malnourished children who are mildly to moderately malnourished. Their risk of dying is lower, but because they are so numerous, the overall impact on mortality is substantial.

In addition, the large effect of micronutrients, especially the role of vitamin A in decreasing mortality, was becoming increasingly validated and accepted on the basis of new and repeated research.

Organizationally, the merger of the USAID Office of Health and the Office of Nutrition made it easier for a single project to work in what had previously been the concerns of two separate offices.

Despite these developments, there had not been much change at the country level. The newer research results regarding protein energy malnutrition had not been incorporated into programming, and even the findings regarding the importance of subclinical micronutrient deficiencies were not well known. Within a health system, nutrition activities usually consisted primarily of diagnosing and treating children with severe malnutrition. Nutrition counseling, growth promotion, and other preventive measures had not adequately penetrated public health practice. Within ministries of health, divisions of nutrition were often physically and politically isolated, and their directors did not always have good access to policy makers.

This is not to say that there were no successful efforts until BASICS came along. However, those nutrition initiatives that were being implemented were usually one-time efforts, had diffuse goals, or were inadequately formulated to ensure sustainability.

Still, health workers in clinics and hospitals continued to come in contact with thousands of mothers and children each day. Without programs to support their work in nutrition diagnosis

and counseling, countless opportunities were being missed.

BASICS benefitted substantially from USAID's long history in nutrition investments. USAID has supported work looking at the effectiveness and the cost-effectiveness of breastfeeding. The agency was also a leader in funding Vitamin A research and in documenting and disseminating its impact on child mortality. More recently, increasing attention had been paid to the role of other micronutrients on child health.

This background, combined with the fact that WHO included nutrition counseling in its then fairly new IMCI strategy and BASICS' USAID technical officers supported the development of a strong and effective nutrition strategy, convinced the BASICS team to implement nutrition programs not separately, but in conjunction with health programs.

BASICS' Strategy and Results

BASICS' strategy to integrate nutrition included:

- Advocacy. The Pelletier data were reviewed, summarized, packaged for mass consumption, and widely disseminated. In addition, a software package called PROFILES was adapted for a variety of countries and presented to national policy makers. It provided an attractive and compelling case for both the health and economic benefits of nutrition interventions. PROFILES quantifies the consequences of malnutrition on mortality, morbidity, work productivity, and school performance, and then demonstrates the economic and human benefits of improving the nutrition situation.
- Focus on mild and moderate malnutrition and subclinical deficiencies. To back up its advocacy efforts, BASICS, working with a broad array of partners, developed technical guidelines that focused on preventing mild and moderate malnutrition and dealing with it

when it occurred. Support to micronutrient programs was also included. Of particular note, as will be discussed later, the guidelines that BASICS helped develop were based on consultations with mothers and were specific and practical.

- Integration of nutrition into health. BASICS strove to convince others that nutrition should and could be integrated into a wide variety of both clinic-based and outreach programs.
- Development and application of practical tools. BASICS worked out a Minimum Package for Nutrition (MINPAK) and developed simple and practical tools to facilitate the incorporation of the six interventions in the package into maternal and child health services. MINPAK took advantage of existing programs and used them as a launching pad to improve nutrition. In particular, IMCI and national immunization days associated with the polio eradication initiative were targeted.

MINPAK is a set of nutrition interventions that centers around six critical contacts to promote six proven behaviors through three delivery channels. The six proven behaviors are: promotion of exclusive breastfeeding up to six months of age; appropriate complementary feeding from six to twenty-four months of age; adequate nutrition management of the sick child; adequate vitamin status for the child and mother; adequate iron for lactating and pregnant women; and the consumption of iodized salt.

The six critical contacts represent regular times when a mother is in contact with the health system: prenatal visits, delivery and post-partum, post-natal visits, immunization contacts, sick child visits, and well child visits.

Finally, MINPAK identifies three delivery channels: through health workers,

community volunteers, and mass communications. Using all three creates a synergy with results that surpass the sum of their individual contributions.

Results of the BASICS' nutrition strategy included the following:

- Nutrition interventions began to be included as part of national child health policies, rather than separate activities.
- Technical guidelines became available as a program of safe and effective interventions for health workers to implement.
- Access to higher-quality nutrition services substantially improved in some countries.
- Household practices improved in Madagascar, Senegal, Honduras, and elsewhere.

BASICS also forged a clearer identity for nutrition in health, emphasized prevention in terms of feeding practices and micronutrients, and strengthened partnerships.

Result: Nutrition in Child Health Policies

As an example of impact, BASICS' work resulted in a major change in nutrition strategy in Senegal. In 1995, before the BASICS program, the country's nutrition office did not have a well-articulated policy or strategy. The focus was on the rehabilitation of severely malnourished children. But in 1996-1997, after using PROFILES, the Ministry of Health adopted and adapted the MINPAK package as a national strategy. It is now available as the Paquet d'Activites Integrees du Nutrition. Its acronym–PAIN–means "bread" in French.

To integrate nutrition and health, BASICS worked to develop and disseminate state-of-the-art materials, particularly related to MINPAK actions. A premier example was Nutrition Essentials, published in cooperation with UNICEF and WHO.

Result: Development of Technical Guidelines

BASICS was successful in putting into place scientifically sound, specific, and feasible young-child feeding guidelines. In many countries, guidelines are out of date, too general, and not feasible for mothers to follow. In the development of new guidelines, BASICS successfully engaged families and changed the way guidelines are usually developed.

Over the course of three years, professionals from BASICS partnered with and trained host country professionals in twelve countries in Latin America, West Africa, and Central Asia to refine young child feeding guidelines. Beyond training, however, BASICS' contribution came in adapting the latest knowledge about scientifically sound feeding practices to local realities, to work with families with young children and get the ideas of mothers reflected in the guidelines.

The methodology, called Trials of Improved Practices (TIPs), is innovative and ensures caretaker participation. TIPs is a process by which local staff learn from mothers how to tailor recommendations on young child feeding to address common local constraints. TIPs was developed by a BASICS partner and adopted by WHO and UNICEF for use in developing feeding guidelines for country IMCI programs, because they found that it was cost effective and easy to use.

The consultative process recommended in TIPs consists of the following four steps:

- The country team, usually comprised of health workers, talks to mothers to learn about their current feeding practices in very specific terms. For example, does the mother feed watery foods, like soupy broths? Why does she favor one food and not another?
- The health worker talks to the mother about the adequacy of the child's diet and asks the mother how she believes she can improve the intake of her child. Ideas of sound

practices are introduced, and the health worker negotiates an agreement with the mother on what she will try to do to improve her child's intake. Indeed, a real negotiation between the health worker and the mother often takes place.

- The mother tries the new practice, or practices, for a week or so. These are specific practices, such as breastfeeding more frequently and decreasing bottles; offering food more frequently; adding oil or sauce to porridge; or modifying a familiar food for the child.
- A health worker makes a follow-up visit to learn which practices the mother tried, why she tried some practices and not others, her reaction to the new practice, and whether she plans to continue it.

While each country adaptation had its own characteristics, some results transcended each country, particularly the importance of focusing on improving feeding practices and on listening to and learning from mothers. The participation of mothers brought about changes in the nature of the guidelines themselves, and on how the guidelines were used programmatically. As examples:

- Guidelines need to be specific about recommended changes. Guidelines cannot speak in generalities (give more food, feed from the three basic food groups, breast milk is best.) Instead, they offer age-specific, concrete suggestions.
- Guidelines need to mention motivators to improved practices. Better health for children and improved child well-being are key motivators for families, strong enough to spur mothers to try unfamiliar, new practices and even to expend scarce resources of time and money.

The lessons learned from TIPs were applied to other programs. Most important was helping countries see how families can improve the food intake of their young children from their own resources. This meant that supplementary feeding programs could be better targeted.

BASICS also helped to incorporate guidelines into program materials like the IMCI feeding recommendations or the food box for facility-based workers to use in counseling. BASICS assisted ministries of health in 12 countries to adapt their IMCI materials to their local contexts.

In addition, child-feeding guidelines were applied in community programs. The prime example of this was in the development of state-of-the-art counseling materials for community workers. They can now offer and negotiate with mothers for the small dietary changes that will close the 200-300 calorie gap that is seen in mildly to moderately malnourished children and that contributes to poor child survival.

Result: Improved Access to Nutrition Services and Improved Quality

The BASICS team also improved access to essential nutrition services and improved the quality of those services. BASICS accomplished improved access and quality in three ways:

- by offering a fuller range of nutrition services at health facilities, using IMCI and MINPAK programming as key entry points;
- by adding critical nutrition services to help outreach efforts; and
- by integrating nutrition activities into community programs.

At the health-facility level, health workers knew virtually nothing about nutrition. In collaboration with other USAID global and bilateral projects and the IMCI initiative, BASICS worked to program essential nutrition actions into key child health contacts and to improve

health worker training in nutrition.

The quality of nutrition services improved as a result of BASICS-supported IMCI training. For example, in Zambia, at baseline in 1996, 40 percent of health workers weighed sick children, 47 percent asked the mother of a sick child how she was feeding her child, and only 16 percent offered any advice on how to feed. In a follow-up survey in 1998, after IMCI training, 70 percent of health workers were weighing sick children, 79 percent inquiring about feeding, and 49 percent offering advice to mothers with sick children on how to feed their children (Figure 8).

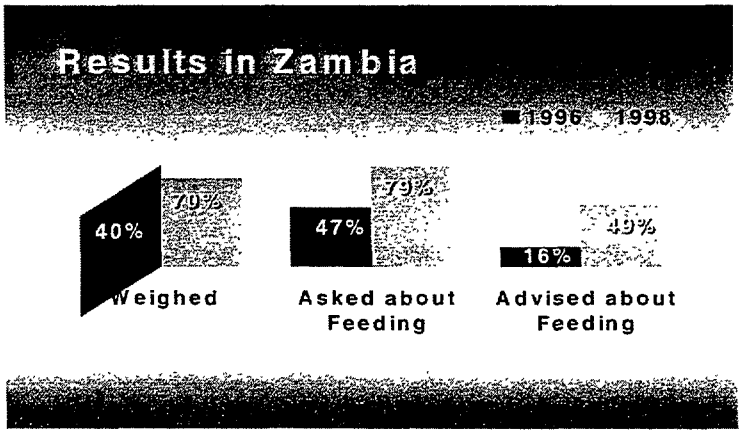
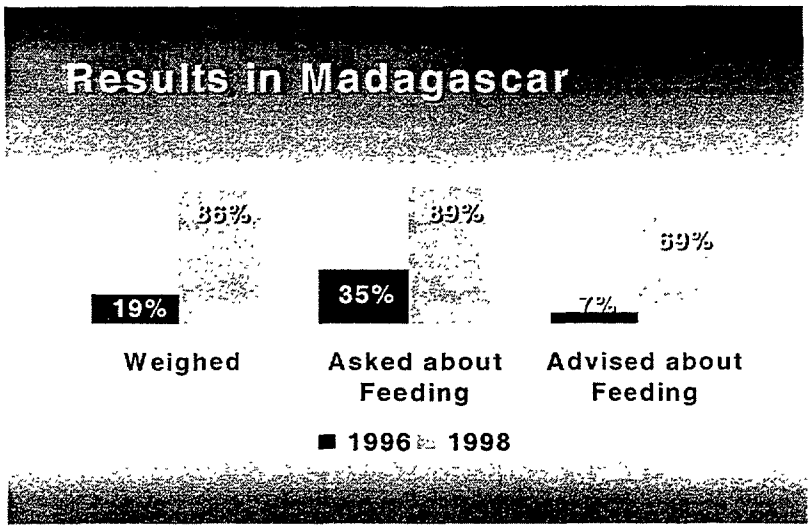


Figure 8. Improvement in nutrition counseling by health workers in Zambia

In Madagascar, at baseline in 1996, only 19 percent of health workers weighed sick children, 35 percent asked about child feeding, and 7 percent offered any advice to a mother of a sick child on how to feed a child. In the follow-up survey in 1998, 86 percent were weighing sick children, 89 percent asking about feeding, and 69 percent were offering advice on feeding (Figure 9).



9. Improvement in nutrition counseling by health workers in Madagascar

In addition to working with health professionals and facilities, BASICS partnered with WHO and UNICEF to integrate nutrition into health outreach activities. The prime example was immunization campaigns. As mentioned earlier, BASICS promoted Vitamin A distribution as part of national immunization days, reaching over 80 percent of children under age 5 in five countries.

A major boost in access comes when services are available in the community. The BASICS nutrition team led the way in reaching families with services at the community level. In Honduras, Madagascar, Senegal and Zambia, major efforts were made to reach families and engage communities in improving nutrition.

For example, in Honduras, BASICS worked with the Ministry of Health and USAID's Health Sector 2 Project on a comprehensive integrated nutrition and health program at the

community level called AIN.

By 1999, at the close of BASICS, AIN was being implemented in one-third of the country in nine USAID-assisted health areas. In AIN's first year, health personnel in 192 health centers were trained. Through early 1999, 583 volunteers, called *monitoras*, were selected, trained, and working in 179 communities. They weighed children under the age of 2 each month. They counseled mothers, made home visits, and referred sick children for treatment. They also engaged their communities in finding ways to make the community a healthier place for young children.

The results of AIN were:

- high participation–98 percent of children under 2 were weighed in any given month;
- good counseling coverage–98 percent of mothers received advice tailored to them;
- growth–more children under age 2 in AIN communities were gaining adequate weight each month than they were one year earlier.

For example, in Sacred Heart community in January 1999, following Hurricane Mitch, 39 percent of children gained weight. In April 1999, 91 percent gained weight. The lower starting point could have been in part due to Mitch, but the rapid recovery was a testament to the work of the *monitoras*.

The gains seen in Sacred Heart were widespread. Surveys of AIN communities with differing levels of malnutrition (defined as the number of children under the third percentile, or approximately at -2 standard deviation) all saw improvements from baseline.

In one community with a high level of malnutrition, the decline was from 39 percent below the third percentile, to 8 percent. In one community with a medium range of malnutrition,

the community went from 25 percent malnourished children to 10 percent. And in communities with low levels of malnutrition at the outset, after about 9 months with AIN, moderate and severe malnutrition was eliminated (Figure 10).

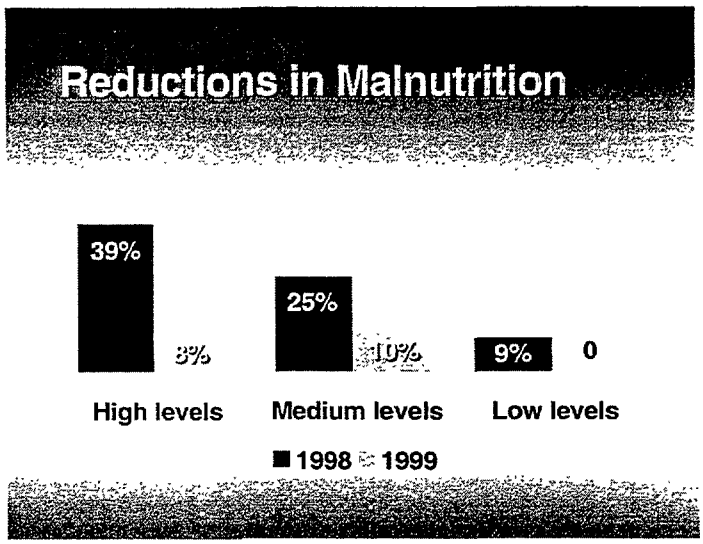


Figure 10. Reductions in malnutrition in AIN communities in Honduras

Result: Household Practices Improved

MINPAK recognizes the critical interdependence between improving care and feeding practices in the home and improving access and quality of health services. Three of the six MINPAK behaviors–use of Vitamin A, iron, and iodine–rely on the regular supply and availability of Vitamin A and iron in the health center or community, and iodized salt in the marketplace. Likewise, although the health worker has a vital role to play in integrating nutrition counseling in clinical contacts, maximum impact will never be achieved unless community channels reinforce these messages.

To deal with this interrelationship, BASICS worked with the Ministry of Health and other

partners in two districts in Madagascar with a total population of 669,000. A two-pronged strategy, consisting of non-intensive and intensive approaches, was used.

The non-intensive approach covered all fifty-five health centers in the two districts. Baseline, health facility, and household surveys were conducted, and results shared with health workers and communities. Monthly, 1.5-day practical refresher training for all health workers focused on the elements of IMCI and MINPAK. IEC materials and training, along with such basic equipment as baby weighing scales, were provided to all sites.

Eight health centers were identified at the outset as first-phase IMCI sites. In addition to the inputs provided to non-intensive sites, these personnel also participated in formal eleven-day IMCI training. A comprehensive community mobilization approach to promote child health was undertaken in these health center catchment areas. Nutrition themes were integrated into the overall child health program. BASICS partnered with UNICEF to provide a regular supply of essential drugs, micronutrients, and health center rehabilitation.

After two years, there were significant changes in household nutrition practices in both the intensive and non-intensive areas. Four 30-cluster surveys, including 1,680 mothers, were conducted at follow-up. One survey was done in each intensive and non-intensive zone of both districts.

Improvements in counseling and assessments at the health center level in Madagascar were seen in the entire area, not just at health centers that received the full IMCI training course. The short 1.5-day training sessions given to all health workers made that improvement.

Breastfeeding was the first nutrition intervention undertaken in the districts. Breastfeeding immediately after delivery improved from 20 to 50 percent in the non-intensive

zone, based on training health workers only. This figure increased to 70 percent in the intensive zone when a community component was added to support the health workers' efforts. Similar graded improvements were noted in rates of exclusive breastfeeding of 0- to 5-month olds. (Figure 11).

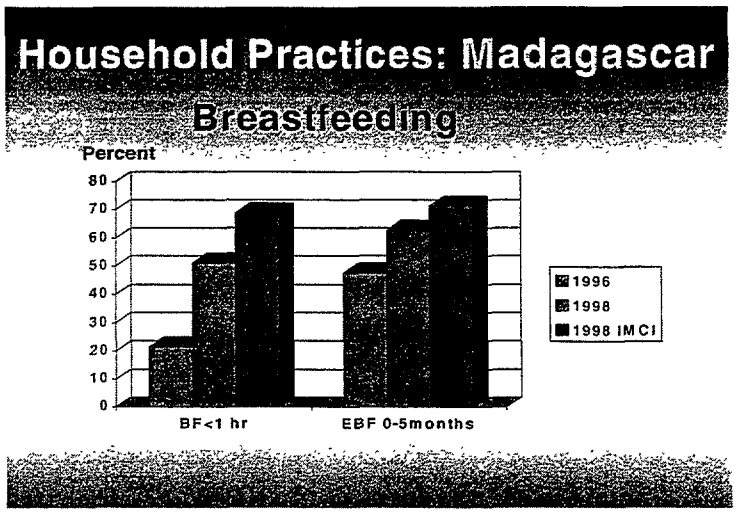


Figure 11. Improvement in breastfeeding practices in Madagascar

The administration of megadose Vitamin A to postpartum women increased from 11 percent at baseline to 22 percent in the non-intensive areas and to 37 percent in the intensive areas. Vitamin A use in children was not measured at baseline, because it was known to be negligible. BASICS follow-up survey in August 1998 does not capture the integration of Vitamin A into national immunization days, but rather Vitamin A use during other health contacts (Figure 12.)

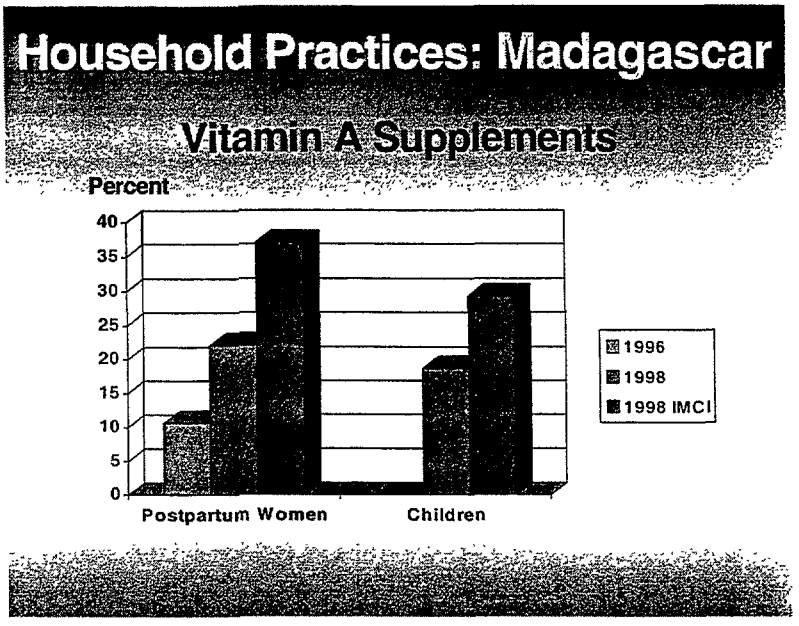


Figure 12. Improvement in Vitamin A usage by postpartum women and by children in Madagascar

Similar increases were seen in the use of prenatal iron and iodized salt, two of the other interventions identified through MINPAK.

BASICS assisted districts and community partners to achieve important results in changing household nutrition practices in a relatively short time. Key to the success was focus–focusing on MINPAK's six proven interventions, which were integrated into existing contacts with health services. Reinforcing communications channels deliver the messages.

Community volunteers greatly amplified the voice of health workers to promote health actions. There is only one health worker per every 5,000 people in Madagascar. In the intensive zones, one community volunteer was trained for every 100 people. That meant that fifty volunteers could amplify the efforts of each health worker. Community volunteers used the

same IEC materials and messages as health workers in their individual group counseling and in village theater. Then, mass communications, particularly local radio and low-cost print materials, reinforce the same nutrition messages and images.

Madagascar is just one example where BASICS made an impact in improving household nutrition practices. Research shows that its work also resulted in improved services, coverage and practices in Bolivia, Honduras, Ecuador, Benin, Congo, Eritrea, Senegal, Zambia, and Bangladesh.

Lessons Learned

From its work in nutrition, BASICS developed the following lessons learned:

- Nutrition can be improved through the health sector.
- Ministries of health can provide leadership, technical guidance, and program delivery in nutrition.
- Timely advocacy works.
- Packaging and specific actions are essential.
- Decentralization and health reform represent positive opportunities for improved nutrition services.
- Experienced staff and tools facilitate rapid gains.

Future Agenda

Child health is at the threshold of major gains through improving nutrition, yet 250 million children around the world remain malnourished. A future agenda for nutrition would have to include:

- motivating others,

- sharing experience and tools,
- building nutrition capacity in child health,
- reaching more communities,
- continuing to listen to mothers and adapting programs and guidelines accordingly, and
- continuing to learn and improve.

III. Achievements at the Country and Regional Level

This section consists of the country and regional Achievements of the project, provided as short capsule descriptions of individual countries and regions, with supporting examples and data (where available). A semi-standard format was utilized to facilitate scanning and comparisons.

Summaries are provided for the following countries and regional initiatives:

Bangladesh
Benin
Bolivia
CAIDP
Cambodia
CARMI
Central African Republic
Congo
Ecuador
El Salvador
Eritrea
Ethiopia
Ghana
Guatemala
Guinea
Haiti
Honduras
India
Indonesia
LAC Cholera
LAC Region
Madagascar
Malawi
Mali
Morocco
Mozambique
Namibia
Nepal
Pakistan
Peru
Regional West Africa (Francophone)
Nicaragua
Niger
Nigeria
NIS Immunizations
REDSO/CS
REDSO/ESA–Network
Senegal
South Africa
Tanzania
Uganda
West & Central Africa (Network Support System)
Zambia

In addition to those listed, a brief summary of malaria achievements is included.

Bangladesh
Country Achievement Summary

Abstract

BASICS Bangladesh is the continuation of almost 10 years of USAID funding that helped the government of Bangladesh (GOB) improve and sustain its urban immunization efforts, and helped cities and selected municipalities plan, implement, and monitor their child health services. During the past five years, BASICS improved the immunization situation in the four major city corporations (CC) and 84 municipalities. Routine immunization and polio national immunization days (NID) reduced the gap in immunization coverage between slum and non-slum areas. BASICS also trained and improved immunization techniques for more than 2,600 municipal vaccinators and non-governmental organization (NGO) workers. Significant progress was also made in building and institutionalizing a sustainable health and immunization service delivery capacity in the urban areas. In the beginning, there were only a few Medical Officers in the 88 urban areas. At the end of BASICS involvement, almost half of these same areas have medical/health officers.

Financially, the city corporations and municipalities assumed more than 95 percent of the recurrent costs associated with operating an immunization program, increasing the amount spent on operational immunizations by the 88 CCs and municipalities by almost 180 percent from 1993 to1997. BASICS also assisted in the development of a disease surveillance system, which, after being in existence for six months, identified approximately 75 percent of the expected acute flaccid paralysis (AFP) cases in Bangladesh's four major cities. Starting in 1996, new child health activities were added in addition to immunizations. They included the update of national policies and guidelines for immunization, control of diarrheal diseases, control of acute respiratory infection, and supplementation with vitamin A. BASICS developed a new child survival training system for NGOs in urban and rural areas and initiated the phased introduction of the Integrated Management of Childhood Illnesses (IMCI) initiative.

Context

In late 1994, when BASICS first starting working in Bangladesh, the estimated urban population was 22 million. With one of the highest urban growth rates in the world, this number is expected to reach 37 million by the turn of the century, with 10 million people living in Dhaka. When the Country Activity Plan (CAP) was drafted, UNICEF estimated that 30–50 percent of the urban dwellers in Bangladesh lived in slum situations.

The public health infrastructure in Bangladeshi cities in 1994 was extremely weak. The Ministry of Health and Family Welfare (MOHFW) was not responsible for the municipalities; instead health matters were delegated to the Ministry of Local Government and Rural Development, and Cooperatives (MOLGRD). According to the CAP, only 40 percent of the staff positions (for example, child health officers in the CCs, health and medical officers, assistant health officers, sanitary inspectors, health assistants, and vaccinators) were in place. At the ministry level, there was no health section to plan, implement, and support the activities of the CCs and municipalities.

Because of the lack of public health services, NGOs provided a large portion of the health care delivered in the urban areas. In 1994, the municipalities budgeted small amounts for health but even this money was not spent on health activities.

The health situation in Bangladesh's urban area slums, with lower immunization coverage rates, was worse than the situation for the general urban populations. The NGOs concentrated their energies on providing family planning services, many with the help of USAID funds. NGOs provided some immunizations, as well.

After almost 10 years of USAID funding (through REACH and a bilateral project), BASICS assumed responsibility for the urban immunization portfolio. Initially, the staff at the BASICS office was located in the MOHFW; only through a concerted effort did they develop a working relationship with the MOLGRD.

In Bangladesh, between 1985 and 1993, full immunization coverage, for children under 1, rose from 5 percent to 70 percent. In urban areas, it increased from 25 percent in 1988 to 80 percent in 1993–1994, but coverage in slum areas was always considerably lower. For example, a coverage survey in 1993 in Dhaka found that measles coverage was 46 percent in low income areas compared to 65 percent in the city, a gap of almost 30 percent.

UNICEF supported immunization and urban health initiatives, and they collaborated with BASICS. More recently, the Asian Development Bank has invested in urban health delivery. When BASICS started work, the disease surveillance system was based on sentinel sites, but the system was neither timely nor complete.

Scope

BASICS has worked in 84 municipalities and four major city corporations in Bangladesh (Dhaka, Chittagong, Rajshahi, and Khulna). Together, these 88 urban areas have a population of 15 million, with more than 2.4 million target population under the age of 5—and almost 500,000 of these children under the age of 1. The project worked with municipal officials, and MOH and family welfare to strengthen routine Expanded Program on Immunizations (EPI) services, especially in urban poor areas; conducted national immunization days for poliomyelitis eradication; and strengthened child survival policies, standards, and services.

Objectives

Adopt a strategy to ensure services and increase demand for immunizations in urban poor areas.

BASICS slum strategy was initially developed in four CCs, and four municipalities with large slum populations. Maps were prepared and local coordination committees formed. Constraints that might prevent full immunization coverage were identified (for example, fear of side effects and not vaccinating during an illness) and innovative interventions to raise demand (for example, theater shows, songs by local folk singers, and community meetings featuring local political and community leaders).

To identify slum areas with an unacceptable performance, BASICS introduced the Lot Quality Assurance Sampling (LQAS) technique in the four CCs and one municipality. Extra attention,

supervision, and support were provided to the low performing wards; this strengthened management, promoted outreach, provided additional vaccinators, and allowed the local ward commissioners to monitor worker performance and coverage. This effort decreased the gap in immunization coverage between slum and non-slum areas in the participating urban areas. In 1993, in slum areas of Dhaka, the gap in measles vaccination coverage at the appropriate age was 46 percent; LQAS surveys in 1997 show that slums in Zone 7 reached a gap of 63 percent and Zone 8 reached 61 percent.

Assist the GOB to strengthen the national disease surveillance system.

BASICS teamed with the EPI department of the MOHFW and WHO to develop an acute flaccid paralysis (AFP) and disease surveillance system (for example, for neonatal tetanus and measles). The system is a *people's program* with communities and individuals identifying and reporting suspected cases of the targeted diseases. The national immunization program focuses more on immunization coverage than disease control. Data from the surveillance system directs local actions and focuses resources on areas with a high risk for disease. They established disease-specific reporting.

BASICS new surveillance system required that Disease Surveillance Focal Points (DSFP) be established in all cities and municipalities. Local Surveillance Officers (LSO) investigate all reported AFP cases. To date, 1,099 DSFPs and LSOs (83 percent of target) have been trained. In the CCs, during the first half of 1997, 73 percent of the expected number of AFP cases were reported. For all of Bangladesh, 43 percent of the expected number of AFP cases were reported in 1998, up from 13 percent in 1994. Qualitative research was conducted to determine why target diseases were not reported. The findings were used for communication materials (posters, and radio and television spots) to develop disease surveillance with the EPI office of the MOHFW, WHO, and UNICEF.

Help the GOB achieve and sustain 85 percent immunization coverage in urban areas.

BASICS support for EPI-HQ concentrated on strengthening routine immunization coverage and the polio eradication program. One of the efforts assisted by BASICS was the measles-neonatal tetanus campaign that targeted areas of low vaccination coverage—slums in urban centers. Coverage of the estimated target populations was encouraging: in Dhaka, 56 percent for measles and 79 percent for tetanus toxoid (TT); in Chittagong, 95 percent and 90 percent, respectively; in Khulna, 95 percent and 84 percent; and in Rajshahi, 90 percent and 100 percent.

BASICS also assisted in the National Coverage Evaluation Survey (NCES) in 1995 and 1997 to determine the effectiveness of the routine immunization program. The percentage of fully vaccinated one-year-olds in the urban centers of Bangladesh decreased slightly in 1997 from the 1995 figures; it was 58 percent in both the 1997 NCES and Demographic and Health Survey (DHS). The 1997 coverage figures in the NCES and DHS for national and urban population were almost identical for BCG and DPT-3, but they differed significantly for measles (national NCES was 59 percent, while DHS was 70 percent; urban NCES was 63 percent, while DHS was 80 percent). The difference in the results has not been explained.

BASICS provided technical support for the GOB in its polio eradication efforts and associated NIDs in 1995, 1996, and 1997. The target population was all children under the age of 5. Through the development of a supervision checklist and a process documentation, modifications were made and

coverage was increased. National coverage rates were more than 90 percent in 1996 and 1997; in the

urban areas, coverage increased from 84 percent and 91 percent in the two rounds: 96 percent in 1996 and 95 percent in 1997.

Help the GOB strengthen the capacity of MOLGRD, CCs, and municipalities to plan, coordinate, and monitor urban child health services, in general, and EPI services, in particular.

BASICS catalyzed collaboration between the MOHFW and MOLGRD to build capacity within MOLGRD to deal with urban child health problems. The Interministerial Urban EPI/PHC/FP Coordination Committee was established to improve urban PHC delivery. Committee members included representatives from the government, donor agencies, NGOs, and the private sector. The steering committee meets twice a year. BASICS facilitated the Urban Capacity Building working groups. One of the most far reaching decisions of the Interministerial Committee was to have the MOHFW designate one of its officials to the MOLGRD to serve as Deputy Director for Health and to assign a medical officer to work with municipal authorities for each district where a medical officer was not employed by the municipality.

In 1995, only six municipalities out of 84 had medical officers. By 1997, because of BASICS' advocacy, more than half the municipalities with projects have recruited medical officers. This significantly strengthened and improved the chances for sustaining the work that BASICS started in the project municipalities. Similar increases have been achieved in the recruitment of other key urban health staff—sanitary inspectors (43 percent of target), vaccinator supervisors (27 percent of target), vaccinators (61 percent of target), and health assistants (59 percent of target). Overall, 44 percent of the municipal health resources were in place at the end of 1997, compared to 26 percent one year earlier.

BASICS guided CCs and municipalities to enable them to prepare their own annual work plans. The urban EPI authorities can also monitor their immunization activities and prepare periodic reports on their performance.

With BASICS assistance, coordination meetings were held at the local level in the four CCs, bringing together ward commissioners, mayors, the EPI director, the Director General of Health Services, and the BASICS country director. The meetings were an opportunity to discuss constraints and suggestions for improving EPI while mobilizing and informing the local authorities about the immunization program. Coordination meetings were held in all 10 zones of Dhaka. BASICS also collaborated with the International Center for Diarrheal Diseases Research, Bangladesh (ICDDR,B) Urban Extension Project to improve immunization planning. Two Urban Health Program Management Workshops were held to orient and train Municipal Health/ Medical Officers.

Under the recently launched National Integrated Population and Health Project (NIPHP), BASICS' role has extended beyond immunization. BASICS heads the Child Survival Task Force that reviewed national guidelines for Center for Control of Diarrheal Diseases (CDD), acute respiratory infection (ARI), and vitamin A interventions. In addition, the project, in coordination with WHO, has helped the MOHFW draft an initial plan for the phased introduction of IMCI.

By the end of the project, help CCs and selected municipalities assume responsibility for the recurrent cost of EPI services.

To ensure the financial sustainability of urban immunization activities, BASICS made a special effort to increase local financial contributing to support the program. The success of this effort is demonstrated by

the fact that in 1997 only 8 of the 88 urban centers under the program received financial support from BASICS. In 1998, all municipalities were paying for EPI recurrent costs.

As a result of BASICS operations, CC and municipal contributions to immunization operational costs have increased dramatically since 1995. For example, Dhaka Division, including Dhaka CC, has increased allocations and expenditures by approximately four times the previous spending. In Chittagong Division, it increased 160 percent; in Khulna it increased 170 percent; and in Rajshahi it increased 270 percent. At the same time, BASICS contributions in 1997 were reduced to zero in Dhaka and Rajshahi. BASICS only contributed taka 8,000 (approximately U.S.$160) in Khulna and taka 28,000 (U.S.$560) in Chittagong. In 1998, BASICS stopped supporting EPI recurrent costs.

Support GOB in strengthening child survival programs.

Under BASICS leadership, the Child Survival Task Force was created to help GOB coordinate all the national child survival programs. From the task force, policies and guidelines were updated for the National EPI Project, Control of Diarrheal Diseases Project, the Acute Respiratory Infection Project, and the Vitamin A Project. They developed a new training curriculum for child survival, conducted training of trainers, and initiated a plan to train more than 600 NGO health workers in urban and rural areas.

Support GOB in the phased-in introduction of IMCI.

In coordination with WHO, BASICS helped GOB develop a plan to introduce IMCI in phases. To date, BASICS has conducted two National Orientation Seminars on IMCI.

Future Considerations

As donor support for immunization activities decrease, there is an increasing challenge to expand routine immunization coverage in the urban areas of Bangladesh. Training, communications and social mobilization, procurement, and logistics to support immunizations must be continued. UNICEF has drastically reduced its EPI funding; in 1998, the Swedish International Development Agency (SIDA) discontinued its vaccine procurement program.

Additionally, how the substantial level of effort devoted to the eradication of polio will impact the maintenance of the routine immunization program for all six target diseases must be considered. To strengthen routine EPI services, it will also require creative management to capitalize on the resources available for NIDs. For example, mass media communications to advocate participation in NIDs could include reminders of the importance of routine vaccination.

BASICS has worked closely with USAID and its partner collaborating in the design of the new bilateral project, the National Integrated Population and Health Project. USAID will continue to play a major role in expanding the focus from immunization to improving the quality of child health services in the urban areas of Bangladesh, especially CDD, ARI, and vitamin A.

Benin
Country Achievement Summary

Abstract

During the past three years in Benin, BASICS has provided periodic and long-term technical assistance for assessments, research, and programmatic support in nutrition, Integrated Management of Childhood Illness (IMCI), Expanded Program on Immunizations (EPI), and behavior change. In 1996, BASICS helped USAID/Benin identify key child survival interventions and identify a strategic basis to develop a new family health program that will integrate maternal and child health, family planning, and HIV/AIDS prevention. In 1997, BASICS designed a long-term child health program in the Borgou region, which also targeted malaria interventions in the Ouémé region in collaboration with Africare and the Center for Disease Control and Prevention (CDD). Field implementation began in early 1998 and focused on establishing the groundwork for a broad health program. Before beginning field implementation in the Borgou region, BASICS negotiated a Memorandum of Understanding (MOU) with Borgou MOH department officials.

USAID/Benin's strategic objective is to increase the use of family planning, maternal and child health services, and STD/HIV preventive measures within a supportive policy. USAID/Benin selected the northern region of Borgou as its area of emphasis for the following five years, with additional support given to the Ouémé region. The Borgou region represents about 40 percent of the national population, and it struggles with high infant and child mortality rates and the highest malnutrition rates in the country. The USAID bilateral team, led by the University Research Corporation (URC) started the five-year Integrated Family Health Project in early 1999.

BASICS supported four technical interventions for USAID/Benin's intermediate results for maternal and child health: (1) lay the groundwork to strengthen a package of nutrition/IEC interventions at both the health facility and community levels in the Borgou region; (2) lay the groundwork for the Africa Integrated Malaria Initiative (AIMI) initiative by doing baseline studies in the Ouémé region (where malaria is the leading cause of morbidity and mortality), in collaboration with regional health officials, Africare, and the CDD; (3) help the Ministry of Health (MOH) introduce the IMCI initiative; and (4) assure the sustainability and effectiveness of immunization program achievements.

Context

A democratic government was established in Benin in 1991. A democratically elected president, Nicephore Soglo, ruled the country until the 1996 elections, which resulted in the re-election of former ruler Dr. Kerekou, former head of the Marxist-Leninist regime that prevailed in Benin from 1972 to 1990. Recent political changes resulted in both an expanded portfolio for the MOH (social protection and the feminine condition) and predictable changes in personnel. Major components of health reform have been endorsed by the government, including decentralization, community participation, and an improvement in the quality of care and the referral system. Benin has been praised for major

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achievements in the recent past, including the successful implementation of the Bamako Initiative and the government's expanded program of immunization. Not unexpectedly, severe health problems persist in Benin.

The preliminary 1996 Demographic and Health Survey (DHS) report illustrates the problems. Although infant mortality declined during the past 20 years, particularly in the past 5 to 10 years, it remains high at 94/1,000. Mortality for all children under 5 is 167/1,000, with most deaths from malaria, diarrheal diseases, and acute respiratory infections. Moderate malnutrition affects an estimated 20 to 40 percent of children under 5, with 3 to 6 percent in this group being severely malnourished. While 97 percent of infants in Benin are breastfed, exclusive breastfeeding under 4 months remains low at 14 percent. Solid or liquid food is given to 69 percent of infants before 4 months of age.

A multiplicity of donors support the health sector in Benin, but little coordination exists between them. Donors have preferred to target their interventions at the district level in selected regions in the country. Since the establishment of democracy in 1991, local nongovernmental organizations (NGO) have proliferated. Many are involved in the provision of some type of health services; they are emerging as one of the most important sources of innovative models for community services.

Scope

BASICS technical assistance has focused primarily on the Borgou region. BASICS worked in four key districts: Kandi, Sinende, Parakou, and Ndali. In the Ouémé region, one district was selected for malaria interventions, a district where BASICS worked in partnership with Africare and CDC. BASICS activities are oriented to strengthen the capacity of regional health teams to better plan and implement a limited set of proven health interventions in partnership with NGOs and other sectors.

The programmatic scope of BASICS activities were based on a series of assessments conducted during its first year in Benin:

- A rapid health sector assessment, which analyzed and defined key areas for child survival interventions.
- A national overview of key activities and partners, which addressed nutrition problems, in particular, in the six nutrition "minimum package" topics in Benin.
- A health program review of nutrition minimum package activities in Borgou.
- An assessment of donor investments in the health sector in Benin, which described various multilateral and bilateral programs, including their technical and geographical focus and counterparts.
- An assessment to determine the feasibility of introducing and implementing IMCI in Benin, a worldwide WHO/UNICEF initiative to integrate and improve the quality of interventions for controlling major childhood illnesses.
- A review of introductory steps necessary for implementation of the malaria (AIMI) initiative in Ouémé.

Objectives

Based on the assessments, USAID, the MOH, and BASICS agreed to the following objectives:

1. Lay the groundwork in Borgou to strengthen a package of nutrition interventions at both the health facility and community levels.

BASICS activities in Borgou were planned to improve six nutrition behaviors through MinPak: (1) exclusive breastfeeding until 6 months of age; (2) appropriate complementary feeding starting at about 6 months, with continued breastfeeding until 24 months; (3) adequate vitamin A intake for women, infants, and young children; (4) appropriate nutritional management during and after illness; (5) improved iron status in women and children; and (6) regular use of iodized salt by families. The six nutrition behaviors are integrated into six health contacts at the health facility and community levels: (1) prenatal care, (2) delivery care, (3) postpartum care for mothers and infants, (4) immunization contacts, (5) well-baby visits, and (6) sick-child care. A program plan for priority nutrition actions, prepared by the Borgou health team with assistance from BASICS, was presented to USAID/Benin.

Start-up steps

- Program review of ongoing nutrition activities in the six minimum package areas and selection of priority next steps for action.
- Consultative research using the Trial of Improved Practices (TIPS method) for developing messages and recommendations on infant feeding and compliance with prenatal iron tablets.
  (*Note:* Infant feeding recommendations are consistent with adaptation of the IMCI Food Box.)
- Health Facilities Survey of the region's health facilities to identify current quality of services related to child health and nutrition.
  (*Note:* The survey used the IMCI health facilities assessment module and nutrition minimum package.)
- Review of existing information, education, and communication (IEC) materials and potential for traditional and modern media for communications activities to reinforce and extend actions at the health facilities and community levels.
- Orientation workshop for district managers to introduce them to new concepts of integrating nutrition with routine health contacts and activities at community level.
- Training modules developed and pretested for health staff on integrating the priority actions for nutrition as part of (1) prenatal care, (2) delivery care, (3) postpartum care for mothers and infants, (4) immunization contacts, (5) well-baby visits, and (6) sick-child care.
- Community-level activities have been identified in the four focus districts.

Community-level minimum package activities

A reduction in malnutrition is not possible unless coverage with each priority intervention reaches about 80 percent. Given the limited coverage of health facility-based activities, the minimum package approach emphasizes the importance of utilizing community-level workers and institutions and existing programs, such as EPI, that have high coverage. The community approach under development is a series of joint diagnostic activities to identify and support a team made up of existing community-level workers, and to support them with district-level health resources to carry out specific actions that they select from the nutrition minimum package. District activities have been identified:

District of Kandi

District Headquarters Health Center Catchment Area

- Seven mother support groups for breastfeeding promotion are operating in the city neighborhoods.

- The district social mobilization agent will work closely with the Social Promotion Center DANA (Food and Applied Nutrition Direction) and representatives from the Ministry of Agriculture.
- Agricultural extension workers will focus on promoting and monitoring the use of iodized salt at the community level.

Sonsoro Rural Health Post Area

- Community outreach activities work through village health units agents for iron supplementation and integration of vitamin A distribution with EPI.
- Six mother support groups for breastfeeding promotion are operating.
- Nutritional care for sick children are part of the village health units activities.

Donwari Rural Health Post Area

- Traditional birth attendants operate in the villages of their catchment area even though the government policy was to discourage any contact with them.
- Trained midwives' aides will be supplied and supported for iron pills, testing kits, and iodized salt.

Capacity building

As part of the nutrition minimum package activities, BASICS assisted in developing capacity at the regional level in Borgou, including the following:

- A workshop was held to train participants on consultative research methods, which were used to determine infant feeding and iron tablet consumption practices. Local counterparts and teams were trained to carry out the research in three sub-prefectures in Borogu to identify current practices for developing appropriate IEC messages to promote behavior change. The methodology included three visits to homes of mothers with children under 2 years of age. During the first visit, mothers gave information about their children's feeding problems; during the second visit, the mother and interviewer negotiated appropriate practices to resolve the feeding problems; the third visit, three days after the second, determined the motivators or constraints to mothers adopting the feeding recommendations. Iron supplementation trials were also conducted with a small number of pregnant women who had little experience taking iron tablets. Women were asked to take iron tablets and were interviewed 10–20 days later about the experience. Information from the interviews will provide valuable information on what motivates or constrains pregnant women when they are asked to take a full course of iron tablets. Results were used in message development and IEC material; it will support nutrition (if implemented in Benin, IMCI activities).

- Following the consultative research, messages were developed during a three-part IEC workshop, for communication through printed materials, and radio and traditional means of communication. The overall methodology for developing messages and materials in all three sub-workshops was based on and adapted from the WHO Guide for Developing Radio Spots, including collecting and analyzing existing data; identifying problems and target audiences; developing messages and materials; pretesting and revising spots or materials; and developing a monitoring and evaluation plan. Selected messages, based on results of the consultative research, encouraged women to take a daily iron folate tablet from the beginning to the end of pregnancy, initiate breastfeeding within 30 minutes after giving birth, encourage exclusive breastfeeding from birth to 4 or 6 months of age, give adequate complementary feeding from 6 to 24 months, and provide frequent feedings for the sick child. All messages were adapted for the three different media of print, radio, and traditional means of communication. Twenty radio spots were developed and tested in the Batoonu and Bulbe languages. A flip chart with 18 drawings was produced and tested; counseling cards for health workers were drafted. To maximize African traditional channels for communicating health messages, poems, songs, and a play were developed and tested.

Innovations
Building on past experiences from the West Africa region and other regions of Africa, BASICS supported the testing of new and improved operational approaches and tools in Borgou. For example—

- BASICS supported pilot tests to improve the quality of two related programs in Borgou: the Baby Friendly Hospital Initiative (BFHI) program designed a monitoring tool and tested it in BFHI hospitals. BASICS also assisted in a small-scale pilot on the integrated delivery of vitamin A with immunizations. This activity should improve the systematic use of immunization contacts to provide vitamin A capsules and to clarify the operational aspects, such as record-keeping, monitoring, and logistics management.
- In FY 1998, BASICS provided technical assistance to conduct a baseline Health Facility Assessment (HFA) to measure current health worker knowledge and practices. BASICS has carried out many HFAs in other countries, but this is the first HFA that included questions related to nutrition behaviors. Indicators included in the report will allow the MOH and USAID/Benin to measure progress against the baseline over the lifetime of USAID's future Family Health project. The baseline revealed that 80 percent of children received appropriate treatment for the illness diagnosed by the health workers, but only 28 percent of mothers received appropriate instructions for dosing or were asked to repeat the instructions. Only 3 percent of cases with danger signs were correctly assessed, and only 6 percent of children presenting with diarrhea or cough were correctly examined. Few of the children seen had their nutritional status correctly assessed, but the vaccination status was verified in 35 percent of the children, and 71 percent of those received a referral.

Next steps
The regional team in Borgou is continuing the following activities with the support of the BASICS coordinator:

- Sharing lessons from the four focus districts with other districts. All 14 districts have, with assistance, developed a plan of action for implementing the minimum package at the health facility level.
- Supervision plans are being developed and implemented by the regional team at Parakou to consolidate the orientation given to district managers.
- IEC materials are being developed and field-tested.
- Key indicators for tracking results at the community level are being developed, and a baseline survey is planned.

2. Lay the groundwork for AIMI implementation by undertaking baseline studies in Ouémé (in anticipation of IEC materials development).

In early 1999, BASICS helped the MOH carry out the formative research on febrile illness in the Ouémé District, in collaboration with Africare and CDC, to better understand treatment-seeking behavior of caretakers of children under 5 who have fever and/or convulsions. The research results will be used to plan interventions for improving prevention, care seeking, and case management of febrile illness in the community and by health providers. The AIMI tools from the Benin experience collect information with direct relevance to those involved in programming, policy development (including drug policy), and strategies for IEC, IMCI, and malaria preventions interventions. Results will be used in strategy development and as a baseline for project evaluation.

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3. Introduce IMCI and prepare for implementation to improve the management of childhood illness.

The MOH and WHO invited BASICS to co-facilitate the March 1999 IMCI Orientation meeting planned for health officials and senior-level health practitioners. In November 1998, WHO/AFRO assessed the situation and potential for IMCI with all key parties involved (MOH, WHO/Benin, UNICEF, training institutions, and others). To date, BASICS has sent representatives from Benin to seminars on IMCI, such as the Inter-country Orientation meeting on IMCI in Niger in 1997, and the first Global IMCI meeting in the Dominican Republic. Additionally, three Benin health professionals participated in the 1997 Regional Seminar on the Adaptation of Feeding Recommendations for the Integrated Management of Childhood Illness (IMCI) co-sponsored by BASICS/SARA Projects and ORANA in Dakar, Senegal.

4. Work toward assuring the sustainability and effectiveness of immunization program achievements.

Because Benin's immunization program is considered one of the strongest in West Africa, BASICS discussed with the Mission, the MOH, and UNICEF the possibility of pilot testing indicators of immunization program sustainability, an issue of growing global concern. However, the lack of a national EPI manager for several months meant that the activity start-up had to be delayed until mid-1998, too late for BASICS to participate.

In late 1998, USAID/Benin asked BASICS to conduct a rapid review of how some health facilities in Benin use immunization contacts to provide vitamin A supplementation, identifying strengths and weaknesses and developing recommendations to improve the situation. Benin is unique in that two of its northern departments provide vitamin A during both routine immunization activities and in national immunization campaigns. BASICS technical staff interviewed health workers from five health facilities in the pilot districts of the Borgou region and reviewed documents. They learned that vitamin A supplementation has been provided during routine immunization contacts since 1994–1995, but without the benefit of defined procedures and subject to the involvement and motivation of health staff. Vitamin A was also included in two national immunization days (NID) in 1997 and 1998.

For routine activities, it was noted that technical guidance for vitamin A supplementation was often incomplete and support materials were not standardized. For example, health staff were not told how to calculate coverage for children and especially post-partum women. Vitamin A supplementation was not addressed in supervision activities and routine reporting was not carried out by health workers. Moreover, the rate of caretakers bringing their children to the health facility for repeat doses was low, especially after measles vaccination was completed. Attendance for some children at the *Centres de Promotion Sociale* is much higher, but this structure does not provide vitamin A supplements, so there are many missed opportunities.

Similar issues were noted for vitamin A administration during campaigns. The co-existence of two presentations of vitamin A (100,000 IU and 200,000 IU) also caused confusion. The capsules were opened in many different ways, leaving health workers' fingers dirty and slippery, and without receptacles for the numerous empty capsules.

It was recommended that standardized and complete technical instructions and forms for vitamin A administration, recordkeeping, and supervision be prepared and provided to health workers, and that collaboration with the Centres de Promotion Sociale be strengthened to try to reduce missed opportunities for vitamin A administration.

Future Considerations

As the BASICS Benin project draws to a close in FY 1999, it is vitally important to ensure that key technical interventions continue under USAID Benin's bilateral Family Health Project. Although the BASICS Benin program began as late as 1998, the program built on past experiences from the West Africa region. For example, BASICS Benin successfully tested new and improved operational approaches and tools in nutrition/IEC in the Borgou region. BASICS also brought experiences from previous malaria interventions in East Africa to the joint AIMI effort with Africare and CDC in the Ouémé region. BASICS Benin emphasized the importance of capacity building for regional and district health workers (nutrition/IEC interventions) in the Borgou region, which could be considered one of BASICS most important achievements in Benin.

USAID Benin has expressed an interest in continued procurement of technical assistance from the global Flagship Project (pending government commitment for this initiative) in nutrition, malaria control, and possibly IMCI and immunization. Additionally, Africare and CDC, with five-year life spans, expressed interest in continuing a collaborative partnership in malaria prevention with the Flagship Project in the Ouémé region.

Bolivia
Country Achievement Summary

Abstract

BASICS in Bolivia builds on the child survival experience of the PRITECH project which assisted the USAID Mission and the Bolivian Ministry of Health (MOH) in treatment and prevention of childhood diarrhea. Starting in 1996, BASICS' mandate has been to institutionalize the WHO-endorsed Integrated Management of Childhood Illness (IMCI) holistic approach to treatment of the sick child in health facilities as national child health care strategy. BASICS has worked with the USAID Mission, the Pan American Health Organization (PAHO), UNICEF, and other partners to introduce IMCI at the national level and implement it intensively in three key Health Districts in Santa Cruz and La Paz. Several hundred doctors, nurses, and health auxiliaries have received the 11-day IMCI clinical skills training. Recognizing the educational background and special needs of health auxiliaries, BASICS has adapted and field-tested a complementary course, IMCI for Nurse Auxiliaries. Working alongside the USAID Mission's bilateral child health project, Community and Child Health, and local health authorities, BASICS has provided technical assistance to change childcare behavior and practices at the community and household levels.

BASICS also produced and disseminated a 50-episode radio drama, *El Zambo Angolita*, and related behavior change materials, to influence child health care attitudes and practices nationally. To understand the causes of childhood mortality among Bolivia's predominantly Indian population, BASICS completed a mortality survey in *El Alto*, a city of 500,000 near the capital of La Paz. BASICS adapted the mortality survey for community surveillance use. BASICS has also worked with the commercial firms *INTI* and *Alfa* to help market *Suero de la Vida (SDV)*, an oral rehydration salt (ORS) used to treat severe childhood diarrhea. BASICS worked with an inter-institutional taskforce to create a public-private sector partnership for the commercialization of ORS.

Context

Since 1993, the government of Bolivia's *Plan Vida* has promoted a health sector reform program to reduce infant and child mortality and malnutrition by increasing access to quality child health services. Acute respiratory infections and diarrhea account for much of the morbidity and more than 50 percent of mortality in children under 5. Bolivia's infant mortality rate stood at 75/1,000 in 1992, a dramatic reduction from 151/1,000 in 1975. Nearly 40 percent of children aged 3 to 36 months suffer from chronic malnutrition. Immunization coverage is low at an estimated 39 percent, and maternal mortality is high owing to lack of prenatal care and the high number of unassisted home births.[1]

Numerous ethno-linguistic groups make up Bolivia's population of nearly 7 million. The majority Indian population—mostly *Quechua* and *Aymara*—maintain traditional beliefs about health and illness. Many

[1] Data taken from *Country Activity Plan—Bolivia 1994-1998*

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illnesses are considered the expression of psychic-cosmic imbalances or punishments. Indian groups often prefer to seek help from a traditional healer (*yatari*) rather than a modern health practitioner. The *Quechua* and *Aymara* also believe that the death of a child is less significant than that of an adult. Such beliefs may serve to explain the results of a BASICS mortality survey conducted in El Alto, a city of 500,000 indigenous Indians near the capital of La Paz. Verbal autopsies revealed that in the majority of 241 infant deaths, mothers and caretakers did not seek outside treatment, despite the proximity of government health facilities.

Bolivia has tried to improve the quality of health services in a decentralized health system. Through the "Law of Popular Participation" and the "Law of Free Health Care For Children Under 5 Years of Age", it has set in place the legal and administrative framework for universal child health care coverage, including free medication, with responsibility shared between the national and local governments. But, bottlenecks remain. Administrative and budgetary systems are weak, the bureaucracy is rigid, and resources and capacity are limited. Further, cultural and language differences often obstruct the doctor-patient relationship.

In this context, BASICS has been working with USAID/Bolivia's bilateral child health project, Community and Child Health (CCH); the Ministry of Health; PAHO; UNICEF; and other partners to improve child health care services. Building on the experience of the PRITECH project, BASICS has worked hard to introduce and institutionalize Integrated Management of Childhood Illness (IMCI) as national child health policy and strategy. In doing so, BASICS and CCH have focused on institutionalizing IMCI in the three districts of Chiquitania Centro and Valles Crucenos in Santa Cruz and Altiplano Valle Sur in La Paz. BASICS technical assistance has produced a core of IMCI training facilitators at the national and regional levels. WHO/PAHO IMCI training materials have been adapted to include nutrition and growth counseling, as well as health communications and behavior change approaches.

Recognizing the education and literacy levels of nurse auxiliaries, who are the backbone of the health delivery system, BASICS and World Education have also adapted and tested a complementary IMCI for Nurse Auxiliaries Course. Collaboration and coordination of child health care efforts among the USAID Mission and BASICS and its partners have been very good.

Scope

BASICS' work in Bolivia since 1995 has evolved from technical assistance in acute respiratory infections (ARI) and control of diarrheal disease (CDD) to the full implementation of IMCI at the national level and in key districts. Other initiatives included the El Alto mortality survey; adaptation and testing of the IMCI course for nurse auxiliaries; innovative work in health communications and behavior change, particularly the 50-episode radio drama *El Zambo Angolita*; and the marketing of *Suero de la Vida* oral rehydration salt (ORS) packets. Other notable work was done in neonatal/perinatal research and medical education.

BASICS provided technical assistance through a resident country office and staff that included two pediatric clinicians who served as the country program manager and IMCI technical officer, a communications and behavior change specialist, and a second technical officer, an accountant and office manager, and other support staff. Periodic technical assistance in program strategy, planning, and management was provided by the BASICS Headquarters and Technical Officer. BASICS Senior Technical Officer provided technical direction for the design and implementation of the El Alto mortality survey and oversight of the introduction of IMCI. A private sector specialist provided technical

supervision for *Suero de la Vida* efforts. Two BASICS staff doctors and a BASICS consultant provided technical direction and oversight of the *El Zambo Angolita* radio drama. The BASICS evaluation specialist provided technical assistance for *Suero de la Vida* and the *El Zambo Angolita* series.

Objectives

1. Increase the proportion of caretakers who regularly practice behaviors to prevent childhood diseases, provide appropriate health care, and seek health care for children at health facilities when needed.

BASICS carried out health communications and behavior change work in Bolivia in three phases. In the first phase, BASICS worked alongside its prime partner, the CCH, to influence behavior change of caretakers through a social marketing approach. A BASICS consultant helped organize training courses for CCH and MOH staff and produce print materials and radio spots. A Behavior Change Action Plan was developed by CCH for each health district. Unfortunately, despite BASICS' sustained support, a variety of financial and bureaucratic impediments within CCH prevented the action plans from being implemented in a meaningful way.

BASICS and CCH subsequently shifted their focus to the design and broadcast of a 50-episode radio series, *El Zambo Angolita*, as a way to reach large numbers of parents and caretakers with timely child health care prevention and treatment messages. Using an "enter-educate" format, the *Zambo* story line features a young soccer star who emigrates from the countryside to the capital, La Paz. His personal and family situation dramatizes the preventable deaths of young children—little angels—and offers practical advice to the listeners on how to recognize danger signs and on the treatment of diarrhea, pneumonia, malnutrition, and other childhood diseases.

The *El Zambo Angolita* radio series reached a nation-wide listening audience. Broadcast in Spanish, *Quechua,* and *Aymara,* the series' child care messages were used by district and community groups to focus on local child health problems. In addition to the 50 episodes available on cassettes, the *Zambo* promotion packet contains an announcer's guide, jingles, brochures, and flyers. *El Zambo Angolita* was broadcast on radio stations throughout Bolivia entirely on donated air time.

2. Improve the use of community/family-level data for decision-making and development of interventions that have an impact on infant mortality.

BASICS designed and carried out a mortality survey in the city of El Alto, a peri-urban community of approximately 500,000 primarily *Aymara* Indians who migrated from rural areas. The results showed that many *Aymara* Indian children die of such treatable childhood diseases as diarrhea, pneumonia, and malnutrition. The survey was designed to find out why *Aymara* children were dying despite the proximity of government health facilities.

Some 271 caretakers of young children who died were interviewed to determine what behaviors might have contributed to the children's deaths. Verbal autopsies, conducted under BASICS' technical supervision, revealed that caretakers often did not recognize danger signs, did not know where to go for medical help when their children became sick, and often sought treatment from traditional healers. These treatments, grounded in Aymara traditional attitudes, beliefs, and practices, were very often ineffective, and sick children were taken too late to a modern health facility. The autopsies revealed the rapid march from illness to death, usually within three days of the onset of illness.

3. Increase the proportion of health providers at first-level facilities who practice IMCI for children under 5, and the proportion of caretakers leaving health facilities who understand the appropriate management of their child at home.

BASICS' work under this objective focused on implementation of IMCI at the national level; implementation, monitoring, and evaluation of IMCI in three target districts; the adaptation of an IMCI Course for nurse auxiliaries; and improving hospital care of the neonate.

National level. Bolivia was one of the first countries in Latin America to embrace IMCI as national child health care policy and strategy. With some technical oversight from headquarters staff, the BASICS/Bolivia team was largely responsible for the introduction of IMCI as a concept to the Bolivian health leadership. Working with multiple partners (medical schools, pediatricians, hospitals), first at the national level to ensure consensus and political support, BASICS worked with PAHO, UNICEF, and CCH to create a cadre of trained IMCI course facilitators, complete ethnographic adaptations of WHO IMCI materials, and identify clinical training facilities.

District level. After the government of Bolivia embraced IMCI, BASICS and CCH made the strategic decision to concentrate on the full implementation of IMCI in three focus health districts: Chiquitania Centro and Valles Crucenos in Santa Cruz and Altiplano Valle Sur in La Paz. In these three districts, IMCI development and testing included training of trainers, providing clinical skills training for facility staff, adapting the "nutrition food box," counseling mothers, and providing supervision and follow-up. Model criteria were also developed by BASICS for rural health centers to be selected and used as Clinical Training Centers.

IMCI course for nurse auxiliaries. Bolivia was chosen by BASICS and World Education as the best site in Latin America for the adaptation and field testing of the IMCI Course for nurse auxiliaries, originally developed in Zambia. The course and materials are now translated into Spanish and adapted for Bolivia; field tests have been completed; and the materials are ready for wider implementation once a cadre of training facilitators is established. BASICS and the MOH concluded that an 11-day course in the treatment of the sick child is appropriate for nurse auxiliaries given their education, training, and literacy levels.

4. Increase the availability, delivery, and use of diarrheal disease/acute respiratory infections/Standard Case Management products and services by mobilizing the private sector.

Diarrheal disease is the number one cause of death in children under 5 in Bolivia. Oral rehydration salts (ORS) are an inexpensive way to rehydrate children suffering from diarrheal disease and thus reduce the high rate of child mortality from dehydration. The BASICS' objective is to increase the supply, distribution, and demand for ORS, particularly in high-risk populations, using a public-private partnership model that stresses the benefits to commercial suppliers and governments alike in meeting the health needs of the population.

In 1994, marketing experts from BASICS and UNICEF visited Bolivia to assess the capabilities of the private sector, build consensus among potential partners, and prepare a preliminary ORS marketing plan. An interagency task force was established, composed of members of the Bolivian Ministry of Health (MOH), PAHO, UNICEF, USAID, and BASICS, to identify ways to increase the availability of ORS beyond the public health system.

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The task force selected two companies for possible collaboration: *Drogueria Inti*, the market leader among pharmaceutical companies, and *Laboratorios Alfa.* Both companies were initially skeptical. However, studies were done of prescriber and consumer perceptions of diarrhea treatment and ORS, and a local market research agency surveyed consumers' perceptions, attitudes, and behaviors in three different regions, revealing a large, untapped potential market for ORS. Researchers identified four primary ORS audiences: parents, physicians and nurses, pharmacists, and other retailers.

Focus groups were held with parents of young children to choose a brand name and test package designs. A smiling ORS packet that embodied strength, joy, and health was chosen to represent the ORS product, which was named *Suero de la Vida (SDV)*, or Serum of Life. Other studies included a price sensitivity study and a pharmacist and shopkeeper attitudes and behavior study.

After several consensus-building meetings, a letter of intent was signed in August 1994 by the Bolivian Ministry of Health, USAID, UNICEF, PAHO, the pharmacy owners association, and Inti and Alfa. The advertising strategy was then developed, with the assistance of *Grey Bolivia*, a local advertising agency. The group decided to segment the *SDV* promotion into a medical launch focused on pharmacists and physicians, and then a consumer launch that would target rural areas and non-pharmacy retail outlets.

The pharmaceutical launch began in March 1996, and the consumer launch followed in May, highlighted by the signing of a letter of agreement for an "inter-institutional alliance" involving 18 organizations.

Although the SDV promotion began well, and 800,000 packets were sold in 1996, a major obstacle arose towards the end of the year when there was an unexpected shortage of packaging materials during peak diarrhea season. When production resumed in March 1997, momentum had been lost. BASICS' marketing consultant returned to Bolivia in October 1997 to reinvigorate the task force.

BASICS conducted a project evaluation in June 1998 to determine the effect of the *SDV* oral rehydration salts intervention on the knowledge of the target audience, surveying mothers, doctors, pharmacists, and members of the task force. Knowledge of ORS among the target population increased from 68 percent in 1989 to 88 percent in 1998, and ORS use went from 23 to 39 percent during the same time. Sixty-eight percent of those polled had been exposed to the *SDV* campaign. Pharmacists' spontaneous recommendation of ORS for a case of diarrhea (as measured through a simulated purchaser study) increased from 5 percent in 1996 to 19 percent in 1998.

Total ORS market share of diarrhea treatments sold through pharmacies increased from 8 percent in 1995 to 19 percent in 1997, while anti-diarrheals' market share shrunk, according to an independent audit.

The Bolivian ORS project laid the foundation for a sustainable ORS supply and distribution system without donor funding. The Project Evaluation showed an increase in ORS knowledge, use, and recommendations by pharmacists. The next steps are to increase ORS access beyond pharmacies by implementing a second *SDV* marketing phase. Mothers and health professionals should continue to be instructed on correct ORS use, and the *SDV* campaign should be coordinated through the re-energized task force.

The Bolivian ORS project illustrates that public-private sector cooperation is replicable in countries where the basic elements are in place, such as a commercial marketing and distribution infrastructure, a government open to collaboration with the commercial sector, and initial donor support. Through a gradual, mutually respectful process, such as the Public-Private Partnership Model, prospective partners can begin to understand each other's wants and needs and build a mutually beneficial project.

Future Considerations

Bolivia's decentralized health care system and its policy of universal child health care may be unique in Latin America. The MOH adoption of IMCI as national health care policy and strategy, and BASICS' work to date at the national and district levels, position Bolivia for a dramatic, but carefully phased, expansion of child health care services, with an eventual positive impact on child mortality and morbidity. Importantly, BASICS and its partners are in a position to further develop several promising child health approaches and technical tools. These include (1) the complementary IMCI clinical training course, (2) community mortality survey and surveillance, (3) community health worker training in behavior change and health communications, and (4) essential drugs management. BASICS also intends to pursue promising opportunities in designing neonatal management improvements.

Short-Term Project
Country Achievement Summary

Burundi

BASICS consultants traveled to Burundi in the spring of 1994 to develop a strategy for possible assistance in the control and prevention of epidemic dysentery, decentralization of health services, and re-establishment of a national Expanded Program on Immunization (EPI) program. To strengthen the treatment of dysentery and assist communities with adequate dysentery control measures, the consultants recommended that a strategy for training health personnel be prepared. The strategy included types of training activities, methods, target participants, and training materials. Civil unrest prevented BASICS from doing further work in Burundi.

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CAIDP
Regional Achievement Summary

Abstract

The Central Asia Infectious Disease Program (CAIDP) was implemented by BASICS, Centers for Disease Control and Prevention (CDC), and the Rational Pharmaceutical Management Project (RPM) in three countries: Kazakhstan, Kyrgyzstan, and Uzbekistan. BASICS' objectives were to improve the capacity of health workers to manage diarrheal diseases and acute respiratory infections (ARI) in children, and to communicate with caretakers about home care and prevention. The program trained national-level and oblast-level (provincial) counterparts in health facility assessment (HFA) and qualitative research methods, and used the findings to plan and evaluate subsequent health interventions. Key interventions included reforms in the training of health workers in case management of diarrhea and ARI, and associated monitoring and supervision; communications and social mobilization; promotion of breastfeeding; and development of community-based mother support groups.

Context

In the Central Asian countries of Kazakhstan, Kyrgyzstan, and Uzbekistan, as in most developing countries, more than half the infant and child mortality is caused by diarrheal disease and ARI. In the past five years, much attention, and corresponding investment of resources, have been given to restructure and privatize health services, as well as other aspects of health sector reform. Nonetheless, evidence of changed practices or improved quality of care has been limited.

In each of the three countries, national programs for the CDD and ARI were established in the late 1980s and around 1993, respectively, and seminars on case management were conducted with UNICEF and WHO sponsorship at the oblast level, throughout the region. Also, since 1993, UNICEF has provided training and communications materials, as well as a large proportion of the national requirements for oral rehydration salts (ORS) and essential drugs to support these programs. While the lecture-based seminars raised awareness of WHO-recommended approaches to case management, they lacked the hands-on clinical training essential for achieving changes in practice, that could reduce treatment costs, reduce the prevalence of antibiotic resistance, and ultimately reduce diarrhea and ARI mortality.

Scope

BASICS, CDC, and the RPM jointly implemented the CAIDP in three countries, Kazakhstan, Kyrgyzstan, and Uzbekistan. While funding initially was only for 12 months (October 1996–September 1997), with additional funds, it was extended to 21 months, through June 1998.

Although the program included activities related to the control of tuberculosis and hepatitis, BASICS' role in implementation was focused only on CAIDP's first program objective: *improve the capacity of*

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health workers to manage acute respiratory infections and diarrheal disease in children, including communication with caretakers on home care and prevention. The limited funding and time frame for CAIDP implementation required a tight geographical focus: activities were concentrated in three oblasts, one per country (Dzambul Oblast in Kazakhstan, Osh Oblast in Kyrgyzstan, and Fergana Oblast in Uzbekistan). The oblasts were chosen as models for wider replication. BASICS was able, however, to exceed the scope of the original workplan by equipping national-level training centers, training national trainers, and supporting extension of CAIDP-inspired reforms into other oblasts in all three countries.

Objectives

1. Improve the capacity of health workers to manage diarrheal diseases and acute respiratory infections (ARI) in children

- Activities were concentrated in one model oblast per country, while full participation of national-level counterparts and extension of CAIDP experience and materials throughout each country was steadily promoted.
- HFA and qualitative research methods were used to gather baseline and follow-up data which, in turn, was used for advocacy and policy reform at local and national levels, and for program evaluation.
- The clinical component of case management training was emphasized, with all trainees completing a four-day course that included hands-on assessment, classification, and treatment of children with diarrhea and ARI.
- Existing Russian-language WHO materials for training, supervision, and communications were adapted and translated into national languages (Kazakh, Kyrgyz, and Uzbek), when trainees, particularly in rural areas, found this was necessary for improved comprehension.
- Reforms in monitoring and supervision were initiated to maintain the quality of health worker performance after training.
- Preventive interventions, particularly promotion of breastfeeding and improved lactation management practices, were closely integrated into CDD/ARI training and communications activities.
- Health workers' skills in direct communication with caretakers, and in leadership of social mobilization activities within their communities, were strengthened through intensive training, participation in ORT and ARI Week activities, and provision of adequate quantities of low-cost leaflets and posters in local languages.

Health facilities assessment

An HFA was conducted in a representative sample of clinical facilities in each of the CAIDP model oblasts during November 1996. BASICS consultants trained teams of field staff and counterparts to use standard HFA methods and instruments that BASICS had developed for use in other regions. Preliminary findings presented by BASICS to MOH and oblast-level health officials during meetings in December were effective in gaining a consensus on the need for reform of and changes to national CDD/ARI programs. Counterparts' participation in collection and analysis of the data helped ensure their ownership of the findings, and provided an experienced cadre of health workers in each oblast who have subsequently contributed to qualitative research, training, and monitoring activities. HFA instruments, already translated into Russian, were subsequently adapted and introduced into routine use for monitoring and supervision.

A follow-up HFA in March 1998 found that in facilities with at least one CAIDP-trained health worker the proportion of staff who checked respiratory rate increased from 48 percent to 95 percent; the cost of treatment for childhood pneumonia fell 66 percent from $25.28 to $8.47; and the proportion of caretakers aware of three or more danger signs for pneumonia rose from 20 percent to 84 percent.

Training
BASICS worked with CAIDP to establish CDD/ARI Training Centers that are functioning effectively at the oblast level, as well as in a number of rayons in the three model oblasts. National-level training centers were also organized and equipped in each country. BASICS adapted and translated WHO manuals and other materials for case management training into the Kazakh, Kyrgyz, and Uzbek languages. These materials have been approved for national use by Ministries of Health, and are being reproduced for distribution and use in other oblasts by UNICEF and the World Bank in each of the three countries. Rayon CDD/ARI Training Centers were also established in all the rayons of the Dzambul and Osh Oblasts, and in four rayons of Fergana Oblast (which, at 2.5 million, or half the size of Kyrgyzstan, has a much larger population than the others). At least two trainers were trained in each rayon, and each trainer is primarily engaged in case management training, with associated monitoring and supervision, during the peak months of diarrhea and ARI incidence.

An intensive series of four-day clinical courses in ARI and diarrhea case management for trainers and for health workers was conducted. Because of the marked seasonality of cases in Central Asia (December–March for ARI, and June–September for diarhea), it was necessary to conduct training separately, ARI in winter and diarrhea in summer, to ensure an adequate volume of cases for each health worker's hands-on practice.

During the 21-month period, which included one full season each for ARI and diarrhea, a total of 14 national- and oblast-level trainers and 27 rayon-level trainers were trained in ARI case management. The trainers then trained 191 physicians and 115 feldschers in the three oblasts. Twelve national- and oblast-level trainers and 40 rayon-level trainers were trained in diarrhea case management, and the latter, in turn, trained 950 physicians, nurses, and feldshers. The larger numbers trained in diarrhea case management are mainly attributable to the long and severe diarrhea season in 1997, considered by some physicians to be the worst in 20 years, which provided more cases for clinical training, along with a greater sense of urgency at all levels.

Monitoring and supervision
New approaches to supervision, emphasizing positive support rather than the Soviet "inspection" model, with its associated fear of punishment, were introduced in each oblast and then extended nationally. These approaches, which are considered essential for the sustainability of other CAIDP reforms, include specific training for trainers and other supervisors, and the establishment of routine monitoring. Supervisory checklists, based on the initial CAIDP HFA and WHO standard forms, were introduced in March 1997 and, with further modification after field-testing, are being used for routine monitoring conducted by oblast- and rayon-level trainers in the model oblasts, and they have been introduced in other oblasts by the national trainers in all three countries.

2. Improve the capacity of health workers to communicate with caretakers about home care and prevention.

A standard module on communication with mothers and other caretakers was incorporated into every four-day case management training course, both for diarrhea and for ARI. Assessment of trainee performance during each course, and of routine monitoring based on the supervisory checklist, includes

specific criteria on communication skills. Simple, inexpensive leaflets with key health messages related to diarrhea, ARI, and/or breastfeeding have been adapted from existing materials; translated into Russian, Kazakh, Kyrgyz, and Uzbek; reproduced in large quantities, and distributed to health facilities. They are given, with verbal instructions, to mothers (almost all are literate) by physicians and feldshers in the context of case management during children's diarrhea and ARI episodes, and in other settings, such as immunization, well-child, and prenatal contacts; in maternity homes following delivery; and during social mobilization campaigns. The potential for social mobilization was best demonstrated in Kazakhstan during the 1997 diarrhea season, mentioned earlier; this particularly severe season raised awareness of the problem throughout the region.

In May 1997, the Dzambul Oblast demonstrated outstanding commitment and initiative in conceiving and conducting an oblast-wide ORT Week campaign. BASICS assisted in planning the campaign, and provided 11,500 leaflets. The leaflets were energetically distributed to families with young children in all rayons, including very remote steppe communities in the north of the oblast. The campaign mobilized all sectors of each community—oblast and rayon *hukumyats* (administrative councils), all pediatric and obstetric facilities, schools, and print and broadcast media—to inform parents about the dangers of diarrhea and dehydration in children, and the importance of home care, including oral rehydration therapy. Oblast radio and TV broadcasts featured interviews with health workers, and public service announcements containing key health messages. The messages were also read from key points by police using loudspeakers, and by bus drivers at each stop on their routes. ORT demonstrations were held in the busiest public places: markets, bus stops, and railway stations. Primary school children were given written dictations on diarrhea and how to manage it at home, which they were to take home to be read and signed by their parents.

The following month, after noting the success of ORT Week in the Dzambul Oblast, the Kazakhstan MOH issued a *prikaz* requiring all oblasts to conduct similar ORT Week mobilization during July and August. Posters and leaflets developed in the Dzambul Oblast were duplicated and disseminated in each oblast, and many variations of the previously mentioned approaches were used.

Breastfeeding promotion

BASICS Nutrition Working Group, with a mandate to promote integration of nutrition interventions into country and regional child survival programs, provided additional funds to CAIDP, which permitted crucial inputs that linked breastfeeding promotion and lactation management more closely to CDD/ARI. These inputs included (1) sponsorship of senior clinicians (two chief obstetricians and one chief pediatrician) from CAIDP model oblasts in an 18-day Russian-language course in Lactation Management Education (LME), and support for subsequent lactation management training in each oblast; (2) qualitative research on predisposing factors and cultural obstacles to the development of community-based mother support groups; and (3) development of training manuals for leaders and other assistance in starting mother support groups in the three oblasts. This was also linked to work conducted in the Russia, where the manuals were finalized and pretested with funding from AED. They will be printed and widely disseminated by UNICEF.

The course in LME was organized by Wellstart and held in San Diego, during February 1996. After this training, the three BASICS-sponsored participants worked in cooperation with CDD/ARI training teams in their respective oblasts to incorporate promotion of breastfeeding into the case management curriculum. Using teaching aids and materials received from Wellstart, they also trained an initial 56 physicians and other health staff in lactation management, and introduced or strengthened baby-friendly policies in maternity facilities on a wide scale, in all three oblasts. At the same time, staff providing prenatal and obstetric care under their supervision were supplied with communication leaflets and taught

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to instruct new mothers to recognize danger signs and appropriate home care of diarrhea and ARI. BASICS also reproduced extensive scientific literature on breastfeeding, previously translated into Russian by Wellstart, which was then distributed to all maternity facilities in each of the model oblasts

Future Considerations

As planners recognized from the beginning of the CAIDP program, its objective will only be fulfilled in a meaningful way, and real sustainability achieved, if the reforms and innovations introduced in the three model oblasts are extended to other oblasts in Kazakhstan, Kyrgyzstan, and Uzbekistan, and beyond these countries to others in the NIS region. Considerable progress has been already been made through the establishment of national training centers and training of national-level trainers. The relatively low cost and high cost-effectiveness of CAIDP interventions are necessary factors in sustainability, but not sufficient to ensure their continuation or extension to the rest of each country. The reduced cost of treating individual cases of diarrhea and ARI in children has been demonstrated, and it is expected to more than offset the cost of program interventions.

To take full advantage of these cost savings, further reallocation of government resources and restructuring of health services will be required. This process will take time, but it can be accelerated (while maintaining a high standard of quality) through additional financial and technical assistance from the international donor community. A modest investment, in these circumstances, could yield an exceptional return.

Each of the CAIDP oblasts is committed to ongoing support of its training center and master trainer. However, the recurrent cost of manuals, charts, and timers needed for each participant trainee is significant, and has not yet been assumed by the oblasts. The oblast health departments and rayon administrations can be expected to continue paying salaries for CDD/ARI trainers, but there will undoubtedly be competing demands on their time. These demands must be counteracted, and high training standards maintained, through the strongly demonstrated commitment of each oblast, and intensive monitoring and support activities carried out by the master trainers and chief pediatricians.

In 1997, WHO promoted and supported the introduction of Integrated Management of Childhood Illness (IMCI) in countries of the NIS region. BASICS worked closely with WHO/Euro and Geneva in the early stages of that process. In Kazakhstan, which has been designated the lead country for the region and where IMCI training began in November 1998, CAIDP provided a valuable foundation of experience with clinical case management training. Findings of the baseline and follow-up HFA related to health worker performance were used for advocacy, planning, and adaptation of training materials. Funding from the BASICS IMCI Working Group permitted the expert involvement of Manoff consultants in adaptation of the Food Box nutrition component of the IMCI training materials.

Prevention is a fundamental aspect of sustainability, and promotion of breastfeeding will continue to be a cornerstone of CDD/ARI in the CAIDP model oblasts, as elsewhere. The senior clinicians who received training at Wellstart are unwavering in their devotion, but they will need to find other sources of support for training and development of mother support groups within their oblasts. UNICEF's Baby-Friendly Hospital Initiative is being intensified in Central Asia, and will, hopefully, benefit from experience in Russia and other countries of the region, where encouraging progress has been made. The training manuals for mother support group leaders, initially developed by BASICS for use under CAIDP, were

published by UNICEF/Russia in December 1998. A limited number of copies will be available for use in Central Asia; funding is needed for further reproduction and dissemination.

Cambodia
Country Achievement Summary

Abstract

BASICS, part of the Reproductive and Child Health Alliance (RACHA), has worked in Cambodia for less than two years, providing technical and financial support for child survival, and planning and managing maternal and child health (MCH) at operational and community levels.

Four issues in Cambodia create a unique operational environment: (1) high mortality rates; (2) a health system unable to pay staff a living wage or support minimum costs; (3) a large number of nongovernmental organizations (NGO), many of which have created their own health system policies and procedures; and (4) a massive Ministry of Health (MOH) reorganization informed by curative considerations. In response, BASICS favored the following key areas:

- National MCH directors will develop policies and mechanisms to coordinate and guide the development of child survival interventions in Cambodia.
- National acute respiratory infection (ARI)/Control of Diarrheal Diseases (CDD)/Cholera program managers will prepare and disseminate appropriate child survival curricula, protocols, and guidelines.
- MOH staff will obtain essential data to inform policy, guideline, and program development (mortality and care-seeking data, and facility and service-quality data).
- Provincial, district, and health facility staff will begin to improve or will improve MCH planning, routine collection and use of data for decision making, and continuous quality improvement of the local MCH services.
- Community leaders and members will identify, prioritize, and address issues and behaviors that directly contribute to maternal and child mortality in their area.
- Private providers will improve the scope and quality of health services provided.

Context

In January 1997, BASICS started work in Cambodia as part of a three-agency alliance (AVSC, JSI/SEATS, and BASICS) charged with providing support to improve MCH in four provinces: Siem Reap, Kampot, Pursat, and Stung Treng. Instead of focusing on a few technical areas, USAID assigned RACHA the task of providing comprehensive assistance to address the interrelated complex issues of MCH.

Death rates for infants and children in Cambodia are estimated at 115 infant deaths and 181 child deaths per 1,000 live births (compared to 42 and 56 per 1,000, respectively, for the region). The crude birth rate is estimated at 43 per 1,000 and a maternal mortality rate is estimated between 470 and 900 per 100,000 live births (compared to 160/100,000 for the region).

The Royal Government of Cambodia (RGC) earmarks 4.8 percent of its budget for health (U.S.$2.43 per person, per year). With this money, it must rebuild a shattered health care infrastructure, upgrade the capacity of recruited staff to replace the experienced health staff destroyed during the Pol Pot years, and

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establish a quality health care service. The budget does not cover minimum operating costs. Staff salaries are well below the survival level. As a result, public sector health services are often low quality and expensive (due to hidden charges); the poor can rarely afford their services. It is estimated that more than 80 percent of all health service transactions take place in the private sector (services provided by all types of health workers, including public sector staff).

In 1997, RACHA was one of more than 150 international organizations working in the country, not including related local NGOs. Many organizations provide some technical and financial assistance in the health sector. In the absence of enforced (or sometimes present or clear) MOH policies and guidelines, some organizations establish their own health policies and procedures. It is not unusual to find two or three different sets of guidelines operating simultaneously in one administrative area.

With the assistance of WHO, the World Bank, the Asian Development Bank, UNICEF, and others, the RGC is reorganizing the health service system. In a multi-year, multimillion-dollar effort, they ended the old alignment of the health system with the country's administrative structure. The new system requires that special health "operational" districts be established, based on population, and that the districts cross government "administrative" district lines. In the same way, the catchment areas of health centers now frequently cross boundary lines of one or more communes (sub-districts). This reorganization is a major effort to build or refurbish referral hospitals and health centers. To staff the facilities, health staff are withdrawn from commune postings and trained to work as a team at the health center level. This radical centralization should improve facility-based curative services, but it constitutes serious difficulties for preventive and promotive services, as does the separation of the health service from the government administrative structure. The reorganization, designed to be completed in 2001, is the major preoccupation of health service directors and managers at all levels.

Scope

RACHA addressed MCH issues at three levels:

1. At the national level, BASICS, as an integrated component of RACHA, provided technical and financial assistance to the MOH to develop and disseminate appropriate child survival policies, guidelines, procedures, and curricula. In addition, BASICS assisted in strengthening the national capacity for planning and management of child survival initiatives.

2. At the provincial level, the MOH assigned RACHA's three provinces to support the improvement of MCH. With a combined population of more than 1,450,000 people, the three provinces represent about 15 percent of the population of Cambodia. BASICS worked with the health service staff at all levels to plan, implement, and manage activities for MCH, and provide technical assistance for child survival issues.

3. Recognizing that most of the MCH-related decisions and transactions take place outside the official health service arena, BASICS worked with community partners to directly address MCH issues at the household level. As a pilot project, their work focused on three of the nine operational districts (OD) in the provinces. When sufficient progress has been made in these areas, the methodologies developed will be applied in the other ODs.

RACHA/BASICS' impact is greater than its geographic emphasis. By helping to strengthen national MCH policies, procedures, and capacities, and by developing and testing implementation strategies in three

provinces (plus providing feedback into the national process), RACHA/BASICS can improve the work of the MOH and its multiple international and local partners throughout the country.

Objectives

1. Develop leadership role for quality MCH care assumed by the public sector. Key policies are in place.

Working Group development. A National Working Group for Child Health was constituted, including donor and NGO members who provide the financial and operational commitments to implement Working Group decisions.

National workplans in place. BASICS staff assisted the ARI/CDD/Cholera program staff to prepare and implement yearly workplans. The current workplan specifies activities to (1) strengthen the national program, (2) strengthen provincial programs, (3) assess and improve quality, (4) strengthen health communications, and (5) undertake research to support ARI, CDD, and cholera programs.

National policy development. A national policy for ARI/CDD/Cholera was prepared and approved with BASICS assistance. With plans to introduce Integrated Management of Childhood Illness (IMCI) in Cambodia, the policy is already being expanded and redrafted as a Child Health Policy.

IMCI implementation. Working with WHO and UNICEF, BASICS helped the MOH inform senior ministry officials and donors about IMCI, and draft a proposal to phase-in IMCI. As the first step toward institutionalizing IMCI in the country, a national plan for adaptation and early implementation of IMCI was prepared during a BASICS-supported National IMCI Planning Workshop in October 1998.

Guideline dissemination. BASICS helped the program directors for ARI and diarrhea secure WHO support for publication and distribution of key national program documents to all health facilities, including guidelines for case management of diarrhea and ARI.

Protocols for management of childhood illness. BASICS helped the Asian Development Bank's Basic Skills Project staff review clinical protocols for the management of childhood illness. As an outcome of this review, the MOH decided to adapt and introduce IMCI.

Neonatal tetanus guidelines. Collaborating with WHO, BASICS staff are helping the National Expanded Program on Immunization (EPI) develop guidelines and a field manual for neonatal tetanus elimination in the country.

2. Obtain data, as required, to inform policy, protocol, guidelines, and program development.

Facility surveys. Health Facility surveys were completed in the three focus provinces. They document service availability; human resources (including training status); supplies and equipment; and quality of services for childhood illness, birth spacing, and antenatal care. The quality of care assessment includes observation-based assessments of provider performance and exit interviews with clients. The surveys provide both baseline data and a way to focus interventions for improving health service management and quality.

Mortality study. The "Pathway Study," a study of deaths among infants and children, is a one-year prospective study currently being conducted, in 40 surveillance villages, in four provinces (Siem Reap, Kampot, Pursat, and Stung Treng). Based on the "Pathway to Survival," a conceptual framework developed by the Centers for Disease Control and Prevention (CDC), USAID, and BASICS, the study tracks more than 6,000 children under 5 years of age, and it will provide information from investigation of more than 500 child deaths. The study will (1) identify the main causes of child death and the major demographic, behavioral, and sociocultural risk factors for death; (2) reveal patterns of care seeking and care provision, both inside and outside the home, including the proportion of fatal and nonfatal episodes that receive appropriate care; and (3) clarify perceived or real obstacles to improved care-seeking behavior.

The study also identifies and investigates all maternal deaths occurring in the 40 villages. The information will help focus safe motherhood program activities throughout the country.

3. Improve human resource capacity in the MCH sector.

Annual planning. BASICS facilitates the development of annual MCH plans in the three focus provinces and their ODs. For the first time in Cambodia, MCH staff at implementation levels are preparing action plans that identify resource needs (for NGO support), that guide program implementation, and that allows monitoring of achievement, based on measurable objectives. In a growing number of districts, health center staff join in the annual review and planning process. On the assumption that program planning is a precursor to solid implementation, and that planning is best done (and owned) by those who know the local situation and do the work, annual MCH planning in the three provinces is a major step toward improved management and local program coordination.

Strengthen the Health Information System (HIS). The HIS provides routine MCH data for program monitoring and decision making. However, previously the data collected by the system has not been used at implementation levels for two reasons: (1) the data was incomplete and lacked quality, and (2) staff were unable to analyze the data and had not been encouraged to do so. BASICS assists the MCH staff at all levels in the three focus provinces to reorganize the system, improve the completeness and quality of reported data, and analyze and use the data. When this support began in early 1998, the quality of data and reporting completeness at the operational district level was routinely assessed to be 40 percent. Current assessments of data quality and completeness indicate a level of quality and completeness between 70 and 80 percent. Additionally, six out of nine ODs routinely analyze selected MCH data sets and they use the output for feedback and local planning. Local MCH management can now provide analyzed data to NGO partners and use data to assess which interventions and what support contribute the most to program achievement.

Improve MCH service and management quality. BASICS helps develop continuous quality improvement at both the referral and health center levels in the three focus provinces. Continuous Quality Improvement (CQI) teams were formed at the three major referral complexes in the focus provinces. Using skills developed through BASICS training, these teams were empowered to identify and prioritize problems, collect data to document the causes of selected problems, and prepare plans for intervention and monitoring to document the resolution of these problems. Using their CQI skills, the teams have assumed primary responsibility for improving the quality of care in the referral complex. As the quality of service at these units reaches an acceptable standard, the referral complex can be used as an appropriate training site for health staff from peripheral health units.

A process for continuous service improvement at the peripheral level, the Self-Improvement System (SIS), has been initiated with BASICS assistance in selected ODs of the three focus provinces. Health center and

infirmary staff in the ODs meet in a continuing education setting to select service areas to address, identify existing gaps in service quality, set objectives for improvement, identify steps they will take to improve quality of care, and prepare instruments to monitor their progress. Routine self-assessment and periodic assessment by peers and resource persons identify the level of quality achieved and determine when the next service area can be targeted. Service areas addressed in the last six months include anemia prevention, breastfeeding counseling, and provision of tetanus toxoid. Routine assessment shows that the level of service quality improved from 75 percent to 96 percent for anemia prevention, from 72 percent to 87 percent for breastfeeding counseling, and from 52 percent to 78 percent for tetanus toxoid provision. Quality-of-service assessments include provider observation, record review, and client exit interviews (for retention/under-standing of health messages).

Community partnerships. Recognizing that a majority of health-related decisions and transactions occur outside public health facilities, RACHA/BASICS is supporting pilot efforts to address household behaviors that affect MCH.

For example, a recent survey in four villages revealed that more than 60 percent of mothers wait at least two days before breastfeeding their newborns (37 percent wait at least three days). In the same survey, 22 percent of the mothers advised reduction of fluid intake for a child with diarrhea and more than 40 percent advised reduction of food for a child with diarrhea. In the same villages, 53 percent of the women of childbearing age said that they would like to use a birth spacing method but only 14 percent had ever done so.

Community MCH working groups have been established in each of the villages, and they have identified their health-related priorities. BASICS is helping the villagers develop clean water sources, build bridges (one village is cut off from all health care services during the monsoons), and establish credit associations for women's income generation and health promotion activities. These activities are being developed in partnership with the communities, provincial MCH, and selected local NGOs. Periodic assessments will show whether this community development approach to behavior change will bring satisfactory results and if it is replicable (using modest resources).

Neonatal tetanus reduction. BASICS, with WHO and UNICEF, is supporting the national EPI to establish an effective neonatal tetanus reduction program. Two ODs have been chosen for the trial. A community-based surveillance system for neonatal deaths is being implemented in the two districts and each reported death will be investigated. If the suspect case (death under 30 days) is investigated and thought to be "probable" neonatal tetanus, an appropriate response (health education, orientation of TBAs, and immunization of all women of childbearing age in the area) is implemented. If the15 neonatal deaths reported thus far, twelve have been investigated, three have been declared probable neonatal tetanus, and the first response has been carried out. As they gain experience and the process of surveillance, investigation, and response is refined, BASICS will work with national EPI and WHO to produce appropriate guidelines and manuals. After the procedures are documented and disseminated, the national EPI will seek assistance from IO and NGO partners to expand the program throughout the country.

4. Enable private providers to improve knowledge and deliver quality MCH care.

Private health sector providers and consumer empowerment. Although communities can and will improve their own MCH status, public and private health providers can play an important role. BASICS initiated a pilot program that focuses on enabling public service midwives, who already live and work in health center catchment areas, to obtain sustainable personal benefit when they provide quality preventive and promotive MCH services to a large geographic area. This approach will make marketable products available (e.g.,

delivery kits and birth spacing methods) that midwives can sell as they make their rounds. These products are expected to both improve health service activities and provide incentives for midwives to reach household level in their area of responsibility. If service providers can benefit from providing quality preventive services, they will no longer neglect this arena.

Future Considerations

Three considerations suggest that activities and approaches initiated under BASICS will have an impact when the RACHA project ends:

1. RACHA's focus on national policy, guidelines, and protocol, as well as human resource development, ensures that the technical understandings brought from the global level, the information developed through studies and surveys at the local level, and the implementation strategies developed at field level, will become part of long-term, health service development in Cambodia.

2. The field strategies encouraged by RACHA tend to be low-resource and sustainable. For example, in the public sector, RACHA encourages continuous quality improvement mechanisms rather than supervision systems; encourages the use of routine monthly meetings to review HIS registers and reports; and provides on-the-job training, rather than supporting vertical interventions to strengthen the HIS. In the community, RACHA tries to change behavior at the household level and find sustainable ways to benefit staff who provide preventive services at the village level. Combined, these approaches appear to promise a long-lasting impact.

3. It is clear that Cambodia will remain a focus of international donor interest and funding for the foreseeable future. By helping the MOH create a clear policy and operational environment; by improving the capability of health system managers at all levels to plan, coordinate, and monitor health activities; and by working directly with international partners, RACHA/BASICS will directly influence the quality of support that the international community brings to MCH services in Cambodia.

Short-Term Project
Country Achievement Summary

Central African Republic (CAR)

A senior BASICS consultant traveled to the Central Africa Republic (CAR) in June 1995 as the Team Leader for the Midterm Evaluation of the USAID-funded Sustainable Child Survival (SCS) project. The expert found that the CAR is making demonstrable progress in ensuring that its children have an improved chance of survival. The SCS project is helping the CAR recover ground, lost during a three-year paralysis of the entire public health system, and to push ahead in other areas where, in the past, little activity has taken place.

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CARMI
Regional Achievement Summary

Abstract

The Central America Regional Micronutrient Initiative (CARMI) aims to reduce the micronutrient deficiency in the region through increased availability and consumption of adequately fortified foods, with an emphasis on wheat and corn. CARMI, supported by USAID's Latin America and the Caribbean (LAC) Bureau, represents a joint effort between Basic Support for Institutionalizing Child Survival (BASICS), Sharing United States Technology to Aid in the Improvement of Nutrition (SUSTAIN), Opportunities for Micronutrients Initiative (OMNI), and the Institute of Nutrition of Central America and Panama (INCAP). BASICS made a market assessment in the four countries of the region and recommended the fortification of corn flour. Research and development activities are on-going with MASECA, the largest corn flour producer in the region. Marketing of fortified corn flour in Guatemala is scheduled during 1999, on a pilot basis, before scaling-up throughout the region.

Context

USAID started the CARMI project in response to the alarming levels of micronutrient deficiency, in general, and iron deficiency, in particular, in the Central American region. From the beginning of the collaboration, emphasis has been placed on a regional food fortification initiative to complement existing nutrition activities, including supplementation and promotion of dietary diversification. From late 1996 through 1998, BASICS was involved in micronutrient activities in Honduras, Nicaragua, El Salvador, and Guatemala. BASICS' private sector coordinator made country visits, often with the Central American regional handwashing promotion activities, to guide wheat and corn flour assessments, visit flour and corn millers, and encourage discussions between the governments, the private sector, cooperating agencies, and USAID, and to ensure sustainable production and marketing of fortified foods.

Wheat flour was identified as a possible vehicle for iron fortification, and a wheat flour expert performed an extensive two-stage assessment of the industry. In 1997, in a joint mission with the other CARMI team members, BASICS' coordinator accompanied the wheat expert to assess the wheat and corn flour market. The assessment report stated that wheat flour mills in all four countries could fortify to INCAP levels (restoration levels of thiamin, riboflavin, niacin, and folic acid, with higher fortification levels of iron than the U.S. standard) in a relatively short time, and the report recommended that the project offer technical assistance to mills for quality control and testing. Because most of the wheat flour in the four countries is already fortified with iron, and corn flour is the most common staple in the CARMI countries, BASICS recommended that CARMI investigate the potential for corn flour fortification.

Scope

BASICS and the task force agreed to expedite the fortification of a cereal staple in Central America. Wheat flour was initially explored as the fortification vehicle, but corn flour was a better choice because

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of the higher current tortilla consumption by the target population. An added factor for targeting corn flour was the expected market growth and the dominant position in Central America of MASECA, a Mexico-based corn flour producer. The CARMI and MASECA task force agreed to follow a two-stage plan that would exploit MASECA's momentum in instituting fortification. SUSTAIN and INCAP are working with MASECA on technical issues related to bio-availability and sensorial changes of *nixtamalized* (process to soften the corn) corn; they expect to complete their research in 1999. The other corn flour producers will be brought together for consensus on fortification and, if needed, will be offered technical assistance. Meanwhile, MASECA intends to market-test the corn flour in Guatemala with an in-house fortification formula already used in Mexico. BASICS and MASECA are discussing the possibility of working together on the market research study and marketing plan.

In the summer of 1999, MASECA will begin a study to determine consumer attitudes about nutrition and how they perceive and value a fortified corn flour product. If needed, BASICS will provide technical and financial support for this initiative.

In 1998, BASICS led another important activity, modeled after the BASICS handwashing program, to elevate the general population's perception of INCAP as a nutritional/quality assurance entity and to raise general nutrition awareness. The BASICS coordinator, with members of INCAP/FANCAP and USAID/Guatemala, spearheaded the creation of a task force in Guatemala to draft a consumer nutrition education program to allow INCAP to market a seal of quality. To accomplish their goal, BASICS and the agencies used a three-part strategy—they recommended (1) a market research to determine the attitudes and needs of the consumer and to determine the requirements of the companies producing the foods that would be considered for fortification; (2) the development of a communication strategy based on the results of the research; and (3) the dissemination of the communication campaign.

Two market research studies are planned: one to determine the consumers' perception of a "Healthy Foods" logo (INCAP's seal would identify foods that had passed INCAP's assessment and were certified as "healthy") and another study to determine if industry values the benefit from a Healthy Foods campaign, and the eventual needs for INCAP services in terms of technical assistance for quality assurance and nutritional guarantee. If INCAP can market their research and technical capabilities to the food industry, the income would enable them to operate independently, providing a greater service to the population in the member countries. The market research studies will be followed by the development and launching of a social marketing program; the implementation will be funded by industry, through their commercial networks.

Objective

1. Increase demand for fortified foods in Central America.

CARMI's objective is to reduce micronutrient deficiencies through increased availability and consumption of adequately fortified foods, with an emphasis on wheat and corn. Each of the three partnering organizations focus on activities within a distinct, but interrelated, objective: (1) SUSTAIN concentrates on improved quality of fortified foods; (2) OMNI focuses on improved policy environment for increased supply of fortified foods; and (3) BASICS' activities aim to increase consumer demand for fortified foods.

CARMI's efforts initially focused on wheat flour fortification, but subsequent assessments revealed an existing high-level of wheat flour fortification in the four participating countries. The analysis also

revealed that corn flour is the most widely used staple, and that industrial production is growing rapidly in all four countries. BASICS' coordinator, concentrating on corn flour as the fortification vehicle, made six visits to the region.

Analysis of the food fortification situation in Central America

Iron fortification standards in Central America

Three fortification standards are used in Central America. The first follows the same restoration levels used in Canada. The second follows U.S. standards, which are slightly higher than Canada. The third, a new formulation developed by INCAP, has restoration levels of thiamin, riboflavin, niacin, and folic acid, but higher fortification levels for iron. The U.S. and Canada adopted higher folic acid fortification standards, which became mandatory on January 1, 1998. INCAP is considering applying the same folic acid level to their standard. Premixes for all three standards are readily available from the private sector in the United States and Mexico.

Consumer demand for staple foods

According to the 1993–1994 National Household Consumption, Income, Expenditure and Nutrition Survey in Honduras, 38 percent of households do not consume bread, while 9 percent do not consume rice, and 13 percent do not consume corn. A similar study in Nicaragua, the National Survey on Micronutrient Deficiency, found that 49 percent of households consume wheat flour, compared to 87 percent for rice and 55 percent for corn. Corn is consumed primarily as tortillas.

Corn flour fortification

Given the high consumption of corn products in Central America and the fact that nixtamalized corn flour is a rapidly growing market segment, BASICS private sector coordinator suggested investigating the fortification potential of this product. BASICS conducted a corn flour assessment of Honduras and Nicaragua in February 1997, combined with the wheat flour assessment undertaken by the CARMI team during that time; later, they performed market assessments in Guatemala and El Salvador with a representative from INCAP. The market assessment revealed the dominant position of MASECA, a Mexico-based company specializing in corn flour production for tortillas. Corn flour fortification with iron poses region-specific problems because of the nixtamalization process. The corn is soaked in lime, and during the process calcium leaches into the corn. Calcium impedes iron absorption, so technical studies are needed to determine iron bio-availability in the presence of high calcium content and the possible changes in the flour's taste, color, or texture.

Country market assessment

El Salvador

After two years in the Salvadorian market, MASECA controls 51 percent of the market, with a production capacity of 55 metric tons (MT) of corn flour per day. According to their estimates, that is enough to supply 25 percent of the needs of the urban population. HARISA, which has the remaining market share, was the first to introduce corn flour in El Salvador. They produce 45 MTs of corn flour per day under two brands, *Nixtamasa* and *Del Comal*. Production capacity is three times the current production.

According to the MASECA general manager, the two major corn flour millers produce a total of 13,117 MTs per year in El Salvador, enough to supply 17 percent of urban needs. The average household (5.6 persons) consumes 21 tortillas per day, with an average annual consumption per capita of 60.7 kilograms (kg). MASECA estimates a potential market of 77,124 MTs a year for the urban market alone, with continuous growth to 37 percent of the market in 1999. An obstacle to corn flour sales is the lack of an established tortilla production industry in El Salvador similar to the ones in Mexico and the U.S. Flour is sold in 2, 3, 25, and 50 pound bags through corn flour distributors, with a public sales price of $.35/lb.

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Corn flour has an estimated shelf life of six months, and the average turnover does not exceed four months. MASECA promotes its brands on billboards and shop signs. They fortify corn flour in other countries, including the U.S. (school programs), southern Mexico, and Costa Rica; fortification levels vary from country to country.

Guatemala

In Guatemala, the BASICS coordinator met with IHNSA, a producer of the General Mills wheat product line that also produces corn flour. *Torti Ya*, IHNSA's fortified corn flour brand, has been on the market for 35 years. They introduced corn flour to the region and, in collaboration with a well-respected nutrition expert in the region, developed a patented process of fortification based on Canadian wheat fortification formulas with iron (30.9 mg/kg), niacin (35.3 mg/kg), B1 (4.8 mg/kg), and B2 (2.9 mg/kg). *Torti Ya* has approximately 10 percent of the Guatemalan market share, with MASECA having the remainder (about 90 percent). Nearly 300 MTs of *Torti Ya* is produced each month, with produc-tion capacity twice the actual production. Corn flour is sold in four sizes—2, 5, 50, and 100 pound bags; the best sellers are the 50 and 5 pound bags. Following MASECA's explosive introduction into the market two years ago, IHNSA distributes *Torti Ya* to supermarkets countrywide. They now employ a sales force.

BASICS met several times with representatives from CAESA, the regional office of MASECA in Central America, based in Guatemala. Their statistics show commercial corn flour represents 15 percent of the tortillas consumed in Guatemala, and they produce approximately 1,900–2,000 MTs per month, with a production capacity of 3,000 MTs. Corn is sourced from northern Guatemala. Corn flour is sold in 2, 5, and 50 pound bags; the 50 pound bag represents 50 percent of their sales, at a price of $.25 a pound. They admitted that a considerable quantity of corn flour from their Mexican plants was smuggled in and sold on the local market due to the low price of subsidized corn flour in Mexico. Recently, subsidization of corn flour/tortillas was lifted by the Mexican government to the satisfaction of MASECA's marketing manager in Guatemala.

Honduras

Two of the Honduran wheat flour mills visited for the wheat flour assessment (*Molineros Harineros Sula* and IMSA) also produce nixtamalized corn flour for tortillas. MASECA is the market leader, with 85 percent of the market share. The MASECA representative stated that they are currently operating at or near capacity but are prepared to double the production, if warranted. Nixtamalized corn in Honduras is not enriched.

Nicaragua

Currently, corn flour is not produced locally in Nicaragua, but MASECA has invested in building a plant in Chinandega.

MASECA's role in Central American corn flour production

MASECA is the major force in corn flour production in all the Central American countries where the CARMI group works. Because MASECA has such a dominant market position, CARMI determined that fortifying MASECA's products would be the most expedient way to achieve corn flour fortification in the entire region.

MASECA has a well-developed distribution network, which is regularly filled every 8 to 15 days. The turnover of goods is four to eight weeks, with a shelf life of at least three months. Marketing activities focus on a sales force for *tortillerias* (makers of tortillas) and mass media, point-of-sale materials, billboards, and contests for consumers.

MASECA shared a technical report, titled *El valor del enriquecimiento de la tortilla*, about the fortification of nixtamalized corn flour in Yosphi-El Rincon, Queretero, Mexico, published by the National Institute of Nutrition in Mexico. The results are encouraging and strongly support the nutritional benefits of fortification. MASECA is enthusiastic about corn fortification and they are proactive about their role in the process. MASECA's regional marketing director also shared the results of their consumer survey on commercial corn flour and tortillas, which found that both tortillerias and consumers value the sensorial characteristics over the nutritional aspects, as shown in the following table:

Characteristics and Ranking of Tortillas

Ranking	Tortillerias	Consumers
1	color	smell
2	smell	taste
3	taste	softness
4	texture	nutritious
5	durability of softness	color
6	nutritious	–

In order of preference, tortillerias value color, smell, taste, texture, consistency, and, in sixth place, nutrition. However, consumers value smell, taste, softness, nutrition, and, lastly, color. Convenience is important for both groups of users. It is interesting to note that "nutritious," an abstract concept, comes immediately after three sensorial criteria and ahead of color (an immediately visual characteristic), as an important intrinsic attribute of the tortilla from the consumer's point of view.

MASECA corn flour fortification activities

In mid-1997, MASECA suggested an early launch date of March 1998 for the fortified corn flour product, using the in-house Mexican formula first (vitamin A, ascorbic acid, elementary iron, and vitamin B complex) and, later, switching to INCAP's "improved formula" when it was ready. MASECA's had political and economic reasons for rapid fortification. They wanted to use fortification as a bargaining chip with the government to obtain an exemption or to decrease the 13 percent Value Added Tax on the packaged corn flour, which would also lower the consumer price. They also wanted to discuss some flexibility to importing corn, which has a 20 percent customs duty to protect local corn growers.

Current research and development activities

MASECA decided to pursue the nixtamalized corn flour fortification research program developed with INCAP and SUSTAIN. At a December 1997 meeting in Washington, D.C., MASECA and SUSTAIN finalized a research program that includes stability, and bio-availability tests conducted for several types of iron at Texas A&M University. Due to the complex nature of the research project, the project will be completed at the end of 1999.

Corn Flour Market Research

To further explore the concept of nutrition and perception of added value in a fortified corn flour, a marketing study is planned to help differentiate the future product and aid in product positioning. The study would tentatively be conducted in Guatemala and completed during the summer of 1999.

Summary of current activities

A summary of CARMI activities identified in the 1997–1998 BASICS workplan is shown in the following table, with the current status. All planned BASICS activities within the CARMI partnership have been completed, except the marketing campaign, which was delayed after MASECA's decision to wait for the results of the technical tests on nixtamalized corn flour before beginning fortification.

Summary of Activities

Focus	Activity	Status
Fortification of wheat flour	Market assessment for Guatemala, El Salvador, Honduras, Nicaragua	Completed
	Coordination of regional forum with SUSTAIN, OMNI, INCAP	Completed
Fortification of corn flour	Market research on consumption patterns	Completed
	Market situation analysis	Completed
	Behavioral research on corn flour use and consumer attitudes (with MASECA)	To be completed by summer 1999
	Develop demand-generation campaign	Awaiting completion of technical studies
	Launch of campaign	After BASICS EOP
Other activities	INCAP marketing program	Proposal presented to USAID/LAC in February 1999

Future Considerations

BASICS should continue to participate actively as a member of the CARMI task force. It should also follow-up with MASECA to ensure that corn flour marketed in Central America is fortified using its own formula or a formula approved by INCAP. When the formula is ready, BASICS plans to organize a consensus meeting with all corn flour millers in the region to share the findings and to encourage them to implement corn flour fortification. With MASECA's agreement, to reinforce the implementation of fortification, consumers' attitudes studies will also be shared and discussed. They will also discuss the need for a demand generation campaign.

LAC Cholera Initiative
Program Achievement Summary

Abstract

In the aftermath of the 1991 cholera epidemic that swept across Latin America, BASICS received a delivery order from USAID's Bureau for Latin America and the Caribbean (LAC) to help reduce cholera morbidity and mortality in the region. In coordination with USAID Missions, the Environmental Health Project, the Pan American Health Organization (PAHO), UNICEF, and nongovernmental organizations (NGOs), BASICS focused its assistance first in Bolivia and then in Central America where the epidemic had shifted by 1993. Adopting an integrated approach, BASICS worked to influence beliefs and practices and improve treatment and prevention of cholera by health workers and caretakers. Innovative approaches included: public/commercial partnerships in marketing oral rehydration salts (ORS), the use of distance education of health workers across Central America, and the design of a cholera checklist for health planners. The Central American Handwashing Initiative is another successful innovation designed by BASICS started under the LAC Cholera Initiative.

Context

In 1991, the seventh pandemic of *Vibrio cholerae* 01 biotype *El Tor* cholera reached South and Central America. Cholera epidemics began on the coast of Peru and subsequently spread inland to most countries in the region. Although the initial epidemic was concentrated in north-western South America, Central America became the new focus of the epidemic; starting in 1993, an increased incidence of cholera was reported from Guatemala, Honduras, and Nicaragua. These countries were at elevated risk for cholera due to poorly developed diarrheal disease control programs, inadequate public health infrastructure, and economic and political instability.

Diarrheal diseases are a major cause of childhood morbidity and mortality in South and Central America. The risk for epidemic cholera in many of these populations was very high, because conditions of sanitation and hygiene were often poor and because caretakers often did not have the knowledge or skills to adequately manage the disease in the home. In addition, because access to health care was often limited and since many health care workers had not been trained in standard case-management of cholera and diarrhea, cholera mortality in these areas was elevated. BASICS used the Pathway to Survival model to develop strategies for strengthening primary health care programs to control cholera.

Scope

The LAC Cholera Initiative was a joint effort of USAID's LAC and Global Bureaus, USAID Missions, Ministries of Health, PAHO, UNICEF, nongovernmental organizations (NGO), the Environmental Health Project (EHP), and BASICS. Other major contributors included the Central America and Panama Nutrition Institute (INCAP) located in Guatemala City, and commercial firms in Bolivia and Central

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America involved in the marketing of ORS and soap for hand washing. BASICS assistance included headquarters short-term technical assistance and input from the BASICS offices in Bolivia and Honduras.

Objectives

The overall objective of the LAC Cholera Initiative was to reduce cholera morbidity and mortality by strengthening national diarrheal disease control programs through collaborative efforts with the MOHs, USAID, PAHO, UNICEF, nongovernmental organizations, and the commercial sector. Following is a summary of the key components and results of the Initiative.

1. Policy development.

BASICS and the LAC Bureau assisted ministries of health in several countries to review and update their diarrhea control and cholera policies and guidelines. Policies and guidelines were developed with the participation of central planners, as well as program managers from the central and regional levels. An emphasis was placed on disseminating policies and guidelines to health staff and others working to control the epidemic, including the NGO and commercial sectors. Where possible, cholera policies and guidelines were incorporated into those for disaster preparedness and national diarrheal control programs.

2. Evaluation of health worker training in cholera and diarrhea management.

Distance Education in Guatemala
BASICS conducted an evaluation of an INCAP distance health worker training course in management of cholera and diarrhea. Conducted in Guatemala, the evaluation was designed in collaboration with the MOH and INCAP to test the relevance of this type of training for physicians and nurses. With funds from USAID and PAHO, the distance education course was implemented by INCAP in Guatemala, Nicaragua, and El Salvador from June 1995 through August 1996. After an initial meeting, participants received monthly mailings of course materials, including a set of questions that they mailed back. BASICS evaluation compared the before-and-after performance of 66 participant health workers. Results revealed that their knowledge increased and that they improved their skills to assess, diagnose, and treat diarrhea. Distance education may, therefore, be a useful method for wider use with some categories of health workers.

Diarrhea Case Management in Bolivia
Following facility-based surveys, a health worker training plan was completed in September 1993, followed by training of trainers in October and December of that year. Training materials were provided to teams that were expected to train health workers in their respective areas. BASICS assisted with the evaluation of health worker diarrhea training using pre- and post-training interviews and a process assessment of training activities. Training was demonstrated to improve health worker knowledge and some practical skills the end of training.

3. Strategy development.

Bolivia
BASICS provided technical assistance to the National Cholera Coordinating Committee, the National Diarrheal Disease Control Program, and other governmental and nongovernmental organizations.

Honduras
BASICS helped develop a strategy for selecting, training, and providing ongoing support to community-based health volunteers, and analyzed ethnographic data on knowledge, beliefs, and practices. Qualitative, observational studies of community health volunteers were conducted, after which training materials were developed and field-tested.

4. Training and ducation.

Medical education in Bolivia
After preliminary activities in 1993, BASICS translated the WHO/PAHO diarrheal disease training modules into Spanish and then began developing in-service training materials for physicians in hospitals. BASICS organized a medical education workshop with representatives from Bolivia's three public medical schools and the National Secretariat of Health to review existing training materials. CDD training materials were then revised and incorporated into medical school curricula.

District-level training in Honduras
Using the WHO guide for management of epidemic diarrhea, BASICS and PAHO developed and adapted a Spanish version for district-level health staff to be tested in Honduras. Training strategies incorporated into the curricula included role-plays and field exercises. The training course focused on facility- and community-based diarrhea management.

5. Health communication and disease prevention.

ORS production and marketing in Bolivia
In Bolivia, severe diarrhea remains a leading cause of childhood morbidity and mortality. The use of ORS, if administered properly, can save children's lives. Traditionally, USAID and other donors have subsidized the importation of ORS packets for distribution through the Ministry of Health's nationwide network of hospitals and health centers. In Bolivia, the commercial sector supplied only about 10 percent of ORS. Although USAID and UNICEF preferred to contract locally for ORS, problems of price, quality, and delivery had to be faced. To improve the availability of ORS in those households and communities that most needed it, BASICS helped launch a commercial ORS product under the brand name *Suero de la Vida* (Life Serum) in May 1996. The intention was that by effectively producing and promoting ORS through the commercial sector, access to ORS for the treatment of diarrhea would be increased and would be sustainable in the longer term.

Working in close collaboration with a task force composed of representatives of the Secretariat of Health, UNICEF, PAHO, USAID, and the two commercial ORS manufacturers *INTI* and *ALFA*, BASICS provided technical assistance in the marketing of Suero de la Vida. A campaign was launched to encourage doctors, nurses, and pharmacists to prescribe *Suero de la Vida*, and free samples were included with promotional materials. ORS is an increasingly recognized and accepted treatment for severe diarrhea, and the promotional campaigns have reached all pharmacies. BASICS latest efforts to expand distribution beyond pharmacies have focused on marketing arrangements with wholesalers who supply other health products throughout the country.

BASICS contracted with the local market research firm *Encuestas y Estudio* to carry out a series of studies including a household study with mothers of children under 5, in-depth interviews with doctors and pharmacists, focus group discussions with consumers, and a simulated purchase study in pharmacies. These data were used to help determine the effectiveness of the marketing campaign to improve the household management of diarrhea with ORS. A process evaluation was also conducted to document the

implementation of the *Suero de la Vida* initiative and lessons learned by the involved partners—the Secretariat of Health, UNICEF, PAHO, USAID, and the commercial manufacturers. The evaluation revealed a four-fold increase in pharmacists' spontaneous recommendation of ORS after the campaign, from 5 to 19 percent, and an increase in mothers' knowledge of ORS and its use, from 69 to 84 percent. Today, commercial sales represent over 50 percent of the ORS market.

Central America Handwashing Initiative
Proper handwashing with soap has been shown to decrease diarrhea and cholera by as much as 84 percent. BASICS helped promote increased use of soap for handwashing through an innovative public/private sector handwashing initiative in Central America. BASICS collaborated with the USAID-funded Environmental Health Project (EHP), six major soap companies, and the MOH in Guatemala, El Salvador, Nicaragua, and Costa Rica to open new markets for soap among the poorer communities—those most vulnerable to outbreaks of epidemic diarrhea and cholera. With BASICS' technical assistance organizing and conducting market surveys, the soap producers banded together in a pan-regional initiative. The regional approach benefits corporate interests by increasing market share and supports the public health objective of disease prevention by increasing the use of soap during critical times.

6. Develop and distribute of "cholera checklist" guide to MOHs and other governmental and nongovernmental organizations in the LAC Region.

Public health planners, policy makers, program managers, and health workers at all levels need clear guidelines on how to respond to epidemic cholera because many do not have previous experience managing or planning for epidemic diarrhea. BASICS developed a "cholera checklist" for use by policy-makers, program planners, and managers. This tool has proved to be a useful guide for staff at several levels on all of the key pubic health decisions that need to be made when planning a public health response to epidemic cholera. The guidelines, which are available in English, Spanish and French, were distributed widely to MOHs in Central and South America, as well as WHO, UNICEF, and a number of NGOs and PVOs. This tool also proved to be useful for other regions where epidemic cholera has emerged as a problem, especially West Africa, demand has been strong for the checklist. Currently, more than 10,000 copies have been requested and distributed.

7. Develop a strategy for improving the management of diarrhea at the community level by training community health volunteers in Honduras.

Improving the management of cholera and other diarrhea at the household level is the key to reducing diarrhea morbidity and mortality. In 1992, in response to epidemic cholera in the Americas, the MOH in Honduras developed and implemented a network of community-based oral rehydration centers (UROCS), staffed by community volunteers. It was hoped that trained volunteers at the community level would treat all cases of cholera, refer cases when necessary, and teach caretakers how to correctly manage diarrhea in the home. In January 1995, BASICS evaluated the UROCS and found that they were not functioning in the areas visited.

However, it was found that community volunteers in most areas had continued to work in their local communities; volunteers in most areas visited people with cholera or diarrhea, obtained ORS if necessary, educated caretakers in how to administer ORS, and referred cases with severe dehydration. Although community-based "units" (UROCS) were not functioning, the volunteer system apparently continued in the absence of ongoing outside support. BASICS worked with the MOH and existing community volunteers to develop a simple strategy for selecting, training, and providing ongoing support for volunteers. In addition, a simple health education "comic book" on the prevention and management of

diarrhea was developed and tested in these populations, and it is being used by volunteers in the communities.

Future Considerations

In Latin America, national and local capacity to manage national diarrheal control programs has improved. MOHs and NGOs have invested in clinical skills training of health workers in diarrheal disease as part of an Integrated Management of Childhood Illness (IMCI) strategy. Nevertheless, given the persistence of unsanitary conditions in many urban areas, and the frequency of hurricanes, flooding, and other natural disasters, the risk of another cholera outbreak remains. To strengthen their own capacity to both prevent and treat cholera and other diarrhea themselves, there is a continued need to improve the knowledge and practices of people in households and communities in the region. The expanded practice of handwashing, widespread use of ORS as a home therapy for severe diarrhea, and heightened public awareness mitigate the prospect of another region-wide cholera epidemic. The cholera checklist for planners, produced by BASICS, was widely distributed through USAID Missions and used in Central America in the aftermath of Hurricane Mitch, and it remains available for future use.

Democratic Republic of Congo
Country Achievement Summary

Abstract

Since August 1997, BASICS has provided technical assistance to the Expanded Programme on Immunization (EPI), in the Ministry of Health (MOH), in the Democratic Republic of Congo (DRC), primarily with planning, logistics, social mobilization, and management. In the capital city of Kinshasa, with assistance from BASICS and other international organizations, the EPI program attained more than 95 percent coverage during two rounds of a vaccination campaign against polio, which included the administration of vitamin A and measles vaccines. BASICS played a key role in the extensive preparations for Sub-National Immunization Days (SNIDs), which took place in December 1998 and January 1999. Oral polio vaccine (OPV) coverage for the 125 health zones participating in the first round SNIDs was reported at 91 percent. The long-term focus for BASICS' technical assistance is to strengthen the once-productive national EPI system. Despite civil unrest in the DRC, the activities have continued. BASICS helped revise the EPI technical materials, distributed cold chain equipment, established a health database for EPI statistics, trained selected staff, developed social mobilization materials, and developed national immunization policies.

Context

The DRC is the third largest country in Africa. Although it has vast mineral reserves and abundant natural resources, the DRC is perennially listed as one of the world's 20 most impoverished nations. The current population is estimated at 48,660,000, with 70 percent residing in rural areas, and children under 5 years of age representing nearly 20 percent of the total population.

Health care is administered through 306 health zones, with each zone served by a central reference hospital. To effectively administer and supervise vaccination activities in the zones, the EPI division created 33 antennae, or centralized health coordinating units, throughout the country. Each antennae is responsible for approximately 10 health zones. National estimates for vaccination coverage rates for the six antigens are between 20 and 30 percent. The uncertainty of the rates highlights not only the communication difficulties in this vast and underdeveloped nation but also the inability of the central level of the Ministry of Health (MOH) to effectively gather and manage health information.

Since 1990, the DRC has been in a state of political and economic crisis, creating a severe negative impact on the health care system, particularly the previously well-established immunization program. Financing for the MOH's EPI office, which supervises and manages immunization activities under the Programme Elargi de Vaccination et Lutte Contre les Maladies Transmissibles de l'Enfance (PEV/LMTE) was drastically reduced. Only 98 of the 306 health zones in the country are currently considered to be "operational." As defined in DRC, being operational requires that only three health centers in the zone regularly provide immunization services. This gives an overly optimistic impression of the population served.

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Zaire caught the attention of the world in 1995 with major epidemics of ebola in Kikwit, which were followed by polio epidemics in Mbuji Mayi. It was estimated there were more than 1,000 cases of polio during the epidemic. WHO reported an estimated 5,443 cases of measles in 1995 and 9,546 cases the following year. However, with less than 30 percent of the health zones reporting, these figures probably underestimate the true impact of epidemic infectious disease in the DRC. The ebola, polio, and measles outbreaks served as a catalyst for renewed international action.

In 1995, working primarily with NGOs, the international donors renewed their disease control efforts. In 1996, the newly created Inter-Agency Committee supervised simultaneous Local Immunization Days (LIDs) for polio in 39 of the largest cities. The results were promising: 37 cities reported more than 80 percent coverage. Also, in 1996, a group of immunization experts from international organizations gathered in Kinshasa to evaluate PEV/LMTE and to offer recommendations for operationalizing this dormant agency.

Laurent Kabila overthrew Mobutu Sese Seko's corrupt 32-year military regime in May 1997. The coup d'état brought a new spirit of hope, not only to the beleaguered citizens, but also to many international observers. Kabila immediately changed the name of the country from Zaire to Democratic Republic of the Congo, and he gradually restored direct collaboration between international donors and government agencies.

In August 1997, USAID asked BASICS to participate in a multi-agency mission to assess the status of the DRC's EPI division and to offer strategies to revitalize this crucial branch within the MOH. The mission specified strategies that would enable the DRC to conform with global polio eradication efforts. During the following months, in October and November 1997, BASICS hired five consultants to assist with the preparation and implementation of LIDs in Kinshasa.

In early 1998, two BASICS technical advisors were appointed to work with the PEV/LMTE to help revitalize the routine EPI system and participate in the preparation for National Immunization Days (NIDs), initially planned for August and September 1998.

In early August 1998, less than two weeks before the scheduled first round of the NIDs, disgruntled soldiers in Kinshasa created an uprising that soon engulfed several provinces and militarily involved at least nine countries. The nation rapidly slipped into chaos. The BASICS expatriate adviser was evacuated in August, and the NIDs were rescheduled for December 1998 and January 1999. Despite these circumstances, BASICS continues to operate in the DRC through the three local staff and the headquarter's support.

Scope

BASICS work in the DRC will continue through May 1999.

- BASICS works directly with the PEV/LMTE, providing technical assistance that will lead to the revitalization of routine EPI activities throughout the country.
- BASICS assists with the organization and management of polio eradication activities (children under 5, throughout the country, will potentially benefit from these activities).
- BASICS provided technical assistance in 1997 for LIDs in Kinshasa and in 1998 for SNIDs.

Objectives

1. Assist MOH/EPI to plan and implement LIDs in Kinshasa.

BASICS sent five consultants to provide technical assistance for the planning and implementation of the first and second rounds of LIDs in Kinshasa in 1997. The LIDs were conducted at 440 sites (health centers, schools, churches, and parishes) during two three-day periods in October and November 1997. BASICS provided technical assistance in obtaining political commitment; updating technical directives and forms; training health workers; inspecting the cold chain; determining requirements for vaccines and other supplies; mobilizing the community; and developing data gathering and monitoring systems. The LIDs were an overwhelming success with 97.2 percent of eligible children immunized against polio in the first round and 95.7 percent in the second round. In addition to polio vaccine, vitamin A was also administered in the first round of LIDs. In the second round, both polio and measles vaccination were provided. Ninety-one percent of the eligible children received a measles vaccine during the second round. The Kinshasa LIDs success was achieved despite unfavorable weather conditions and the short lead-time for preparation and implementation.

2. Plan and implement NIDs.

Currently, BASICS assists the MOH/PVE-LMTE, USAID, WHO, UNICEF, Rotary, and other international and local organizations with planning for the implementation of NIDs in the DRC. A long-term resident technical advisor and a technical consultant for Programs of Immunization and Disease Prevention, have been posted in Kinshasa since January 1998 to collaborate with the partners and provide technical expertise in planning, management, implementation, and evaluation of national and regional immunization and disease control programs for routine services and for special initiatives like NIDs. BASICS also provided short-term technical assistance to the DRC, including expertise on social and resource mobilization, logistical and cold chain preparedness, help in developing tools and technical documents for strengthening and ensuring effective and efficient immunization services, and training health staff in routine and special immunization activities. In addition, BASICS' consultants also worked with a WHO team dispatched to draft a preliminary budget and plan of action for NIDs in the DRC.

During a two-week review held in Kinshasa (26 January–6 February 1999), a joint WHO/UNICEF/ USAID/BASICS team worked with representatives from the MOH/PEV to review the achievements of the LIDs and the plan of action for the 1998 NIDs. This meeting produced a Memorandum for the Record, which established the roles and responsibilities for the key partners collaborating in the immunization program in the DRC.

The meeting also led to the formulation of a National Coordinating Committee that subsequently established four sub-committees to implement the NIDs. BASICS has taken a lead role in institutionalizing three of the four (technical, logistics, and social mobilization) committees. The approach of informal hands-on training has facilitated a collaborative effort that led to better coordination within PEV/LMTE and between the partners.

BASICS was instrumental in developing social mobilization materials, creating a relational national health database, revising budgets based on information from the micro-planning sessions, creating teaching materials and data collection forms, formulating a distribution plan for communications and cold chain equipment, and developing a communications log for high frequency (HF) radio communications. Informal computer training has been conducted, with plans for formal training currently underway.

Due to the August 1998 conflict and continuing unrest in several provinces in DRC, NIDs were not conducted. The government did, however, proceed with plans to conduct SNIDs in limited provinces in December 1998 and January 1999.

The first round of polio SNIDs was conducted 21–23 December 1998 in a total of 125 of 147 potential health zones in five provinces of DRC. Reports indicated that an estimated 3,534,262 children of a target population of 3,883,804 were vaccinated with OPV during the first round SNIDs. This puts the overall vaccine coverage for the 125 health zones at approximately 91 percent. For the second round of SNIDs, the province of Bandundui was added, with a target population of 1.04 million children under 59 months of age. The projected involvement for the second round was between 165–170 zones from a possible 306 health zones. The other health zones will not be covered because of security and logistical constraints.

The second round of SNIDs took place in Kinshasa from 25–27 January 1999 and in the other health zones from 29–31 January 1999. Vitamin A was added to the second round in all zones that completed the first round SNIDs in December. As of this writing, 9 February 1999, final coverage results for the second round SNIDs have not yet been released. However, coverage of the target population for the second round is estimated between 92–95 percent. Final results for the first and second round SNIDs will be available in March 1999. Bandundu and other zones that conducted first round SNIDs in January will hold their second round SNIDs in March 1999.

3. Strengthen the capacity of the national EPI to deliver integrated routine immunization services.

Routine immunization services are the most cost effective preventive intervention for children under 5 and for pregnant women. The revitalization of these services is a crucial element in an effective national health strategy. While the extraordinary demands of the NIDs required an intensive effort on the part of everyone at the PEV/LMTE, the ultimate goal is to reestablish the national immunization program as a viable entity.

Many of the activities conducted under the second objective (*Plan and implement NIDs*) are necessary, but they require additional inputs to have a functioning routine program. Considering their importance for the routine EPI program, the revision of EPI technical documents, the distribution and maintenance of cold chain equipment, and the installation of a national health communication system were identified as high priority activities throughout the preparation for NIDs. For the routine system to be fully functional, however, assistance is also needed in other immunization areas.

The reinforcement of the department of health information is also a high priority. The database established for EPI will be invaluable for planning and tracking routine services. The current computer training sessions will teach high-level members at PEV/LMTE the fundamentals of database and spreadsheet management.

The BASICS technical team drafted data collection forms on routine EPI and epidemiological surveillance that were used during the micro-planning workshops. At the workshops, 275 of the 306 health zones covering the DRC submitted a routine EPI plan of action to the central level.

A draft version of a document proposing national immunization policies was written by BASICS team members and circulated for discussion to ministry representatives and partner agencies. The creation of national health policies is a prerequisite for printing and distributing many health education materials.

Future Considerations

The DRC remains a highly volatile country, which complicates long-term planning. A flexible approach must be adopted to enable progress to continue despite uncertain and rapidly changing circumstances. Assistance is needed at nearly all levels of operation and difficult choices for prioritization of activities must be made.

After the first year of NIDs, attention must be focused toward routine services and surveillance. Integration of the EPI program within the primary health care system must be emphasized. EPI can continue to have a strong role in maintaining and revitalizing the system, which has deteriorated in recent years. Outside the EPI program, attention should be focused on rejuvenating the primary health care system in the rural areas.

The low-level training of health personnel has created a major obstacle throughout the country. Training is badly needed both at the central-level and peripheral-levels. The most practical initial target groups for the EPI program are the provincial- and antennae-level staff.

The successful implementation of all health programs depends on interagency cooperation. In attempting to lower mortality, it is crucial to improve coordination between the MOH and other partners in the health sector. NGOs, church groups, and the private sector should be involved in future planning. The School of Public Health in Kinshasa would be a valuable partner with PEV/LMTE to conduct much needed operations research.

Ecuador
Country Achievement Summary

Abstract

BASICS in Ecuador has worked closely with the Ministry of Health (MOH) and the umbrella nongovernmental organization (NGO), *APOLO*. Starting in 1995, BASICS gave technical assistance in child caretaker behavior change and social marketing for APOLO's member NGOs. Later, at USAID/Ecuador's request, BASICS shifted its technical assistance to the MOH to introduce Integrated Management of Childhood Illness (IMCI). Initial efforts produced a set of adapted IMCI materials, a cadre of trained national-level IMCI clinical course facilitators, and several national-level training courses. In October 1996, USAID and the MOH adopted an intensive focused approach and agreed that BASICS should concentrate its IMCI efforts in the province of Imbabura, approximately a two-hour drive from Quito, the capital. Since then, working closely with representatives of the MOH, PAHO, UNICEF, and the Peace Corps, BASICS has helped train nationwide some 1,600 doctors, nurses, and health auxiliaries in the IMCI holistic treatment of prevalent childhood diseases—diarrhea, pneumonia, malaria, and malnutrition. BASICS innovations include the adaptation of the nutrition "food box" and other mothers' counseling materials, the development of community IMCI approaches, and operations research.

The introduction of IMCI in Ecuador has been a truly collaborative effort with the MOH taking the lead and other agencies such as USAID, PAHO and UNICEF, as well as the NGO community contributing on a sustained basis.

Context

Ecuador's child health statistics have improved. However, some 9,000 children under 5 years of age—6,000 in the first year of life—die each year from preventable diseases: diarrhea, pneumonia, malaria, and malnutrition. In 1995, of 60,000 childhood hospitalizations, 40,000 occurred after the first week of life.[1] Although infant mortality dropped from 95 per 1,000 live births in 1975 to 49 per 1,000 by 1993; today it's estimated to be 31 per 1,000, ranking it 100 of 189 countries tracked by UNICEF. Immunization rates for children under 5 for measles and DPT were 40 percent and 36 percent in 1993. Those rates improved significantly to 88 percent and 78 percent, respectively, by 1996.[2] Ecuador's total fertility rate remains high at 3.2, and maternal mortality is 150 per 100,000 live births.[3] Cultural beliefs affect breastfeeding, nutrition, and immunization. Compounding the child health challenges are problems of access, quality of services, system overload, and language barriers between some indigenous Indian caretakers and health staff.

[1] Ministry of Health statistics

[2] UNICEF, *The State of the World's Children—1998*

[3] Ibid

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Scope

In Ecuador, BASICS provided technical assistance in child health through a combination of resident staff, headquarters staff, and short-term consultants. At the outset, technical assistance to *APOLO* in social marketing was provided by a BASICS consultant. The conceptualization of BASICS current program focus on IMCI, in the province of Imbabura, came from BASICS senior technical director and operations coordinator, and the USAID Mission. In consultation with USAID/Ecuador, in January 1997, a BASICS Country Program Manager was selected, and a BASICS office was opened in Ibarra, Imbabura, in space provided by the MOH. Even though BASICS has been involved in IMCI at the national level, the geographic focus has been in Imbabura.

By the end of September 1998, every government health worker—doctor, nurse, and auxiliary— in Imbabura had received IMCI training. Innovative work was underway in community IMCI, with an emphasis on caretaker and community child health care behavior, as well as health worker attitudes and practices. BASICS was also at the forefront of integrating IMCI into medical and nursing school curricula. Coordination and collaboration among USAID/Ecuador, BASICS, PAHO, UNICEF, and other partners has been exemplary.

Objectives

1. Improve public and private sector primary health care services by designing an appropriate, attractive, and cost-effective integrated package of IMCI services.

BASICS efforts in IMCI are in five areas: IMCI information dissemination and consensus building; IMCI management and clinical skills training; drug logistics systems and materials; training, follow-up, supervision, and monitoring; and social and interpersonal communication. BASICS also conducted operations research.

IMCI information dissemination and consensus building
BASICS, PAHO, and USAID collaborated to create four national commissions on IMCI: management, social communication, training and follow-up, and operations research. An early step in the process of adopting IMCI was to adapt WHO's and PAHO's IMCI course materials to the Ecuadoran ethno-linguistic reality. BASICS printed 1,000 copies of the IMCI chart booklets, photograph booklets, and other materials for distribution to IMCI facilitators and trainees at the national level, and later in the Imbabura Province. IMCI bibliographic materials, technical articles, and videos were distributed widely to MOH staff, NGOs, and medical faculties.

IMCI management and clinical skills training
Starting at the national level, BASICS and its partners trained IMCI clinical course facilitators. In 1997, with the decision to concentrate in the Imbabura Province, BASICS and its partners began a series of IMCI clinical training courses that eventually graduated 1,600 doctors, nurses, and health auxiliaries from the MOH, as well as staff of the *Seguro Social Campesino*, NGOs, and medical and nursing schools. A cadre of United States Peace Corps volunteers were also trained. Imbabura may be the only province in Latin America where every health worker received IMCI clinical skills training.

By the end of September 1998, PAHO, BASICS, and the MOH were developing alternative approaches, which feature distance education techniques to teaching the standard WHO 11-day course.

IMCI drug logistics systems and materials
Essential drugs are needed to successfully implement IMCI in health facilities. Using a combination of USAID/Ecuador and LAC Regional IMCI funding, BASICS, PAHO, and the Rational Pharmaceutical Project (RPM) developed and field-tested an IMCI drug assessment manual. BASICS sponsored workshops in Imbabura for local health staff working in drug management and logistics. PAHO Essential Drugs Program staff from other countries also participated.

IMCI training follow-up, supervision, and monitoring
BASICS tried to provide follow-up training visits to most trained health workers in Imbabura. A baseline study was conducted in April 1997 using the Rapid Appraisal instrument, and a follow-up evaluation was conducted in September 1998 to determine changes in practices of health workers in Imbabura. *The evaluation revealed a dramatic, positive difference in the workers' behavior when they examined children brought to health facilities.*

The following tables show the often dramatic changes:

Table 1. Percentage of Observed Questions by Health Staff to Mothers of Sick Children—the 1997 Baseline Compared to the 1998 Follow-Up Evaluation.

Questions	Baseline (1997)	Follow-up Evaluation (1998)	Percentage Increase
Not drinking	42	78	36
Convulsions	8	66	58
Vomited everything	25	71	46
Conscious	23	48	25
Diarrhea onset	58	95	37
Bloody stools	57	70	13
Duration diarrhea	83	84	1
Fever onset	75	86	11
Duration fever	100	83	-17
Cough onset	80	88	8
Duration cough	87	85	-2
Hearing problem	29	71	42

Table 2. Percentage of Observed Signs Explored by Health Workers of Sick Children—the 1997 Baseline Compared to the 1998 Follow-Up Evaluation

Sign explored	Baseline (1997)	Follow-up Evaluation (1998)	Percentage Increase
Child's weight	95	92	-2
Weight/age	75	922	-5
Palmar pallor	11	64	53
Breathing frequency	40	65	25
Ears	50	50	0
Emaciation	40	51	
Chest stethoscope	81	—	—
Wheezing	—	61	—
Skin fold	31	40	9

Table 3. Percentage of Cases Treated Appropriately According to IMCI Standard—I997 Baseline Compared to the 1998 Follow-Up Evaluation

Classification	Baseline (1997)	Follow-up Evaluation (1998)	Percentage Increase
Diarrhea	54	93	39
Dysentery	50	100	50
Cough/flu/cold	56	74	18
Otitis	100	100	0
Anemia/malnutrition	—	56	—

Table 4. Percentage of Inter-Personal Communication Observed by Health Worker with Mothers—the 1997 Baseline Compared to the 1998 Follow-Up Evaluation

Message	Baseline (1997)	Follow-up Evaluation (1998)	Percentage Increase
Explaining oral medication	68	91	23
Demonstrating medication	10	47	37
Verifying comprehension	33	41	8
Return visit	75	82	7
Give liquids	76	62	-14
Continue feeding	53	75	22

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IMCI social and interpersonal communications
In Ecuador, interpersonal communications has become an integral part of the IMCI approach. An interpersonal communications (IPC) training video, developed in Ecuador, will be used to train health workers in the correct methods to use when counseling mothers and caretakers about nutrition, immunizations, and treatment follow-up of the sick child at home.

Community approaches
At the community level, BASICS has been working with UNICEF, local health authorities, and NGOs to develop community health worker IPC materials, including "mothers' cards," based on local knowledge and practices, research, and adaptation. A health card (*carne' de salud*) was designed for health workers at the health center to note for mothers what follow-up treatment is recommended for their child. The community health task force, led by the Ministry of Health, has taken the generic Community IMCI Health Worker course, developed by PAHO, and adapted it to the Ecuadorean reality. In doing so, Ecuador has contributed to making the PAHO course somewhat less curative in its approach, building in some child health prevention and promotion aspects.

Several indigenous NGOs have contributed to the design of community child health care, particularly in community health worker training and materials development. To date, 71 health promoters from four NGOS have been trained using the new materials in Imbabura Province. They include *Jambi Mascaric, Jambi Huasi, Ayuda en Accion* and *Fundacion Adelanto Comunitario en el Ecuador (FACE)*

At the national level, BASICS helped develop a new community health workers chart booklet for ministry staff, including the printing of 1,000 sets for nationwide distribution. The booklet was later endorsed as "national norm" for the use of NGOs.

2. Conduct additional activities.

Household survey
A household survey is being developed by BASICS and its partners to gauge the effect of IMCI counseling on mothers and caretakers.

Operations research on palmar pallor
Based on a request from Ecuador's national health authorities, BASICS conducted an operations research study to determine the sensitivity and specificity of palmar pallor to classify childhood anemia in a Latin population, at varying altitudes. The results revealed no differences due to altitude for either the *indian* or *mestizo* populations. The study did show that palmar pallor is not a valid indicator of anemia for indigenous children.

BASICS plans other operations research, including a case referral study with the Johns Hopkins University and an IMCI costs study with the World Bank and the USAID-funded Project in Health Reform (PHR).

Future Considerations

BASICS envisions Ecuador as a future "*Center of Excellence*" for IMCI, at least partly because of the outstanding collaboration by USAID/Ecuador, BASICS, PAHO, UNICEF, the NGO community, and the Peace Corps. BASICS expects the opportunity in Ecuador to deepen and expand the institutionalization of IMCI as national child health care policy. The experience and lessons learned from Imbabura

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province, where every health worker has been trained in IMCI, provides a solid experience base. Adopting IMCI as a child health care strategy has many implications for BASICS. Aside from the various forms of IMCI clinical skills training under development for health facilities staff, BASICS wants to be part of the linkage to child health at the community level. Already, innovative work is underway to produce interpersonal communications and counseling materials for community health workers and mothers. The materials must be woven into improvements in community health worker (CHW) training in the curative and preventive aspects of child health. Likewise, BASICS envisions further development of the essential drugs materials, expansion of medical education, and a role for private practitioners.

As geographic expansion occurs in Ecuador, the MOH will need to respond, and the follow-on project to BASICS can help ensure that the MOH has the needed technical innovation and quality. Operations research to study referral practices and treatment compliance will be helpful in Ecuador and across the region. Other research needs to be done to determine IMCI cost-effectiveness and to fashion tools and methodologies for impact evaluation. BASICS also sees Ecuador as a place where public and private health staff from other countries can come for training and be enriched by a multi-dimensional IMCI and child health experience.

Some future challenges include the ongoing downsizing and phase-out of USAID/Ecuador assistance to the country's health sector, as early as the year 2000. Aside from potential USAID assistance, there is heightened interest and financial support for IMCI from the World Bank, UNICEF, and other donors.

El Salvador
Country Achievement Summary

Abstract

In the aftermath of a protracted civil war, BASICS is working alongside the USAID Mission to help the Ministry of Health (MOH), the National Health Commission, the Salvadorean Legislature and other partners design and implement health sector reform and decentralization. At the same time, in partnership with the Pan American Health Organization (PAHO), BASICS is helping to introduce Integrated Management of Childhood Illness (IMCI) in health facilities and communities as the country's child health care strategy and approach. El Salvador has also been part of the BASICS-supported Central American Handwashing Initiative. In addition, BASICS is helping the USAID Mission and the MOH assess perinatal mortality for possible future interventions.

Context

In its effort to recover from the effects of a 15-year civil war, El Salvador is strengthening its democratic and social institutions, and new partnerships are emerging in the health sector. With USAID assistance, the government, private voluntary organizations (PVOs), and the donor community are committed to improving access and quality of health services, especially in former conflict zones. Some health indicators improved from 1960 to 1998. Under-5 mortality, for example, dropped from 210/1,000 to 35/1,000 and infant mortality from 130/1,000 to 8/1,000. [1] But disparities exist in efforts to increase coverage and improve quality of services.

A new partnership involving the Ministry of Health and Social Assistance (MOH), the National Assembly, and the National Commission on Health, and other institutions such as the prestigious *Colegio Medico*, is committed to health sector reform and eventual decentralization of health services. Several international agencies and development banks are involved, including USAID, PAHO, the Inter-American Development Bank (IDB), and the German aid agency GTZ. With USAID support, BASICS has taken the lead in the design and planning of health reform with key Salvadoran institutions. Additionally, BASICS is working with USAID and PAHO to ensure that child health and IMCI are at the core of Salvadoran reforms.

Scope

BASICS activities in El Salvador began in 1997 when the country joined the LAC Regional IMCI Initiative. Later, the USAID Mission asked BASICS to help ensure the right linkage between IMCI at the facility level and child health in the community. BASICS and PAHO then joined forces to develop a generic Community IMCI course and adapt it for training El Salvador's government and

[1] Data from USAID-funded *FESAL* household survey

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nongovernmental community health workers. In 1998, the USAID Mission asked BASICS to provide technical assistance to the MOH, the National Assembly, and the National Health Commission in consensus-building, design, and planning of a sweeping health sector reform and decentralization initiative.

BASICS has provided a combination of resident and outside technical assistance. With technical direction from the headquarters Senior Technical Advisor and Regional Advisor, BASICS assisted in the introduction of IMCI. To help in coordination of community IMCI, BASICS hired a Salvadoran medical doctor to work on community health. To facilitate health reform efforts, BASICS hired a person to serve as executive secretary of the National Health Commission. Short-term technical assistance in health reform has been provided by BASICS consultants from Colombia, Honduras, and Paraguay. BASICS headquarters staff have provided intensive program planning, coordination and backstopping.

Objectives

1. Assist the Salvador Ministry of Health and NGO partners and donors with the integration of community child health services.

At USAID/El Salvador's request, BASICS in April 1998,began to provide technical assistance for the adaptation of a community IMCI course, under development by PAHO, for use in training community health workers of the MOH. El Salvador is at the forefront in Latin America in defining its community health strategy and training materials. Since the country has a wealth of community health experience, PAHO agreed to hold a series of interactive design workshops for the generic community health worker (CHW) course in El Salvador. The BASICS community health specialist worked closely with the USAID Mission, the MOH, PAHO, and the NGO community in developing the Salvadoran adapted version. Enthusiasm and participation by Salvadoran health authorities, the NGO community, PAHO consultants, and BASICS staff in the adaptation process have been excellent. Despite delays in the design and field-testing of the generic Community IMCI course by PAHO consultants in Colombia, BASICS and the MOH are moving toward the first field test of the Salvadoran Community IMCI course.

2. Assist the Ministry of Health (MSPAS), the National Assembly, and the National Commission on Health in their efforts to decentralize health services.

In 1993, El Salvador began planning for a comprehensive health reform initiative leading eventually to decentralization of health services. Based on a multi-donor health sector assessment, the IDB negotiated a health sector reform loan with the government in 1997–1998. The loan was given preliminary approval by the National Assembly in February 1998 but has yet to be ratified. In early 1998, to improve coverage and quality of health services, especially in former conflict zones, BASICS was asked by the USAID Mission to help jump-start the MOH's moribund health reform and decentralization initiative. In addition, USAID/El Salvador asked BASICS to lay the groundwork within the National Assembly's Committee on Environmental Protection and Health for drafting enabling legislation for health reform and decentralization. Later, USAID asked BASICS to help prepare recommendations on health sector reform for the President and Minister of Health.

BASICS has responded with a combination of resident and external technical assistance to strengthen Salvadoran capacity, consensus, and partnerships for health reform.

Ministry of Health and social assistance
After an initial visit in early 1998, BASICS consultants worked intensively with the MOH Planning Department to define the scope of health sector reform. The focus of their work, together with that of PAHO and GTZ, has been the *sistema sanitario* health structure model whereby rural hospitals, health centers, and communities are linked for treatment, service referral, and follow-up. New lines of authority are being defined, building on El Salvador's initial experience with autonomous hospitals. The participation of local officials in the management and funding of each *sistema sanitario* is a feature of the reorganized service delivery system and is compatible with the twin objectives of democratization and decentralization.

National Assembly
As noted above, in February 1998, the National Assembly gave its preliminary approval, but did not ratify a large IDB health sector loan. Recognizing the need to strengthen its own capacity, the Committee on Environmental Protection and Health turned to the USAID Mission and BASICS. BASICS immediately responded by sending two health reform consultants from Paraguay and Colombia to work with the Committee. They introduced the Committee to the broad Latin American experience in health reform, using case studies and "lessons-learned" from Colombia, Chile, Bolivia, Paraguay, and elsewhere, and they organized a series of workshops for the Committee and colleagues from the MOH, the National Health Commission, and the medical establishment. Participation exceeded expectations, as each workshop was over-subscribed. BASICS' assistance helped to make the Committee aware of the legal and organizational dimensions of health reform and decentralization. Significantly, BASICS' help has promoted consensus among the Sub-Committee on Health's disparate political party members and heightened its credibility with colleagues.

National Commission on Health
The National Health Commission was set up by presidential decree in March 1998. Its mandate was to produce a White Paper with recommendations to the President and Minister of Health on health sector reform. Distinguished members of the Salvadoran health profession were appointed to the Commission, but the prestigious College of Physicians preferred to develop its own reform ideas. Asked to help stimulate the Commission's thinking on reform issues and to help it get organized, BASICS organized a series of workshops that described the health reform experience in Latin America and elsewhere. At the request of the USAID Mission, BASICS contracted for the services of the Commission's Executive Director.

In addition, BASICS organized a health reform study tour to Colombia and Costa Rica for Commission members and colleagues from the MOH and National Assembly. In addition to learning first-hand about health reform in these two countries, the study tour fostered collaboration among the 15 tour participants. At BASICS' suggestion the Commission also undertook a number of citizen surveys and focus groups to ensure popular participation in its mandate.

Medical Association (Colegio Medico)
The prestigious Medical Association of El Salvador is also playing a critical role in determining health reform policy and strategy. At the USAID Mission's request, BASICS funded an intensive effort by the Association to canvass its membership and prepare its own health reform policy paper. A series of nationwide meetings were held, and ideas and suggestions on the role of the private sector, national health insurance, quality of care and many other issues are being gathered by the Association.

Other Activities

Central American Handwashing Initiative
The Central American Handwashing Initiative aims at decreasing diarrheal diseases. In El Salvador, BASICS has been the catalyst mobilizing support from private soap companies, the Ministries of Health and Education, donors, and NGOs. The Initiative is based on the belief that the private sector can positively influence consumer behavior by incorporating public health principles in its product promotion while increasing market share. Private sector involvement in public health can leverage funds to better reach those in need as part of a comprehensive public health strategy.

BASICS private sector coordinator visited El Salvador and the other Central American countries in early 1996 to assess the interest of soap producers in adopting a handwashing campaign to prevent diarrheal disease targeting poor and rural mothers. Along with soap companies from other countries in the region, *Unisola*, the largest soap company in El Salvador, joined the Handwashing Task Force Meeting in March 1996 to develop the handwashing marketing strategy.

The representatives of the soap companies signed a Memorandum of Understanding that detailed objectives, strategies, time line, and roles of each partner. The Task Force then created an advertising strategy and concepts, and planned the promotion campaign. Their objective was to decrease the number of mothers who had inadequate handwashing technique from 23 percent to 17 percent in 1 year.

Generis Latina, a regional market research firm, collected information on key public health indicators, soap use, and handwashing characteristics among mothers in Guatemala, Honduras, El Salvador, and Costa Rica. Market research revealed that only 9 percent of the mothers surveyed performed the proper handwashing technique at critical times, underlining the need for a handwashing campaign.

The El Salvador Task Force used the market surveys to develop the communications strategy, which focused on the "how" (the proper technique) and "when" (prior to food preparation, after using the bathroom and changing diapers) of proper handwashing. Once the communications strategy was developed, Task Force members and BASICS began outreach activities with the media, the public sector, and non-governmental organizations (NGOs). Continuous consensus-building was also required with each of the Task Force soap producers.

Unisola and BASICS, with help from the USAID Mission, met with the Ministries of Health and Education to explore collaborative activities in the *escuelas saludables* program. An agreement with the MOH led to the development of educational modules on handwashing for school children and the distribution of educational posters and leaflets within the MOH public health center. *Unisola* arranged a co-sponsorship with the MOH and Salvadoran TV Channels 2, 4, and 6 for free broadcasting of the educational spot.

The following table provides a time line of activities:

Date	Activity
Jan. 1996	Initial contact with soap producers.
March 1996	1st task force meeting with soap producers—establish partnership—sign MOU.
June 1996	2nd task force meeting - develop market research strategy.
June–Sept.1996	Market studies performed in Honduras, Guatemala, Costa Rica, El Salvador.
Sept. 1996	Preliminary contacts with USAID, UNICEF regarding public sector support.
Oct. 1996	3rd task force meeting—Present market research results and develop communications strategy.
April 1997	4th task force meeting—Communications strategy review and approval. Selection of advertising agency.
May–Sept 1997	Development and testing of promotional concepts and materials.
Oct. 1997	5th task force meeting—finalize media plan and production of master copies.
Feb. 1998	Public relations strategy implementation.
March 1998	Educational campaign launch in Guatemala.
May–June 1998	Campaign launch in Costa Rica and Guatemala.
July 1998	6th task force meeting—share launch efforts and experiences.
Sep. 1998	Campaign launch in El Salvador.

While the handwashing initiative in Central America is well underway, a follow-up evaluation to quantify the impact of the campaign one year after implementation is planned for the summer of 1999.

Benefits of the initiative include sustainability through private sector provision of public health messages with no public sector funding. In the first few months of the campaign, media coverage and promotional materials produced by the soap companies in El Salvador, Guatemala, and Costa Rica have already surpassed BASICS' investment over the life of the project. This intervention has shown how forcefully and efficiently the private sector can contribute to public health programs. Enabling factors are: a clear public health objective; formal agreement on broad strategy; early, enthusiastic support of the private sector producers; the availability of flexible and timely technical assistance; and a local coordinator to keep the project moving.

In El Salvador, the Central American Handwashing Initiative is a win-win situation in which corporate and public sector interests have been served. Soap companies have been able to increase market share while actively promoting proper handwashing to prevent diarrheal disease.

Perinatal literature search

At the USAID Mission's request, BASICS carried out a perinatal literature search which will help to shape USAID Mission strategy and interventions in the future.

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Future Considerations

BASICS or its successor project should be ready to assist USAID/El Salvador in several key components of its health portfolio, including involvement in the development and testing of community IMCI approaches (including behavior change and nutrition), the development and testing of alternative IMCI approaches to clinical training, and an involvement in the neonatal/perinatal dimension of child health care. BASICS also looks forward to the potential for involvement in the operations research needed to identify and analyze key issues over time in health reform and decentralization, a cornerstone of the Mission's health sector assistance.

Eritrea
Country Achievement Summary

Abstract

In 1994, when the Partnership for Child Health Care began implementing BASICS in Eritrea, the country's health system and infrastructure were severely weakened and plagued by a shortage of critical human resources. According to the 1995 Eritrea Demographic and Health Survey (EDHS), infant mortality was estimated at 72 per 1,000 live births. The goals of the Environmental Health Project (EHP) and BASICS were to increase the demand, quality, and use of essential health services, especially by the most vulnerable groups: women and children. In 1997, more than 350 facility-based health workers successfully used national health policies and guidelines to develop and implement regional health plans in all six regions of Eritrea. In 1996, Eritrea's doctors prescribed drugs on the national list 94 percent of the time. A new, improved user-oriented national health management information system was successfully installed. To further Eritrea's National Drug Policy, equipment and essential supplies were procured and set up for a first-stage drug quality control laboratory capable of assuring the quality of drugs used in the country. As part of a national immunization day campaign, 83 percent of children under 5 years of age received vitamin A supplements. Substantive national capacity was developed both at the central level and in all six regions, in areas that include formative research, message and materials development, and field testing. Recommendations were offered to ensure continuation of the investments made by USAID for Eritrea's health sector.

Context

In 1991, after 30 years of protracted war, Eritrea gained independence from Ethiopia. In 1994, when the Partnership for Child Health Care started the implementation of the Basic Support for Institutionalizing Child Survival (BASICS) in Eritrea, the country's health system and infrastructure were severely weakened and plagued by a shortage of critical human resources. In 1996, the government of the State of Eritrea consolidated ten provinces into six regions and issued a proclamation that defined the roles and responsibilities from the top administration to the regional and sub-regional governments, and village level. The proclamation was an important step in the evolution of powers to the regions and communities.

According to the 1995 EDHS, infant mortality was estimated at 72 per 1,000 live births. In 1995, only 41 percent of children aged 12–23 months were fully immunized. Acute respiratory infections, malaria, and diarrheal diseases are leading causes of infant morbidity and mortality. More than 60 percent of children under 3 are moderately to severely malnourished, and approximately 56 percent of children in the same age group are stunted. Maternal mortality is very high at 998 per 100,000 live births. Approximately 65 percent of all births were associated with more than one risk factor that increased the possibility of the mother or child dying. Only 50 percent of pregnant women attended a minimum of one antenatal visit during the three years that preceded the EDHS survey (1992–1994).

Responding to the armed conflict between the governments of Eritrea and Ethiopia, which became public

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on May 13, 1998, some key technical officers in the Ministry of Health (MOH) were reassigned to other duties and were unavailable to help advance project result areas. The U.S. Department of State issued an ordered departure of USAID-funded expatriate staff, and it mandated a scaled-down project operation. While the context was favorable for the attainment of project results, the unresolved conflict slowed the rate of progress.

Scope

BASICS worked in Eritrea under the Eritrea Health and Population Project, funded by USAID Eritrea. The goals of the EHP and BASICS were to increase the demand for, quality of, and use of essential health services, especially women and children. The activities of BASICS were national in scope for some objectives, such as the establishment of a national health information system; and regional in scope for activities such as building the capacity of regions to carry out decentralized planning in support of primary health care. Eritrea's population is estimated 3.0 million. The total number of women in Eritrea in the reproductive age group, under 49 years of age, is 646,760, and the number of children under 5 years of age is 495,000. At the regional level, BASICS worked primarily in Maakel, Debub, Anseba, and Gash-Barka regions, which collectively have a population of 1.8 million. In these four regions, 403,000 are women in the reproductive age group and 310,000 are children under 5 years of age.

Objectives

1. Increase the capacity within the MOH to plan, develop, manage, and implement policies and guidelines to support an integrated package of child health and safe motherhood services.

In 1997, more than 350 facility-based health workers successfully used national health policies and guidelines to develop and implement regional health plans in the six regions of Eritrea. A similar process was completed by three regions in the first half of 1998, thereby promoting local or regional ownership and investment in effective health system decentralization. In developing the national primary health care policies, BASICS joined UNICEF, WHO, Save the Children, United Kingdom, United Nations Family Planning (UNFP), and other USAID cooperating agencies, to provide assistance to the MOH. BASICS also provided critical technical assistance in the development of guidelines for decentralized planning.

> *Our (regional workshop on) planning experience of 1997 has (instilled) discipline in our lives. Now there is transparency in all our activities. The existence of a (regional health) management team has also been an achievement.* (Comments by a Regional Medical Officer)

A national drug policy was drafted and adopted by the MOH. Similarly, standard treatment guidelines were prepared and printed for use by all front-line health workers. A national list of essential drugs was adopted, and it now forms the basis for national drug procurement (Standard Drug List, Pharmacy Department, MOH 12 June 1996). In 1996, Eritrea's doctors prescribed drugs on the national list 94 percent of the time. Furthermore, between 1995 and 1996 alone, the average number of drugs per client prescribed by doctors dropped by 12 percent, an equivalent cost savings of $30,000 in the outpatient clinics of three hospitals (Massawa, Keren, and Mekane Hiwot).

2. Strengthen the health management information system (HMIS): Assist the MOH to collect, analyze, interpret, disseminate, and use key public health information to better implement an essential package of health and family planning services.

A new, improved user-oriented national health management information system was successfully installed. The new system is operated by more than 800 trained facility-based health workers using forms and registers for data collection. The data is then collated in the six regional health information units in the country. The compiled data are sent to the central MOH where national reports are generated and disseminated to decision makers. As of July 1998, facilities reported their data 98.1 percent on time. Health workers made gains in institutionalizing the use of data for planning purposes. One example is the use of "fact sheets" (compilation of service statistics of the region) by health workers in the regions for planning. In 1997, all six regions developed and used fact sheets for planning, and the same was repeated by three regions in the first half of 1998.

3. Strengthen the national logistical systems to deliver drugs, essential supplies, and laboratory service to private and public child health care providers.

To further Eritrea's National Drug Policy, equipment and essential supplies were procured and set up for a first-stage drug quality control laboratory capable of ensuring the quality of drugs used in the country. It is expected the MOH will increase private sector participation in the procurement of drugs. To reduce a stock-out of drugs, a computerized inventory control system was installed at PHARMECOR, Eritrea's sole drug procuring agency. The system, now in use, should maintain and improve the findings from a 1996 national study of drug availability in health facilities, which revealed that 95 percent of health facilities in Eritrea had an adequate stock of thirteen drugs considered to be essential by WHO.

4. Build national capacity to train health workers to plan, manage, and implement integrated maternal child health and family planning programs at the community level.

BASICS provided technical guidance in the planning and implementation of Eritrea's first-ever mass distribution of vitamin A to children under 5 years of age. As part of a national immunization day campaign, 83 percent of children under 5 were given vitamin A. This activity was a direct implementation of the five-year strategic plan on nutrition for Eritrea, which was drafted with BASICS' technical assistance and included harmonization of related health policies and guidelines with IMCI's goals and intentions.

A four-year baccalaureate training program for public health nurse practitioners is now in its second year at the University of Asmara. This resulted from the technical assistance given by BASICS in curriculum design and strategy development for program implementation. One strong feature of the training program is its emphasis on community-based primary health care.

Eighty percent of all rural drug vendors in Eritrea were trained on key child survival messages. An earlier study found that the drug sellers provided a significant, but often inappropriate, proportion of care in the private sector.

5. Strengthen the planning, delivery, and evaluation of integrated health services through the collection of baseline data and operations research.

As a central strategy, all operations research activities conducted with project resources increased the demand for operations research and the survey research skills of Eritreans. In addition, the research documented project results, clarified training design issues, defined new issues for action, and helped build consensus. For example, a study of prescribing practices of doctors confirmed that there was a 12 percent decline in the number of drugs prescribed per client encounter, which indicated an improvement in rational drug use between 1995 and 1996. The same study also showed that doctors' compliance with the essential drug list was 94 percent, one of the highest in sub-Saharan Africa. A study of interpersonal communication needs of facility-based health workers provided useful information that was used to design a national training of trainers workshop on interpersonal communication. A national study of health workers on decentralization assisted a technical committee of the MOH to achieve consensus around key result areas. A study of health workers practices and client satisfaction in 1995 underscored the need for improved quality of care in the delivery of child health services. Similarly, a study of injection safety in primary health services demonstrated the critical need for high-level action to address threats to injection safety in the country.

6. Strengthen IEC capacity and develop and implement IEC programs to provide health and family planning education to caretakers and communities.

BASICS' investment in IEC for health successfully linked policy development initiatives with capacity building and practice. The MOH produced and ratified a national IEC policy. Substantive national capacity was developed both at the central level and in the six regions, including formative research, message and materials development, and field testing. Several posters, previously printed without prior testing, were discontinued by regional health offices and the MOH following these training activities. New and relevant health promotion materials were produced and disseminated for use in all health facilities. To improve quality of care and client satisfaction, more than 240 facility-based health workers were trained in interpersonal communication and counseling skills. Each region now has at least three people who are competent researchers and capable of providing other science-based approaches to develop and advance Eritrea's health promotion agenda.

Future Considerations

The following recommendations build on USAID's investment in child survival and primary health care:

- Assist the MOH to develop a national strategy and a medium-term plan for gradual health system decentralization.
- Assist the MOH to develop and implement initiatives that will institutionalize the use of information for decision making.
- Support the MOH with plans to promote a community-based approach to health services delivery. In particular, health facilities and their respective catchment areas need to be supported and strengthened as a channel for improving community involvement in service provision and in providing services that meet client perceptions of high quality.
- Finalize and print adapted IMCI materials; train trainers and health workers about IMCI.
- Increase the role of private sector in the provision of health care. The MOH already has a fairly strong regulatory mechanism to oversee the private sector provision of health care. An opportunity exists for the private sector to make positive contributions to primary health care. To promote equity in the long run, ongoing and expanding initiatives in quality assurance must also directly benefit the private sector.
- Support the MOH and University of Asmara to improve the quality and access to education and

training of health workers in primary health care.

Ethiopia
Country Achievement Summary

Abstract

During a four-year period, from 1995 to 1999, BASICS provided technical assistance and program support in Ethiopia under the rubric of the Essential Services for Health in Ethiopia (ESHE) project. For most of the four years, BASICS employed a resident team of expatriate advisors in its offices in Addis and Awassa, in addition to Ethiopian technical and administrative staff.

BASICS activities constituted the first phase of a seven-year ESHE project agreement; subsequent phases will be implemented through other mechanisms. The focus of BASICS activities was the development of institutional capacity at the central and regional level to provide an appropriate package of primary and preventive health services for the predominantly rural population.

At the national level, BASICS provided extensive assistance to help the government develop its Health Care Financing Strategy and design plans for implementing the strategy. To accomplish this, BASICS and counterpart Ethiopian institutions helped design and carry out a series of studies on drug revolving funds, community insurance, costing of services, and legislation affecting the private sector delivery of health services. BASICS also conducted training and other capacity building activities for many of the key staff.

BASICS concentrated its regional capacity building efforts in the Southern Nations, Nationalities and Peoples' Region (SNNPR). Working with the Regional Health Bureau, regional professional and training institutes, and health officials at the zonal and woreda (district) level, BASICS contributed a greater capacity to plan, manage, and deliver health services. Key achievements include the development of a pilot Health Management Information System (HMIS); design and installation of a health resources management database; design and start-up of a new supervision system linked to key health indicators; strengthening of regional institutions that provide pre- and in-service training; and development of an approach to community problem identification and problem solving.

Context

After the fall of the *derg* regime in 1991, and a period of transitional government, the Federal Democratic Republic of Ethiopia was established in 1993, with new regional states based on ethnic groups. However, years of internal and external warfare, drought, and periods of severe hunger, had left the country in a critical situation: socio-economic indicators showed one of the lowest levels of per capita income in the world (US$120) for a mostly rural population (85 percent) with a very high natural growth rate (more than 3 percent). The infant mortality rate was approximately 120 per 1,000 live births, and the maternal mortality rate was as high as 1,400 per 100,000 live births. Coverage of health and sanitation services was very low, hampered by a lack of resources and difficult geographical conditions. The policies of democratization and decentralization effectively applied by the new government gave the regional states the responsibility to plan and implement the delivery of health services, but their ability to do so is still limited by the lack of skilled manpower, especially managerial skills.

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The government's efforts to prioritize and expand the delivery of Preventive and Primary Health Care (PPHC) services have been increasingly supported by external funding. For instance, in 1995, USAID began supporting the health sector through project and program assistance gathered under the ESHE project, which aimed to increase the overall level of resources for the underfunded health sector, improve the use of PPHC services in rural areas, and increase the use of modern family planning methods.

In 1996, the government of Ethiopia, with the support of the World Bank and other donors, began a series of initiatives to develop sector-wide investment plans for the social sectors (education, health, road works, and others). The Health Sector Development Program (HSDP) was completed by the middle of 1998, and it is a blueprint for all government and donor activities in the health sector for the coming years. One of its main features is the rehabilitation and expansion of the health facility network to increase access to PPHC services in underserved areas. The overall financial package for the first five years of the HSDP is five billion Ethiopian Birrs, or approximately $700 million, with two-thirds coming from government funds.

Scope

BASICS activities are a critical part of USAID's support to the government of Ethiopia, through the ESHE project, with the goal "to improve the health status of women and children in Ethiopia and begin to reduce population growth." In 1994, activities in Ethiopia started under Delivery Order #10 (the "bridging" activities) and continued under Delivery Order # 20, for the period between April 1996 and February 1999.

BASICS activities in Ethiopia were carried out at two levels, central and regional; they were designed to be mutually reinforcing. In the SNNPR, BASICS worked with various institutions and levels of the health system, including the following:

- Regional Health Bureau (RHB) plans and manages the delivery of health services; the RHB was the primary counterpart for BASICS in the SNNPR.

- Regional Training Center (RTC) provides in-service training, and three Health Professional Training Institutions (HPTI) offer pre-service training for non-medical staff.

- Four focus zones (out of nine) and five focus woredas (out of 77) participated in activities. The four focus zones (Sidama, North Omo, Hadiya, and K.A.T.) have a population of 8.6 million (out of the region's more than 11 million) and include 40 of the 77 districts. The five focus districts have a total population of 1.3 million served by one zonal hospital, four health centers, and 29 health stations. Within each focus woreda, a focus community was selected: the five focus communities have a total population of approximately 4,700 households.

USAID selected the SNNPR during the design of ESHE, based on selection criteria that included proximity to Addis, health indicators, health infrastructure, and population size and diversity. By selecting one focus region, technical and financial assistance could be concentrated, while ensuring that, given the region's size and population, a significant percentage of the country's population could be reached. Selecting focus zones, woredas, health facilities, and communities can have the same effect.

At the national level, BASICS' efforts complement the regional and local activities in two ways. First, they supported sound PPHC policies, in particular HCF. BASICS creates or promotes a favorable policy environment to develop regional and local capacity to deliver quality health services. Second, the central

level support provides a way to share with other regions the innovative strategies, tools, or systems developed in the SNNPR.

The BASICS program under ESHE is the first phase of a larger effort to strengthen the delivery of health services. BASICS started at the regional level to build capacity and develop systems, especially planning, management, and training. This emphasis will enable the implementation of selected strategies and techniques on a broader scale during the second (non-BASICS) part of the project. The focus communities, health facilities, and woredas are not the only beneficiaries of the BASICS interventions; rather, they are partners in developing these innovative strategies and systems, the final impact of which will be much wider as they are taken to scale in the coming years.

BASICS established project offices in Addis and Awassa, staffed by both expatriate and Ethiopian personnel. The Chief of Party and Health Care Finance Advisor resided in Addis, while the Deputy Chief of Party and the Health Systems Planner were based in Awassa. All expatriate personnel ended their assignments by September 1998. The offices remained open until early 1999, staffed by a small group of Ethiopian program and administrative staff.

Objectives

The USAID Mission's Strategic Objective #2 is to "increase the use of Preventive and Primary Health Care (PPHC) services in Ethiopia." BASICS' activities within the ESHE project focused on two of the four intermediate results (IR) defined for the strategic objective:

IR1: Increased resources dedicated to the health sector (in particular PPHC).
IR4: Increased use of integrated rural PPHC services in the SNNPR.

Intermediate Sub-Result 4.1: Regional Government Capacity for Service Delivery Enhanced

1. Improve regional capacity to plan and manage PPHC services.

A major focus of the project was to improve the quality of the information collected at the service delivery level and to improve how the information was used for planning purposes. A pilot HMIS system, designed and tested, initially in 11 pilot sites, emphasized the quality of existing information, the importance of management-related information, and its consistent use for decision-making. The system was then tested in most facilities of two focus woredas, after the relevant zonal, woreda, and health facility staff were trained. BASICS developed a "data-for-decision-making" manual, based on the pilot HMIS experience, to help in the analysis of the information collected.

The BASICS team, collaborating with the regional HMIS task force, developed templates and users' manuals for woreda health profiles and baseline health facility supervision visits, which will be updated once a year and used to develop each woreda's annual work plans. To strengthen the use of data for planning and decision-making, BASICS organized workshops with the focus woreda health offices and gave them basic administrative equipment.

At the regional level, the project rehabilitated the Computer Information Center and provided hardware equipment for a local network. A Regional Computerized Health Resources and Activities Management Database was installed. It includes three components: HMIS (routine and pilot), physical infrastructure and equipment, and manpower and human resource development. A region-wide facility survey produced

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the initial inputs on infrastructure and equipment status, including transport equipment.

The BASICS team developed a series of lesson plans and trained a core team of regional trainers on planning and management skills for zonal, woreda, and health facility-level managers using a curriculum provided by the MOH. Building on the project's experience, a series of Rural Health Facility Management Manuals were produced, including Health Facility Baseline, Health Facility Supervision, Health Facility Problem Solving, Woreda Health Profile, and Data for Decision Making Manuals. Following a review of budgeting and financing mechanisms in the SNNPR, the project provided, through the Ethiopian Management Institute, refresher training on accounting and financial administration to selected regional and local staff.

Twenty key SNNPR and project staff received short-term training abroad in selected areas, including applied epidemiology, quality of care, health economics and financing, health information management, training of trainers techniques, managing decentralized health services, and management methods for international health.

2. Increase the capacity of regional training institutions to provide PPHC training.

In early 1997, BASICS and USAID/Health, Population, and Nutrition (HPN) offices facilitated the process of providing legal institutional recognition for the RTC. In-country and out-of-country training of trainers was provided to staff of the RTC and the three regional Health Professional Training Institutions. The project also supplied books and training materials, as well as support for the organization of the libraries in the training institutions. Curriculum review, preparation of training programs and materials, and provision and evaluation of training activities were conducted jointly with the BASICS team. They improved the technical capacity of the regional training institutions. Some recent results demonstrate how this capacity was recognized at the national level:

- The central Ministry of Health (MOH) and the RTC, organized a training of trainers workshop in Awassa for staff from RTC in other regions, based on the module for community health approaches developed with BASICS.

- The choice of Awassa as the location for the national RTC annual conference in 1997 and 1998, and the subsequent development of a national RTC workshop.

- The publication of a book, "Nursing Procedures Manual for Mid-level Health Professionals," by Sister Workenesh Kereta, from the RTC in Awassa, with assistance from BASICS.

BASICS conducted training programs directly or through the RTC, including use of a pilot HMIS; simple survey methodologies (health facility assessment/quality of care, community participatory planning assessment, and household survey on key behaviors); development, testing, and use of health education materials for use in the community; health facility supervision practices; computer skills; technical updates on child survival and reproductive health interventions (training conducted through zonal teams and directed at 600 front-line PHC workers); management of health facilities; and community health agent (CHA) refresher training in focus communities. Training materials (lesson plans, teaching aides, and reference materials) have been produced for community health approaches (also available in Amharic); CHA/traditional birth attendant (TBA) refresher training; technical updates on child survival/reproductive health; and management skills for zonal, woreda, and health facility heads.

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3. Improve capacity to conduct operations research to support program planning.

The incorporation of an operations research component in the BASICS/ESHE project provided a mechanism for regional researchers from the RHB, RTC, zonal health bureaus, health facilities, and other institutions, to conduct studies that address priority health issues in the SNNPR and to develop institutional capacity by strengthening skills in proposal development, data collection, and analysis. The Operations Research (OR) studies were determinants of antenatal care-seeking practices; epidemiology and antimicrobial resistance patterns of *Shigela dysenteriae* Type 1 in the SNNPR; barriers to family planning; looking at factors to explain the current low use of contraceptives in BASICS' five focus communities; quality of hospital-based health services as a focus of regional efforts on improved quality of care; assessment of the impact of management, community diagnosis, and primary health care training for zonal trainers; epidemiology of HIV/AIDS infection in the Sidama zone; and traditional practices associated with nutrition of children during episodes of diarrhea.

The results of all OR studies supported by BASICS have been disseminated through various channels, including the annual conference and publications of the Ethiopian Public Health Association and a summary OR monograph. The importance and quality of the research conducted in the Southern Region prompted the EPHA to hold its 1998 Annual Conference in Awassa.

4. Improve the logistics/equipment systems to support PPHC service delivery.

Medical supplies and equipment constitute an essential element in the technical quality of services provided in the health facilities. To maximize the use of existing resources and the quality of services, this equipment must be maintained. BASICS, in collaboration with the Ethiopian Science and Technology Commission, developed, with the RHB, a strategy for maintaining medical and general equipment. BASICS provided equipment for a regional unit of maintenance/repair of medical equipment, located in a wing of the new regional drug warehouse constructed by United Nations Fund for Population Activities (UNFPA) under a USAID/ESHE grant. They have trained regional and local technicians.

To improve regional capacity for resource management, the project designed and conducted a region-wide survey of health facilities that inventoried the status of health infrastructure and equipment. USAID also contracted the Joint Transport Organization of Save The Children and OXFAM to conduct a transport survey for available vehicles and repair/maintenance human resources and facilities. The results of both surveys were included in the Regional Management Database described earlier.

Additional short-term consultancies provided support to the cold chain system in the SNNPR and Expanded Program on Immunization (EPI) logistics planning, contributing to the success of national immunization days for polio eradication and increased immunization coverage rates.

5. Improve the ability of health workers to provide quality PPHC services.

In November 1996, BASICS drafted a list of minimum clinical and support services to be provided by health facilities, and the list was accepted by the RHB. Delivery of antenatal care and family planning services were later added to the list, and these indicators were incorporated into USAID's result framework. In October 1996, a health facility quality of care assessment was conducted in the five focus woredas by a team that included participants from the RTC, focus woredas and zones, RHB, and BASICS. The assessment included direct observation of providers' behaviors during contact with patients seeking care at the facility. The team then adapted the supervisory checklist to incorporate an observation grid for sick-child care and antenatal care, in addition to the standard items on availability and status of equipment, drugs, and supplies. Guidelines for supervision visits and problem-solving were

also developed, training was carried out, and the guidelines are now used during the regular RHB supervision visits. Improvements in the management of sick children were observed during the follow-up survey conducted in October 1998: immunization status of the children was checked and weight was plotted on the growth chart in 50 percent of observed cases, up from 15 percent and 5 percent respectively, while the proportion of appropriate counseling on how to take the prescribed treatment rose from 39 percent to 50 percent.

Improving health worker performance in this area is a first step toward implementing Integrated Management of Childhood Illness (IMCI), now adopted as a national health care strategy. BASICS has provided technical and financial support to various events leading to the first-year implementation in pilot sites from three regions, including the SNNPR: national orientation/planning workshop in May 1997; national IMCI training course for future facilitators and members of the regional task force in the three pilot regions; regional orientation workshop and IMCI training in the SNNPR; regional adaptation of training materials; and follow-up visits to trained health workers in pilot facilities.

BASICS supported RHB's efforts to develop a regional strategy on quality of care and established regional, zonal, and local committees by providing opportunities for short-term training and regional networking, and supporting operations research.

Intermediate Sub-result 4.2.: Community Services Revitalized

6. Improve health awareness and primary and preventive health practices in communities.

BASICS goal for community-oriented activities is to identify the constraints facing the delivery of quality community-based health services and to find effective ways to improve community health. Activities conducted in the five focus communities by BASICS and its partners facilitated the links between the communities and the formal health system, increased the informed participation of community members in health-related decisions, and increased the awareness and adoption of healthy behaviors.

After selecting focus communities, meetings were held with Peasant Association leaders, CHAs, TBAs, rural drug vendors, and other respected elders to discuss project activities and expectations. The integrated community assessment and planning process was completed in February 1997 by teams that included regional, zonal, woreda personnel, and BASICS staff. They joined community members to identify and rank major health problems, conduct a small household survey, select key emphasis behaviors related to health care, and develop community action plans.

BASICS support to implement community work plans resulted in initiation or renewing EPI/MCH outreach activities from the health facilities to the communities; refurbishing five community health posts; repairing and rehabilitating small water systems (supply of safe water being the first expressed priority of villages); establishing women's nutrition groups; and initiating drug revolving funds for the health posts and other income-generating activities.

A similar participative and learning process was used to produce health education material on three key health behaviors identified during the assessment: (1) attendance at antenatal care programs, (2) immunization, and (3) breastfeeding. Joint project, institutional, and community teams developed graphic and written materials that form the basis for story-telling sessions related to the selected behaviors.

The sessions are managed by community health workers and other community leaders who were trained by staff from the RHB.

The follow-up community assessment, conducted in August 1997, demonstrated the impact of BASICS activities on the focus communities: the proportion of children 12–23 months old who received measles immunization rose from 25 percent to 75 percent while knowledge of at least two danger signs that should justify care seeking when a child is sick rose from 78 percent to 90 percent.

Intermediate Result 1: Increased Resources for the Health Sector

7. Improve health care financing systems.

Since 1994, BASICS has supported the government's efforts to develop a national health care financing strategy that set ground rules for increasing the resources available to the health sector, either by improving the efficiency of existing resources or by promoting alternative financing mechanisms, such as user fee systems, the expansion of community-based insurance schemes, or drug revolving funds. A major feature of this legislation is the retention of revenues within the health sector and their additivity to the health budget. The National HCF strategy was ratified by the Council of Ministers in August 1998 and subsequently approved by Parliament.

BASICS conducted or contracted several preliminary studies that brought valuable ideas into the design of a national implementation plan for the HCF strategy. The study topics were—

- Unit costs of preventive and curative health services in Ethiopia.
- Assessment of the MOH guidelines for licensing private clinics.
- Evaluating the feasibility of community-based health insurance schemes.
- Revolving drug funds in Ethiopia.
- Opportunities and constraints for private sector participation in health care in Ethiopia.

The results from the studies were disseminated in a national workshop in December 1998. The studies are available individually and as a summary monograph.

Additional activities in support of the development and/or implementation of sound PPHC policies include organizing of sensitization seminars on HCF issues, sponsoring of Ethiopian participants to regional conferences, assisting the USAID mission in defining and monitoring the conditionalities for non-project assistance, and offering support to the MOH and the SNNPR in several aspects of the development process for the Health Sector Development Program, particularly HMIS, monitoring and evaluation, health care financing, budgeting, and preparation of a national Program Action Plan.

8. Build national and regional capacity in resource management.

Because of decentralization and the overall scarcity of public resources in the health sector, the skills of MOH professionals need to be strengthened in planning, management, and financing of health services. BASICS provided opportunities for in-country and short-term training abroad for selected individuals. Between April 1996 and December 1998, more than 60 health professionals from the SNNPR, other regional health bureaus, and the central MOH traveled to the United States and various African countries (Egypt, Uganda, Kenya, and South Africa) to receive short-term training in health care financing, program and project management, HMIS, training management, family health communication, applied epidemiology, and others.

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More than 20 people were sent on study tours to examine issues of health sector reform, decentralization, and health insurance in African countries. To expand the project impact, BASICS also organized numerous in-country training workshops for central and regional management teams (overall, more than 100 participants). The workshops covered planning and managing decentralized health systems, budgeting and financial allocation, and financial administration and management. Finally, the project provided basic computer training for planners and managers from regional health bureaus and for central MOH staff who received computers from USAID/ESHE.

Future Considerations

During the past two years, the BASICS project in Ethiopia laid the foundation for improving the delivery of quality PPHC services in the SNNPR, while supporting the development of a favorable environment at the national level. The USAID Mission has reiterated its interest in maintaining support to the SNNPR through continued bilateral assistance, as outlined in the initial ESHE project document. In a separate document, the BASICS team outlined a "road map" to the future that builds on existing approaches to strengthen the health delivery system and leads to increased use of quality PPHC service delivery.

Tools and strategies developed with the SNNPR are being disseminated through several mechanisms, in particular, the use of the RTC and Health Professionals training Institutions (HPTI) to provide pre- and - in service training for health staff using materials and techniques developed with BASICS; the use of focus woredas as training sites; training of NGOs and PVOs in the application of district and community tools and approaches; presentation of tools, methods, and approaches at workshops and conferences; and dissemination of technical reports, instruments, monographs, and project summaries to MOH staff at all levels (PVOs and NGOs, and other organizations).

A major environmental change that will affect the follow-up activities to the BASICS project is the inclusion of all donor assistance projects within the framework of the newly developed Health Sector Development Program. While it is not expected that USAID-sponsored projects will initially channel their funds directly into the government's financial management system, some important issues will impact the future scope of any support to the SNNPR or to the central MOH. One example is that future project assistance will likely be included in the regional budgets and deducted from the federal allocation to the regions. Another factor is the continued uncertainty over the inclusion of technical assistance within the regional budget ceilings communicated to the regions under the HSDP. On the positive side, successful implementation of the HSDP could lead to the development of a more rational human resource development plan, and to greater regional capacity to plan and implement more efficient delivery of health care services.

Francophone West Africa
Regional Achievement Summary

Abstract

During 1993–1999, BASICS provided technical leadership for reducing infant and childhood illnesses in the West Africa region and supported USAID objectives through regional support initiatives and through targeted country-specific programs. The BASICS regional program supplemented the resources of country programs while also responding to periodic requests for assistance from non-target countries.

BASICS (1) built regional capacity for Integrated Management of Childhood Illness (IMCI) and improved the quality of pre-service health training; (2) contributed to and influenced the efficient, effective, and sustainable management and delivery of immunization services and the control of vaccine-preventable diseases; (3) improved the quality of and access to services for prevention and treatment of malnutrition, and strengthened regional institutions and networks; (4) promoted and sustained healthy behaviors to improve essential caretaker and health worker behaviors by improving the quality and institutionalizing regional IEC capacity for planning, design, implementation, and evaluation of IEC/ Behavior change programs; and (5) increased access to and the quality of child survival services by developing and strengthening partnerships with other agencies, institutions, and the commercial sector.

Context

West and Central Africa infant and child (under age 5) morbidity and mortality rates are among the highest in the world. More than 70 percent of deaths in children under 5 in Africa are caused by five major conditions: pneumonia, diarrhea, fever, measles, and malnutrition. At least three in every four children seeking health care suffer from one or more of these conditions. During the 1980s and early 1990s, Ministries of Health (MOHs) in collaboration with WHO, UNICEF, USAID, and other international agencies, worked together to establish vertical national child survival programs focusing on the control of diarrheal disease (CDD), nutrition, acute respiratory infections (ARI), malaria, and immunizations. In spite of the great achievements accomplished by past efforts to reduce infant and child morbidity rates, enormous problems remain. For example, access to health services, the quality of care provided by health workers, and demand issues are areas that still need attention.

While West Africa made tremendous progress in the Expanded Program on Immunization (EPI) during the 1980s, establishing cold chain and vaccine delivery systems, in the 1990s resources for immunization began to decrease and immunization coverage rates began to decline. Today, West Africa still remains behind other regions of the world in immunization coverage.

Additionally, sub-Saharan Africa is the only region of the world where the prevalence of malnutrition has not decreased in the last decade. Protein-energy malnutrition is a major problem, accounting for about 50 percent of deaths among children under 5. Nutritional anemia affects about 50 to 60 percent of pregnant women and pre-school children. It is also estimated that high risks of vitamin A deficiency and Iodine Deficiency Disorders remain. Inadequate food intake, insufficient care of mothers and children, as

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well as inadequate health and sanitation services are mostly cited as the underlying causes of these problems.

In addition to the need to increase the access and quality of health services at the facility, community, and household levels, enormous challenges remain to significantly improve caretaker and health provider counseling practices related to childhood illness and disease prevention. In much of West Africa, dehydration from diarrhea is the major cause of child mortality, with an estimated 55 million diarrheal episodes in the region per year. While oral rehydration salts (ORS) is an extremely cost-efficient method to prevent dehydration, it is vastly underused. There is currently an almost complete dependence on donations from international funding agencies for ORS stocks. There is also a lack of ORS coverage in rural areas, and evidence indicates that subsidized ORS is being used by those who can afford to pay outside of the public health system. Improved interaction is needed between health providers and caretakers as well. This is particularly challenging in West Africa, which has some of the lowest literacy rates of adult women in the world.

Infant and childhood health objectives stem from analyses of country needs articulated by MOHs, USAID, BASICS, and other partners. Program design and implementation is collaborative; in addition to MOHs, BASICS works with partners such as WHO and UNICEF, regional institutions, regional non-governmental organizations (NGOs), and other USAID partners, such as USAID's Regional Economic Development and Support Office (REDSO)'s Family Health and AIDS Project (FHA), which targets assistance to four West and Central African countries.

Three USAID priorities form the foundation for BASICS programs in West Africa: (1) developing and servicing country and regional programs; (2) developing the capacity of African institutions in the region to provide leadership and technical assistance; and (3) leveraging and complementing the resources of multilateral partners in the region. For example, BASICS encourages capacity-building and fosters African management of programs through strong partnerships with organizations, such as ORANA and CRAN (for nutrition) and CESAG (for health program management). BASICS strives to capture the best practices of these organizations by documenting and disseminating findings via workshops, study tours, and publications. BASICS also provides technical recommendations where child survival issues are the focus of the best practices.

Scope

BASICS' Regional West Africa Program supports all countries covered under the umbrella of USAID REDSO–West and Central Africa (WCA). The Regional Program periodically provide services for BASICS country programs in Senegal, Mali, Niger, Benin, and Guinea. Additionally, "non-presence" USAID REDSO–WCA countries (Burkina Faso, Cameroon, Ivory Coast, Togo) are supported through REDSO–WCA Health Network, and the Family Health and AIDS Project.

Objectives

1. Build regional capacity for IMCI implementation and improve the quality of pre-service health training.

Regional
All seven targeted BASICS West Africa region countries (Senegal, Mali, Niger, Ivory Coast, Togo, Guinea, and Benin) were introduced to the WHO IMCI approach with technical assistance from BASICS. The degree of implementation has depended upon country-level commitment and readiness. Feasibility assessments were conducted in all seven countries in conjunction with the MOHs and WHO/AFRO. Orientation meetings were conducted in Niger, Senegal, Togo, Mali and Benin. These countries made a formal commitment to IMCI as a strategy for reducing childhood morbidity and mortality.

A cadre of regional counterparts was trained in quality-of-care assessment through hands-on experience in conducting Health Facility Assessments (HFA). Baseline HFA studies were completed in Senegal, Togo, Ivory Coast, Mali, Niger, and Benin. In Guinea, child health questions were included in the situational analysis conducted by the Population Council. These studies have provided the necessary baseline data needed to assess health worker performance following district-level training in IMCI. BASICS also trained national counterparts in how to carry out HFA through formal training and hands-on experience. In Niger, for example, the process involved district health management teams in all aspects of the assessments, including rapid analysis of the findings and problem solving. An innovative rapid HFA tool was developed, and rapid HFAs were conducted in two IMCI pilot districts.

A cadre of regional country level IMCI facilitators was trained. BASICS co-facilitated and supported attendance of IMCI clinical instructors/trainers at the WHO Regional Facilitators course held in January 1998 in Niger. Each targeted BASICS West Africa Region country (Senegal, Mali, Niger, Ivory Coast, and Togo) sent two participants, who thus became resource persons for IMCI within their countries and for the region. In addition, participants from Madagascar and Morocco attended the course, further expanding the pool of available IMCI trainers. The BASICS regional director co-facilitated the national IMCI facilitators' workshops in Madagascar and Morocco. As a result of this effort, a critical mass of African senior-level health workers have been trained as trainers in the IMCI adaptation process.

In collaboration with WHO, BASICS co-facilitated a regional IMCI Introduction Seminar for senior-level regional decision-makers from 12 countries in West Africa. Each country discussed its readiness to implement an IMCI strategy.

To improve the quality of pre-service training in medical and nursing schools, four medical school faculty from each of the seven countries were trained in Combating Communicable Diseases (CDD) WHO Medical Education workshops co-facilitated by BASICS in 1994 in Cameroon, and in 1995 in Togo. The four participants were the CDD program manager, two pediatricians from university medical training departments, and one public health department representative. At the end of the training, each country team developed a plan to strengthen the teaching of diarrheal disease control in medical schools.

BASICS participated in the first regional IMCI implementation meeting for the Africa region, which took place in Brazzaville, Congo. BASICS also took part in the first global conference on IMCI in Santo Domingo, Dominican Republic. Through participation in these workshops, BASICS was able to share its

experiences from its activities in support of the IMCI initiative, make contacts with partners and potential consultants, and coordinate its schedule for collaboration with its national and international partners.

Burkina Faso
BASICS carried out an assessment of the Burkina Faso CDD program as part of its work plan with the FHA project.

Guinea
The regional office helped INTRAH/PRIME Project carry out a training needs assessment for health workers. While the assessment covered all aspects of reproductive health, BASICS helped identify training needs in child survival: CDD, ARI, and EPI. BASICS then had the opportunity to meet with MOH decision-makers and the USAID Mission, and to discuss the possibility of collaborating in the areas of EPI and nutrition within the context of IMCI.

2. Contribute to and influence the efficient, effective, and sustainable management and delivery of immunization services, and the control of vaccine-preventable diseases.

Regional
Since March 1996, BASICS has co-facilitated bi-annual WHO EPI program directors' and data managers' meetings where immunization priorities were defined and strategic plans developed. The BASICS regional child survival advisor participated in strategic planning sessions and the identification of priority technical assistance needs for the region in collaboration with WHO/AFRO. These meetings strengthened managerial capability to develop strategic plans for immunization programs. A tool for monitoring national immunization days (NID), developed by BASICS for East Africa, was translated, adapted for West Africa, presented, and disseminated during the 1997 regional coordination meeting in Cotonou, Benin. BASICS also co-facilitated, with WHO and UNICEF, two regional workshops on communication for EPI and polio eradication, providing technical expertise in material design, development and research, and communication methodologies.

At the biannual WHO workshops, participants reported on and discussed their experience in implementing NIDs. Lessons learned concerning the implementation of NIDs were documented and disseminated. All West African countries now have strategic plans for improving immunization rates. Countries that have already conducted one or more NID rounds include: Togo, Benin, Burkina Faso, Ivory Coast, Ghana, Mauritania, Mali, Niger, and Guinea. Nine West Africa countries will have strengthened disease surveillance and planning and monitoring of specific disease control efforts partly through BASICS co-facilitation of regional meetings and targeted technical assistance.

The BASICS regional child survival advisor developed and disseminated at the WHO regional EPI managers meeting a document that summarizes the lessons learned from the implementation of NIDs in West Africa. The document describes the following key process steps:

- National level planning, and regional and district micro-planning
- Mobilization of local resources
- Use of volunteers, vaccine, and support material logistics
- Social mobilization
- Choice and preparation of vaccination sites
- NID campaign implementation
- Monitoring NIDs

A particular area of focus in 1998 and 1999 was BASICS' contribution towards the integration of vitamin A into NIDS and routine immunization.

At the bi-annual WHO EPI program managers' meetings, nine West African countries' participants developed a plan to-implement a disease surveillance strategy. All nine countries provided an update on national surveillance status. To assess the effectiveness of the Polio Eradication Initiative, participating countries are monitoring the incidence of acute flaccid paralysis.

Mali and Benin
Recommendations were prepared following the evaluation of the 1997 USAID grant to UNICEF, which was designed to strengthen the Mali EPI. Interventions designed to strengthen the vaccination program aspect within the USAID/Bamako Youth Strategy were identified by a BASICS planning team in February 1997.

A module for the introduction of vitamin A supplements during EPI contacts was developed, produced, and applied in Benin. The experience has also been shared with other countries in the region to raise the interest of EPI program managers and decision makers.

Democratic Republic of Congo
Outside of the primary focus of the BASICS West Africa Regional Office, the BASICS child survival advisor participated in the USAID mission to the Democratic Republic of Congo (formerly Zaire) and identified short-, mid-, and long-term strategies to revitalize the national EPI program. In January 1998, a joint WHO/USAID/BASICS/UNICEF/MOH mission evaluated the Kinshasa local polio immunization days and made recommendations for strengthening the routine EPI program and the national disease surveillance system.

Guinea
BASICS conducted an advisory visit in follow-up to the implementation of a polio surveillance system in Guinea. During the follow-up visit in Guinea on NID preparation and AFP surveillance, national priority technical assistance needs were identified in collaboration with the EPI program managers.

Niger
BASICS carried out a workshop to develop ways to take action on how to improve the cold chain/gas refrigeration problems in a pilot district in Niger.

Africa-wide
The BASICS West Africa Regional office was increasingly involved in social mobilization initiatives for EPI and polio eradication that impact Africa at the continental level. The regional office's disease-control activities included the promotion of strategies and techniques for social mobilization to improve routine immunization, polio eradication, disease surveillance, injection safety, safe vaccine handling, vitamin A supplementation, and measles control. Based on that experience, the West Africa regional IEC advisor provided insight into methods to increase IEC capacities at the Consultative Workshop for EPI Communication in Harare, Zimbabwe, which are based on West African experiences strengthening IEC networks and training in health message development for radio communication. The regional advisor provided guidance on how to design appropriate messages, conduct research and surveys on listenership, and implement a well-planned, organized distribution system for radio broadcasting. As a result, BASICS was asked to facilitate a workshop for UNICEF representatives on designing radio messages to support EPI. In November 1998, BASICS also helped design WHO and Advisory Group activities for 1999 and 2000.

Finally, BASICS's West Africa regional advisor provided input on the *Communication Handbook for Polio Eradication and Routine EPI*, drafted by WHO, UNICEF, Polio Partners, and MOH representatives. The *Handbook* provides immunization and communication officers throughout Africa with participatory approaches, guidelines, and a framework to plan, design, implement, monitor, and evaluate research-driven communication programs to strengthen all aspects of EPI.

3. Improve the quality of and access to services for prevention and treatment of malnutrition, and strengthen regional nutrition institutions and networks in West Africa.

Regional

BASICS developed and reviewed a training guide for the regional training seminar on the consultative methodology for adapting nutrition counseling messages (the "IMCI food box"), and developed technical capacity in five countries to design appropriate nutrition education/behavior change messages, including capacity for IMCI food box adaptation. Lessons learned on how to implement integrated health and nutrition community-based programs were collected and disseminated in the region.

Twenty-one nutrition/health professionals from Benin, Burkina Faso, Ivory Coast, Guinea, Mali, Mauritania, Morocco, Niger, Senegal, and Togo were trained in a 21-day seminar held in Dakar. The training seminar was a BASICS collaborative activity with ORANA, the SARA/SAA Projects, and WHO/AFRO. As a follow-up to the training seminar BASICS provided technical assistance to Mali, Senegal, Benin, and Morocco for nutrition messages/food box adaptation research and implementation.

A regional initiative for strengthening technical capacity to design and implement community-based nutrition interventions in the West Africa region in collaboration with the SARA/SANA Project, ORANA, and the World Bank was launched and yielded the following results:

- An assessment tool for community-based nutrition interventions was developed and validated through field visits in Niger, Guinea, and Senegal.
- Forty-two community-based nutrition program managers from eight West African countries—Benin, Ivory Coast, Mali, Mauritania, Niger, Togo, Senegal, and Madagascar—shared experiences in community-based nutrition interventions during a regional workshop. Lessons learned were disseminated along with a follow-up plan.
- A reference document on community-based nutrition interventions was developed and disseminated.
- Technical capacity for nutrition policy analysis and advocacy was developed in six targeted countries.

Collaborating with SARA/SANA and the Linkages Project, a cadre of 22 high-ranking decision makers was trained in nutrition policy analysis and advocacy using PROFILES, a nutrition computer advocacy tool to help decision-makers better understand the importance of nutrition programming. Participants represented the following nine countries: Benin, Burkina Faso, Ivory Coast, Guinea, Mali, Mauritania, Niger, Togo, and Senegal. Follow-up action plans were developed for each country. Lessons learned from the Minimum Package of Activities within Health Systems (MinPak) experience were shared with other regional organizations and networks in West Africa.

Regional nutrition advocates representing nine West African countries have participated in BASICS nutrition activities, creating an active network of the region's nutritionists to facilitate information exchange and dissemination. Additionally, a strategic plan was developed for ORANA and agreed upon

by the regional nutrition advocates during the annual meeting of senior-level nutritionists in West Africa, which was also held in the project's fourth year. Meetings were organized with other networks, including RENA (African Network for Nutrition Education) and RAINSA (African Actors in Nutrition and Food Security Network). In 1997 and 1998, both country nutrition programs and activities were discussed and an update on vitamin A and on iron issues was presented at the annual Nutrition Focal Point Meeting. In addition, the quality and coverage of nutrition activities within health systems in the region improved. MinPak achievements in the region were presented at the UNICEF nutrition advisors meeting held in Abidjan, Ivory Coast, in 1998.

Senegal, Benin, and Mali
BASICS provided technical assistance to MOHs to develop and/or strengthen nutrition MinPak activities in Senegal, Benin, and Mali. A MinPak assessment was conducted and activities initiated in two districts in Senegal. Implementation included an orientation workshop with central and district level health staff and area NGOs, and development of training and IEC materials. Training sessions were held with health and community workers in the two districts. In 1998, a process evaluation of the MinPak implementation in the Koungheul and Sokone districts was conducted. Lessons learned were incorporated in the scaling-up plan that introduced the MinPak intervention in all the USAID-Senegal-sponsored regions.

National- and regional-level nutrition MinPak assessments were conducted in Benin. An action plan was developed in collaboration with the Barge regional team, and potential areas for BASICS support were identified. The MinPak concept was introduced in FINSA, and a regional nutrition training course and possibilities for future course development built around MinPak were discussed. Child feeding recommendations and improved practices for iron supplementation during pregnancy were tested using consultative research methodology in the Barge region. Qualitative nutrition findings were used to develop IEC messages for MinPak promotion in Benin.

Senegal
BASICS provided technical assistance to the Senegal country program to expand its community-based growth promotion activities. This program was expanded from 4 to 34 women's groups in the Dioffor District in 1997. This technical assistance included development of the training manual and related IEC materials, and participation in the training of trainers.

A PROFILES application and communication plan was developed for Senegal and presentations were made to key decision-makers in the MOH, including the Minister of Health. Presentations were also made to the donor community, including World Bank staff and staff from AGETIP, a World Bank-funded nutritional project. A group of Senegalese professionals were trained in policy analysis and advocacy, and a national nutrition action plan was developed.

Mali
A cadre of 15 health and non-health professionals was trained in nutrition policy analysis and advocacy using PROFILES, and a PROFILES application and a communication plan was developed for Mali. MinPak activities were included in the proposed nutrition strategy for USAID mission in Mali.

4. Promote and sustain healthy behaviors to improve essential caretaker and health worker behaviors by improving quality and institutionalizing regional IEC capacity for planning, design, implementation, and evaluation of IEC/Behavior change programs.

Regional

BASICS increased the capacity of radio and health personnel to develop, pre-test, broadcast, monitor, and evaluate radio spots for health, using a systematic, rational, and scientific approach through practical, hands-on workshops where radio and health communications personnel combined their skills to research, write, and pre-test health messages in local languages targeted at health workers and mothers. The messages were recorded and produced by the end of the workshop, with agreements drafted with participating radio stations for regular broadcast of the messages during a three-to-four month period. The workshops concluded by preparing participants to monitor and evaluate broadcasts.

The primary tool for this training is the *WHO Guide to Using Radio Spots for CDD Programmes*, which is adaptable to other health priorities. One of BASICS' most important contributions was to adapt the guide to the West Africa context. Since the inception of radio activities in early 1997, BASICS has organized and facilitated six workshops and trained approximately 100 radio and health services representatives. The focus of the workshops depended on each country's priorities.

Two workshops co-sponsored with the FHA project brought together approximately 40 representatives from 6 countries in the region in July 1997. Forty-eight radio spots were developed. Representatives from radio and health education units and other health programs (CDD, AIDS, family planning) attended the workshop, marking the formation of this important partnership between private and public radio and public health systems in West African countries. In addition, BASICS expanded its regional partnership for radio programming to include institutions such as PANOS (a radio institution), CIERRO (a training institution), IRESCO (a research and training institution), and BDA (research agency).

BASICS and FHA carried out an information, education, and communication (IEC) training needs assessment of regional, institutional, and country needs, and an assessment to determine how media might be used in different countries to strengthen IEC initiatives. In June 1997, BASICS, in collaboration with FHA and SARA, sponsored a summit of IEC training institutions to reinforce and plan IEC activities, with the further goal of avoiding duplication of efforts in the region.

Senegal and Burkina Faso

BASICS conducted workshops with NGOs in Senegal and Burkina Faso to plan, implement, and evaluate quality of child survival. The workshops identified best practices related to child survival behavior change interventions and technical assistance needs. Workshop products included a set of lessons related to community and health facility child survival strategies, as well as district-level strategies that target district MOH teams. Case studies were carried out in Senegal and Burkina Faso by NGOs that were selected for their innovative approaches for strengthening MOH health worker collaboration with communities. A qualitative case study methodology was developed that described the process steps used to develop and implement the NGOs' community health strategy. The case studies also documented and assessed the impact of the NGOs' strategy on community members' attitudes and practices related to health, as well as health workers' attitudes and skills for working with communities.

Senegal

A March 1997 Senegal workshop brought together radio personnel with MOH communicators from all 10 regions. Messages focused on three nutritional themes. During the workshop, radio spots were developed, pre-tested, and translated into the local language, Wolof. After the workshop, the same messages were translated into five other national languages. A local research agency, BDA, will carry out an evaluation to determine whether recipients have heard and understood messages communicated via the radio spots. WHO/Geneva will participate in the first evaluation of radio spots in West Africa using the WHO guide as basis for evaluation protocol. The evaluation is not trying to measure behavior change, given the timeframe, but is focusing instead on listenership impact.

The BASICS regional IEC advisor trained a cadre of representatives of the National Health Education unit of the MOH in planning IEC strategies. Trainees then conducted regional-level training in IEC strategy development. The BASICS IEC regional advisor also provided technical assistance for adaptation of nutrition counseling cards, an area that will receive added focus in the future.

Mali

Due to the recent proliferation of radio stations in Mali, the opportunity for communicating health messages via radio is significant. In February/March 1998, BASICS designed and directed two workshops in the regions of Koulikoro, Bamako-Commune /V, and Mopti, where BASICS has been supporting IMCI implementation. Nutritional messages targeted to health workers and mothers were developed. Prior to the broadcasts, a local research agency was hired to carry out a baseline quantitative study to measure exposure to the radio and knowledge of key nutritional practices in each of these regions. Messages were then broadcast during a three months period, monitored by a local team formed during the workshops, and an end line quantitative survey was carried out.

Benin

Using the skills of the Benin radio team trained at the regional workshop and a team of nutrition professionals also trained by BASICS, a three-part workshop was held in August 1998. Forty-eight participants attended, including health agents, social workers, agriculture extension workers, journalists, university researchers, artists, theater performers, traditional popular singers and dancers, photographers, and NGO representatives from the central level, as well as the Barge Department. Participants used the results of trials of improved practices (TIPS) to develop messages that addressed components of the MinPak intervention. These messages were coordinated for three media—radio, print materials, and popular traditional channels of communication—for dissemination in 1999.

A version in French of AED's HEALTHCOM Toolbox will soon be available and distributed to regional partners. (Refer to objective #2 on EPI for details on partnerships for social mobilization for EPI.)

5. Develop and strengthen public-private partnerships with agencies, institutions, and the commercial sector to increase access to and quality of child survival services.

Oral Rehydration Salts (ORS)

To address the issue of inadequate access to and demand for ORS in West Africa, where dehydration from diarrhea is the major cause of child mortality, BASICS entered into a subcontract in 1996 with the regional Family Health and AIDS (FHA) project. The agreement was to provide Population Services International (PSI) with technical and financial support in generating demand for ORS and establishing a partnership with a commercial supplier to ensure sustainable supply and promotion. BASICS' technical assistance to FHA has been based on a flexible, successful Public-Private Partnership Model developed through PRITECH and BASICS' global experiences.

During a one-year period, BASICS developed consensus within PSI on an approach to assure long-term demand for and supply of ORS, in contrast to an approach that focused on supplying highly subsidized ORS. After the roles and responsibilities of BASICS and PSI had been clarified, major pharmaceutical companies in West Africa were inventoried to identify a partner capable of ensuring long-term supply and promotion of ORS without donor funding. Rhone-Poulenc-Rorer (RPR) emerged as the best suited. RPR responded positively to BASICS' proposal, and they initiated a pricing study was to determine the optimal price consumers were willing to pay for ORS in Cameroon, Ivory Coast, and Senegal.

A formal 10-year memorandum of understanding (MOU), signed between RPR and PSI in December 1997, contained the elements of the marketing plan and addressed issues, such as ORS consumer price, distribution, trademark ownership, and promotional launch. The marketing strategy in its two different stages called on the strengths of the two partners: RPR and PSI. For the long-term, RPR was responsible for generating the supply and demand among health professionals. Plans called for regional production of the ORS, Orasel, at RPR's Dakar facility. PSI was responsible for building consumer demand and ensuring distribution of ORS beyond the pharmacies. For the short-term, during the transitional period, USAID would ensure an adequate supply of ORS. Meanwhile, to promote the demand for ORS, pharmaceutical promotion would start with doctors and pharmacists, to be followed by consumer advertising. BASICS also conducted necessary market research, in coordination with RPR's field staff, to ensure that messages were crafted to reflect the needs and wants of the target population.

The pivotal issue for the regional partnership was to set an acceptable price for public and private sector involvement in the key countries of Côte d'Ivoire, Cameroon, and Senegal. In February 1998, BASICS staff briefed Ivory Coast ministry officials, who responded positively, and a formal report was submitted to the MOH in March 1998. However, in July 1998, the PSI resident advisor in Côte d'Ivoire requested and obtained MOH approval for a price of ORS below the minimum feasible price agreed upon with RPR. He expected that this initial lower price for a donated product would eventually be increased to allow sustainable, private-sector participation and a resumption of the partnership.

The West African ORS project responded to the FHA directive to generate economies of scale. While the project supported regional initiatives, encouraged capacity-building, promoted sustainability, and fostered ownership through strong partnerships between the public and private sectors, it was unable to accomplish all of its goals. Most groups involved in the ORS project learned a valuable lesson: the public sector learned that sustainable ORS delivery cannot occur without commercial suppliers, and the private sector learned that it can contribute to public health objectives and still reach economic targets.

Master's-level management course for health professionals
The Regional Management and Training Center (CESAG), based in Dakar, Senegal, was created in 1985 as one of the institutions of higher learning under the umbrella organization of Francophone West Africa States (CEO). It is a regional management institute that serves as a technical resource supporting manage-ment training for the individual countries in Francophone West Africa. In 1997, USAID's Africa Bureau requested that BASICS, SARA/AED, and the FPMD project help CESAG develop a Health Management master's degree program to train health professionals in management skills. While MSH led the collabor-ative effort with the SARA Project, BASICS provided technical assistance when needed for module development. In 1998, BASICS fielded consultants who helped CESAG develop two key modules for CESAG's master's degree in Health Management courses in management of information systems (MIS) and financial management. The consultants helped CESAG develop the overall training goals and course syllabus for both modules. In addition, a BASICS consultant pre-tested the modules in June 1998 by training the first group of CESAG master's-level students.

Future Considerations

Of great importance for the future is that collaborating agencies (international private voluntary organizations and local NGOS working in West Africa) continue and expand technical interventions (IMCI, EPI, nutrition, and behavior change) begun in West Africa. BASICS believes that to improve

public health in West Africa, the African institutions in the region must have the ability to provide leadership and technical assistance. Finding innovative channels to strengthen community interventions and partnerships to affect behavioral change is also of paramount concern. Public and private sectors must develop ways to work effectively together in West Africa to achieve common child health goals.

Ghana
Country Achievement Summary

Abstract

Child deaths in Ghana are unacceptably high—an estimated infant mortality of 66 per 100 live births and an under 5 mortality of 119. Children under 5 years of age account for more than 50 percent of all deaths each year. The Ministry of Health (MOH), as part of Ghana's commitment to improving the health of the people, has initiated a process of expanding child health services and making then more efficient and effective. USAID and BASICS were asked by the MOH to help develop Ghana's National Child Health Strategy and Implementation Plan. The goal of BASICS' assistance in Ghana was to collect essential data in key child health areas.

To investigate the prevention and treatment of childhood illness, with USAID's assistance, BASICS and LINKAGES, collaborating with the MOH Child Health Task Force, WHO, and UNICEF, conducted a series of child health assessments in nutrition, immunization, and community. To increase the data available for health planning, child health questions were incorporated into Ghana's Demographic and Health Survey. To collect information on the case management of all important infant and childhood morbidity and mortality in Ghana, including malaria, acute respiratory infection, diarrhea, measles, and malnutrition, BASICS conducted a Health Facility Survey. To develop the guidelines for improving the quality and utilization of child health services, the data from these assessments were shared at a National Child Health Strategy and Implementation Workshop.

Context

Despite a steady decline in under 5 mortality since the 1960s, child deaths are still unacceptably high in Ghana. With an estimated infant mortality rate of 66 per 100 live births and an under 5 mortality rate of 119, children under 5 account for more than 50 percent of all deaths each year. As part of Ghana's commitment to improving the health of the people, the MOH started a process of expanding child health services and making them more efficient and effective. They introduced the Strengthening of District Health Systems (SDHS) initiative to build capacity and empower districts to improve management, planning, implementation, and monitoring. Subsequently, in 1995, they developed the Medium Term Strategy to articulate the integration of services, ensure better resource allocation, increase access, improve quality of care, and ensure inter-collaboration. In 1996, to implement this strategy, the MOH introduced the Health Sector Investment Plan (HSIP) to pool donor funding. In 1997, they established a Child Health Task Force to develop a revised child health strategy. In January 1998, the task force recognized that there were key technical and programmatic areas where good quality data were not available. USAID and BASICS were asked to facilitate the collection of additional child health data to inform the process of program planning.

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Scope

With USAID's support, BASICS and LINKAGES conducted a series of child health assessments in collaboration with the MOH Child Health Task Force, WHO, and UNICEF, to assist the MOH in developing the National Child Health Strategy and Implementation Plan and policy guidelines. A technical assessment team conducted three assessment activities for immunization, nutrition, and community health. Data collection activities were focused in five representative districts of the country, and they included a review of relevant literature, interviews, and field visits. BASICS also conducted a Health Facility Survey in the same five districts, which included interviews with workers and caretakers and an assessment of the health facilities. In 1998, the Ghana Statistical Service (GSS) conducted a Demographic and Health Survey (DHS) that incorporated a number of child health questions. Arrangements were made to sample households in five focus districts and make DHS data available for child health planning.

Objectives

1. Collect essential data in key child health areas to develop the MOH's National Child Health Strategy and Implementation Plan and policy guidelines.

Conducted child health assessments
To investigate how to prevent and treat childhood illness in households and communities, child health assessments were conducted in nutrition, immunization, and the community. Four target regions were selected from each of the three ecological zones of the country. Three teams conducted the surveys with representatives from the MOH, the Child Health Task Force, and consultants funded by USAID (BASICS and LINKAGES), WHO, and UNICEF. Key recommendations were prepared for the MOH, based on the assessment findings.

Nutrition
To reduce Ghana's high child malnutrition rate, behavior changes had to be made at the household level. Recommendations from the assessment team focused on disseminating feeding guidelines for infants and children, strengthening activities to promote optimal breastfeeding behaviors, and increasing awareness of the importance of preventing all degrees of malnutrition. Guidelines, job aides, educational materials, and focused training activities were recommended for use by for health workers.

Immunization
Ghana's Expanded Program for Immunization (EPI) has shown a steady measured increase in coverage, and they have implemented new policies over the past few years. The impact of the immunization policies has decreased disease incidence; however, measles is still a major health problem. The delivery of immunization services is impeded by the lack of cold chain equipment in health facilities, and the utilization of services is less than optimal. Recommendations from the team focused on increasing the number of district health facilities equipped with cold chain equipment, training personnel to provide immunization services, and developing methods to ensure injection safety. Other recommendations included developing approaches to increase the use of data for planning and monitoring immunization services and targeting communications efforts to increase the use of immunization services by caretakers.

Community
Empowering households and communities to take more responsibility for their health is a major strategy for the MOH. They are implementing creative pilot programs that enable communities to identify their own problems and needs, as well as develop and implement solutions for those problems. To meet these challenges, the assessment team recommended the establishment of a national Community Participation Steering Committee to develop a ministry-wide strategy for implementing community interventions, develop a strategy to improve communications with communities, and promote the use of existing community resources to improve health education.

Household survey
BASICS, with the Ghana Statistical Service (GSS) and MACRO International, developed a series of child health questions to be incorporated into the DHS survey questionnaire. GSS sampled households in five focus districts; they made these data available to the MOH Child Health Task Force for use in child health planning.

Conducted Integrated Health Facility Assessment
BASICS conducted an Integrated Health Facility Assessment in five districts to collect information on case management for all important infant and childhood morbidity and mortality in Ghana, including malaria, acute respiratory infection, diarrhea, measles, and malnutrition. The assessment, to help local program managers plan and develop integrated child health programs, provided data essential for planning and prioritizing child health services, including health worker training and supervision, drug supply, and availability of essential equipment. Overall findings revealed that most facilities had essential equipment, drugs, and supplies; however, the quality of health worker performance and supervisory visits needed to be improved.

Conducted a Child Health Strategy and Implementation Workshop
The MOH Child Health Task Force conducted a Child Health Strategy and Implementation Workshop to develop a strategy based on a review and analysis of the assessment data. This strategy will provide the guidelines for program planning, implementation, and monitoring/evaluation to improve the quality and utilization of child health services.

Future Considerations

The Ghanaian Child Health Implementation Strategy will direct the long-term planning process for child health, and they will identify future areas for technical assistance. The MOH requested follow-up technical assistance to develop strategies for immunization, nutrition, and perinatal program implementation. USAID/Ghana has proposed a long-term presence to assist the MOH in carrying out strategies and programs to improve the status of child health in Ghana.

Guatemala
Country Achievement Summary

Abstract

From 1993 to 1996, BASICS provided technical assistance to the Guatemalan Ministry of Health (MOH), in collaboration with Clapp and Mayne, in the treatment and standard case management (SCM) of acute respiratory infection (ARI), as well as household behavior change and community drug availability. BASICS first provided assistance in Guatemala under the Latin America and Caribbean (LAC) Regional Cholera Initiative. In mid-1995, BASICS contributed to the USAID Mission's re-engineering efforts by completing a country child health and assistance assessment. With USAID/Guatemala funding, BASICS began intense collaboration with the MOH in 1997 to expand technical assistance and training of area and district health staff in SCM of prevalent childhood diseases in five Mayan highlands Departments. Companion work included an expansion of health communications and behavior change, district management training, and community organization.

In December 1997, BASICS was asked by the USAID Mission to help introduce Integrated Management of Childhood Illness (IMCI) to three indigenous non-governmental organizations (NGOs)—*Agrosalud, Guatesalud*, and *Clinica Maxena*. BASICS adapted existing IMCI training materials, trained facilitators and health staff, and designed and introduced community and household behavior interventions as well as improvements to health information and cost systems.

Through its sub-contractor, PATH, BASICS also provided technical assistance to the parastatal pharmaceutical laboratory, LAPROMED, to improve production, marketing, and distribution of oral rehydration salts (ORS) under the brand name *Suero Vida*. Important activities with the commercial sector included the Central American Handwashing and Central American Micronutrient Initiatives.

Special research completed includes an Evaluation of Distance Education in Cholera and Diarrhea Management and a Perinatal Mortality Study in Mayan Communities.

Context

Although not the poorest country in Latin America, Guatemala has some of the worst social indicators, particularly among the indigenous Mayan population. Average Guatemalan life expectancy is 62 years, the lowest in Central America. The infant mortality rate of 58/1,000 live births is the fourth worst in Latin America. Principal causes of infant mortality are perinatal-related conditions (28 percent), pneumonia (19 percent), and diarrheal disease (17 percent). Child mortality is attributed to diarrheal disease (28 percent), pneumonia (22 percent), and malnutrition (8 percent).[1] In early 1995, BASICS participated in USAID/Guatemala's re-engineering efforts, and with USAID/Global participation, produced in May 1995 a Country Assistance Planning Assessment which recommended intensified

[1] Data taken from BASICS report, *"Country Assistance Planning Mission – Guatemala,"* May 1995

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technical assistance in child survival focused on the indigenous Mayan population. BASICS had been providing technical assistance in the treatment and prevention of acute respiratory infections and diarrhea in collaboration with Clapp and Mayne, the USAID Mission's child health bilateral contractor. After Clapp and Mayne departed, BASICS teamed with the Central America and Panama Institute of Nutrition (INCAP) to introduce and strengthen SCM of prevalent childhood diseases in the five Mayan highlands departments of San Marcos, Solola, Totonicapan, Quezaltenango and Chimaltenango. The childhood diseases covered under the SCM algorithm include diarrhea, acute respiratory infections, measles, and malnutrition. Several hundred doctors, nurses, and health auxiliaries were trained by BASICS, INCAP, and the MOH in the five departments.

In addition to SCM clinical training, BASICS initiated work in health communications and behavior change and in district management and problem-solving. BASICS produced a literature search of anthropological and sociological studies of child health care attitudes and practices among Mayan woman and later a series of behavior change materials on child health for community health workers, including treatment and prevention of prevalent childhood illnesses, nutrition and feeding, and referral. BASICS also conducted studies of community needs assessment methodologies in use by local NGOs.

In Guatemala, the health services delivery system is characterized by "top-down" management and control. Authority is centralized in the MOH, and there is little discretionary decision-making and problem-solving by area and district health managers. Recognizing this challenge, the MOH Training Directorate and BASICS began a series of district management trainings that featured adult education and learning organization methodology developed by M.I.T.'s Sloan School of Management. Training was given first to key MOH central staff and then to area and district managers. The overall response to problem-solving techniques was very positive.

In September 1997, however, the MOH halted all training in the five USAID-supported Mayan highland projects just as SCM and district management training were gaining momentum and producing positive results. Area health managers were ordered to stop all activities and concentrate on negotiating contracts with local NGOs to provide child health services in under served areas. At a policy level, negotiations between the USAID Mission and the MOH on U.S. bilateral assistance in the health sector stalled. In this context, the USAID/Guatemala Mission asked BASICS to focus its technical assistance on introducing Integrated Management of Childhood Illness (IMCI) to three USAID-funded NGOs— *Agrosalaud, Guatesalud*, and *Clinica Maxena.*

Scope

As noted above, in December 1997 BASICS shifted its technical assistance to the USAID-funded NGOs Agrosalud and Guatesalud, as well as the Mayan NGO, *Clinica Maxena*, with which BASICS had been developing a community needs assessment methodology. The geographic focus of BASICS work thus shifted from the Mayan highlands to the *boca costa* region. The beneficiaries of BASICS' work with *Guatesalud* and *Agrosalud* were the young children of workers on commercial plantations. *Clinica Maxena*, in contrast, assists local, mostly indigenous communities in the highlands department of Solola. Each NGO employs medical doctors, health promoters, and/or community health workers. In the aggregate, these three NGOs provide health services to thousands of families.

BASICS provided technical assistance through a resident country office and staff which included two pediatric clinicians who served as country program manager and technical officer, as well as a community behavior change specialist, an accountant and office manager, a secretary, and other support

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staff. Another doctor provided periodic technical assistance in community organization and needs assessment. The BASICS headquarters technical officer provided technical assistance in program strategy, planning, and management, and the Manoff Group offered technical support in the development of behavior change methodology, materials, field testing, and NGO training.

Objectives

1. Improve the quality and integrated nature of child health care at health facilities, particularly those affiliated with NGOs or other private providers.

As stated above, BASICS initially worked with Clapp and Mayne to provide technical assistance in SCM of childhood pneumonia and diarrhea. When Clapp and Mayne ceased operations, the USAID Mission asked BASICS to work with INCAP to continue SCM in the five Mayan highlands departments and provide clinical training, including behavior change. At the department and district level, SCM progressed very well for a year. The algorithm used for the course nearly matched the standard IMCI course being used by WHO and PAHO. Then, in September 1997, the MOH ordered its area field offices to cease SCM clinical training.

In response, the USAID Mission asked BASICS to work with the three front-line NGOs described earlier—*Agrosalud, Guatesalud*, and *Clinica Maxena*—that provide child health services to clients using various combinations of clinic-based physicians, nurses, and nurse auxiliaries, as well as paid community health workers and volunteer health promoters. BASICS was asked to introduce IMCI in all its dimensions—clinical training, linkages to the community, and nutrition and behavior change. Other objectives included improving management information and cost recovery systems.

In February 1998, BASICS began intensive efforts to introduce IMCI to the three NGOs, which agreed to work together to the extent possible. A working team was formed under the direction of BASICS' Guatemala office. By the end of September, IMCI course materials from Honduras and El Salvador, including a Manual of Procedures, chart booklets, and other materials, had been adapted. BASICS held a facilitators' training for seven NGO clinical course facilitators and arranged practicum training through the Pediatrics Department of the *San Juan de Dios* Hospital in Guatemala City. NGO staff then received clinical skills training by means of a modified version of the standard IMCI course.

Concurrently, BASICS provided technical assistance to the three NGOs to improve service delivery information systems, drug logistics systems, and cost-effectiveness. BASICS developed a customized classification of illness matrix that incorporated the new IMCI illness classifications for each NGO, and designed and introduced computerized databases were for each NGO. Some instruction was also provided. To improve drug management in support of IMCI, BASICS identified linkages between IMCI treatment requirements and the individual medical supplies list for each NGO.

2. Improve home-care for early childhood illness, growth promotion practices, and care-seeking behavior outside the home using an integrated behavior change strategy.

At the beginning of the project, BASICS provided periodic technical assistance to develop behavior change materials and messages in support of clinical training in acute respiratory infection (ARI). Using a social marketing approach, a BASICS consultant helped local health authorities produce counseling and radio materials in Totonicapan and San Marcos. Later, BASICS hired a behavior change specialist, a Guatemalan anthropologist, whose first task was to conduct a literature search of studies and evaluations

of child health care norms and practices among Mayan women in the Guatemalan highlands. The result was the publication of an excellent document, Child Health Care Practices Among Mayan Mothers in Guatemala.

To supplement information found in the literature search, BASICS planned and carried out, with the assistance of several indigenous NGOs in Western Guatemala, in-depth interviews and systematic observations of practices related to infant nutrition and child survival. A BASICS consultant worked to help BASICS and NGO workers implement trials of improved practices to gather more detailed information on the definition and feasibility of, motivations for, and barriers to, improved household nutrition and basic hygiene practices. In early 1998, BASICS another BASICS consultant worked with BASICS/Guatemala design and carry out two behavior change strategy workshops with the participation of BASICS' old (highland) and new (*boca costa*) partners. Preliminary ideas for several materials were reviewed and improved at the workshop.

Although USAID/Guatemala's request that BASICS shift its technical assistance to Agrosalud and Guatesalud required a new focus on the boca costa region of the country, BASICS suggested, and USAID agreed, that the behavior change work underway and commitments to highland NGOs should be honored. Thus, both highland and *boca costa* versions of materials were developed, pretested, finalized, and disseminated to NGOs. Materials were for clinic and community use, and included:

- Three counseling booklets (on how to give medicine, on the danger signs signaling that parents should immediately take their child to the clinic, and on how to feed a sick child) to be used in the clinic to support IMCI counseling and then given to the mother or father to take home.

- A guide to socio-dramas on child survival topics; a book of simple and tested weaning-food recipes for health workers and mothers; and a set of cards to support health workers in counseling mothers on common child survival themes.

The BASICS behavior change specialist worked closely with *Agrosalud, Guatesalud* and *Clinica Maxena* to ensure that behavior change materials were incorporated into the IMCI training at the clinic and community levels. By the end of September 1998, the tabulation and analysis of field data, the graphics work and printing of materials, and a supervisory guide for the NGOs had all been completed. The "fusion" of the clinical IMCI and behavior change components into a specially developed health promoters' IMCI course was an intensive and delicate process that required patience, constant modification, and fine-tuning.

3. Improve community-level health practices through the design, development, and/or adaptation of an integrated child health care strategy, methodology, and materials for addressing child mortality and morbidity.

When BASICS was asked by USAID/Guatemala to shift the focus of its technical assistance to the three NGOs, it became apparent that a special community approach needed to be developed for each. Although each NGO partner employs physicians, nurses, and health promoters, their organization and service delivery structures are different. Each wanted to ensure that treatment and counseling at the facility level would be linked to services in the community. A key factor was how each community identified and prioritized its needs–employment, education, environment, and health. Building on experience gained earlier in the Mayan highlands, BASICS developed a methodology and tools for community needs assessment, including health. It is an intensive process involving community leaders, health promoters, and health staff from nearby facilities. With staff of the three NGOs, BASICS organized a series of

community assemblies among the migrant workers in coffee plantations in the boca costa region and among indigenous Mayans in the Department of Solola.

The objectives of the initial community assembly are to: (1) reach consensus on the principal health problems and prevalent illnesses of children age 5 and under; (2) identify probable causes; and (3) identify those groups of children at greatest risk of illness or death. Later, in a second community assembly, community leaders and health staff are asked to: (1) review the results of the first assembly; (2) determine what can be done to change/modify those factors that caused prevalent illnesses; and (3) determine what "compacts" can be worked out among the community and health staff as to corrective action. Examples may be community sanitation, latrine building, organizing for immunization, setting up nutrition and feeding programs with mothers, increasing local support for community health promoters, and clarifying responsibility for referrals and follow-up.

4. Improve capacity of commercial marketers, manufacturers, and distributors to market and promote products and behaviors effective in improving the health of children and mothers.

Over the life of the project, BASICS supported three significant child health initiatives with the private sector in Guatemala: (1) the Central American Hand-washing Initiative with soap producers; (2) the Central American Regional Micronutrient Initiative (CARMI) with wheat and corn flour millers; and (3) Suero Vida, an oral rehydration salts (ORS) production, marketing, and distribution activity with the parastatal LAPROMED.

Central America Hand-washing Initiative
In Guatemala, childhood diarrhea and dysentery is a prevalent health problem. A lack of health education, coupled with the high cost of hand soap, meant that many people did not wash their hands regularly or correctly before preparing food. Under the Central American Hand-washing Initiative, BASICS worked with soap producers, Colgate-Palmolive and *La Popular-Productos Finos,* the Ministries of Health and Education, local NGOs, and international organizations to promote hand-washing as a deterrent to diarrhea, cholera, and dysentery. Market studies, funded by BASICS, convinced soap producers that there was an untapped market for hand soap. The mass media were enlisted as sponsors to heighten popular consciousness about the benefits of correct hand-washing. A marketing campaign supported by the MOH and UNICEF, but financed by the soap producers, targeted school teachers and students, health workers, and mothers. An evaluation in summer 1999 will measure hand-washing behavior and compare it to the baseline study.

CARMI
In coordination with other USAID-funded projects OMNI and SUSTAIN, BASICS helped assess the market and potential for fortifying wheat and corn flour with iron. While iron fortification levels are satisfactory among wheat millers in Guatemala, corn, the most common staple food, is not yet fortified. BASICS and SUSTAIN have entered into an agreement with MASECA, the largest corn flour producer, to test the feasibility of iron fortification. Laboratory and bio-availability tests are expected to be completed by mid-1999.

LAPROMED ORS production and marketing
Some years ago, with the goal of treating prevalent childhood diarrhea, USAID/Guatemala invested in an oral rehydration salts (ORS) production facility at the University of San Carlos' Pharmaceutical Laboratory, LAPROMED. The facility was set up and technical assistance in plant management and operations was provided by PATH.

In 1997, the USAID Mission asked BASICS to organize another phase of PATH technical assistance to LAPROMED to improve the production, marketing, and distribution capacity of its commercial ORS product, Suero Vida. BASICS/Guatemala office coordinated a series of visits by PATH technical experts. Under a joint work plan with LAPROMED, local consultants were also hired to expand LAPROMED's marketing and organizational capacity. However, since LAPROMED must pay a significant percentage of its revenues from government contracts to the university, and since it serves as a teaching facility for pharmacy majors, it is problematic whether the facility will ever be privatized. Some aspects of its operations, such as advertising and product distribution, could be contracted to the private sector.

Special activities

Perinatal mortality research
In cooperation with MotherCare, BASICS helped to design and carry out a perinatal/neonatal mortality research study in four Mayan highlands communities in Guatemala. The study was designed by the BASICS senior technical office and three MotherCare representatives. BASICS regional representative also contributed, and a BASICS consultant participated in the study organization and field work. The study had four objectives: identify the perinatal/neonatal mortality structure in the four highland communities; identify why mothers did not seek treatment of their sick children at health facilities; identify possible opportunities for intervention; and validate the information collected using the social autopsy. A universe of 241 deaths was identified. BASICS developed a questionnaire, trained field enumerators, and conducted interviews in mid-1998. The study field work proved difficult owing to: the complexity of the caretaker interview, villager distrust and resistance to outsiders in remote areas, difficulty in confirming reported deaths in local records and registries, and Mayan language/dialect differences. The results of the study are still being analyzed and are expected to contribute to a growing body of knowledge of caretaker child care attitudes and practices causing infant mortality.

Distance education in cholera and diarrhea management
INCAP implemented and evaluated an in-service distance education course for doctors and nurses on the management of cholera and diarrhea in Guatemala and other Central American countries after finding evidence of widespread mismanagement of these diseases during recent cholera epidemics. USAID's LAC Bureau, BASICS, INCAP, and the Ministries of Health in Guatemala, El Salvador, Honduras, and Nicaragua launched the PAHO-funded course in mid-1995, and in mid-1996 graduated 1,381 doctors and nurses.

INCAP and BASICS carried out a controlled evaluation of the course in Guatemala. They completed baseline surveys of the program and control groups using a modified version of the PAHO/WHO Health Facility Survey (HFS) in the summer of 1995, and post surveys of the same groups a year later. Both knowledge and practice were measured. The results show that, as expected, knowledge increased significantly more in the program than in the control group, but more importantly, certain key practices also improved significantly more in the program than the control group, especially practices related to correct assessment and diagnosis of diarrhea. A special validity study funded by BASICS found no evidence of observer bias in assessment variables, diagnosis, or treatment, but did find problems with the validity of measurements of counseling of caretakers. This work has been published in a joint BASICS-INCAP-PAHO technical report available from BASICS' Information Center (Flores, Robles, and Burkhalter, Implementation and Evaluation of a Distance Education Course on the Management of Cholera and Diarrheal Diseases, 1998).

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Future Considerations

In the near-term, although its Guatemala office was closed in December 1998, BASICS is trying to complete its work in introducing IMCI to front-line NGOs. In addition to *Agrosalud, Guatesalud*, and *Clinica Maxena*, another group of NGOs is interested in collaborating on community IMCI, including Project HOPE and the Population Council. The USAID Mission in Guatemala has signaled its support for BASICS to continue its work so that IMCI is introduced and institutionalized as child health policy and practice among these key NGOs.

Looking to the future, BASICS, or its successor project, should be prepared to assist the MOH of Guatemala should it adopt IMCI as government child health care policy. Other technical areas of interest include developing and testing perinatal/neonatal interventions in linkage with IMCI, and community-based nutrition and growth promotion.

Guinea
Country Achievement Summary

Abstract

During the past four years BASICS provided Guinea with short-term technical assistance for assessments, research, and various technical updates in the areas of Integrated Management of Childhood Illnesses (IMCI), nutrition, and immunization. In 1995, BASICS fielded a four-person technical team to furnish background information needed by USAID/Guinea to address basic strategy options in developing a follow-on heath sector bilateral. BASICS' activity resulted in a series of analyses, strategy proposals, and background technical papers to help USAID/Guinea develop the Guinea Family Planning and Health (FPH) project. BASICS also carried out an equity study to determine access to and use of publicly financed health services by the poor.

After the FPH bilateral Management Sciences for Health (MSH) team was fielded in 1997, USAID/Guinea asked BASICS to provide complementary technical assistance in child health. In 1998, the Ministry of Health (MOH) and the MSH bilateral team agreed on three key technical interventions: (1) technical assistance to follow-up the 1995 equity study; (2) introduction of a mortality study in collaboration with Save the Children, (3) participation in the Situation Analysis being carried out by the Population Council to serve as the baseline for the bilateral project, and (4) presentation of the results of the March 1997 Maternal and Child Health (MCH)/Family Planning (FP)/AIDS training needs assessment to the MOH, USAID/Guinea, UNFPA, and other donors working in reproductive health, STD/AIDS, and child health.

Key Guinean MOH officials also participated in the IMCI, Expanded Program on Immunization (EPI), and nutrition regional workshops sponsored jointly by BASICS, WHO/AFRO, UNICEF, and the SARA/Linkages project. Finally, BASICS developed a questionnaire for an NGO inventory, which was submitted to the MSH bilateral team, to make additional resources available and to strengthen the NGO collaboration.

Context

In 1996, Guinea had a population of 7,200,000. Like many of its neighboring sub-Saharan republics, Guinea faced challenging health needs while they were experiencing a rapidly growing population and serious economic constraints. In the early 1990s, when USAID/Guinea and other donors recognized how committed MOH leaders were to improving the Guinea health care system and moving toward decentralization, cost-recovery, and increased community participation, USAID/Guinea began supporting the health sector, focusing primarily on family planning (FP) and social marketing of contraceptives. Given the new leadership and clear commitment to health by the Guinea MOH, USAID made the health sector one of its most important strategic objectives.

BASICS' country program began in 1995 with a series of short-term technical assistance visits (there was no BASICS field office in Guinea). All activities were supported and managed together by the

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BASICS Regional West Africa Office in Dakar, Senegal, and BASICS headquarters in the U.S. BASICS carried out its assessments and surveys through its partnerships with MSH, the Population Council, Save the Children, Emory University, and the John Hopkins University (JHU). Research was conducted with these key partners or local institutions.

In 1997, USAID/Guinea awarded MSH a five-year contract: an FPH activity, whose guiding principles were (1) partnership is key to long-term success; (2) health sector initiatives will continue to be guided by the precepts of the Bamako Initiative (i.e., to build upon previous successes); (3) cost recovery will be viable as long as services, drugs, and other commodities are available; and (4) coordination of interventions and actors is critical.

Scope

BASICS/Guinea provided technical assistance to national-level MOH officials in the capital of Conakry. BASICS and Emory carried out an equity study in Forecariah Prefecture for Lower Guinea and in Kerouane Prefecture for Upper Guinea. The mortality survey was carried out with Save the Children and the MOH in Mandiana Prefecture.

Objectives

1. Strengthen and disseminate three research instruments to provide data for informed program decisions to USAID, MOH, MSH bilateral staff, and other partners in Guinea.

Situation analysis
BASICS worked with the Population Council, MOH staff, and the Situation Analysis Technical Advisory Committee to integrate child health indicators and components into the situation analysis that serves as the baseline for the USAID health sector bilateral. BASICS began by ensuring that child survival questions/indicators were included in the observation and inventory questionnaires, and that the data collection team obtained the correct information. BASICS then helped the Population Council conduct an initial interpretation of the child survival data collected during the Situation Analysis. In addition to making baseline data available for the bilateral, this research provided the MOH and donors with updated child and reproductive health information. BASICS participated in all aspects of this collaborative effort.

Training needs assessment
BASICS helped Africa INTRAH staff present the results of the March 1997 MCH/FP/AIDS training needs assessment to the MOH, USAID/Guinea, UNFPA, and other donors working in reproductive health, STD/AIDS, and child health. The assessment inventoried resources and assessed the training and technical assistance needs of service providers working in reproductive health, AIDS, and child health; and identified specific child health service delivery problems, as well as solutions to issues raised by assessment results.

Equity study
In 1995–1996, Emory assisted BASICS in conducting a study on equity and health service provision in Guinea. In 1997, the MOH, BASICS, and Emory held a dissemination workshop to present the results of the study. Follow-up included the development of a comprehensive plan to test strategies to reduce financial barriers to health care. Specifically, BASICS and Emory worked with the MOH to (1) identify

research needs; (2) consider alternative strategies to ensure access to health services by the poor; and

(3) develop a proposal to test the strategy in one pilot zone and measure the effectiveness of the strategy in ensuring access to health care by the poor.

In 1998, in collaboration with the MOH and the MSH bilateral team, Emory and BASICS developed and supervised a health services and equity study in Forecariah Prefecture for Lower Guinea and Kerouane Prefecture for Upper Guinea. The three-part study included (1) health care utilization analysis to collect data from health centers to develop a population utilization profile of health care services; (2) analysis of health services utilization indicators (private and public) by the population; and (3) identification of existing community mechanisms (formal, informal, and family) that address poverty, the mechanisms' impact on the indigent, and their potential impact on the health sector. Emory directed the data analysis and sent a representative to Guinea to present the results to USAID and the MOH in 1999.

Mortality assessment
BASICS and JHU worked together during the past two years (as of this writing) to develop a methodology and manual to assist district health programs in the development, implementation, and analysis of a child mortality survey. BASICS adapted the methodology and manual, and conducted a surveillance study in the Mandiana Prefecture in partnership with the MOH and Save the Children. (Save the Children is based in the Mandiana Prefecture and they did most of the field work.) The study identified probable causes of mortality as well as conditions within the health services and the household that could be targeted for interventions to improve the probability of child survival. In 1998, to adapt the study for Mandiana, BASICS developed and carried out the study protocol and baseline research, including identification of local language equivalents used to describe childhood diseases. Study materials were translated into French. To date, Save the Children personnel have been trained in surveillance techniques and have field-tested the questionnaires; they will continue with the field work in Mandiana.

2. Support WHO and the MOH in introducing the IMCI initiative through short-term technical assistance and development of a long-term national strategy.

Due to limited funding for the BASICS/Guinea country program, only minimal support in IMCI could be provided to the MOH. BASICS still provided updated progress reports about IMCI in the West Africa region to the MOH, MSH bilateral staff, and USAID/Guinea. BASICS and WHO also jointly invited Guinean MOH officials to various regional IMCI and quality assurance workshops. As a result, key Guinean MOH officials participated in the IMCI, as well as EPI, and nutrition regional workshops sponsored jointly by BASICS, WHO/AFRO, UNICEF, and the SARA/Linkages project.

3. Strengthen NGO collaboration to make additional resources available to increase demand for, access to, and quality of family planning, MCH, and sexually transmitted diseases (STD) treatment and prevention services.

BASICS developed a questionnaire for an NGO inventory and submitted it to the MSH bilateral team. (BASICS was not able to carry out a private voluntary organization inventory for USAID; with limited program funds, it was not a priority.)

Future Considerations

Important follow-up activities could include the following:

Secondary analysis and publication of the results of the Situation Analysis
Additional technical assistance should be made available to analyze the child survival data collected during the Situation Analysis. The Population Council has proposed a joint publication of the data.

Follow-up technical assistance for the mortality assessment
JHU/BASICS have simultaneously developed a mortality assessment; as an important research tool, it is in development in many countries. In addition to completing and disseminating the work in Mandiana, Save the Children and the CORE group could review the effectiveness of this type of research in several countries, possibly holding an international forum in late 1999 or early 2000, inviting Guinean representatives to attend.

In addition to follow-up on research that has been or will soon be completed, the following technical interventions could be considered for future programming in child health:

- WHO/Guinea and the MOH should continue to explore the possibility of introducing IMCI. Technical assistance is needed to help define what that means in terms of research, policy, and training materials development in Guinea.

- Ongoing collaboration in regional nutrition activities is needed. Key Guinean nutritionists could participate in all nutrition networking activities of the nutrition focal group led by the *Centre Regional pour l'Alimentation et la Nutrition* (CRAN) based in Lomé, Togo. They need help accessing technical nutrition resources for the follow-on flagship project.

- The technical immunization resources of the child survival flagship project are needed for the eradication of polio and strengthening of the National Expanded Program for Immunization.

Haiti
Country Achievement Summary

Abstract

At the request of USAID/Haiti, BASICS provided technical assistance in child survival from November 1994 through December 1995, serving as a bridging mechanism between the previous John Snow, International (JSI) Resources for Child Health (REACH) and research and technology (R&T) projects, which focused on the Expanded Program on Immunization (EPI) and acute respiratory infection (ARI), and the new bilateral project, Haiti 2004, awarded in late 1995. Technical assistance was provided through a resident team of technical experts with input from consultants and BASICS Washington Technical and Operations Divisions staff. The USAID Mission terminated BASICS technical assistance in Haiti despite significant progress in barely one year. Since serious problems with infant and child mortality remained, BASICS provided recommendations for future action to the USAID Mission and the bilateral child health care project.

Context

In 1992 Haiti ranked fourth among 141 countries on the International Human Suffering Index (Population Crisis Committee), which measures indicators, such as life expectancy, population growth, daily caloric intake, clean drinking water, infant immunization, secondary school enrollment, per capita GNP, inflation rate, political freedom, and civil rights. Standard indicators of child health in Haiti consistently are the worst in the Western Hemisphere, with an infant mortality rate of 74/1000, a child mortality rate (ages 1–5) of 61/1000, and an under 5-mortality rate of 131/. The same survey cites the leading causes of death in children aged 1–59 months as diarrhea (37 percent), undernutrition (32 percent), and ARI (25 percent). In terms of morbidity, nutrition is the major problem, with about 50 percent of preschool children undernourished.

Immunization rates are low, with only about 30 percent of children aged 12–23 months fully immunized, and one fifth of this age group without a single immunization. Measles vaccination coverage in infants, based on available data, was estimated at 30 percent in 1993, with coverage of other antigens even lower. Somewhat surprisingly, given conditions in the country, there has been a decrease in the reported under-5 mortality rate during the last 15 years, from 176/1000 to 131/1000. During this period, the child mortality rate (ages 1–5) remained constant (63–61), while the reported infant mortality rate decreased from 120/1000 live births to 74/1000 live births. The bulk of the reported decrease in the under-5 mortality rate is explained by the decrease in infant mortality suggesting that more children are surviving the first year of life, but the under-5 rate remains elevated.

Access to modern health services in 1991 was estimated at 60 percent, with approximately half of those services provided by non-governmental sources. Nongovernmental organizations (NGOs) continue to be key providers of health care. Those public health services that did exist virtually ceased operating during the 1991–1994 embargo, leaving external government and NGOs working independently of the Ministry of Health (MOH) as the providers of a limited number of services. As such, the balance of representation

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on committees and working groups was tilted toward donors and NGOs who lacked the authority to create policy.

While few recent health data were available at the initiation of BASICS activities, it was widely acknowledged that economic, social, and political conditions had deteriorated in Haiti during the period of the embargo, compounding an already serious situation. During 1987–1994, infant mortality had been estimated from 93–104/1000, with estimates of age 1 to 4 mortality rate ranging from 133–180/1000. Some degree of malnutrition affected up to 40 percent of children under 5. Diarrheal disease and acute respiratory infections were the principal causes of morbidity and mortality.

Initiation of BASICS work came at a time of considerable reorganization of health services in Haiti following the return to power of President Aristide in 1994. The Aristide government had placed high priority on the provision of a minimum package of services through a decentralized health services delivery system called UCS (*Unités Communales de Santé:* or community health units. Efforts to define and implement the concept of UCS, as well as the package of services, were in an early stage at the beginning of BASICS' involvement in Haiti. A series of consultative groups and technical committees composed of representatives of the Ministry of Public Health and Population, NGOs, various donors (including UNICEF, PAHO, World Bank, the French Cooperation, Rotary, and others), and other USAID-funded projects had been formed to address specific medical and health activities and programmatic cross-cutting areas, such as training, communications, and evaluation. At the time of BASICS' start-up activities, previous vertical programs had been dissolved, leaving few central-level ministry staff to help define and implement evolving health policies or service delivery systems.

Scope

BASICS provided technical assistance in child health in Haiti through a resident a support staff, while . BASICS headquarters provided technical backstop in the Expanded Program on Immunization (EPI), diarrhea control, and general project planning and budgeting.

USAID's Delivery Order to BASICS requested technical assistance in the three child survival areas of combating communicable diseases (CDD), acute respiratory infection (ARI), and EPI, as well as information, education and communication (IEC). It also called for intensive coordination and collaboration with the MOH, NGOs, and other donors.

During BASICS' 1995 planning mission, it became clear that to have an impact on these disease areas, several institutional and service delivery issues would have to be addressed, including:

- Lack of national norms and policies for specific disease control programs, for coordination among committees at the central level, and for coordination between various levels of the health system.
- Lack of access to health care by at least 40 percent of the population.
- Lack of trained staff at all levels.
- Inadequate capacity in public health communication.
- Absence of a functional health management and information system.
- Weak logistics systems for essential drugs.

BASICS prepared a technical assistance plan for an integrated package of child health services by assisting with the formulation of national policies and strategies to improve access to and quality of care.

The plan was developed according to the following criteria:

- Technical soundness and importance to child survival.
- Responsiveness to existing needs and possibility for immediate application.
- Consistency with expressed priorities of the Haitian health system.
- Feasibility of completing proposed activities within the one-year delivery order period.
- Potential contribution to the long-term development of child survival capabilities beyond the duration of the delivery order.

Objectives

1. To have national policies in place for the integrated delivery of child survival services and plans for implementing these policies through the public and private health systems.

Decentralization of health services and comprehensive management of child health
The beginning of BASICS' activities coincided with a renewed commitment on the part of the Haitian government to an integrated approach to primary health care. Through the decentralized UCS model, the MOH hoped to provide a minimum package of services that would result in increased access to, and quality of, care, with an emphasis on reaching those populations that had been previously under-served. These concepts and plans to implement them were in a preliminary phase when BASICS began its work in Haiti in late 1994.

BASICS/Haiti participated in a technical working group composed of representatives from the MOH, PAHO, the World Bank, and USAID. This group was responsible for advising the MOH Director General on the integration and decentralization of health services; after several months it was formally appointed by the Minister of Health as an *ad hoc* committee with a mandate to develop policies and guidelines for the implementation of the UCS. A key contribution of BASICS was to ensure that the development of service delivery programs not be overshadowed by political and administrative concerns surrounding decentralization.

BASICS played an active role in introducing the concept of integrated care, using the WHO IMCI strategy. According to the World Bank's *World Development Report 1993*, management of the sick child is the intervention likely to have the greatest impact in reducing the global burden of disease. During this process, BASICS emphasized that successful implementation of integrated health services first requires that a number of programmatic areas be addressed, such as essential public health care policies, support systems, drug logistics, and training strategies. As a part of this process, BASICS recommended a comprehensive child health approach that emphasizes the management of sick children presenting to health facilities and the prevention of childhood diseases in the household and community.

The approach used with the MOH in Haiti focused on the prevention and management of the most common causes of mortality and morbidity in children under 5: ARI, diarrhea, malaria, measles, and malnutrition. Thus, BASICS/Haiti was instrumental in supporting several activities that built a consensus for implementing integrated management of child health, and set in motion the initial phases of its implementation.

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Specific achievements include the following:

- Production of a document that defines the UCS conceptual framework and serves as a reference document for MOH and NGO public health professionals. This document was disseminated throughout the public health community, and was used during working sessions among various ministries as well as by the Prime Minister.
- Definition of roles and responsibilities for different levels of health workers.
- Holding an integrated care management strategy workshop.
- Development of draft norms and standards for integrated child care.
- Completion of a report documenting and assessing previous national CDD program efforts.
- Documentation of NGO experiences in implementing ARI case management.
- Preparation of a protocol for a national health facilities survey (HFS) with the Child Health Institute.

2. To improve the delivery of child survival services by increasing capacities in logistics management, public health communication, and the use of data for planning, monitoring, and evaluation.

Behavior Change/Interpersonal Communications (IPC) Curriculum
BASICS collaborated with the Johns Hopkins University through the USAID-funded "A Happy and Healthy Baby Project," to develop an interpersonal communications training curriculum for community health workers (CHWs), who are a key source of health information in Haitian communities. The goal of the IPC training curriculum was two-fold: strengthen the IEC component of PVO field activities in urban and rural areas, and strengthen the capability of community health workers to communicate appropriate messages to caretakers on actions within the household to prevent and treat childhood diseases and promote child health. An important contribution made by BASICS to this collaborative effort was to assure the technical quality of child survival messages.

Specific achievements include the following:

- Two workshops for IEC coordinators to develop a draft curriculum and priority messages for preventive and curative actions at the household- and community-levels, to be communicated through a radio drama, an interactive radio program, and print materials.
- Guidance on key child survival messages to support essential preventive behaviors.
- Help in building consensus on the content and methodologies in various drafts, to make the curriculum practical and user friendly.
- Completion of a final draft IPC training curriculum for field-testing in Haiti.

Childhood immunization
Activities in immunization were, to a large extent, dictated by the needs of the country and the contributions and priorities of donors, such as PAHO, the French Cooperation, and UNICEF. One challenge was to link the intensive but short-term efforts of the six-month measles campaign to longer term efforts to build capacity in immunization program management. Two important activities planned by BASICS could not be carried out because they were contingent upon counterpart inputs that did not materialize. The first, training of newly hired department-level technicians in cold chain repair and maintenance, did not occur because these technicians were not hired as scheduled. The second, updating and revision of EPI norms and standards, was initiated but could not be completed during the Delivery Order period because of turnover of EPI government counterparts.

Nevertheless, BASICS completed some activities, including the following:

- Providing technical assistance, requested by USAID/Haiti and PAHO, for the planning, implementation and supervision of the national measles immunization campaign.
- Participating in the development of MOH plans to decentralize vaccine delivery.
- Training of nine mid-level department managers in overall program management, use of data for planning, and new injection practices, i.e., *SoloShot* auto-destruct syringes.
- Training of cold chain technicians in vaccine handling, supply forecasting, stock management, and detection of breakdowns.

Future Considerations

In terms of achieving longer term child survival goals, some potential interventions that USAID may wish to consider are the following:

Facility and service-based approaches to improving child health

Integrated Management of Childhood Illness (IMCI)
In the long term, a reduction in infant and childhood mortality and morbidity can be achieved by effectively managing sick children when they come to health facilities. To implement a comprehensive management approach at the health facility level, a number of programmatic elements need to be put in place, including essential PHC policies, drug and other logistics systems, a functional and motivated health staff, a system of regular supervision, and training materials appropriately adapted to Haiti.

A close collaboration is required among the MOH, NGOs, other governmental organizations, and key donors active in this area, such as PAHO. In the intermediate term, actions for advancing IMCI are the following:

- Collecting baseline data from health facilities to plan and develop a training strategy and training materials. (As mentioned earlier, a protocol for this has already been developed and adapted for Haiti.)
- Further developing essential PHC policies.
- Assessing the essential drug logistics system and development of strategies for strengthening this system.
- Reviewing supervisory systems and developing strategies for strengthening these systems.
- Planning implementation with the MOH and NGO groups in order to select pilot areas and develop strategies for using NGO resources effectively.
- Assisting with the adaptation of IMCI training materials to the Haitian context.

Immunization
Two recognized needs should be considered:

- Updating and disseminating of EPI norms and standards that are based on job descriptions.
- Developing managerially and technically sound approaches to increase immunization coverage, especially to reduce the burden of measles on children.

Nutrition
The prevalence of all categories of malnutrition and micronutrient deficiencies among children under 5 can be reduced by improving feeding practices in the home. In the immediate term, nutrition programs can be strengthened by contributing to the development of the IMCI approach and by ensuring that community-based health education programs target nutrition behaviors.

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Specific actions include the following:

- Developing the nutritional components of IMCI, including conducting basic research required to develop the feeding counseling module.
- Reviewing available information on feeding practices in order to develop health education messages, and conducting further research if required.

Household and community-based approaches to improving child health

Suggested activities include the following:

- Development of a national behavior change program for child survival with the MOH and other organizations.
- Field-testing the IPC training curriculum developed with BASICS and PCS, followed by modifications, as required; developing a training and supervision strategy with governmental and nongovernmental organizations (as part of the UCS strategy) to implement the curriculum.
- Development of complementary community-based health education strategies and materials that emphasize integrated child health messages.
- Assistance with the development of mass-media health education strategies and materials, which emphasize integrated child health messages.

The following conditions need to be met for future technical assistance to be of value:

- There needs to be a relatively stable MOH structure at all levels and strong commitment to the development and implementation of integrated approaches to the management of child health. Program managers for each of the key programmatic areas need to be in place.
- There has to be a strong commitment from donor organizations and NGOs for IMCI and integrated health education strategies in collaboration with the MOH. Agreement by the MOH and key donors as to the roles and activities for IMCI, immunization, and nutrition is also needed.
- There should be political stability in Haiti and a long-term commitment from USAID.

WCA HNSS
Regional Achievement Summary

Abstract

The West and Central Africa (WCA) Health Network Support System (HNSS) is a BASICS-funded initiative that began in early 1998 to support the identification and sharing of promising practices in child and family health. In its first year, the WCA/HNSS established partnerships with 14 regional institutions to support activities in four areas: promoting child survival, nutrition, and vitamin A promotion; reproductive health and family planning; prevention of AIDS and sexually transmitted infections (STI); and multi-sectoral activities in health care finance reform, community mobilization, and quality assurance. The network has provided targeted technical support to the following African institutions: *Centre Regional de Recherche en Alimentation et Nutrition* (CRAN); *Centre de Formation et de Recherche en Santé de la Reproduction* (CEFOREP); *Reseau Africain de Recherche sur le SIDA* (RARS); *Institut de Recherche des Etudes du Comportement* (IRESCO); the Cameroon Health Project (CHP); and the *Atelier de Theatre Burkinabe* (ATB).

Together with partner institutions and key donor organizations, HNSS designed a three-year strategy, established working groups, and launched activities in each of the four areas of operation. The network has successfully leveraged donor support from UNAIDS and UNICEF to support the activities of its African partners. The HNSS monitoring and evaluation plan parallels that of the regional USAID Family Health and AIDS Project in a concerted effort to support health activities in countries where there is no longer a sustained USAID presence. HNSS activities have been designed to support and strengthen the ability of regional partner institutions to identify, document, and disseminate promising practices and lessons learned in West Africa, with a focus on policy advocacy.

Context

In the mid-1990s, USAID developed several regional projects in the population/health sector in response to the sudden and drastic reduction in the number of USAID missions in West and Central Africa. (Of the 24 countries in the region, USAID has bilateral missions in only five.) The first regional project was the Family Health and AIDS project (FHA), which was launched in 1995 to address family planning, STI/AIDS, and child health issues. In late 1996, the BASICS project designed and initiated the Health Network Support System (HNSS) at the request of USAID's Africa Bureau. HNSS was inspired by the success of the four year old East and Southern Africa health network and adapted to the West and Central African context. Implementation began toward the end of 1997 when its director arrived in Abidjan.

Within four months of the arrival of the BASICS health network manager, USAID announced its decision to close the REDSO/WCA office, and to maintain a very limited health support office in the region. The ensuing delays and confusion surrounding the REDSO closeout, and subsequent complications in awarding the follow-on project to BASICS, created significant hurdles for the new

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HNSS. Despite delays and very limited staffing, by the end of the first project year the HNSS director had conducted a needs assessment in six countries, briefed potential partners in the region and stateside, and facilitated a strategic planning meeting with approximately 60 African institutions and donor organizations working in the region; in addition, all working groups were operational, with numerous activities in progress.

From its inception, the HNSS was jointly supported by the Africa Bureau (with Africa Designated Core funding) and with REDSO field support funds. Now in year 2, the regional Family Health and AIDS Office (USAID/FHA, formerly REDSO) has taken on full programmatic and financial support for the health network. This shift in funding has been accompanied by a closer alignment with the goals of the regional FHA project; the two projects support many of the same regional institutions.

Scope

Similar to the FHA project, HNSS works with national and regional partner institutions to build technical capacity and competence in four major content areas: child survival/ nutrition, family planning/reproductive health, STI/AIDS, plus a multi-sectoral content area consisting of three sub-components: health care finance, community mobilization, and quality assurance. Its monitoring and evaluation plan parallels that of the regional FHA project in a concerted effort to support health activities in countries where there is no longer a sustained USAID presence. In contrast to the FHA project, however, HNSS is not directly involved in service delivery and has no resident staff other than the HNSS manager in Abidjan. Though activities focus on six target countries, including the four FHA target countries (Cameroon, Côte d'Ivoire, Togo, and Burkina Faso) and two USAID-presence countries where the BASICS project also has a strong presence (Mali and Senegal), the HNSS is a region-wide program, supporting African institutions that work in many other countries of the region (e.g., Benin, Ghana, Nigeria). Project activities are planned and carried out in close collaboration with 14 regional partner institutions, with a lead organization designated for each working group.

Objectives

The HNSS was established to help countries in West and Central Africa identify, document, and share promising practices and experiences across borders. As USAID has curtailed its presence and resources allocated to West and Central Africa, its role has shifted to that of a catalyst for expansion of successful health programs. By calling attention to successful approaches (models) and lessons learned, and creating an environment for replication of promising practices, its aim is to help local institutions leverage the funding of organizations with greater resources available to the region.

After HNSS completed an extensive needs assessment in six countries in West Africa, the network brought together representatives of regional partner institutions—major donors that included USAID and private voluntary organizations (PVOs), and Ministries of Health (MOH)—to map out a three-year strategy. The representatives reached a consensus that the primary focus of HNSS should be to strengthen the ability of existing WCA institutions to identify, document, and disseminate (IDD) promising practices. Fourteen regional partner institutions were identified to collaborate with HNSS through its working groups. Through these partner institutions, with their existing networks, more than 200 organizations in East and Central Africa are being linked to the HNSS activities.

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During the project's first year, the primary goal was to identify and document promising approaches and lessons learned in the four focal areas, each with a working group consisting of a lead organization and other partner organizations. Participants at the strategy planning meeting began the inventory with many promising approaches in child and family health in the region.

The plan provided for the working groups to expand the dissemination of promising practices to promote policy advocacy for long-term change during the second and third project years. Throughout the project, HNSS' goals were to support and strengthen the regional partner institutions and to leverage funding support and joint planning with other donors in the region.

Working group achievements—selected practices for replication

Each of the working groups has designed and started implementation of activities in accordance with a specific focus identified during the strategy planning meeting. As a result of their work to date, a number of promising practices can be highlighted for replication in the region.

1. Promote child survival/nutrition.

CRAN, the lead organization of the child survival/nutrition working group, responded favorably to the HNSS call for joint IDD and policy advocacy in child survival and nutrition. After HNSS funded CRAN's participation in a UNICEF program managers' meeting, CRAN staff organized a series of round table discussions in Togo (which were subsequently put on hold due to political unrest), wrote a summary of promising practices from the strategy meeting, distributed numerous BASICS nutrition publications, and continued to demonstrate leadership in building collaboration among the many nutrition partners in the region. This working group, with technical leadership from Helen Keller International (HKI), and BASICS' West Africa Regional Office, commissioned a synthesis document of promising practices in vitamin A interventions, with particular emphasis on sustainable programs for increasing vitamin A consumption. The document will form the foundation for a meeting to design a policy advocacy strategy that member organizations and participating MOHs will carry out in the region.

HNSS has supported CRAN and its partners in identifying promising practices related to child survival needs in the region. One practice of note was the inclusion of vitamin A promotion and distribution in national immunization campaigns. CRAN and its partners, notably HKI, have documented the successful experiences from Niger and Mauritania as viable models for replication in other countries in the region, such as Senegal.

2. Develop regional family planning and adolescent reproductive health strategy.

Through its collaboration with the FHA project and UNICEF, UNAIDS, UNFPA, and the Focus Project, HNSS helped organize a multi-institutional workshop to formulate a regional adolescent reproductive health strategy. The meeting resulted in donor commitment to help countries implement action plans developed during the meeting, USAID commitment to provide technical assistance to UNICEF as the lead organization, and plans for the development of practical hands-on tools.

Regional partner CEFOREP received HHRAA/SARA funding to conduct a three-country assessment of successful programs to reduce maternal mortality through improved essential obstetric care. HNSS

funded an expansion of this regional initiative to document lessons learned in a fourth country in the region. At the annual meeting of *Société Africain des Gyneco-obstétriciens* (SAGO), HNSS collaborated with the FHA project to host a round table. They disseminated more than 200 copies of the reproductive health pre-service curriculum produced by the FHA project.

3. Identify approaches to STI/AIDS prevention and care.

The STI/AIDS working group has begun research to document promising approaches in the prevention and care of STI/AIDS. To date, subcommittees of the working group in Côte d'Ivoire and Burkina Faso have developed 12 case studies of promising practices for replication. Through its initial involvement, HNSS successfully leveraged significant support for this effort from UNAIDS, including funding and seconding a short-term researcher to coordinate the research and documentation. RARS and IRESCO are the lead organizations in this initiative. The working group met again in April 1999 to select the case studies with the greatest potential for replication and sustainability; these will be published and disseminated by HNSS.

In the private sector, through the support of HNSS, IRESCO has assisted national organizations and local consultants in Côte d'Ivoire to document promising practices related to the promotion of STI/AIDS prevention and care in the workplace. In a collaborative initiative among HNSS, the national AIDS control program (PNLS), FHA/Côte d'Ivoire, UNAIDS, CHP/Impact project, and CIPS/Espoir, two companies' approaches to STI/AIDS prevention in the workplace have been documented: *Compagnie Ivoirienne d'Electricite* (CIE) and *Filature et Tissage de Sacs en Côte d'Ivoire (*FILTISAC). CIE, an industrial firm responsible for the production and commercial distribution of electricity, is a leading employer in Côte d'Ivoire. FILTISAC, a fabric manufacturer, is a private firm with more than 5,000 employees in Abidjan. Both firms have established credible STI/AIDS workplace prevention and care initiatives. Their approaches have demonstrated measurable positive results in reducing the prevalence of STI/AIDS in their workforce, as well as providing care and treatment for their employees. Their workplace information, education, and communication (IEC) activities are an affordable approach to educating workers about STI/AIDS prevention and care and would be good models for replication in the region. A case study from Burkina Faso highlights the successful use of traditional oral communications (*griottes*) to transmit AIDS prevention and care messages.

4. Document successful multisectoral interventions (community mobilization, health care finance reform, and quality care).

In a joint initiative with the FHA project, HNSS provided funding support for a document that catalogs and describes successful approaches for community mobilization in the region. When it is published, donors will assess the advantages of hosting a regional workshop to share the results with target countries.

ATB is an NGO theater-for-development group identified by FHA to receive support from HNSS. With HNSS support, ATB is replicating its successful community theater methodology for health promotion in two countries (Burkina Faso and Côte d'Ivoire) with five theater groups in each country. With added technical support from the BASICS and FHA projects, HNSS has assisted ATB in training local theater groups in the technique of "Forum Theater," and in developing two theatrical performances. The first performance is aimed at sensitizing audiences to issues surrounding family planning and STI/AIDS prevention. The second deals with the importance of oral rehydration therapy and provides audiences with practical information on how to identify and treat diarrheal diseases. The latter play also includes a

demonstration of the proper preparation and administration of ORASEL, the oral rehydration solution currently being marketed through FHA/PSI.

HNSS joined the East Africa network and the African Development Bank (ADB) to fund a regional workshop for ADB managers, to sensitize them to the issues surrounding health finance reform. As ADB professionals handle an increasing number of loans to the health sector, the goal of the seminar was to enhance their understanding of the issues in health care financing and share the successful approaches used in other parts of Africa.

Future Considerations

HNSS was originally conceived as a three-year project in which significant institutional strengthening activities would occur during the second and third years. Measurable results, such as replication of documented promising approaches, require both significant time (at a minimum, the contemplated three years) and adequate technical resources, particularly for strengthening regional institutions and to ensure the technical soundness of interventions.

During the first 18 months of project activity, partner organizations and international donors have increasingly demonstrated their commitment to HNSS goals. The regional institutions have rallied around the call for IDD of promising practices and have quickly seized on the desirability of designing and implementing advocacy plans for the broad application of promising approaches. Likewise, important donor partnerships have created opportunities for successful HNSS initiatives in USAID FHA project countries. This activity has demonstrated that networking has a viable role in West and Central Africa and that USAID's leadership in this initiative has been valuable.

Honduras
Country Achievement Summary

Abstract

BASICS' principle achievement in Honduras has been to assist the Ministry of Health (MOH) transform a promising and innovative locally initiated child growth promotion and integrated child health care program into a systematized community-based strategy with well-designed, validated, and tested training and implementation instruments.

By the end of the BASICS contract, the Integrated Community Child Health Program (known by its Spanish initials as AIN/C) had been implemented in more than 180 communities. The AIN/C program has been the centerpiece of Honduras' community Integrated Management of Childhood Illness (IMCI) program. BASICS' technical assistance played a key role in assuring that the adaptation of the standard WHO 11-day IMCI course respected the growth promotion focus of AIN strategy. Once the IMCI adaptation process was completed, BASICS assisted the MOH in conceptualizing, designing, and testing an alternative IMCI training course carried out over 7 days (rather than 11), but which respects the technical and methodological integrity of the WHO 11-day IMCI course. Of special interest was the development of precise evaluation instruments to monitor learning by participants, over time. Finally, BASICS pioneered a joint effort with MotherCare, a sister project, in assessing the knowledge and practice of mothers, midwives, and health care providers regarding the health of neonates, in an attempt to better understand how to address the problem of neonatal mortality, now more than 50 percent of the infant mortality in Honduras.

Context

Honduras has a long history of success in the field of public health. USAID's 1997 report to Congress on the last decade of child survival assistance identified Honduras as being one of the star countries. At the beginning of the decade, the Latin American Center for Demography identified Honduras as the Latin American country with the most rapid decline in infant mortality during the 20 years from 1970–1990.

At the beginning of the present decade, Honduras' infant mortality rate was 50/1,000 live births. Half of the infant mortality occurred in the first month of life and about one-quarter on the first day of life. In the post-neonatal period, pneumonia and dehydration were the leading causes of death in the first year of life and in the following four years. Pneumonia led diarrhea as a cause of death in infants, and diarrhea was the principal cause of death in older children. Immunization levels for children under age 1 were close to 95 percent for all vaccines.

During the 1980s, in response to the challenge of child mortality, and reflecting UNICEF, WHO, and USAID global strategies, the MOH Maternal and Child Health Division established a series of vertical community-based programs for pneumonia, diarrhea/cholera, and growth and development. The MOH, however, had also made two very significant conceptual and programmatic moves. It had already

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identified the need to integrate its programs, and saw its growth promotion (AIN) program as the centerpiece for that integration.

By the time BASICS came to a close in 1998, infant mortality was estimated at around 35/1,000 live births. Diarrheal disease no longer figured as a leading cause of either infant or child mortality, although neonatal mortality continues to account for over 50 percent of all infant mortality, and it has not fallen in absolute terms. The MOH has consolidated its child health initiatives into a single Integrated Child Health program with community and institutional extensions. The institutional program is largely the WHO/UNICEF IMCI approach with an added growth promotion component.

Scope

BASICS has provided technical assistance to the MOH in the design and implementation of child health programs, especially in nine geographical health areas, which are the focus of the USAID program. The nine areas contain one-third of Honduras' 6 million people. BASICS maintained a regional office in Tegucigalpa until the end of October 1998. BASICS' regional advisor devoted a good part of his time to the BASICS Honduras program, and the BASICS' technical officer focused on the implementation of *AIN/comunitario.* Short-term technical assistance in community nutrition and growth monitoring was provided by the Manoff Group, while a headquarters-based BASICS senior technical officer provided overall technical guidance on IMCI. A BASICS senior consultant took the lead in developing AIN/comunitario and the Alternative IMCI course. A staff member provided administrative and budget backstop in the Tegucigalpa office.

Objectives

1. Increase access to maternal/neonatal care at the community level and improve caretaker behavior.

This objective initially had two phases. The first was to carry out a community-based assessment of practices regarding the care of newborns because of the high percentage of mortality occurring in this group and because most infant deaths occur at home. The study, led by MotherCare with BASICS' support, identified a series of factors that contribute to neonatal mortality, including (1) scant recognition of the problem of neonatal mortality at family, community, and health services levels; (2) lack of reliable and relevant timely information; (3) insufficient use of the traditional birth attendant as a trusted educator; (4) ignorance about risk factors, such as meconium staining, early introduction of non-breast-milk liquids, long periods of sleep, and low birth weight; (5) poor coordination between traditional and institutional practices; and (6) poor breastfeeding practices. The second phase, the design and implementation of interventions, was left entirely to MotherCare because the USAID Mission and BASICS decided that it was better to focus BASICS' limited resources on AIN and IMCI.

2. Strengthen community capacity to manage acute respiratory illness and combat communicable diseases (ARI/CDD) and nutrition growth promotion.

BASICS' community strategy evolved during the four years from 1995 to 1998, during which it was involved with the MOH. The original work plan called for BASICS (1) to provide assistance to two well-

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established community programs (community oral rehydration and community management of pneumonia) and (2) to assist in the evaluation of the community aspect of the AIN program.

To support the community oral rehydration program, BASICS conducted an assessment of the community oral rehydration units and found that while the units were practically non-existent, oral rehydration was being provided at the community level by MOH community volunteers. Based on the assessment, BASICS assisted the MOH in developing training materials and a curriculum for training and strengthening community volunteers.

BASICS conducted the community assessment of the AIN program and found that the overall strategy was sound and conceptually at the forefront of world-wide efforts to improve nutritional status, but that it had serious operational weaknesses. These included staff's inability to identify early growth faltering (one of the principles upon which the program was built), inability to provide specific counseling to mothers once growth faltering was identified, and lack of any systematization of the entire training, implementation, and supervision process. On the other hand, there were clear program strengths, such as the commitment of volunteers, the high levels of participation, and the demonstrated understanding of volunteers of the reciprocal relationship between nutritional status and illness. This assessment led to MOH, USAID, and BASICS' recognition of the need to address the program's weaknesses if it was to fulfill its promise.

The bulk of the BASICS' effort in Honduras has gone into assisting the MOH in resolving the problems identified by the assessment. The results of these efforts include a set of counseling cards based on Honduras-specific feeding practices and on a qualitative investigation demonstrating what feeding practices Honduran mothers are willing and able to change; a *Monitor Manual* to assist the community AIN Monitor in conducting monthly weighing, counseling, and educational sessions, as well as other key activities; an inductive and practice-oriented curriculum for training the monitors; an AIN Implementation Guide for MOH personnel; and a training curriculum for training MOH personnel.

Key Features of AIN/Comunitario

BASICS and the Honduran MOH introduced four key features of AIN/C to make it a program that advances the state-of-the-art in community integrated health and nutrition programming:

1. The organization and human infrastructure in the community—the point of contact for outside resources.

2. The focus on prevention—early problem detection for both health and nutrition, coupled with local problem-solving.

3. The use of a common indicator for success to harmonize action at all levels—that indicator is adequate growth for children.

4. The systemetizing of the process and development of aids and tools, a step necessary for national expansion, but allows flexibility for local decision-making and programming.

Status of AIN/C Implementation to Date

AIN/C is operating in all nine USAID-assisted health areas, covering just over one-third of the Honduran population or two million people. The under 2 population is about 57,000. By March 1998, after just over a year of implementation, health personnel in all 192 health centers had been trained in the AIN/Community methodology and to act as trainers of community volunteer *monitoras*. Some 332 communities were organized and community volunteers were selected for training. Some 582 community volunteers have been trained and were operating in groups of two or three in 179 communities. Upwards of 5,000 under 2s are being weighed monthly.

Funding problems hampered the pace of training and prevented BASICS and the MOH from reaching the Mission's Health Sector II target of 2,000 trained monitoras operating in 700 communities in the nine USAID Health Areas.

Early AIN/C Achievements

From an early round of information collected in AIN/C communities, more children under 2 are gaining weight now than they were a year ago. For example, in Sacred Heart community, in January 1999, following Hurricane Mitch, 39 percent of children weighed had an adequate weight gain. By April 1999, 91 percent were making adequate weight gains. In several other communities for which early implementation data is available, there were similar impressive gains. In those communities, the number failing to gain adequate weight dropped from 50 percent to 10 percent. Reducing the number of children who failed to gain weight repeatedly—AIN's major emphasis—also dropped to zero.

In communities with different starting rates of malnutrition, there have been major improvements. High malnutrition, defined as below the 3rd percentile of -2SD, declined from 39 percent to 8 percent. Medium malnutrition declined from 25 percent to 10 percent, and mild malnutrition was eliminated.

To better document this innovative approach to child health, BASICS also designed and implemented a baseline survey of more than 1,500 children in 100 villages. That data will be used for a future assessment of the impact of the program on child health.

AIN/C Lessons Learned

There are several notable lessons learned from the early AIN/C experience:

- Well-organized child health programs like AIN/C strengthen interaction and communication between the community and the formal health structure. When they work properly, they don't add to but alter the workload of the health center staff.

- When communities are well organized and a volunteer structure is in place, they can respond during a disaster and emergency. For example, after Hurricane Mitch, AIN/C community volunteers helped with rapid census work, disease surveillance and prevention, and served as a link to relief efforts.

- The time and effort spent on focusing and systemetizing a program before going to scale pays off. Strong collaboration among the MOH, BASICS, USAID, and field staff strengthened program

organization, design, and test tools and training, and allows for the use of real-life experiences in every facet of implementation.

- The phased and focused approach allowed the MOH and donors to position budget resources in a timely manner,-and it built capacity and momentum slowly before going to scale.

- Integrated community-based child health programs like AIN/C strengthen grass-roots democracy because they depend on local leadership, decision-making, and resources.

- Programs like AIN/C provide the often missing content and link to the community to make health reform efforts responsive and effective.

In early 1998, the MOH and BASICS also began to develop an integrated community child health program that keeps AIN and growth promotion as its core, and integrates illness management and referral at the community level. For this initiative, called *AIN Expandido*, the MOH developed a draft *Community Volunteer Manual*, and they have started to field-test training materials.

3. Assist the MOH with the integration of child health services in Honduras.

The MOH had been moving toward an integrated child health program since 1990. From their first glimpse of the WHO IMCI program in October 1996, MOH staff recognized that it responded to their needs, and they saw exactly how and where it would fit the clinical skills training of doctors, nurses, and nurse auxiliaries. In close collaboration with PAHO, BASICS assisted the MOH in adapting IMCI materials to fit its needs, writing the initial training modules, and carrying out the first training activity in November 1997. The Honduran materials and the training were recognized as exceptionally high quality because of the actual application of treatment during the training, the development of a complete facilitator manual, and the internal consistency of the training materials. In April 1997, BASICS had carried out a "Trials of Improved Feeding Practices (TIPS)," which lead to the inclusion of a nutrition counseling component in the IMCI 11-day course.

After the first IMCI training, the MOH, recognizing the obstacles raised by the high cost and length of the training, responded positively to a BASICS' proposal to develop a high-quality alternative course that would require 7 days instead of 11 days.

The Alternative IMCI course was designed and tested with the full participation of PAHO consultants. It is now the Honduras standard clinical skills training course for facility-based staff. The course offers certain training innovations, such as monitoring the learning process of individuals and the group; training in the full application of the integrated child assessment from the beginning of the clinical experience; and using adult learning techniques. The Honduras Alternative course also maintains the clinical skills focus and emphasis on practice from the WHO IMCI 11-day course. BASICS has encouraged the MOH to evaluate this course to ensure that it maintains technical quality.

BASICS also assisted in the design and application of an IMCI baseline survey to facilitate evaluation of IMCI's impact over time.

Future Considerations

Future options for follow-on activity in Honduras include the following:

At the community level:

- Support the expansion of the current AIN concept to develop, test, and implement a true community IMCI strategy that is fully integrated with facility-based IMCI and that includes community treatment of pneumonia and other childhood diseases, thus moving toward the completion of one of USAID's Strategic Objective Intermediate Results.

- Continue the evaluation of AIN using the baseline survey being carried out under BASICS. This evaluation is a highly structured, well-designed attempt to document the impact of Honduras' novel growth promotion/integrated child care program.

- Integrate AIN more fully into the Honduras health sector reform process. There is already some recognition that health sector reform is a process in search of a product and that AIN and IMCI are appropriate, ready-made products.

- Create an equivalent of AIN for the pregnant mother, thereby addressing the problem of perinatal mortality and low birth weight by offering nutritional counseling, micro-nutrient supplementation, early recognition of genito-urinary infections and/or malaria, and appropriate community response to obstetric emergencies. This "cutting edge" health work could be done in collaboration with other USAID projects. It builds on work already done with AIN for the already-born child and begins to address child health from the time of conception.

- Develop behavior change complements for the AIN program that are designed to reinforce AIN messages.

- Drawing upon the Honduras nutrition experience, introduce better ways for mothers to use local food resources through AIN counseling.

At the health-facility level:

- Evaluate and build upon the Alternative IMCI course. A careful evaluation is necessary to demonstrate that the course has been shortened without sacrificing quality. If that can be demonstrated, the 7-day course could respond to increasing demands from other countries for a shorter and more efficient course.

- Using BASICS' Honduran experience and efforts in mortality surveillance, develop a model system for monitoring and evaluating maternal, infant, and childhood mortality at the health-center level. Experience in Honduras has demonstrated that this is possible, and it would be a tremendously powerful tool for innovation and quality control at the local level.

- Work with the MOH, USAID's Global Maternal Health Care Project, and others to develop an integrated maternal health care complement to IMCI.

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Future Considerations

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- Continue the evaluation of AIN using the baseline survey being carried out under BASICS. This evaluation is a highly structured, well-designed attempt to document the impact of Honduras' novel growth promotion/integrated child care program.

- Integrate AIN more fully into the Honduras health sector reform process. There is already some recognition that health sector reform is a process in search of a product and that AIN and IMCI are appropriate, ready-made products.

- Create an equivalent of AIN for the pregnant mother, thereby addressing the problem of perinatal mortality and low birth weight by offering nutritional counseling, micro-nutrient supplementation, early recognition of genito-urinary infections and/or malaria, and appropriate community response to obstetric emergencies. This "cutting edge" health work could be done in collaboration with other USAID projects. It builds on work already done with AIN for the already-born child and begins to address child health from the time of conception.

- Develop behavior change complements for the AIN program that are designed to reinforce AIN messages.

- Drawing upon the Honduras nutrition experience, introduce better ways for mothers to use local food resources through AIN counseling.

At the health-facility level:

- Evaluate and build upon the Alternative IMCI course. A careful evaluation is necessary to demonstrate that the course has been shortened without sacrificing quality. If that can be demonstrated, the 7-day course could respond to increasing demands from other countries for a shorter and more efficient course.

- Using BASICS' Honduran experience and efforts in mortality surveillance, develop a model system for monitoring and evaluating maternal, infant, and childhood mortality at the health-center level. Experience in Honduras has demonstrated that this is possible, and it would be a tremendously powerful tool for innovation and quality control at the local level.

- Work with the MOH, USAID's Global Maternal Health Care Project, and others to develop an integrated maternal health care complement to IMCI.

India
Country Achievement Summary

Abstract

BASICS' work in India emphasized the private sector in its three major components: private practitioners, nongovernmental organizations (NGO), and commercial manufacturers of critical child health products. For private practitioners in India, unlicenced rural practitioners treat up to 90 percent of the sick children. BASICS provided technical support for pilot studies in Bihar and Rajasthan to investigate ways to assess and improve the care the practitioners give sick children. NGOs working on community health and development were the field implementing agencies. Using the Private Practitioner Treatment Improvement Intervention (PRACTION) method adapted from BASICS' work in Indonesia, BASICS first proved that the method was feasible and, second, that the method could effectively improve a wide range of case management practices of this usually ignored group of providers.

BASICS also helped update information about latest methods in community child health for a larger group of NGOs and PVOs working in health, from throughout the country. Third, BASICS provided a series of technical consultations through the USAID PACT–Child and Reproductive Health project to promote and support private manufacturers of oral rehydration solution (ORS) as they shifted to a new consumer-directed market and intensified their marketing efforts for ORS. BASICS also assisted the USAID mission in assessing and planning a new women and child health project in Madhya Pradesh and Rajasthan, and supported an in-depth literature review on innovative and effective Indian field approaches at the community level for these two topics.

Context

With a population of approximately one billion, and ongoing poverty and economic difficulties, India has a large percentage of all the child health problems in the world. Geographically large and bureaucratically inefficient, India struggles to achieve national child health goals. The public sector health system is often unable to provide satisfactory services because of manpower shortages, scarce supplies and equipment, and untenable facilities. Special campaigns, including national immunization days (NID) to eradicate polio; the national program to provide immunization, nutritional monitoring and feeding, and preschool education through the Integrated Child Development Scheme (ICDS); and the Child Survival Safe Motherhood (CSSM) program, seem to run more effectively than routine services. But, even the special campaigns are dissimilar in their implementation and coverage from place to place.

In this context, the role of the private sector is particularly important in a range of areas related to health. Across the country, untrained and unlicenced private practitioners and drug sellers provide most of the care to sick children. For example, more than 90 percent of the children with diarrhea are taken to these providers. Various types and sizes of NGOs deliver health education and promotion to communities and families. Private manufacturers of health-related products (for example, ORS and soap for handwashing); vitamins and minerals (for example, iron); or bednets impregnated with insecticide to protect against malaria, play a critical role not only in making these necessary products available but also in stimulating

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their purchase and ensuring that they are used appropriately for the health objectives, based on their marketing efforts. BASICS major efforts in India responded to the private sector dominance of health services.

Scope

BASICS and the USAID Private Voluntary Organizations in Health (PVOH) project began their support in India by providing updates on various technical aspects of child survival at a workshop for representatives of the nearly 40 PVOs and NGOs participating in the project. With 10 of the PVOs having subsidiary NGOs, which they supported technically and managerially, the inputs from BASICS had the potential of reaching nearly 80 NGOs, with up to 8 million receiving child health-related efforts. This interaction led to two pilot efforts working with rural practitioners to improve the quality and effectiveness of their care to sick children—one in Bihar with one NGO support agency and two NGOs in the field delivering services—the other in Rajasthan with a single NGO in the field and an educational institution (IIHMR) as the support agency. A later validation study in Bengal involved a single field NGO. All private practitioner efforts reached approximately 200 villages, with an estimated population of 400,000 affected directly, and others that would be influenced indirectly, after BASICS, through application of the approach in other areas. In the commercial sector, various ORS manufacturers will market nationally, thus the effort has the potential to reach children in half the country (75 million children under 5).

Objectives

1. Provide technical assistance to PVOH project NGOs.

Coordinated by the Indian Institute for Health Management Research (IIHMR) in Rajasthan, BASICS technical officers participated in a workshop for PVOH NGOs; they discussed nutrition, IMCI, immunization, and other child survival intervention technical advances. With a smaller number of PVOs from the project, another effort in guided review and planning focused on sustainability.

2. Improve the case management practices used by rural private practitioners for sick children.

With technical support from BASICS, two organizations—IIHMR and Kurji Holy Family Hospital in Bihar—recruited three community-based NGOs working with the PVOH project to initiate guidance for the untrained rural practitioners (who provide most of the care to sick children). Two tools were developed. The first, an assessment methodology, the Verbal Case Review (VCR), a delayed household exit interview of mothers who had taken a sick child under 5 years of age to a practitioner during the past two weeks. The VCR asks the mother to recall specific actions taken by the practitioner in history taking, physical examination, treatment, and counseling of the child, and in a later analysis, compares the actions with national or international IMCI guidelines. The second, INFECTOM, is an intervention approach consisting of four components: (1) providing INformation about national case management standards, (2) giving FEedback comparing the practitioners' behavior with those standards, (3) doing behavioral ConTracting with the providers for specific case management actions to be performed routinely, and (4) Ongoing Monitoring, with VCRs performed by the community and continuing feedback of the VCR results to the providers on their actual behaviors compared with their promises on the behavioral

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contracts. The methods were implemented in Bihar, in two sites, by two indigenous development NGOs, and in Rajasthan by a single NGO, both with cadres of community health workers.

The results from Bihar indicated a significant improvement in private providers' case management practices for ARI, diarrhea, and fever. Comparison of mean case management scores before and after the intervention indicated improvement of statistical significance ($p<0.05$). After the interventions were implemented, providers started participating in community health activities, such as providing health education to mothers and participating in meetings to discuss strategies for improving community health. In Rajasthan, with a slightly different style of contracting, the changes in behavior were not as significant.

3. Enhance the use of oral rehydration therapy for diarrhea in children by facilitating more aggressive and effective marketing of ORS packets by private commercial manufacturers.

The Program for Application of Commercial Technologies in Child and Reproductive Health (PACT/CRH), a USAID-funded effort, links U.S. manufacturers and technologies with Indian manufacturers to transfer technological improvements to India. This program initiated efforts to work with Indian manufacturers of ORS packets to facilitate an expansion of their marketing efforts. With technical inputs from BASICS and other consultants provided through BASICS, the manufacturers were induced to initiate efforts to market directly to consumers, in addition to their current marketing efforts aimed at physicians and pharmacists (the ethical market). At this writing, the efforts are still in progress, but there are no results to determine the effectiveness of the new approach.

4. Provide technical assistance to USAID in their development of a new women and child health project.

In 1997, in Madhya Pradesh and Rajasthan, BASICS and other cooperating agencies (Mothercare, PHR, INTRAH) joined USAID in assessing the conditions to improve women and child health through a potential project aimed at community-level health services. The team made recommendations to the mission on project design. They subsequently contracted with two Indian organizations to prepare literature reviews of Indian experiences with alternative approaches at the community level for the women and child portions of the potential project. The project was not accepted by the Madhya Pradesh state government, and it is now being recast. The literature reviews are complete.

Future Considerations

The successful efforts with private practitioners brings a challenge for the future—to replicated the methods over a wide area and, in the process, work to enhance their feasibility, effectiveness, and sustainability for small indigenous NGOs in India and beyond. The work with ORS manufacturers will continue under the leadership of the PACT-CRH project. The PVOH project is completed.

Indonesia
Country Achievement Summary

Abstract

BASICS involvement in Indonesia emphasized two objectives: improving the quality and effectiveness of the care of sick children by practitioners, both public and private; and improving district- and national-level management of basic primary health and child survival activities. During four years of activities in Indonesia, BASICS successfully facilitated the completion of a new preservice curriculum for medical students in Integrated Management of Childhood Illness (IMCI); developed and implemented new approaches for assessing and improving care being provided by Private Practitioner Treatment Improvement Intervention (PRACTION); developed and implemented workshops for district-level health system managers to improve their management of higher coverage and utilization levels of critical basic services; and facilitated the upscale of an innovative program to compile field-level reports on monthly immunization activities in a way that would encourage active management responses.

Context

In 1994, during BASICS' initial involvement in Indonesia, the country had made substantial progress, broadly in developing its health care system, and specifically improving child survival. Earlier, in 1991, the infant mortality rate had fallen to 68 per 1,000 live births; in selected areas, it was lower, with an increasing percentage of these deaths in the neonatal period. A system of health centers, treatment posts, and community integrated service posts (*pos yandu*) delivered primary preventive and curative care to the peripheral population. With increasing pressures on budgets and input from the World Bank, the country planned to decentralize decision making for health services, and to privatize portions of government hospitals and other facilities to shift the burden of financing away from the government. A new village-level cadre of primary providers—"village midwives" (*bidan di desa*)—was created, with the expectation that, after a initial period of government support, the providers would support themselves with fees collected from private practices.

In addition to financing issues, data from local assessments indicated that some areas lagged behind the rest of the country. Maluku, for example, was behind in immunization coverage, and quality assurance studies showed that providers often did not practice correct case management for childhood illnesses.

All three BASICS predecessor projects had been active in Indonesia: PRITECH in diarrhea control, development of preservice medical education in diarrhea, and work with the commercial sector on oral rehydration solution (ORS) marketing; REACH in the Expanded Program on Immunizations (EPI), including activities in Maluku; and HealthCom in Control of Diarrheal Diseases (CDD) communications and work with non-governmental organizations, particularly vitamin A–related efforts, with its activities (HealthCom stopped its activities and closed its office during BASICS's first year).

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In 1994, the World Bank was developing a project focused on decentralization (HP-IV), past collaborators were involved in other World Bank projects (CHN-III), and pediatricians had become interested in the new WHO initiative in Integrated Management of Childhood Illness (IMCI).

With the substantial progress in child survival, as well as the general development that had taken place, USAID was closing down and, in particular, leaving their work in child survival. Over time, this reduced the available funds for the mission and caused a corresponding increased requirement for global funds to finance the program.

The situation in Indonesia was stable for BASICS until 1998, when political upheaval and economic problems came to a head, causing as much as a 600 percent deflation in the country. Student-led riots forced President Suharto's abdication. The BASICS consultant was evacuated during a critical visit, preventing the orderly completion of planned tasks.

Scope

In October 1994, BASIC's became involved in Indonesia by participating in a project design mission followed by participation in the project appraisal mission in December 1994. Both projects were for the World Bank HP-IV decentralization project, in five provinces (East Java, West Sumatra, East and West Kalimantan, and Nusa Tenggara Barat), with a total population of more than 70 million. BASICS subsequently carried out a Country Action Plan development visit in early 1995, interacting with the Ministry of Health (MOH) Bureau of Planning, USAID, and various activities in the field, particularly in Surabaya, Yogyakarta, and Jakarta. The resulting country program consisted primarily of methods and capacity development within the health system and professional education system; the direct application was expected in five provinces, through the World Bank–funded HP-IV project, and indirectly in the entire country. The program had three major activities, with a fourth added later.

Objectives

1. Improve basic health services through training.

Developed and implemented a curriculum for preservice medical education in IMCI, with national coverage of 180,000,000 persons in 27 provinces. Improved management training at the provincial level by capacity development in the Central MOH Training Unit (Pusdiklat).

During the period of December 1995 through September 1998, BASICS technically and financially supported a working committee of senior pediatric medical faculty from six medical schools. BASICS was appointed by the national pediatric society to modify and adapt the IMCI in-service training materials being introduced in Indonesia during this period for use by medical faculties with medical students.

To develop appropriate case management guidelines for Indonesia (for example, for the assessment of anemia and characterization of the feeding advice to be given in different parts of the country), the group performed critical studies of particular problems covered by the IMCI clinical protocol. They also did a multicenter epidemiologic study of the numbers and types of cases available at various types of teaching facilities (tertiary hospital inpatient and outpatient, district hospital, or health center) to characterize how hands-on practice by the IMCI trainees/medical students could best be performed. They developed an

approach to bridge the differences between what doctors and medical students were expected to know and do and what the nurses and midlevel practitioners, for whom the IMCI materials had been tailored, were expected to know and do. They modified the materials accordingly. The modified curricular materials were printed, and workshops were conducted to introduce faculty members from all 14 national medical schools to the materials and teaching methods. At the end of the period, an initial assessment indicated that all schools were using the new materials.

This activity should improve the knowledge and practices of medical graduates throughout the country; because it is being absorbed into the regular curricula of these teaching institutions, it will be sustained over time without additional external funding or technical involvement. This program was the first in the world to initiate preservice medical teaching with formally revised and published materials based on the WHO IMCI course. Other countries will be able to benefit from Indonesia's experience as they inevitably prepare to move IMCI training from inservice to preservice locations.

A second training-related effort working with Pusdiklat began with a needs assessment for change in that unit as they prepared to devolve responsibility and activities to provincial training units (*Bapelkes*). However, because BASICS and the Planning Bureau failed to agree on a contract and there was a lack of global USAID funds, the activity was discontinued. Subsequently, Pusdiklat followed many of the recommendations made by the BASICS-provided consultant but without BASICS involvement.

2. Improve district basic health services information and planning.

Supported district capacity development in health system management to improve coverage and utilization of child preventive and curative services, with specific emphasis on developing methods for interaction with private practitioners. The methods were used at the district level, through the World Bank–funded Health Project IV, which included five provinces, ultimately 37 districts, and with a population of more than 70,000,000.

With BASICS inputs at various stages of project development, HP-IV added a significant new focus—the private sector—that was not present in the initial bank and government documents. BASICS then helped plan and implement workshop training activities for district health services management staff, incorporating the private sector focus. BASICS also provided significant technical support for the overall development of the training workshops, assisting in the development of approaches to improve data gathering, analysis, and use in decision making to enhance service coverage; to identify service problems; and to plan targeted problem solving activities. Following study planning activities during workshops, trainees conducted an inventory and quality assessment study of private and public sector practitioners in sick child care in one to two health centers in each district using methods and instruments developed by BASICS and piloted in Central Java (see objective 3 below).

The methods were assumed by a unit of the national Health Research and Development Center (*Litbangkes*), which took over the technical assistance for the HP-IV project, as well as by domestic consultants engaged by the project, so the methods have been and will continue to be used while HP-IV expands to its full 37 districts in five provinces. The same methods will probably be used again in other provinces. The efforts described earlier are important tools as the management of health services world-wide decentralizes and shifts to the district level. The incorporation into the World Bank's activities represents a substantial leverage of limited USAID and Global Population, Health, and Nutrition (PHN) investment in two critical areas for child health: (1) district management and problem solving activities related to basic child health services, and (2) improving the quality of private practitioner case management practices.

3. Improve the involvement of private sector practitioners in basic health services.

Developed methods to assess and improve the quality of private practitioner child case management services; implemented the methods through a pilot study in Central Java. The pilot covered half of one district (approximately 250,000 persons), but the methods were subsequently applied through HP-IV Project in 37 districts, with a population of more than 70,000,000.

Working with a highly skilled unit at Gadjah Mada University Medical School, BASICS developed the methods, mentioned earlier, to both assess the quality of private practitioner care to sick children and to improve that quality in a practical way. Based on the IMCI clinical protocol, these PRACTION methods were tested and found effective in a nearby district in Central Java. The approach, including the instruments, was not only incorporated into the
HP-IV project but was also exported to India, Pakistan, and Bangladesh, and at the end of the BASICS project, introduced into Africa (Nigeria). With up to 90 percent of the care for sick children being provided by private providers (for example, in India), the development of these feasible and effective methods will allow government managers to take on this dominant sector of child health care, so long ignored in treatment improvement activities. The new activities should substantially improve the quality, and, therefore, the effectiveness and impact, of sick child care by practitioners.

4. Improve the coverage of immunization services.

Assessed a peer education approach to improve the performance of field vaccinators; developed computer-based upgrade of provincial-level software for use at the national level—all in Maluku Province—using methods with national application, for a population of approximately 180,000,000.

In a limited activity, BASICS evaluated the noted peer education approach carried out by the MOH with assistance from Project Concern International (PCI) in Maluku. The method had been dramatically successful in improving coverage in the previously lagging districts. These findings, with a description of the peer methods used, were published and distributed globally to other private voluntary organizations (PVO) and nongovernmental organizations (NGO), as well as governments. This practical, low-cost approach increased critically needed immunization coverage, under difficult circumstances.

PCI was also the key technical supporter for the development of a computer program that compiles immunization coverage reports from health centers at the district level and from districts at the provincial level. This automated approach, including presentation of the data in a format that almost irresistibly leads to management action where shortfalls occur, had made significant improvements in the problem identification and solution cycle in Maluku. With BASICS financial support, PCI extended the programming to allow reports produced in various provinces to be similarly compiled and analyzed automatically at the national level. Currently, this program is being tested at the national level, and it should soon be adopted as standard. The improvements in management and, therefore, coverage that it will support, should significantly help attain and maintain high levels of immunization coverage in even the weakest provinces in the country, with consequent improvements in child health, particularly a decrease in neonatal tetanus and measles.

Future Considerations

Concomitant with the 1998 economic disaster and political revolution in the country, the USAID mission has reversed its close-out policy. As of this writing, March 1999, it is launching a new initiative that will include substantial inputs for child health and nutrition. The methods and approaches that BASICS helped develop in the country—in district management and capacity development, in private sector quality improvement, and in medical education about the treatment of sick children—have already been incorporated into MOH and medical school activities. The methods and approaches should be valuable as the country and its donor supporters seek ways to take action on the problems of increased malnutrition and child illness, and difficulties facing a health system strained for resources and a population no longer able to pay for care brought about by these societal changes the methods and approaches.

Kenya FGM
Country Achievement Summary

Abstract

Female genital mutilation (FGM) has gained increased recognition in the international community; evidence demonstrates that FGM practicing countries have the highest maternal and infant mortality in the African region. In Kenya, FGM is practiced in 50 percent of the districts. Research in four districts revealed that 80 percent of the females above the age of 14 have undergone some type of FGM. The age of female circumcision is getting younger, and there is evidence that this practice has a high impact on infant mortality. BASICS, in coordination with PATH (Program for Appropriate Technology in Health), conducted a pilot project to investigate possible approaches to eradicating FGM in Kenya. To achieve this goal, the project partnered with a local NGO to conduct a program to eliminate FGM in two communities within one district. Formative research was carried out with health workers and community members to identify perceptions, beliefs, and practices about FGM.

Training was provided to health workers, community leaders, and communications providers to increase their understanding of advocacy; social change; and the physical, psychological, sexual, ethical, and legal implications of FGM. A community mobilization model was established to increase the ability of health, religious, and educational institutions in the target communities to carry out systematic outreach activities. The intervention strategy resulted in a 31 percent increase in the number of (1) health providers knowledgeable about aspects of FGM and (2) health providers who advocated for eliminating FGM and for educating the community about the harmful effects of FGM. There was a decrease in the number of health providers performing FGM and the eradication of FGM was incorporated into the programs of the district health development teams. This model was instrumental in the development of a position paper, which was disseminated at the local and national level. The model needs to demonstrate sustainable changes in local FGM practices, over time, and through a subsequent evaluation.

Context

As a result of various international conferences, the female genital mutilation (FGM) eradication issue has gained increased recognition in the international community. Although appropriate regional-level data is not available, there is evidence that FGM-practicing countries have the highest maternal and infant mortality in the African region. In Kenya, FGM is practiced in 50 percent of the districts, and research in four districts of Kenya reveals that 80 percent of women above the age of 14 have undergone some type of FGM. Evidence suggests that the age of circumcision for girls is getting younger and younger. The government of Kenya banned the practice of FGM in government hospitals, but health providers in private and religious health institutions, as well as families and villagers, continue to circumcise girls. BASICS responded to requests from the USAID Offices of Health and Nutrition, and Women in Development, and assistance from PATH, undertook a pilot project to investigate possible approaches to eradicating FGM in one district in Kenya.

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Scope

The project's long-term goal was to reduce the morbidity and mortality of women and infants by decreasing FGM in two communities. To achieve this goal, the project partnered with a local NGO to conduct a pilot project using appropriate information, education, and counseling to discuss and educate families about FGM, early marriage, teenage pregnancy, education, and opportunities for women.

Objectives

Specific short-term objectives for this pilot project included the following:

- Using available research and focus group to increase understanding about the social and cultural mechanisms that encourage the practice of FGM.
- Designing an intervention strategy, developing materials, and implementing training with two target groups in one community/district.
- Evaluating and refining activities to develop strategies and models that can be tested elsewhere.

The scope of work was modified based on information gathered during the country assessment phase, the available resources, and the partner organization's needs. As a pilot project, the work was conducted in two divisions of the Nyamira district in Kenya, which have a total population of approximately 260,000.

BASICS and PATH selected the target region and identified the Seventh Day Adventist–Rural Health Services (SDA–RHS), a local NGO, as the collaborating partner. Key factors in selecting SDA–RHS as the key local implementer were their technical and administrative capability and their reputation in the community. After the selection, two types of formative research were carried out with health workers and community members to identify perceptions, beliefs, and practices about the FGM in the Nyamira district. Based on the findings, the collaborating partners conducted research dissemination workshops and designed an intervention model. Two district-level dissemination workshops targeted survey participants, community leaders, and district-level administrators; research findings were presented; and strategies for eradicating FGM were determined.

The community mobilization intervention model was based on the ability of the health, religious, and educational institutions in the target communities to carry out systematic outreach activities. This required training a critical mass of change agents from the three institutions to develop and adapt supportive educational materials, and to strengthen the institutional capacity of SDA–RHS in behavior change communication interventions. Training was provided to health providers, community leaders (teachers, religious leaders, and chiefs), and communications providers (artists, poetry and drama teachers, social workers, etc.) to increase their understanding of advocacy; social change; and the physical, psychological, sexual, ethical, and legal implications of FGM. After the workshops were completed, there were various community outreach activities, including meetings and seminars conducted by health workers, religious leaders, teachers, and women's groups.

The intervention model resulted in a 31 percent increase in the number of (1) health providers knowledgeable about the physical, psychological, sexual, and ethical aspects of FGM, and (2) health providers who advocated for eliminating FGM and for educating the community about the harmful effects of FGM. There was also an increased number of religious leaders, political leaders, teachers, and

other community members advocating for the elimination of FGM and for providing education in the community about the harmful effect of FGM. A decrease was noted in the number of health providers performing FGM, and the eradication of FGM was incorporated into the programs of the district health development team.

After participating in the workshop, health providers, on their own, developed a joint position statement on FGM, including a press release; and distributed it to the Ministry of Health, the Kenya Medical and Nursing Associations, UNICEF, WHO, and several national newspapers. Incorporating SDA–RHS as the primary local partner and implementer helped build the capacity to perform FGM eradication programming, both at the local and national level.

Future Considerations

While the project did achieve some success, the implementation period was not sufficient to maintain sustainable behavior changes, especially for a practice that has existed in the communities for more than 400 years. Many focused program strategies were identified in the intervention model: alternative rites of passage, peer education, family life education in the schools, focused religious programs, focused prenatal and postnatal program, and an establishment of support groups.

While many change agents were trained, there is a need for training additional agents from women's groups and teachers. These groups were under-represented in the training programs, and they play a major role in the peer education and alternative rites of passage ceremonies.

Because similar programs, which use research-based participatory social change techniques, establish a good base for successful project implementation and foster community ownership, and the process of capacity building for partner agencies takes time; it is suggested that the already-establish foundations for the pilot project not be abandoned. Specific activities could be pursued, including—

- Continue interventions in Nyamira district for long enough to demonstrate sustainable changes in local FGM practices, over time.
- Complete a follow-up evaluation knowledge, attitudes, and practices (KAP) survey for health workers.
- Plan, implement, and evaluate a focused approach for the various target audiences to eradicate FGM from Nyamira district.
- Evaluate the project at following adequate implementation time.

LAC IMCI Initiative
Regional Achievement Summary

Abstract

Through a unique partnership between USAID, the Pan American Health Organization (PAHO), and BASICS, the Latin America and the Caribbean (LAC) Regional Integrated Management of Childhood Illness (IMCI) Initiative operates in eight child survival emphasis countries: Bolivia, Ecuador, Peru, El Salvador, Guatemala, Honduras, Nicaragua, and Haiti. Funded by the USAID's LAC Bureau, the Initiative supplements PAHO's and BASICS' bilateral technical assistance in child health. Ministries of Health (MOH) in seven of the eight countries have adopted IMCI as their child health care strategy. Bolivia, Ecuador, Peru, Honduras, El Salvador, Nicaragua, and Haiti have also adopted WHO IMCI training materials, and across the region some 2,000 doctors, nurses, and auxiliaries have been trained at the national level. The IMCI early adopter countries of Bolivia, Ecuador, and Peru have also begun district-level IMCI training. Significant achievements of the LAC Regional IMCI Initiative by the end of September 1998 included development of (1) an IMCI essential drugs assessment methodology, instruments, and training manuals; (2) an IMCI training course for nurse auxiliaries; (3) an IMCI community health worker training course; (4) a district management and organization course; (5) an IMCI information, education, and communication/behavior change strategy, and materials; (6) a "Talking with Mothers" counseling module and materials; (7) an operations research study on *palmar pallor* as an indicator of childhood anemia, and (8) an extensive follow-up after clinical course training visits.

Context

Worldwide, some 12 million children die each year before they reach their fifth birthday. Approximately 565,000 of those deaths occur in Latin America and, to a large extent, the deaths are preventable. The majority of the deaths are attributable to diarrhea, pneumonia, measles, malaria, and malnutrition, or a combination of these conditions.

In response to the child survival challenge in the region of the Americas, USAID's LAC and Global Bureaus, PAHO, and BASICS have collaborated since the spring of 1997 on the design and implementation of a LAC Regional IMCI Initiative. The five-year initiative augments bilateral efforts in eight child survival emphasis countries: Bolivia, Ecuador, Peru, El Salvador, Guatemala, Honduras, Nicaragua, and Haiti. The core objective of the initiative is "more effective delivery of child health services in response to diarrheal disease, acute respiratory infection, malnutrition, and other prevalent childhood diseases."

Although infant and under-5 mortality rates have dropped significantly in Latin America since 1960, in the eight LAC child survival emphasis countries, mortality rates remain unacceptably high. In 1994, for example, the under-5 and infant mortality rates in Haiti were 127/1,000 and 74/1,000 live births, respectively. In Bolivia, rates were 110/1,000 and 73/1,000, and in Guatemala, 70/1,000 and 51/1,000.

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The LAC Regional IMCI Initiative was designed in accordance with the following critical assumptions:

- The eight LAC child survival emphasis countries are not expected to participate in proposed regional activities at the same pace, since some IMCI early adopter countries (Bolivia, Ecuador, and Peru) are at a fairly advanced stage of national and district-level training.

- With the adoption of IMCI as the integrated services strategy of choice, the political commitment, budget, and human resources will be shifted gradually from vertical programs in control of diarrheal disease, acute respiratory infection, and nutrition to a more integrated approach to child health care.

- Nutrition, caretaker counseling, and essential drugs management are key components of the LAC Regional IMCI child health strategy.

- For IMCI to be a successful and sustained child health strategy, it must be implemented within the correct technical, administrative, and logistics support environment.

- Decentralization of health services is occurring, to some extent, in each of the eight countries. The degree to which local governments and community organizations play a planning and oversight role could determine the extent of future support for integration of child health services and IMCI in health facilities and in the community.

- Key indicators to measure outcomes at the health facility—with community-level monitoring and evaluation tools, and use of information—would be an essential component.

Scope

As noted earlier, the eight LAC child survival emphasis countries include Bolivia, Ecuador, Peru, El Salvador, Guatemala, Honduras, Nicaragua, and Haiti. Because of its permanent intergovernmental nature in the region, PAHO is responsible for coordinating activities funded under the LAC Regional IMCI Initiative. PAHO and BASICS share implementation responsibility, according to each partner's technical and organizational strengths. LAC Regional IMCI funds are not programmed to support implementation of country-specific IMCI activities.

Objectives

1. Facilitate informed country decisions regarding how and when to adopt IMCI.

Worldwide, WHO and BASICS have been collaborating with MOHs and partner organizations to introduce IMCI. A critical part of the process is to orient health leaders in each country to IMCI, review the implications of adopting it as national child health policy, and discuss what steps need to be taken. During this period of advocacy and consensus-building, representatives of the MOH; key actors, such as the medical society, medical faculties, and social security system; and nongovernmental organizations, discuss the policy, focusing on organizational, budgetary, and human resource implications of adopting IMCI.

Discussions also include how to integrate on-going child health activities in diarrhea, pneumonia, and nutrition with the broader IMCI approach.

If a country decides to adopt IMCI, it must then organize a coordinating committee to direct the planning, training,-and implementation process. To date, seven of the eight LAC child survival emphasis countries have adopted IMCI as national child health care policy. The Guatemalan MOH has yet to embrace IMCI, but some nongovernmental organizations in that country, with BASICS assistance, have adopted IMCI in their service delivery areas.

2. Ensure that country plans and strategies are in place for the introduction and implementation of IMCI.

After a country has decided to adopt IMCI, it begins a process of adaptation and training. Normally, a country organizes a group of distinguished clinicians to adapt the WHO 11-day IMCI clinical course materials to the local language and ethnographic conditions. Next, a core group of facilitators is trained to teach the 11-day course. Arrangements are made with children's hospitals for practical clinical training, and a national operational plan is completed to guide the entire implementation process, from the MOH down to training facility-based health staff at the district level.

Of the eight LAC child survival emphasis countries, all but Guatemala had IMCI national strategies and operational plans, as well as core groups of facilitators, in place by the end of September 1998. El Salvador, Honduras, Nicaragua, and Haiti had begun national-level training.

3. Improve country capacity to implement IMCI.

By the end of September 1998, BASICS and PAHO had made significant progress toward increasing country IMCI capacity, including the following:

IMCI clinical training
Under the LAC Regional IMCI Initiative, BASICS' and PAHO helped form and train core groups of clinical course facilitators in El Salvador, Honduras, Nicaragua, and Haiti (Bolivia, Ecuador, and Peru began IMCI training previously with other USAID bilateral funding). They conducted national-level 11-day IMCI clinical skills courses training for doctors, nurses, and nurse auxiliaries in the holistic treatment of the sick child under 5. The focus of the IMCI treatment algorithm is diarrhea, acute respiratory infection, malnutrition, measles, and other prevalent childhood diseases, including nutrition counseling. Countries have adapted and modified the clinical training course based on their own epidemiological profile and health priorities.

Strengthening drug management
Having the right drugs (cotrimoxazole, amoxicillin, acetaminophen, oral rehydation salts, Ringers lactate, DPT, OPV, BCG, TT, vitamin A, and iron) in a health facility is essential to IMCI. In collaboration with the Rational Pharmaceutical Management (RPM) project, BASICS and the PAHO Community Health Resources and Essential Drugs Unit developed and field-tested a series of indicator-based assessment tools, initially in Ecuador and later in Bolivia. The application of this methodology allows countries to identify potential barriers to an adequate supply of IMCI essential drugs at the central, provincial, local, and private pharmacy levels.

IMCI training of nurse auxiliaries
Building on field tests in Zambia, BASICS and World Education adapted the 11-day IMCI clinical skills training course and materials for nurse auxiliaries in Bolivia. By the end of September 1998, two field tests were completed in Bolivia and the results were used to complete the adaptation in Spanish. This so-called "complementary course" uses an adult education participatory approach to training nurse auxiliaries, who are the backbone of the health services delivery system in Latin America and often the sole health practitioners in remote areas.

Talking to mothers and community health worker IMCI clinical training courses
In cooperation with UNICEF and BASICS, PAHO developed a three-day module, *Talking to Mothers,* for health facilities staff not slated to receive IMCI training. The module provides training in the counseling of mothers on treatment follow-up, immunizations, and nutrition. The four-day CHW IMCI clinical course provides the community health worker with information and practice on how to prevent and treat childhood diseases.

Follow-up after training and monitoring and evaluation
PAHO and BASICS held two subregional follow-up after-training workshops in Bolivia and El Salvador to train a critical mass of health workers to follow-up participants trained in the clinical course. In 1998, Peru hosted the first IMCI monitoring and evaluation workshop to update countries on new tools and information systems.

Health communications and behavior change
Innovative communications and behavior change approaches can enable families to provide better home care for the sick child and seek outside help when needed. BASICS is developing a health communications and behavior change strategy (BASICS draft document, "Towards the Development of a Communication Strategy for Integrated Child Health in Latin America and the Caribbean.") in support of IMCI by examining early experience and compiling an inventory of existing communications tools in Latin America. The objective is two-fold: improve health worker interpersonal skills with caretakers, and empower families and communities through community action and mass media. Working with UNICEF, PAHO, and the MOH in Ecuador, BASICS is developing and field-testing new communications approaches and tools, including video, to improve home treatment of the sick child and community support mechanisms. The strategy and tools will be available for replication and adaptation in the other LAC child survival emphasis countries.

Operations research
A BASICS study revealed that *palmar pallor* (pallor of the palms of the hands) is not a good indicator of childhood anemia among indigenous children, nor is altitude a factor. BASICS and Johns Hopkins University began work on an IMCI case referral study in Ecuador in early 1999. PAHO began development of an IMCI operational guide to provide country health workers with the basic methodological tools to carry out low cost, short-term research studies on topics that included health worker skills, health systems, the family, and the community.

Key Achievements

Improving health worker skills
PAHO's official figures show that more than 5,500 health workers have been trained in IMCI; 550 health facilities have at least one worker trained in IMCI; and 400 trained workers have received formal after-training follow-up visits to reinforce their knowledge and skills.

Early results of IMCI training from Ecuador are quite impressive. Before training in 1997, only 48 percent of health workers assessed rapid breathing in children brought to facilities for a cough. In 1998, after training, the percentage climbed to 75 percent. Likewise, health worker knowledge of referral signs increased from 45 percent in 1997 to 79 percent in 1998. In 1997, 54 percent of health workers correctly managed diarrhea cases coming to their facility; by 1998, 93 percent of cases were being managed correctly. Another significant improvement came in prescribing medications. In 1997, health workers took the time to carefully explain prescribed medication only 10 percent of the time; in 1998, the percentage rose to 47 percent.

Improving health systems
IMCI's Achilles heel is the availability of essential drugs in the health facility. As mentioned earlier, BASICS worked with the RPM project, the PAHO Essential Drugs Program, and the MOH in Ecuador to develop a methodology for assessing the drug situation at the national and local levels, and to develop a manual for district managers. The methodology and manual were tested further in Bolivia. Essential drugs for IMCI were used as "tracer drugs" for assessing how overall drug logistics systems are functioning. The World Bank is using this data as a baseline for their project, and the Dutch Cooperation incorporated the results into their annual work plan.

Improving community practices
BASICS has collaborated with PAHO and UNICEF in the development of a Community Health Worker training course. The materials, which emulate the IMCI algorithm, were field-tested in Ecuador and El Salvador. BASICS also collaborated with PAHO and UNICEF in the development of an integrated inter-personal communication (IPC) aimed at improving the health worker counseling skills package.

Lessons Learned

BASICS concluded that a link is needed to bridge the global agenda with field operations. BASICS and PAHO have provided that link. Also, a regional approach is a cost-effective way to—

- disseminate innovation
- increase knowledge of the state-of-the-art
- expand the reach of IMCI beyond the USAID/LAC child survival emphasis countries
- facilitate exchange of experience
- build on each partner's strengths

Future Considerations

In the next phase of collaboration with PAHO, BASICS envisions a deepening and strengthening of IMCI child survival activities in the region of the Americas, and perhaps a redefinition of USAID's and the partners' strategy to embrace additional aspects of child health, including community approaches that address neonatal/perinatal care, nutrition and growth monitoring, and behavior change. BASICS sees regional activities supporting and complementing country-level activities in the eight child survival emphasis countries. Adaptations of the standard WHO 11-day IMCI clinical skills training course will evolve as countries adapt it to their political and budget constraints. IMCI complementary courses, such as the nurse auxiliary and community health worker courses, will also continue to evolve, as will promising tools and methodologies in district drug management, information systems, mortality surveillance, and IMCI referrals and treatment compliance.

In doing this work, the LAC Regional IMCI Initiative should align itself more closely with other regional initiatives in micro-nutrients, reproductive health, family planning, and women's education.

Operations research on certain aspects of child health care should be broadened and shared across the region. One area of concern is the special child health care and nutrition needs in marginal peri-urban areas, and among the most vulnerable indigenous Indian populations.

A persistent challenge has been to reconcile the regional nature of IMCI activities, funded under the LAC Regional IMCI Initiative, with certain strategic objective performance indicators that require aggregation of country-level indicators. In the future, this regional and country-level dilemma must be resolved.

To help ensure sustainability, USAID, PAHO, and BASICS must continue to collaborate closely with WHO, the World Bank, the Inter-American Development Bank, and the PVO/NGO community. To ensure sustainability, governments must be encouraged to invest in the IMCI strategy and its requisite components from the facility to the community, and BASICS and its partners need to confirm the cost-effectiveness of the IMCI strategy.

A major challenge, in terms of sustainability, will be to implement IMCI within the context of health sector reform and decentralization, newly empowered local decision-makers, and competing priorities.

Madagascar
Country Achievement Summary

Abstract

In November 1993, BASICS Madagascar began, as a follow-on to a diarrheal disease control program. In 1995, BASICS started a three-year phase that eventually encompassed the Integrated Management of Childhood Illness (IMCI), information, education, and communication (IEC), nutrition, the Expanded Program on Immunization (EPI), and community-based behavior change programs. BASICS worked at all levels of the health care system, from national to community. It worked closely with Ministry of Health (MOH) and its major partners to adopt new policies and leverage funds for new national initiatives, such as IMCI. BASICS introduced IMCI to Madagascar—the first Francophone IMCI country to provide health worker (HW) training and launch a community-based approach to IMCI. The MOH made IMCI a national priority; it is now active in all six regions, with more than 300 HWs trained. BASICS also spearheaded the national IEC Task Force, which has the responsibility for coordinating messages across ten health and family planning programs.

The task force helped revise national EPI policy and draft new nutrition policies to address child feeding and micronutrient supplementation. BASICS assisted in the 1997 and 1998 national immunization days for polio eradication—a national success story. It worked with national and district managers to increase their capacity to plan, implement, monitor, and evaluate their programs. Follow-up Health Facility Surveys in two pilot districts demonstrated significant improvements in the quality of care during the previous two years—consultation times doubled, from seven to 14 minutes, with dramatic improvements in history taking, examination, treatment, and counseling. Follow-up household surveys in the same districts demonstrated impressive gains in behavior change, particularly in area of intensive community animation activities. EPI series completion increased from 57 percent to 78 percent among children 12–23 months; breastfeeding in the first hour after delivery increased from 22 percent to 68 percent. Most of the improvements came from the synergy between HWs and the more than 2,000 community volunteers who were trained in a counseling and village theater. Volunteers were key communication channels as they helped HWs advocate for behavior change. To expand health messages to the community, an innovative Child-to-Child health program with the primary schools was piloted, which attracted six Ministries of Education partners.

Context

When BASICS Madagascar started in November 1993, following a diarrheal disease control program, it was part of USAID's Strategic Objective 2 (to reduce fertility) and it contributed to Results Package 2 (to reduce child morbidity and mortality in selected geographic regions). CARE, Catholic Relief Services, (CRS), Peace Corps, UNICEF, MCDI, SALFA (Lutheran Health NGO), and Adventist Development and Relief Agency (ADRA) were other USAID child survival partners.

BASICS Country Activity Plan, beginning in 1994, coincided with the availability of the 1992 Demographic Health Survey (DHS) data. Because of the documented high rates of chronic malnutrition (49

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percent stunting for children under 3) and early introduction of complementary foods, coupled with high rates of morbidity and mortality due to acute respiratory infections (ARI). USAID expanded BASICS' role to include breastfeeding, complementary feeding, and control of ARI and diarrheal diseases.

Madagascar is one of few countries in the world where infant mortality, child mortality, and maternal mortality rates have not decreased in recent years. Structural adjustment measures, including a 250 percent devaluation of local currency, increasingly poor transportation and communication systems, and a weak health infrastructure, characterized by inadequate funding and human resources at all levels, made improvements in health status unlikely in the short-term, without continued foreign assistance.

At BASICS start-up, national immunization rates from 1980s were declining (43 percent of children 12–23 months fully vaccinated, 1992 DHS), fertility rate (6.1, 1992 DHS) was high, and population growth was rapid. The government of Madagascar could no longer provide free health services, as had been its policy for many years. UNICEF, German Technical Cooperative Agency (GTZ), and other donors were actively initiating cost-recovery systems to fund recurrent costs, including staff salaries, equipment maintenance, and commodities (fuel, medical supplies, and drugs). The World Bank was beginning to support the health sector reform, including policies, budgets, and programs to decentralize the health system into 111 districts.

Since 1996, the MOH has made tremendous strides. Its first National Health Policy was ratified to include decentralization, cost-recovery, and community participation as central themes. Under new leadership, cost-recovery systems for drugs are in place nationwide. In June 1998, during six months, the percentage of public health centers reporting an operational drug system increased dramatically, from 15 to 99 percent.

USAID became a major child health donor in Madagascar. It initiated inter-agency coordination mechanisms for IEC, IMCI, EPI, and nutrition. In 1996, its population office marked this strategic change by changing its name to Health, Population and Nutrition Office. USAID was the first donor to support IMCI, with WHO, UNICEF, GTZ, and French Cooperation joining the national collaboration. USAID was the major donor to the highly successful national immunization days for polio eradication and it has become the leading donor to national EPI through its local grant to UNICEF.

Scope

BASICS/Madagascar worked from the national to community levels. At the national level, it collaborated closely with the MOH, donors, and NGOs to support national child survival policies and programs in IMCI, IEC, nutrition, and EPI. At district level, BASICS (1) reinforced the capacity of two district management teams (Antsirabe II et Fianarantsoa II; population 665,000) to plan, implement, monitor, and evaluate their child survival programs; (2) assisted the improvement of the quality of care and counseling skills of HWs in all 53 health centers; and (3) promoted sustainable behavior change at community and household levels through an intersectorial approach. BASICS assisted Child Survival Partners funded by USAID in the implementation and evaluation of their child survival activities with particular emphasis on IEC, nutrition, and IMCI (CRS, Peace Corps, CARE, UNICEF, MCDI, SALFA, and ADRA).

Objectives

1. Build national capacity to develop and implement child survival and nutrition policies.

To ensure national implementation, beyond the reach of USAID and BASICS' geographic focus and funding, it was crucial to create a technically sound policy environment. In some instances, BASICS helped develop policy first, then proceeded with field implementation. In other cases, BASICS experimented with globally recognized policies at district level and used this experience to influence national policy development. Both strategies proved effective. Strategy choice depended largely on the MOH's and partners' readiness to adopt new policy.

Implementation of the IMCI strategy required that numerous policies across five different health programs be revised and/or created. In this case, all policies were completed before the training materials were adapted. For nutrition, several globally recognized policies were implemented at the district level prior to a full policy development and national consensus. For example, BASICS districts first showed important behavior change improvements in vitamin A utilization. Only then did BASICS help develop and finalize policy guidelines to support national micronutrient strategies.

BASICS helped the EPI Interagency Coordinating Committee identify policy constraints that were linked to faltering performance and then assisted in the revision of the national EPI policy. Major revisions included integrating vitamin A into routine EPI and national immunization days, increasing the number of days when vaccination is offered, and ensuring the reuse of open vials and polio vaccine vial monitors to decrease vaccine wastage and missed opportunities.

BASICS played a leading role in the creation of the national IEC Task Force, which acts as a clearing house for all nationally developed materials and messages. The task force, headed by the Ministry of Health's IEC service, includes 18 donors and NGOs, and representatives from three ministries. The task force harmonized and standardized health, nutrition, family planning, and STD/AIDS messages, based on "small-doable actions" (recognized beneficial health behaviors that can be reasonably implemented by rural families). The revised message guide, covering 10 health and family planning themes, was distributed to task force partners and health centers nationwide.

USAID and BASICS, in groundbreaking work, established two Memorandums of Understanding (MOU) between nutrition and EPI partners that explicitly identified the areas and activities for collaboration between agencies, including UNICEF, WHO, USAID, BASICS, Linkages/OMNI, and MOH. This approach improved the coordination and national harmonization, and increased synergies.

2. Develop district capacity to manage child survival programs.

In 1995, the district became the operational unit of MOH to implement decentralization. BASICS, in close collaboration with MOH, selected two districts in USAID focus regions to pilot its child survival field efforts. District baseline Health Facility and Household Surveys were conducted and analyzed with MOH staff (central-, regional-, and district-level) to increase their capacity to plan and evaluate child survival interventions. BASICS provided technical assistance to district management teams to develop strategic plans, write grants for USAID direct funding, implement plans, and monitor progress. In addition to technical training, BASICS provided administrative and management training and assistance.

BASICS collaborated with UNICEF to leverage their support in drug procurement and health center rehabilitation. Sixteen centers, instead of the eight planned centers, were rehabilitated under the Bamako Initiative. At the outset, neither district had cost-recovery drug systems in place but, after two years, all 53 health centers had a cost-recovery system. Sixteen health centers followed the Bamako Initiative and the remaining 37 health centers instituted the new MOH cost-recovery system. When the project started, 27 percent of the centers had five key essential drugs available; at the follow-up, 71 percent of centers had the same five drugs available. BASICS also collaborated with USAID and UNICEF to provide equipment, vehicles, and motorcycles for the district office and all health centers.

Quality of care was the primary focus of BASICS' assistance. During their monthly payday visit to district center, all HWs in the two districts were targeted for short, practical training which included all the child health technical elements and accompanying interpersonal communication. After IMCI training started, HWs in sixteen sites were the first front-line workers to receive this training nationwide. Follow-up surveys revealed dramatic improvements in performance during the past two years, with significant increases in 14 of 15 key indicators. HWs who benefited from the additional IMCI training demonstrated a higher quality of care improvements in history taking, examinations, treatments, and counseling. The program's emphasis on counseling skills markly increased the number of HWs giving at least two messages to caretakers about danger signs, indicating that the child should be brought back for care. At baseline, only 3 percent of HWs provided these messages, compared to follow-up, when 51 percent of the HWs district-wide and 90 percent in IMCI sites provided this counseling.

The high levels of child mortality in Madagascar associated with malnutrition (54 percent) led to a special technical focus on nutrition. Many of the monthly training sessions for HWs had a nutrition theme. The Minimum Package of Nutrition Interventions (MinPak) effectively focused nutrition activities on proven interventions. Household Trials in Practices research helped define feasible, realistic, and acceptable nutritional behaviors to promote. HWs improved their weighing of sick children and nutrition counseling during visits to the health center (11 percent at baseline to 77 percent district-wide and 100 percent at IMCI sites). In addition to the HWs' improved nutritional practices, women's groups supported nutrition peer counseling at the community level.

To reinforce and sustain the HWs' improved behaviors, it was critical to strengthen supervision tools and skills. BASICS worked closely with district and central management teams to develop an integrated national supervisory tool composed of detailed modules that include all technical programs. Only a few individual modules are selected for one visit, depending on specific objectives. A short integrated tool was also developed to monitor a limited number of critical program indicators for each visit. Additional work is needed to simplify the approach and include the data for decision making.

3. Promote sustainable behavior change for child survival at the community and household level.

BASICS/Madagascar employed a streamlined health communications methodology. After messages were developed by the national IEC Task Force, BASICS produced a core set of counseling cards, then produced second- and third-generation materials using the same images (Gazety and family-friendly home health record).

The BASICS/Madagascar team trained a large number of community volunteers in two related skills: counseling and village theater. More than 1,500 volunteers encadreurs, Community Animation Committees, women's groups, NGOs, religious organizations, and Health Friends were trained and participated in health promotion activities. Health Friends, an experimental initiative to facilitate peer

education, identifies and trains respected villagers, who are the first to carry out priority health actions. This forms a grassroots network of parents that serve as models and community resources. Training a large group of community members has developed an energetic, enabling behavior change environment.

Follow-up surveys demonstrate visible results from this approach. The full district benefited from new EPI communication tools: EPI flags to announce immunization day, diplomas for children who complete the full series by 1 year of age, and counseling cards to assist interpersonal communication activities. Access to the immunization program (BCG coverage) grew proportionally with the intensity of community animation activities: 76 percent at baseline, 82 percent in the non-intensive zone (only HWs trained), and 93 percent in intensive zone (HW plus volunteer community animators). Full series completion rates showed stepwise increases: 57 percent at baseline, 61 percent in the non-intensive zone, and 78 percent in the intensive zone. Analogous improvements were made for other targeted behaviors: (1) initiation of breastfeeding within one hour after birth increased from 22 percent to 51 percent in non-intensive areas and 69 percent in intensive areas; and (2) mothers who received vitamin A after delivery increased from 2 percent to 22 percent in non-intensive areas and to 32 percent in intensive areas.

Survey results support the hypothesis that IEC tools are necessary but are not sufficient to make significant behavior change if they are only given to HWs. In Madagascar, giving simple, technically sound, and attractive IEC tools to multiple community members was a powerful strategy for behavior change. Community volunteers and local authorities were effective additional channels for health promotion. The tools reinforced and extended the geographic reach of the limited number of HWs. BASICS' research demonstrated that the greater the distance from the nearest health center, the more influence the volunteer's message had on affecting behavior change withing the community.

BASICS produced IEC kits that emphasized seven health and nutrition themes—vaccination, ARI, breastfeeding, nutrition for children 6–12 months, nutrition for children 12–24 months, and control of diarrheal disease, and control of malaria. Each kit has four elements: (1) counseling cards—a set of four counseling cards per theme that illustrate priority actions being carried out by a typical Malagasy family; (2) *Gazety*—a low-cost newspaper edition that includes the same information as the counseling cards; (3) radio spots cassette tied to priority actions of counseling cards; and (4) village theater scenarios.

The Ministry of Education, collaborating with BASICS, launched a pilot child-to-child and school-to-community program in 50 schools. School directors, teachers, and members of the schools' parent-teacher association practiced the activities explained in the draft guide. The initiative explored the potential of schools to catalyze community health activities. During Lessons Learned workshops, to take the child-to-child approach to scale, discussions were initiated with six donors.

Collaborating with the IEC Task Force, BASICS produced the IMCI family-friendly home health record. This health booklet combines required IMCI information for "Counseling Mothers" on essential sick child and preventive health behaviors, including family planning, a growth chart, and pages for illness visits. UNICEF and BASICS piloted the card. The MOH plans to sell the card within the drug cost-recovery system, a sustainable approach to making the card available nationwide.

4. Provide technical assistance to USAID Child Survival Partner PVO and NGOs.

BASICS was a pivotal member of USAID's Child Survival Partners. Assistance was initially provided to formulate and harmonize child survival key indicators across all programs. BASICS assisted in the grant approval process for larger grants to UNICEF, CARE, Catholic Relief Services (CRS), and the Peace Corps. Small grants were developed with (ADRA) and SALFA to support IMCI, nutrition, and

community behavior change. BASICS provided technical assistance for technical training, IEC, and monitoring and evaluation.

Future Considerations

BASICS made a difference in national child health policy in IMCI, IEC, EPI, and nutrition, but because of limited funding only two districts were directly affected. No significant change in national key health indicators is noted in the 1997 DHS: fertility rate was 5.97, fully vaccinated children 12–23 months was 36 percent, and stunting of children under 3 was 48 percent. BASICS strategies that achieved significant results in changing HW performance and household behaviors are refined and ready to be taken to scale; they should be fully integrated with family planning/reproductive health strategies to achieve maximum synergy. National impact is expected, with parallel reductions in fertility and child and maternal mortality. USAID needs to fully share BASICS Lessons Learned with MOH and other donors.

EPI
Already low national immunization rates further declined between 1992 and 1997 (DHS). Among children 12–23 months, only 36 percent were fully vaccinated in 1997, compared to 43 percent in 1992. Innovative IEC strategies in BASICS' two districts significantly boosted routine EPI coverage during this period; the strategies need to be tailored for national expansion. USAID has a pivotal role to play; it recently became the major donor to Madagascar EPI through its local grant to UNICEF and global support to NIDs.

NIDs
Understandably, there is concern that, despite the success of NIDs, they may be diverting limited human and financial resources away from an already compromised routine immunization program. All partners need to support NIDs to ensure that available resources are judiciously managed and to garner additional support for routine immunization and disease surveillance efforts.

IMCI
IMCI was an effective umbrella strategy to encourage BASICS' work in three interdependent areas: (1) strengthening health systems, (2) improving quality of care, and (3) extending community health promotion. The MOH gave the national IMCI initiative its full backing for rapid expansion. IMCI must not become another national health training effort unless equal attention is given to the two other pillars of IMCI: community behavior change and necessary improvements in the health system. The new national drug cost-recovery system shows considerable promise to ensure that essential drugs are widely available at a reasonable cost. Support is needed at all levels to ensure proper stock management and rational use of drugs. Close monitoring of IMCI impact on changing HW practices is also needed. Creating support systems is critical, including supervision of HWs after they complete IMCI training.

Nutrition
BASICS was an important partner in national nutrition policy development and field implementation. Monthly refresher training improved HW practices. Women's groups for nutrition peer counseling were one of BASICS' most successful community strategies. USAID's continued support to nutrition is essential to ensure the start of newly developed policies to achieve national impact. Integrating vitamin A into routine EPI should be strongly supported and monitored. Activating the new state-of-the-art nutrition policies requires extensive work at all levels of the health system.

IEC

BASICS helped the National IEC Task Force develop seven child health "IEC Kits," being actively used by approximately twenty organizations. Advocacy and funding are needed to make these effective tools and companion training in interpersonal counseling widely available to the workers of more than 2,000 public sector health centers, numerous NGOs, and private sector HWs and community volunteers. Efforts are also needed to develop and produce appropriate IEC materials for reproductive health, HIV/AIDS, and disease surveillance. Follow-up is needed to ensure that Family-Friendly Home Health Records are widely available and used; this record is critical in following each child's health status, and it can be a memory aid to caretakers and HWs. Opening access to micro-enterprise and credit programs for community volunteers would strengthen the commitment and sustainability of their efforts.

Malaria
Country Achievement Summary

Abstract

BASICS has been centrally involved, both on the global policy level and in country-specific programs, in three of the four general areas of malaria control: facility-based treatment, community-based interventions, and Insecticide Treated Materials (ITMs). In the fourth area, issues related to malaria in pregnancy, BASICS has participated in policy discussions in the U.S., but it has not been involved in any activities. For facility-based activities, in addition to the Integrated Management of Childhood Illness (IMCI), BASICS collaborated with malaria drug resistance monitoring and policy change in Zambia, Mozambique, and Kenya; and is collaborating with Quality of Care workshops in East and Southern Africa. BASICS has been particularly active in developing community-based interventions in Mozambique, Zambia, Kenya, and Benin. BASICS developed a formative research protocol for danger signs and caretaker response to febrile illness, and the results were used to develop Information, Education, and Communication (IEC) strategy and messages. Community partnerships for malaria-related activities were implemented in Zambia, Ethiopia, and urban Lagos; district guidelines for various levels of the health system were introduced in Zambia. BASICS has actively provided technical assistance to private voluntary organizations (PVO) involved with community-based interventions. For ITMs, BASICS initiated the Public-Private Partnership Task Force, a model that was adopted by WHO and is being implemented with BASICS technical assistance in Ghana and Senegal. Finally, BASICS subcontracted the *Society for Family Health* to implement a large ITM project in five Zambian districts.

Context

Malaria epidemiology and the tools and strategies for its control, have gone through profound changes during the past few years. The rapid spread of chloroquine resistance, urbanization, decentralization of many health systems and the increased importance of the private sector changed the landscape in which traditional malaria control programs operated. At the same time, new tools and techniques are available: replacement drugs for chloroquine, including rectal formulations; insecticide-treated mosquito nets; IMCI; and, finally, a recognition of the importance of malaria treatment outside the health facility. BASICS has been at the center of many global policy discussions on these issues and on country-level implementation, particularly with the Africa Integrated Malaria Initiative (AIMI) [1]

[1] Other agencies collaborating in AIMI include Centers for Disease Control and Prevention (CDC), the Environmental Health Project (EHP), the Quality Assurance Program (QAP), MotherCare, and Population Services International (PSI).

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Scope

BASICS has been directly involved with malaria interventions in Zambia, Kenya, Mozambique, Benin, Nigeria, Ethiopia, Ghana, and Senegal. On the global level, BASICS provided technical assistance to U.S. nongovernmental organizations (NGO) through collaboration with the USAID/BHR/PVC office and the CORE Group. BASICS also participates in a number of international malaria task forces, including the Multilateral Initiative for Malaria, the WHO–TDR Task Force for Insecticide Treated Materials, the WHO Roll Back Malaria Resource Support Network, and the WHO Pesticide Evaluation Scheme, Global Coordination for the Development of Public Health Pesticides.

Objectives

1. Support the development of improved policy for prevention and control of malaria.

Revised national antimalarial drug policy.
Zambia
BASICS, collaborating with Centers for Disease Control and Prevention (CDC) and Environ-mental Health Project (EHP), established routine monitoring of antimalarial drug efficacy. In response to findings, major revisions of Zambia's antimalarial drug policy were accepted at a National Workshop on Malaria Case Management, sponsored by BASICS and WHO/AFRO, in Zambia, in July 1996. Subsequently, BASICS worked to bring about the necessary provision of second-line antimalarial drugs (sulfadoxine-pyrimethamine) to health facilities. BASICS continues to support the work of Zambia's national Malaria Advisory Committee.

Kenya
BASICS, in collaboration with United Kingdom Department for International Development (DfID), supported Kenya's national Malaria Advisory Committee to issue new policy guidelines following the 1997 major revision of antimalarial drug policy.

Benin and Mozambique
BASICS, with WHO/AFRO, supported the development of a routine antimalarial drug efficacy monitoring system that will provide the necessary information for review and revision of policy.

Sub-Regional
In August 1996, BASICS participated in a WHO/AFRO meeting in Malawi that established standards and guidelines on policy response to the problem of increasing drug resistance. The consensus and report of this meeting are now the basis for WHO guidelines for African malaria control programs.

Improved policy formulation for urban malaria control and prevention.
Nigeria
In collaboration with EHP, BASICS provided technical assistance for the Lagos Community Partners to conduct entomological, clinical, parasitological, and economic assessment of malaria in their communities, and to develop a more rational control strategy.

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Developed district planning guidelines.
Zambia
In January 1997, BASICS held a training workshop in how to conduct joint community-health center assessment and planning in Zambia. Joint planning has since been carried out in communities in the three AIMI districts.

BASICS developed and presented a USAID/Zambia Strategy for Technical Interventions for Malaria to the Ministry of Health and USAID mission in February 1997. In April 1997, BASICS and Tropical Diseases Research Centre (TDRC) developed a proposed structure and function for the new Zambia National Malaria Control Center.

Kenya
BASICS and its collaborating partners held preassessment studies and planning workshops in Bungoma District (the AIMI district), Kenya, in August and October 1996 and in May 1997. These activities led to the development of a detailed workplan for AIMI in the Bungoma District.

2. Support IMCI strategy for facility-based management of malaria.

In Zambia, Kenya, and Benin, BASICS has been instrumental in IMCI policy development to incorporate revisions in the use of new first- and second-line antimalarial drugs. To standardize the management of febrile illness in IMCI protocols, BASICS, collaborating with CDC, created the opportunity for the discussions between district and national authorities in Kenya. BASICS carried out formative qualitative research on caretaker response to febrile illness, including interaction with health facility staff.

3. Improve management of febrile illness in the community.

Conducted participatory community assessment.
BASICS conducted community assessment training and developed action plans in the three AIMI districts in Zambia. The methodology was modified for use in urban areas of Zambia and a training curriculum was written for further use in Zambia; it was modified for use in Kenya.

Carried out formative qualitative research on caretaker response to febrile illness.
Formative research on caretaker response to febrile illness was carried out in AIMI Districts in Zambia, Kenya, Mozambique, and Benin. To inform the community management of febrile illness in sub-Saharan Africa, the research protocol will be fully documented and available for modification and use.

Developed IEC strategy and materials for improvement of community management of febrile illness.
Results of the formative research on caretaker response to febrile illness have been used to develop IEC strategy and materials in each of the AIMI countries. This information will also be used to develop a training curriculum in Kenya for community health agents and private providers.

4. Improve access to ITMs.

Supported national policy development and implementation for ITMs.
In April 1997, BASICS participated in a commercially supported symposium on ITMs in Ndola, Zambia. A follow-up to that symposium was the BASICS facilitated National Workshop on ITMs in September 1997. Representatives from 21 districts, regional and national health officials, NGOs, and insecticide sales and textile manufacturing companies, attended the workshop. They produced a

framework for national guidelines and policy related to ITM implementation in Zambia. BASICS also collaborated with African Medical Research and Educational Foundation (AMREF) on a ITM needs assessment and strategy development in Bungoma District, Kenya.

BASICS is providing technical assistance and, through a subcontract with the *Society for Family Health,* is implementing a large ITM project in five districts of Zambia. BASICS is also implementing initial market assessments for public-private partnerships in Ghana and Senegal, in collaboration with WHO, the World Bank, and other partners.

Developed global consensus for partnerships with the commercial sector for large-scale implementation of ITMs.
BASICS helped design and co-chair the first International Conference on ITMs, held in Washington, D.C., in October 1997. To follow-up this conference, BASICS forged a Task Force for Public Private Partnerships, which included representatives from the World Bank, WHO, UNICEF, the CORE Group, SC Johnson Wax Co., AgrEvo, Cyanamid, Zenica, Bayer, Siam-Dutch, and others.

Participated in global policy and operational research initiatives on ITMs.
BASICS participates in the WHO–TDR Task Force for Operational Research for ITMs, the WHO Pesticide Evaluation Scheme, and the WHO Roll Back Malaria Resource Support Network for Insecticide Treated Materials. In the last forum, BASICS played a key role in developing WHO's strategy for a large-scale ITM implementation.

Future Considerations

On 30 October 1998, WHO, the World Bank, UNDP, and UNICEF launched the five-year "Roll Back Malaria" project, under WHO's technical leadership, but with the broad participation of other United Nations' agencies. The new project is "based on the realization that health care decisions are made in the home." This represents a dramatic paradigm shift from strategies focused on facilities and the Ministry of Health, to a strategy focused on the household and community, and the entire social and economic context within which these decisions are made. At the same time with the United Nations' renewed interest in malaria, there is a growing sense of urgency within WHO and USAID to deal with emerging infectious diseases, in particular, dengue hemorrhagic fever (DHF). Both initiatives are compatible with BASICS' technical focus on IMCI, community-based interventions, strategic involvement of the private sector, and technical support to PVOs.

Short-Term Project
Country Achievement Summary

Malawi

In 1994, two BASICS staff members worked with USAID/Malawi to provide technical guidance and recommendations for improved promotion, distribution, and use of oral rehydration salts (ORS) in Malawi. BASICS worked with Pharmanova, Ltd., USAID/Malawi, the Ministry of Health (MOH), and other participating organizations to develop an ORS social marketing strategy and a new ORS package design. The following year, a BASICS subcontractor assisted the mission, MOH, and Pharmanova, Ltd. to finalize the ORS package design. He also worked with the ORS marketing team on the final product launch plans and marketing communications strategies.

In early 1995, a team of BASICS consultants assisted USAID/Malawi in development of technical analyses to support the Community Health Partnership project. The team presented an assessment that focused on five areas: health interventions, institutional analyses, social soundness, economic/financial analyses and policy issues, assumptions, and risks.

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Mali
Country Achievement Summary

Abstract

During the first phase of the BASICS Mali Country Program, from 1994–1996, BASICS worked with the Ministry of Health (MOH) to increase access to and the quality of child health services through the application of an integrated approach in three districts. During this phase, BASICS carried out technical interventions with the MOH, WHO, and UNICEF, including (1) testing of the Preceding Birth Technique (PBT), (2) facilitation of a series of Integrated Management of Childhood Illnesses (IMCI) advocacy meetings in collaboration with WHO/AFRO, and (3) implementation of a malaria operational research study with the Malaria Research and Training Center to identify practices related to malaria control and to measure the availability of chloroquine at the village level.

In February 1997, BASICS was invited by USAID/Mali to develop a two-year work plan, based on USAID/Mali's new child survival strategy and overall youth initiative results framework. Seven months later BASICS signed a work plan agreement with USAID/Mali for a 12-month program to run through September 30, 1998. BASICS' mandate in Mali corresponds to USAID/Mali's Youth Strategic Objective for child survival to reduce infant and childhood mortality rates. The child survival component of the Youth Strategic Objective targets children under 5 and focuses on increasing access to and demand for quality child survival services.

To date, BASICS has contributed to national policy revisions by introducing the computer software nutrition advocacy tool, PROFILES, and by participating as a key resource on the multi-disciplinary team developing the government of Mali's 10-year nutrition plan. BASICS has played a key technical role in the IMCI initiative with the MOH, WHO, and UNICEF. Additionally, BASICS has strengthened the local capacity of radio and health workers to develop effective nutrition messages for radio as part of an overall communications strategy. Once developed, these key nutrition messages were broadcast by community radio stations in the three pilot IMCI districts. BASICS has also reviewed Expanded Program on Immunization (EPI) strategies and training tools to improve immunization coverage rates, which will be field-tested in two pilot districts.

Context

The main goal of the health sector policy in Mali is to strengthen the health status of the population, especially of women and children. In 1994, when BASICS began its work in Mali, health sector policy reform stressed, as it does today, the need to expand health coverage and improve services. Since 1992, the Population Health and Rural Water Supply Project, conceived and financed by the World Bank and other multilateral donor agencies, hoped to expand community health services for the rural population. In addition to providing support to district health teams, the multilateral project revitalized district health centers and community health centers (CSCOM). Each health center was to have a minimum package of curative, preventive, and promotional health activities available. Next steps determined how best to develop and adapt training materials for the district and community health centers.

In 1996, USAID/Mali developed a new Youth Initiative focused on changed social and economic behaviors among youth. The Youth Initiative responds to current demographic trends, such as the highest adolescent fertility rates in Africa, and literacy rates that remain critically low. The overall health situation in Mali remains extremely weak, and comparisons made between the Division of Health Statistics (DHS) report of 1987 and the 1995–1996 data show little improvement, in spite of significant donor inputs. For example, the 1995–1996 DHS verified that Mali continues to be faced with a very high rate of childhood mortality (238/1,000 births). One child in four does not live to his or her fifth birthday. In addition, malnutrition rates among children under 3 years old have worsened dramatically in the past 10 years. The DHS also shows that utilization rates for child and maternal curative and preventive services are low, particularly in rural areas where access is difficult. Additionally, only 20 percent of children are completely vaccinated before the age of 1, and just 10 percent of children under 3 had received one (or more) dose of vitamin A. Other relevant statistics—only 12 percent of children under 4 months are exclusively breastfed, and iodized salt is found in only 1 percent of households.

Scope

BASICS is working on child health policy issues at the national level, as well in demand and service delivery in the three pilot IMCI districts selected by the MOH: Koulikoro, Djenne, and the capital city of Bamako. Sixty health workers will be trained in IMCI in the three pilot districts, and 30 radio and health specialists have been trained in radio programming for health.

Objectives

1. Develop and pre-test strategies and tools to improve vaccination coverage rates in Mali.

The National Center for Immunization (CNI) and USAID agreed that BASICS would help the MOH and UNICEF address missed opportunities for immunization, particularly the high drop-out rates. Although an operational EPI plan was developed in early 1998, the activities were postponed by CNI due to higher priorities. BASICS' work in EPI has been limited to two consultancies carried out by the BASICS regional EPI advisor. During the 18-month time frame of BASICS' EPI activity in Mali, an increase in vaccination coverage may not be feasible.

USAID/Bamako helped support the national EPI coverage survey and program review in September and October 1998 to guide Mali on how to better target activities to increase coverage rates. USAID/Mali anticipates having some valid data from the coverage study on under-1-year coverage and TT2 as a prenatal care indicator.

BASICS participated in the May and June 1997 review of USAID grants to UNICEF to support EPI in Mali. BASICS' technical input included analysis of accomplishments and constraints of the National Immunization Program in Mali, as well as recommendations for future support. Although BASICS was not directly involved with the national immunization days (NID), the BASICS Regional EPI Advisor was able to help the EPI program plan for the provision of vitamin A for FY1999, and to discuss approaches to monitoring and evaluating NIDs with MOH and CNI officials.

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In summary, BASICS helped strengthen EPI policy in collaboration with the National Center for Immunization, UNICEF, and WHO/AFRO. BASICS also helped to revise the national EPI training models in 1988.

2. Improve preventive and curative health care by implementing the IMCI initiative in three targeted districts, in collaboration with WHO.

During 1996–1998, BASICS Regional and Headquarters staff worked closely with WHO/AFRO and WHO/Mali to help Mali introduce the IMCI initiative in three pilot districts (Koulikoro, Bamako V, Djenne). While WHO took the lead with IMCI in Mali, BASICS provided important technical assistance.

BASICS carried out a number of steps integral to IMCI in collaboration with the MOH and WHO. In 1996, BASICS co-facilitated the National Norms and Procedures Workshop for Family Health and Child Survival. Also in 1996, BASICS co-facilitated an informational meeting in Bamako attended by 60 participants, including 15 participants from other partner organizations, such as UNICEF and WHO. Together with the MOH and WHO, BASICS co-facilitated the 1997 IMCI Orientation forum in Mali that solidified commitment by the MOH and other key partners to introduce IMCI and develop an early implementation strategy. BASICS and WHO helped the MOH develop its IMCI National Work Plan, which was completed in March 1997.

In collaboration with MOH staff, BASICS sponsored a rapid health facility survey to collect information on the quality of case management for the common causes of childhood mortality, for drug and supply availability, and for clinic organization. BASICS helped the MOH adapt the rapid health facility survey methodology and sampling approach for the Malian context. The survey was then carried out in the three pilot IMCI districts and its findings were analyzed. The survey assessment has served three important functions in Mali. First, it improved the capacity of local health managers and planners to manage and monitor primary health care programs at health facilities. Second, it allowed the development of strategies and training approaches that will improve the quality of primary health care services. Third, it provides facility-based data for monitoring and evaluating program impact, over time.

BASICS played an important role in the local adaptation of the generic IMCI training materials. Adaptation involves a review of national policies and guidelines, the clinical revision of materials, the local adaptation of feeding recommendations, and the local terminology for common complaints. BASICS and WHO co-facilitated the June 1997 IMCI Adaptation Workshop. Results of the workshop were (1) relevant MOH staff were introduced to the course content; (2) relevant guidelines and policies needed for the course were reviewed; (3) the IMCI adaptation subgroup was formed; (4) a protocol for the feeding recommendations in the Food Box was drafted; (5) procedures for adapting the charts and modules were drafted; and (6) deadlines were set for the mid-term adaptation workshop. BASICS provided technical oversight in the adaptation of the food box. BASICS sponsored three Malian participants at the Regional Food Box Adaptation Workshop held March 1998 in Dakar, Senegal, and two Malians who attended the Regional IMCI Facilitator's Workshop held January 1998 in Niamey, Niger. Four Malians, including the BASICS country advisor, traveled to Niger in June 1998 to learn how supervision is carried out with district-level health teams, using a quality assurance approach.

In addition, at the end of FY1998, BASICS co-facilitated the IMCI Consensus Meeting with WHO to reach an agreement by all parties on the materials and processes for piloting IMCI in the three districts. BASICS played a key technical role helping the IMCI task force adapt the generic IMCI models to the local needs.

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Additional work completed for early FY 1999 included briefing 50 PVO/NGO agents on the technical, programmatic, and managerial issues of the IMCI initiative, as well as on key child health emphasis caretaker behaviors.

3. Improve childhood nutritional status.

The nutrition situation in Mali has deteriorated during the past 10 years. The 1995–1996 DHS shows that the nutritional status of infants and young children (0–35 months of age) has worsened since the 1987 DHS survey. About 33 percent of children under 3 years are stunted (24 percent in 1987), 25 percent are wasted (11 percent in 1987), and 43 percent are underweight (31 percent in 1987). These figures place Mali among the countries with the highest levels of malnutrition in Africa. The deterioration of the nutrition situation has recurred in spite of increasing food security, health coverage, and economic growth.

Responding to this crisis, the President of Mali requested that the MOH convene a multi-disciplinary team to help formulate nutrition policy and program recommendations that would be included in the Ten Year Sanitary and Social Development Plan 1998–2007. In partnership with MACRO International, the Linkages project/AED, and the World Bank, three nutrition interventions were carried out: a secondary nutrition analysis of the 1995–1996 DHS results; a multi-sector situational analysis; and development of PROFILES Mali, a nutrition computer software advocacy tool. Additionally, results from the qualitative study on nutrition behaviors (a component of the multi-sector situational analysis) will soon be available. Although findings are not yet complete, an initial review of the data demonstrates that many nutrition behaviors put people at risk. In 1998, the MOH also carried out a study on capacity building in nutrition to better understand what human resources exist in Mali, and what is needed. Findings suggested that to influence nutrition behaviors in Mali, people at all levels need the skills to understand nutritional issues.

BASICS, with help from the Linkages project, introduced the PROFILES application, solidifying support from the government of Mali for this important tool. BASICS trained 15 senior-level Malian technicians in the development and use of the PROFILES application. This included defining objectives and priority problems for the application; gathering and inputting the relevant data; developing an alternative scenario; writing the appropriate scripts; drafting a communication strategy and presentation plan; and training the Malian team in the effective use of PROFILES and other related software. BASICS taught skills to key MOH staff, helping them put together the PROFILES presentation, and assisted with the first presentation (out of 12 scheduled in FY 1998–1999) to the Minister of Health. Working closely with the multi-disciplinary nutrition team, BASICS also helped the MOH develop national nutrition objectives and strategies that will be included in Mali's Ten Year Plan 1998–2007.

Additionally, to implement the IMCI initiative, four Malians participated in the three-week Regional Training Seminar on Adaptation of Feeding Recommendations in July 1997 in Dakar, Senegal. Soon after the Malian nutrition specialists adapted the IMCI food box according to the local situation. Approximately 67 local terms in three languages, Bambara, Peuhl, and Songhrai, were incorporated into the IMCI food box.

Finally, the following additional plans were completed for early FY 1999: strengthening the nutrition component of the *Pacquet Minimum d'Activitiés* (PMA), to be based on the BASICS Nutrition Minimum Package (MinPak); BASICS' introduction of the key components of MinPak, and BASICS' development of a nutrition strategy/design for USAID/Mali to fit into the Youth Strategic Objective.

4. Expand access to child survival services in community-based distribution systems and radio communication health promotion and prevention messages at the community level.

With BASICS guidance, the Population Council is taking the lead on a community-based distribution (CBD) initiative to introduce child health products in a targeted zone. A protocol, a qualitative study on motivation of CBD agents, and IEC and training materials are being developed. To date, BASICS has assessed achievements of CBD systems for family planning promotion and AIDS control in collaboration with the Division of Family Health. BASICS submitted recommended action needed to develop a CBD model for a child health products, such as ORS and vitamin A. BASICS also examined and identified community participation issues related to CBD activities in pilot districts.

The expansion of the access to radio communication health promotion and prevention messages at the community level in the three pilot IMCI districts (Koulikoro, Djenne, and Bamako V) has exceeded expectations. BASICS carried out an assessment of local radio communication resources and held planning meetings with the three Malians who attended the 1997 Regional Radio Communication Workshops in Ouagadougou, Burkina Faso, co-sponsored by the BASICS and Family Health and AIDS (FHA) project. Together, BASICS and the Malian radio team planned two National Radio Communication Workshops (Koulikoro, Djenne) for both private and public radio programmers who broadcast health promotion messages through community radio networks. Then, in February 1998, in collaboration with National Center for Information, Education, and Communication for Health (CNIECS) and the Division of Health, Family, and Community (DSFC), BASICS sponsored two National Radio Communication Workshops that trained private and public radio programmers and MOH communications staff how to write and produce effective nutrition messages for broadcasting through community radio networks.

BASICS increased the capacity of radio and health personnel to develop, pre-test, broadcast, monitor, and evaluate radio spots for health, using a systematic, rational, scientific approach. Approximately 15 radio program producers can now write and produce effective disease prevention and health promotion messages via community radio networks. Twenty-four radio spots for nutrition messages were developed, during two workshops, for approximately 30 representatives of pubic and private radio stations and MOH central and regional staff. The messages, which were translated into Bambara and Peuhl, focus on exclusive breastfeeding and complementary feeding, and are targeted to mothers and health workers. Agreements were developed with radio stations to broadcast the messages. Targeted broadcasting in the three IMCI districts began in June 1998.

An evaluation was conducted in one district in October 1998 to evaluate the impact on the target audience of the spots produced during the workshop. Evaluation findings concluded that the radio spots had a sizeable impact on women's knowledge about breastfeeding and complementary feeding. Additionally, the final evaluation demonstrates that specific caretaker practices (e.g., breastfeeding, complementary feeding) improved as a result of the spots and companion activities carried out during the campaigns in the pilot IMCI districts. Finally, additional plans were completed for NGOs in Mali to receive training in radio spot development for health, organized by the IEC coordinator of Groupe Pivot, the NGO coordinating body funded largely by USAID/Mali.

Future Considerations

The new USAID/Mali bilateral project, the Youth Initiative to be awarded in 1999, aims to increase access to, quality of, and demand for the minimum package of services of focused child survival interventions at the district and subdistrict level. Increasing systems and institutional capacity at appropriate levels to improve community service delivery will also be a key goal of the USAID Youth Initiative. BASICS is expected to play an important role in Mali and could provide complementary technical assistance not provided by the Youth Initiative bilateral team. BASICS could continue to advise the MOH and the National Center for Immunization on how best to strengthen the minimum package of services. BASICS could also provide technical assistance to the PVO coordinating body, Groupe Pivot, to help strengthen its child health interventions in harmony with national health standards and policies. In addition, to provide support to nutrition, EPI, IMCI, and behavior change, BASICS could provide technical assistance in malaria and neonatal survival and health. Extending IMCI to the community health center-level continues to be an enormous challenge.

Morocco
Country Achievement Summary

Abstract

Since 1995, BASICS has worked in Morocco providing periodic and long-term assistance to—

- improve the health of children under 5 by developing and implementing an Integrated Management of Childhood Illness (IMCI) initiative
- improve the management and delivery of immunization services
- increase the involvement of the commercial sector in public health

The focus, since late 1996, has been on the adaptation and early implementation of the IMCI initiative in the provinces of Agadir and Meknes. Working in collaboration with the MOH, WHO/Geneva, and WHO/EMRO, BASICS adapted the IMCI materials to the Moroccan context. BASICS also worked with the MOH to develop the community IMCI component, beginning with a Community Assessment and Planning exercise that enables communities to identify behaviors they determine can be implemented and will have a positive impact on children under 5.

BASICS has also been successful in developing two immunization guides: *Le Guide National de Vaccination* and *La Vaccination au Maroc: Principes généraux*. The guides have been used to train staff involved in polio national immunization days (NID). BASICS also installed a computerized logistics management system to improve stock management of commodities, avert stock-outs, and increase logistics systems efficiency.

The commercial sector in Morocco showed great interest in the development of a campaign to promote hand-washing with soap, introduce cereal-based (CB) oral rehydration solution (ORS) to revitalize dwindling ORS sales, and fortify staple foods with vitamins and minerals. BASICS provided the impetus for these activities, which the MOH and manufacturers agreed to pursue on their own.

With the substantial decrease in USAID's bilateral assistance to the population and health sector in Morocco at the end of 2000, and expected close-out in the sector after 2004, technical and financial resources from other donors are critical to sustain the achievements and to implement plans for the expansion of Morocco's IMCI initiative.

Context

BASICS began working in Morocco in 1995, providing short-term technical assistance to increase the involvement of the commercial sector in public health and to improve the management and delivery of immunization services. In 1996, the scope of BASICS involvement in Morocco was expanded to include the development of an IMCI initiative.

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According to *The State of the World's Children 1999*, the population of the Kingdom of Morocco in 1997 was approximately 27.5 million. The main causes of infant and child mortality and morbidity include diarrheal disease and respiratory infections, with malnutrition as a complicating factor. The under 5 mortality rate in 1997, as reported by UNICEF, was 72/1,000 live births and the infant mortality rate was 58/1,000 live births; these rates are higher than the average regional U5MR of 62/1,000 live births and IMR of 48/1,000 live births.

The health system for children is built around vertical programs: the expanded program on immunization, control of diarrheal diseases, acute respiratory infections (ARI), malnutrition and deficiencies, and acute rheumatoid arthritis. At the central level, responsibility for maternal and child health largely falls under the Direction of Population, Division of Maternal and Child Health (MCH), with responsibility for ARI coming under the Director of Epidemiology, Division of Transmissible Diseases. Such verticalization of programs is also found at the health center level, with the triage nurse in charge of ARI and the MCH nurse in charge of diarrheal diseases.

Following it's decision to close-out activities in the health and population sector after 2004, USAID developed a transition plan that placed greater emphasis on activities and interventions that build and reinforce the government of Morocco's capacity to decentralize, and to sustain family planning and maternal and child health service delivery programs which have received USAID assistance for more than 25 years.

Scope

The initial goal of the BASICS project was to provide short-term technical assistance to increase the involvement of the commercial sector in public health and to improve the management and delivery of immunization services. After discussions with USAID/Rabat and the MOH, it was determined that BASICS could (1) provide assistance in the development of a hand-washing with soap campaign to reduce the transmission of diarrheal disease; (2) provide advice in collaboration with the Opportunities for Micronutrient Interventions (OMNI) project on the fortification of staple foods with iron and/or vitamin A; and (3) introduce cereal-based ORS to re-energize the lackluster ORS market, which was at risk of losing the only locally produced ORS product. Recent studies concluded that within certain populations of children under 5, there is a prevalence of subclinical vitamin A deficiency of 40.9 percent and iron deficiency of 35 percent.

BASICS' initial goal for the Programme National d'Immunisation (PNI) was to design and test a cold chain study. Following this assistance, BASICS' role was expanded to include help with the selection, installation, and introduction of software for computerizing the stock management of immunization commodities and the development of a vaccination guide for peripheral health workers.

In 1996, the MOH and USAID/Rabat requested BASICS assistance in supporting the adaptation and implementation of a pilot IMCI initiative in the provinces of Agadir and Meknes. As a key component of IMCI, the MOH was interested in identifying and testing approaches to promote community participation in improving community health status through increased dialogue with medical staff at local public health centers.

Objectives

1. Improve case management of sick children through the introduction of IMCI.

Facility-based IMCI
In response to the MOH's request for BASICS assistance in developing an IMCI initiative, in 1996 BASICS began working with WHO/Geneva and WHO/EMRO. Following an introductory workshop conducted by WHO, integrated Technical and Management Committees were established, which included staff from the divisions of MCH; information, education, and communication; ARI; hospitals; ambulatory services; health administration; statistics; vector control; and noninfectious diseases; and medical schools in Casablanca and Rabat. The committees selected the provinces of Agadir and Meknes for early implementation of IMCI. BASICS assisted the MOH in carrying out a health facilities assessment, which concluded that physicians misclassified illnesses in 50 percent of cases for children under 5, and the physicians have inadequate counseling skills. With BASICS assistance, and financial support from the JSI/Phase V bilateral project (JSI/Phase V), the MOH staff participated in IMCI clinical and facilitator courses in Tanzania and Madagascar, and a food box adaptation course in Senegal. With funding from WHO, an additional MOH staff member participated in the IMCI facilitator course in the Sudan.

BASICS provided extensive assistance in the adaptation of the clinical algorithm and training materials to the Moroccan context. Three conditions, asthma, wheezing, and sore throat, were not included in the generic algorithm and provoked considerable discussion. In the final algorithm, the discussion was resolved by adding a new box for sore throat and a "cough and difficult breathing" box for wheezing and asthma. Based on the low incidence of malaria in Morocco, it was also agreed that malaria would be removed from the final algorithm. As in many other countries, it is not always possible for health facilities to refer patients, thus a chapter was developed on how to treat when referral is not possible. BASICS worked with the AED/SANA project to provide a nutritionist that would assist the MOH with an assessment of local foods and adaptation of the food box. The results of this study were also essential to adapting the mother's card.

In collaboration with WHO, BASICS assisted the MOH in conducing three 11-day IMCI clinical courses in late 1998. The courses focused on teaching central- and provincial-level MOH personnel how to train health center staff. To gain the experience required to manage the demands of the logistically complicated training program, central-level MOH staff served as co-course directors and co-clinical instructors. BASICS also assisted the MOH in conducting two facilitator training courses for MOH personnel to learn the facilitation skills required to conduct the IMCI clinical course. A BASICS staff member from West Africa served as a facilitator for the first course so participants could benefit from BASICS' experience conducting IMCI courses in other Francophone countries. WHO/EMRO was instrumental in providing technical support for the adaptation workshops, and clinical and facilitator courses. JSI/Phase V provided logistical support and funding for all courses.

The MOH laid out an ambitious plan to conduct eight clinical courses and two facilitator courses during the first half of 1999. Through May 1999, the MOH had completed regional courses in facilitation (one each in Agadir and Meknes) and two 11-day case management courses in each province. In addition, WHO assisted the MOH in implementing the first Francophone follow-up course and evaluation, which resulted in the development of a quick, informal evaluation methodology to measure provider performance. Funding for these courses was provided by JSI/Phase V. USAID is exploring mechanisms to assist the MOH with the development of pre-service training for IMCI. Continued funding for IMCI after USAID bilateral assistance ends in June 2000, is uncertain.

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Key lessons learned from BASICS experience with the implementation of IMCI are that (1) IMCI is a long and difficult process that is a full-time task for a team; (2) the MOH structure and roles for the implementation of IMCI need to be addressed early in the process; (3) the adaptation team needs to be well staffed, and have adequate supplies, equipment, and space to work; (4) the focal person needs to be trained in adaptation and the 11-day clinical course early in the process; (5) the focal person needs to be a strong leader, who is aware of program policies and is able to participate fully; (6) WHO/UNICEF needs to be involved throughout the process; (7) mechanisms to facilitate effective partner (WHO, UNICEF, USAID) collaboration need to be established.

Community-based IMCI

Following the introduction of the facility-based component of the IMCI initiative, the MOH requested BASICS assistance with the development of the community component. NGOs from the two provinces of Agadir and Meknes were selected to assist in the development of this approach. The first step was to determine community health needs through a Community Assessment and Planning (CAP) exercise, using household survey and participatory research methods. These methods were adapted to the Moroccan context from a tool BASICS had developed and used in Zambia and Ethiopia. The MOH aims to test and validate the CAP methodology in a total of 5 sites by the end of June 1999.

The NGO in Agadir is well established and has an effective and dynamic leader. The NGO has already made significant improvements in the surrounding community, including the construction of a water tower, installation of piped water, collection of refuse, and establishment of a youth club and literacy classes. Upon completion of the CAP in Agadir, community members identified the following four emphasis behaviors which they felt were priorities for improvement: prenatal visits, TT2, hand-washing with soap at appropriate times, and care seeking for danger signs. A plan of action was developed to identify actions to be taken by community members, local health staff, the NGO, and national partners. Prenatal visits were also identified as a priority for the community in Meknes as was an improved water supply.

Within the two communities in Agadir and Meknes, the following has been achieved: health services have been reorganized to include increased visits by mobile teams, more attention paid to patients needs, and improved preventive care; community concerns which impact child health have been clearly identified (i.e. the need for improved water supply and sanitation, education, and mental health); increased local authorities are becoming more involved in resolving problems identified by the communities; and local MOH officials have become more aware of the need for intersectoral cooperation (i.e. health and agriculture). Next steps in each community involves training of local women's groups to become health promoters using Morocco's new IMCI mother's care and other materials.

Key lessons learned from BASICS implementation of community IMCI are that (1) the CAP methodology, with its participatory methods and rapid feedback of results, opened up a genuine dialogue between the communities and the health services, where previously there had been none; (2) the methodology achieved a consensus on priority health problems and behaviors and actions which should be taken by both the community and by local health staff; (3) the integrated household survey proved readily implementable by health staff at all levels and was viewed as a useful tool by both health officials and community members for identifying local health problems; (4) NGOs can be an effective intermediary between the health system and the community; (5) the methodology generated a progressive increase in female participation during the course of the various research and planning exercises, with women involved as research assistants and participating in public meetings.

2. Improve management and delivery of immunization services.

In collaboration with the PNI, BASICS developed two vaccination reference guides for peripheral health workers, *Le Guide National de Vaccination* and *La Vaccination au Maroc: Principes généraux,* and it collaborated with JSI/Phase V on their publication. The guides have been used by the PNI to train health workers involved in Morocco's efforts to eradicate polio through annual NIDs.

In consultation with the PNI, the Management Sciences for Health's (MSH) Commodities and Logistics Management (CLM) software was selected for installation in the Rabat-Salé and Casa depots. MOH staff received training on the application aimed at improving stock management of commodities, averting stock-outs, and increasing logistics systems efficiency. Unfortunately, due to lack of funding for this activity, follow-up training was not possible and trained personnel were unable to implement CLM.

3. Increase the involvement of the commercial sector in the prevention of diarrheal diseases by expanding ORS availability and use, and by increasing hand-washing with soap.

BASICS collaborated with the MOH in an effort to interest the commercial sector in the introduction of a CB-ORS and to develop campaigns for promoting hand-washing with soap for the prevention of diarrheal disease. BASICS brought Morocco's only remaining ORS producer together with a U.S. producer and distributor of a CB-ORS. The Moroccan manufacturer is assessing the potential market for this new product to determine whether or not it will introduce CB-ORS into the Moroccan market.

Moroccan soap and detergent producers were enthusiastic about undertaking a campaign to promote hand-washing with soap. One obstacle that arose is that the largest soap producer in Morocco (85 percent of the market) requested that the MOH grant them an exclusivity agreement. The MOH was unable to do so, because it would, in affect, unfairly endorse one producer's products over others. Given the soap producer's interest in the campaign and the MOH's prior experience with this and other public health campaigns, the MOH elected to pursue this activity without further assistance from BASICS.

4. Increase the involvement of the commercial sector in fortification of food with vitamin A (oil or sugar) and possibly iron (wheat flour, couscous).

BASICS collaborated with the MOH and the OMNI project to explore the possibilities of fortifying oil and sugar with vitamin A, and flour and couscous with iron. Several commercial firms expressed interest in pursuing food fortification, but the MOH felt that preliminary steps regarding policies and the feasibility of fortification needed to be resolved before additional steps were taken. The MOH planned to work with the OMNI project to establish micronutrient priorities, including the development of a three-pronged nutrition strategy: fortification, supplementation, and staple foods.

Future Considerations

Given that USAID technical assistance and funding to the health and population sector is phasing-out in Morocco, other donors need to increase their financial and technical support for activities that can reduce mortality and morbidity rates for children under 5. USAID is continuing to provide limited support to IMCI through JSI/Phase V through June 2000. Thus, the MOH will require continued support to

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complete early implementation of IMCI in the provinces of Agadir and Meknes, and to transfer the lessons learned in expanding IMCI throughout Morocco.

The Moroccan MOH has made a firm commitment to implement and expand IMCI in an effort to reduce the under 5 and infant mortality rates. New partners need to be identified and partners involved in the development of the IMCI initiative thus far, need to begin making a greater financial commitment if IMCI is to succeed in achieving its goals in Morocco. The community IMCI activities will continue through June 2000, when funding from JSI/Phase V ends. The MOH plans to continue development of this component of the IMCI initiative through the development of a national community strategy. Technical and financial assistance from UNICEF, as the agency responsible for the development of the community IMCI approach at a global level, is critically needed to expand the accomplishments in Morocco—accomplishments that can be an example to other medium-income and North African/Middle Eastern countries.

The Moroccan MOH has also requested assistance with the development of an IMCI pre-service training program for physicians and nurses. With support from USAID through JHPIEGO and PRIME, the MOH has already developed a pre-service training program for physicians and nurses in reproductive health, and hopes to use this experience to develop pre-service training for IMCI. The MOH needs technical assistance and funding to properly develop this third component of the IMCI initiative.

Mozambique
Country Achievement Summary

Abstract

Following program planning and discussions in Mozambique with the Ministry of Health (MOH), USAID, and private voluntary organizations (PVOs), BASICS began operating at the end of July 1997. BASICS started information, education, and communication (IEC) activities in September 1997 with a National Forum on IEC which brought together MOH and PVO field workers from six USAID focus provinces to exchange experience and assess existing IEC materials and methods. After this forum it was decided that BASICS would work with MOH and PVO workers in Gaza and Nampula Provinces, as well as with central-level MOH staff from the IEC unit. In three training courses, held in December 1997 to May 1998, some 28 MOH and PVO staff were trained in health communications strategy development. They practiced in the field after each course, and an IEC strategy and materials have been developed by both provinces.

After the IEC activities began, BASICS started long-term technical assistance to the MOH's expanded program on immunizations (EPI) program. After very successful national immunization days (NID) in August and September 1998, a National EPI review was carried out in November and December. A national plan of action for the improvement of the immunization services and logistics was drawn up in early 1999.

In addition, BASICS supported two malaria studies as part of the Africa Integrated Malaria Initiative (AIMI) initiative, and in anticipation of the introduction of the WHO Integrated Management of Childhood Illness (IMCI) strategy in Mozambique. In collaboration with the MOH, CDC, WHO, and USAID, BASICS co-funded a chloroquine resistance study in five provinces between February and May 1998. After that, BASICS did a treatment-seeking behavior study for febrile illnesses in children under 5 in the North (Nampula and Zambezia) and in collaboration with Health Alliance International in the Central zone (Sofala and Manica) of the country. Results were presented and discussed in November 1998, and the final reports disseminated to the MOH and the PVO community.

Following a WHO exploratory mission in February, Mozambique decided to adapt the IMCI strategy for the case management of childhood diseases, and BASICS helped to organize the National IMCI Orientation Meeting in October 1998. Technical assistance came from the BASICS-Zambia country representative, who presented the African IMCI experience and then worked with the national IMCI coordinator to set up a task force and develop an IMCI action plan in Mozambique.

Context

Despite positive economic growth and development after a peace agreement in 1992 and elections in 1994, Mozambique continues to be one of the least developed countries in the world. A 15-year civil war largely destroyed the country's health infrastructure and added to its poverty. The 1997 census counted

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close to 16 million people, of which 53 percent are female. Nearly 45 percent of the population is under age 15. Children from birth to age 4 comprise 14.9 percent of the total population. The Demographic and Health Survey of 1997 shows that Mozambique continues to be a country with very poor child health indicators. Child mortality rates average 135/1,000, with rates as high as 216/1,000 in Nampula Province. Fertility rates are 5.6 percent, only 42 percent of births are assisted by a midwife or nurse, and maternal mortality rates are very high, ranging from 1,067 to 1,453/100,000 live births. Access to health services in general remains poor, with less than 50 percent of the children under 2 years being fully vaccinated. Only one third of the population has access to safe water reasonably close to home (defined as 15 minutes away).

The MOH has traditionally operated on a very top-down bureaucratic model. Strategies, policies, program guidelines, and goals are dictated by the central bureaucracy, leaving little decision space for the provincial and district health directorates. The MOH is trying to decentralize health services, but most programs and important decisions are still being made at the central level. Some funds and resources are being decentralized, but system capacity and infrastructure to allocate them have yet to be developed.

The main problems identified by the MOH with relation to maternal and child health services are: insufficient and weak management of human resources; lack of training and continuing education of health workers at health-center level; insufficient and poorly-managed resources (drugs, equipment, training materials); lack of functional infrastructure; and low community participation in health programs. Little attention has been given to increasing the health workers' capacity in health communications and behavior change outreach to the communities.

At the end of 1997, the MOH introduced a National Integration Plan (PNI) to integrate maternal and child health and family planning with EPI, nutrition, and school/adolescent health, from the community up through different health service levels. Objectives are to reduce maternal, infant, and youth morbidity/mortality rates and to promote a healthy life's practices. A plan of action was developed for 1998 and 1999 to improve the health of the most vulnerable groups in the country.

Recognizing the limited amount of Portuguese-language training material and literature available in the country, BASICS translated and widely distributed the *Emphasis Behaviors* and the *Toolbox for Capacity Building in Health Communication* technical documents, as well as the *Cholera Checklist for Planners.* The nutrition methodology was translated by Save the Children U.S., then printed and distributed by BASICS.

Collaboration and coordination of child health care efforts among the USAID Mission, BASICS, and its partners have been very good.

Scope

When BASICS started its activities in Mozambique in 1997, the project was funded for only one year, putting time pressure on BASICS to achieve the objectives set with the MOH and USAID. BASICS' work started with an IEC training program, and has evolved from there to technical assistance in EPI and NIDs and the introduction of IMCI. As part of AIMI, BASICS co-financed a chloroquine resistance study carried out by the MOH and the U.S. Centers for Disease Control and Prevention (CDC) in collaboration with WHO, and carried out two treatment-seeking behavior studies on fevers/convulsions,

one of which it subcontracted to Health Alliance International.

BASICS provided technical assistance through a resident country office and staff which included a country program manager, a technical officer, a communications and behavior change advisor, an accountant and office manager, and other support staff. Periodic technical assistance in program strategy, planning, and management was provided by BASICS headquarters by an operations officer and the deputy director for operations. The BASICS technical officer provided technical direction for the design and implementation of the IEC training course, and facilitated the first IEC forum and two of the three seminars. Three other BASICS technical officers provided contribution to the NIDs and the EPI program review. An operations coordinator and assistant provided organizational and managerial direction for the overall program. IMCI technical assistance was provided by a doctor from the Zambian BASICS office. Other consultants focused on the IEC program, the NIDs, and EPI program review.

Objectives

1. Improve the effectiveness of district and community-level health IEC efforts.

BASICS began its IEC activities in August 1997 with an assessment of IEC needs and existing materials. This led to the organization of a National IEC Forum, bringing together MOH and PVO field workers from the six USAID focus provinces for an exchange of experience and assessment of IEC materials and methods already in use. The BASICS technical officer facilitated sessions on the methodology for design of behavior change and communications strategies. The seminar ended with all provincial MOH staff for health education preparing an annual work plan.

The BASICS IEC program in Mozambique used a sandwich format that featured three training sessions, each one followed by field work using the skills learned, and leading to the next training. After the last training, there was a final round of pre-testing and development of IEC materials. The IEC training taught and participants practiced the necessary steps in the development of IEC strategies and implementation of communication interventions through the use of two specific examples (treatment-seeking for malaria and pre-natal care) in the focus provinces.

The first workshop in the sandwich format consisted of one week of skill-building in the principles of communication for behavior change, planning of IEC strategy, qualitative research techniques, and theory and practice of focus group discussion and interviewing, data analysis, and report writing. A BASICS consultant facilitated the training together with the resident IEC advisor and the head of the MOH Health Education Unit.

In January the teams pre-tested and revised the focus group discussion guides. Gaza and Nampula then conducted focus group research under supervision of BASICS and MOH/RESP staff with target groups relevant to their areas of concern: malaria in children under 5 in Nampula, and pregnant women in Gaza. The studies looked especially at treatment-seeking behavior in Nampula and behavior related to attendance at prenatal consultations in Gaza.

The second and third courses were co-facilitated by the BASICS technical officer, BASICS consultant, BASICS resident IEC advisor, and the head of RESP/MOH. The second 2-week training course built on qualitative research data from both provinces for IEC strategy and message development. The course included stages of behavior change, message development, selection of target groups, segmenting

audiences, channels of communication, pretesting of messages and materials, and development of action plans. After the course field teams made up of the participants from the workshops went back to the field to pretest the materials they had developed. In Nampula, a song and a poster were tested with the intended target groups. In Gaza, a radio spot, a poster, and two plays were tested.

The final course built on the results of this fieldwork. When pretests showed that changes needed to be made in the materials, another round of pretesting was necessary before implementation could start. Nampula decided to include the message on a leaflet for school children, change the image for their poster, and to make small changes to the song. Gaza dropped one theater piece.

The next months were used to prepare plans for pretesting and carrying out of the field research. Plans were delayed as most participants were involved in the preparation of the NIDs as well as their regular work. Because of the delays, it was not be possible for BASICS to implement and evaluate the provincial IEC Strategies. Both provinces had a set of IEC materials tested and reproduced and an implementation plan ready by the end of the BASICS Project in Mozambique. As BASICS was not able to accompany the implementation and evaluation of the IEC efforts, a request was sent out to all participating PVOs to continue collaborating and assisting the MOH at the provincial and district levels.

2. Improve the cost-effectiveness and sustainability of provincial IEC interventions through joint planning, implementation, and evaluation by local MOH staff and NGO partners.

After the national IEC forum it was decided that BASICS would work with Gaza and Nampula province MOH and PVO workers in addition to the central-level MOH staff from the Health Education Unit. In each province planning meetings with the PVOs and MOH were held and a time frame and commitment for the training program was established. BASICS provided technical assistance to the MOH and PVOs, conducting the formative research in both provinces during all stages of the research, as described under Objective 1. A plan of action to implement the communication strategies developed during the last seminar and beyond was made by the local MOH/PVO teams. Because of various MOH and PVO delays, BASICS was unable to participate in the implementation of the planned strategies. However, the IEC materials developed and tested by the trainees have been reproduced and include a poster and T-shirts for the theater group in Gaza, and for Nampula a poster and a leaflet. Also, the experience of training PVO and MOH staff together and forming joint teams for field work led to a pattern of teamwork and collaboration in the two provinces.

3. Support the integration of child health services, including improved case management for childhood diseases and prevention and treatment of malaria.

BASICS work under this objective focused on two malaria studies as part of AIMI, a drug resistance study and a treatment-seeking behavior study, as well as the introduction of IMCI in Mozambique. In collaboration with MOH's National Institute of Health, WHO, CDC, and USAID, BASICS co-sponsored in early February 1998 a study on chloroquine resistance in children under 5 in five provinces: Tete, Nampula, Sofala, Gaza, and Maputo. BASICS administered most of the funds needed. The results showed the clinical treatment rate of chloroquine to be 60 percent, with resistance levels ranging from 30 to 40 percent. In Maputo City, 95 patients participated in the study comparing chloroquine with sulphadoxine-pyrimethamine (Fansidar). Sulphadoxine-pyrimethamine showed a better efficacy (96 percent) than chloroquine (56 percent).

The policy and treatment implications were discussed in a meeting of all the study participants, and it was

recommended that next year a follow-up study that would include rural areas should be done to further assess the resistance levels.

A treatment-seeking behavior study for febrile illnesses and convulsions in children under 5 was carried out in four provinces: Nampula, Zambezia, Manica, and Zambezia. BASICS contracted a researcher for the study in Nampula and Zambezia Provinces, and contracted Health Alliance International for the study in Manica and Sofala Provinces. The sites were chosen as possible places where IMCI will be introduced in Mozambique. Despite some regional difference, the results show that overall, the term malaria was recognized by 98 percent of the people, but that there are many other comparable illnesses known only by local names for which no treatment is sought in the formal health sector. Danger signs are recognized by the caretakers, but no immediate care at the health center is typically sought.

Overall, the studies showed a great need for health education/IEC materials at the community level, and a need for training of the health workers in correct treatment and in counseling. Most interesting are the definitions of local names for febrile illnesses, which were well received by the MOH. These ethno-linguistic synonyms were used for the adaptation of the IMCI materials on malaria that were scheduled to begin in February 1999.

The MOH requested that BASICS assist with the organization of an IMCI orientation meeting and present its experiences with other African countries, especially the establishment of the working groups and its work in community IMCI. Technical assistance came from BASICS Zambia chief of party. UNICEF also requested technical assistance from BASICS in the development of its plans for the community part of IMCI, and the information needs were identified. In addition, a scope-of-work was prepared for UNICEF to carry out a knowledge/attitudes/practices study on family response to childhood illnesses. BASICS worked with the national IMCI coordinator in establishing the IMCI Task Force and developed the tasks and requirements for the Secretariat. Unfortunately, only one Task Force meeting was held after the orientation meeting before BASICS' funding ended.

4. Assist the government of Mozambique to improve EPI services and logistics, with a special focus on polio eradication and supporting NIDs.

In February 1998, the BASICS team was expanded with the addition of a national advisor to the EPI unit based at the MOH. Her first task was to improve the performance of Mozambique's national immunization days. Under BASICS' guidance, the Inter-agency Coordinating Committee (ICC) was established, with members from the MOH, NGOs, UN donor agencies, the press, Rotary, and the private sector. The ICC inaugural meeting was chaired by the National Director of Health, showing the commitment of the MOH to EPI. Since then, the ICC has been meeting regularly and has been instrumental in the success of the NIDS.

For the preparation of the NIDs, in addition to the long-term technical assistance provided to the Immunization Program, BASICS brought in a short-term EPI specialist to strengthen the social mobilization for the NIDs. Working with BASICS, WHO, and UNICEF, the MOH organized training on micro-planning in all provinces at provincial and district levels. BASICS' long-term EPI advisor provided technical support at several of these trainings. The NIDs were carried out in Mozambique from August 24–28 and September 28–October 2, 1998, and were great successes: for the first time the coverage was over 95 percent. The immunization coverage for the first round was 97 percent, compared to 64 percent in 1997, and for the second round, 100 percent, compared to 74 percent in 1997. The NIDs included polio vaccinations in the whole country for all children from birth to age 5, and measles vaccination in selected district capitals.

A National Program Review was carried out at the end of 1998 with technical assistance from a BASICS consultant as team leader. The EPI services at national, provincial, and district levels in six provinces have been reviewed. Some of the key findings were that stock management is poor and vaccine cold chain maintenance and vaccine handling are unsatisfactory, to the extent that many health workers cannot interpret the vaccine vial monitor. In some provinces, almost 50 percent of the health facilities do not provide immunization services, including Zambezia, Mozambique's most populous province. But even in places where the services are provided, it was clear that often health workers don=t know the definition of the EPI diseases, or how to sequence immunizations correctly. Supervision from province to district and district to health facility hardly exists. The regular services lack social mobilization plans, and most facilities did not have any IEC materials.

Future Considerations

The national EPI advisor, initially contracted under the BASICS contract, will continue to work in collaboration with the MOH and other partners in strengthening the immunization services. In the immediate future, the advisor will coordinate the development of a five-year plan for EPI in Mozambique, as well as spearhead the plans for the next NIDs. It is hoped that the MOH staff trained in the IEC strategy development will continue with the implementation of the plans developed during the last year, identify future IEC needs, and continue to collaborate with the PVOs in their localities.

The results of the Treatment-Seeking Behavior study can serve as the basis for the development of IMCI at the community level. The ethno-linguistic definitions, or local terms, for febrile illnesses have been very well received, and it is recommended that similar studies be undertaken in the rest of the country. In the longer term, it is suggested that the USAID Mission consider selective technical assistance in the adaptation and testing of integrated child health care approaches at the facility and community levels.

Short-Term Project
Country Achievement Summary

Namibia

A BASICS' senior Expanded Program on Immunization (EPI) technical officer traveled to Namibia in late 1994 for discussions with USAID, UNICEF, WHO, and Ministry of Health and Social Services (MOHSS) about the needs of the EPI effort in Namibia and to acquaint the same agencies with the technical role played elsewhere by BASICS in support of sustainable development of EPI within the context of integrated primary health care services. Recommendations for future activities included (a) assessing health facilities, (b) preparing IEC/Social Mobilization campaigns, (c) assisting MOHSS to prepare five-year strategic and financial plans to estimate program costs and to plan for the phasing out of donor support, (d) promoting formation of an Inter-Agency Coordinating Committee (ICC), (e) reviewing immunization policies, (f) assisting MOHSS to define an appropriate role for the private sector in various aspects of program support, and (g) assisting the MOHSS in its attempt to strengthen transport policies and improve transport management practices.

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Short-Term Project
Country Achievement Summary

Nepal

A senior BASICS technical advisor traveled to Nepal in early 1995 to assist in the testing of a vaccine supply methodology. The MOH/WHO/UNICEF joint team, of which the BASICS expert was a member, made several findings and recommendations regarding immunizations strategy, forecasting methodology, vaccine supply and financing, and vaccine licensing and quality control procedures.

During the summer of 1996, a senior BASICS consultant traveled to Nepal as a member of a three-person WHO team that was preparing for national immunization days (NID) for polio eradication (which took place in December 1996 and January 1997). The consultant conducted a rapid assessment survey of the vaccine cold chain at national, regional, district, and immunization outlet levels of the system, using a standardized protocol (WHO TECHNET 1992), and visited the national vaccine store, two regional vaccine stores, five district stores, and three immunization providers. In addition, a review of equipment and supplies on order for the routine immunization program, as well as for the NIDs, was carried out with the cooperation of both UNICEF/Kathmandu and WHO/Nepal. The consultant also reviewed an equipment inventory study conducted by a national UNICEF consultant in one region. The findings are indicative of the range of problems and are the basis for the report's recommendations.

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Short-Term Project
Country Achievement Summary

Nicaragua

Two BASICS technical officers traveled to Nicaragua in early 1997 to help introduce IMCI to potential partners and to begin laying the groundwork for the country's participation in the new LAC Regional IMCI initiative. In mid-1997, a BASICS technical specialist paid a follow-up visit to Nicaragua as part of a joint PAHO/BASICS IMCI team.

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Niger
Country Achievement Summary

Abstract

Beginning in 1984, the PRITECH project supported diarrheal diseases for the Niger National Program. In August 1994, after a situational analysis and Country Activity Plan (CAP) study, BASICS developed a program that responded to priorities of Ministry of Public Health (MOPH). BASICS tested an integrated management of the sick child approach, particularly for the child suffering from acute respiratory infections (ARI), diarrhea, and malaria, in two districts, selected because of their accessibility and availability of drugs. Beginning in May 1997, the project merged with the Quality Assurance Project (QAP), and the joint project demonstrated a new approach for introducing the Integrated Management of Childhood Illness (IMCI), starting with interventions to strengthen support systems (such as supervision and drug supply) well before the clinical training begins. Until late 1998, the joint project played a key role in implementing all IMCI activities in Niger. Training events in Niger also helped other West African countries.

Background

Health, education, and economic indicators rank Niger as one of the least developed countries in the world. With approximately 10 million inhabitants, 77 percent living in rural areas, the country is characterized by low life expectancy (47 years), a low literacy rate (14 percent), and low secondary school enrollment (7 percent). The maternal mortality rate is 593 per 100,000 live births, infant mortality is 132 per 1,000, and child mortality is 318 per 1,000. ARI, diarrhea, malaria, measles, and malnutrition are the main causes of child mortality. Forty-three percent of children under 5 years old are malnourished, and 36 percent of pregnant women are anemic. Only 38 percent of the children are immunized against measles. The population growth rate is 3.3 percent and the use rate of modern family planning methods is 5.5 percent. Only 30 percent of the population has access to health care (DHS 1992).

Programs designed to fight the major potentially fatal childhood diseases function independently, and they are usually managed at the central level. Traditional treatment protocols (*strategie plainte traitement* algorithms) were designed to promote a rational drug use; they focus on symptoms instead of emphasizing an integrated approach for managing child illness. However, in November 1996, the MOPH agreed to gradually introduce IMCI in Niger.

The *Plan de développement sanitaire* (Health Development Plan) 1994–2000 proposes a series of reforms. The plan's main themes are decentralization; community participation in health actions; rationalization of resource management; improvement in the quality of services; and inter-sector collaboration to solve environmental problems that have a negative consequence on health.

The main obstacles facing the health development plan included the difficult coordination with some partners and the difficult communication and collaboration with central and regional level of the MOPH, especially after the coup d'état.

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Scope

BASICS interventions in Niger had two phases:
Phase I (1993 to May 1997)
BASICS intervened in two health districts located in two *départements* (Dosso and Tillabéry). Combined, the two districts have 18 health centers that serve approximately 264,000 people in Boboye and 229,000 in Say. Health coverage is below the national average (29 percent in Boboye and 17 percent in Say). The target population was children under 5 years of age (20 percent of the total population) and women of childbearing age (22 percent of the total population).

Phase II (May 1997 to present)
In May 1997, BASICS, at USAID's request, merged its activities with the QAP. While the QAP covered the Tahoua region, with a population of 1.6 million people, the joint project Quality Assurance/BASICS project concentrated its efforts in two districts of the Tahoua *département* (Konni and Illéla) and one district in the Dosso *département* (Boboye). The three districts, with a combined population of about 700,000, are served by 26 health centers. Health coverage varies from 38.3 percent in Konni to 29 percent in Boboye. The population of children under 5 years of age is estimated at 147,000; the number of women of childbearing age is estimated at 154,000.

Objectives

1. Improve the performance of health workers in relation to recommended protocol for the assessment and treatment of sick children and caretaker counseling.

Phase I: (1) The trainers at the district and regional levels were trained; (2) the health workers were trained in integrated management of the sick child using Combined Case Management; and (3) health workers were trained using a supervision checklist that was developed and tested with the supervisors.

The following results compare data from the December 1996 follow-up survey with baseline data from January 1995:

- Respiratory frequency was counted in 73 percent of children with ARI (compared to 13 percent before the intervention).
- Weight-for-age ratio was determined in 38 percent of sick children (compared to 3 percent in 1995).
- Immunization status was assessed in 60 percent of sick children (compared to 25 percent in 1995).

Phase II: Using quality assurance techniques, a problem-solving cycle was applied after an *Evaluation Rapide de la Performance des Agents (ERPA)* (rapid assessment of health worker performance) identified weaknesses in health worker performance. Feedback from the ERPA allowed supervisors to communicate or, in some cases, to remind health workers of case management standards. The ERPA also demonstrated the need to strengthen operations.

Some results from Konni compare data from May 1997 with October 1997:

- In May 1997, the nutrition status was assessed in 7 percent of children; in October 1997, this increased to 92 percent.
- In May 1997, the immunization status was checked in 41 percent of sick children; in October 1997, this increased to 79 percent.

Feedback from the May 1997 survey to the Konni health workers explains the performance improvement in October:

- Identified performance problems were analyzed with the workers; the problems were compared to desired standards.
- Recommended solutions to improve performance were adapted to different levels, including the health center level.
- Workers participated in developing the recommendations.
- The health workers agreed that formative supervision was the best way to follow up.

The Illéla results from October 1997 are similar to those of Konni in May 1997 (the first assessment):

IMCI adaptation started in 1998. During that year, BASICS closely collaborated with the MOPH and its partners to adapt the generic WHO IMCI standards to Niger. BASICS also played a key role in conducting national orientation and training events on IMCI in Niger—seven Nigerian national and regional trainers were trained, and 32 health workers in the Konni and Boboye districts were trained. By November 1998, a follow-up visit was organized and supported by the joint project, in collaboration with the national or MOPH and IMCI task force. By the end of the December 1998, 40 health workers had been trained in IMCI and all 18 health centers had at least two health workers trained in IMCI.

Additionally, in January 1998, WHO/AFRO, MOPH, and BASICS co-sponsored the first regional IMCI facilitator's course, where 19 senior pediatricians, representing eight Francophone countries, were trained

1. Strengthen the management capacities of the District Health Management Team (DHMT) at the decentralized level.

Phase I (Achievements)

- Collaborating with the DHMT, a baseline survey was conducted, training materials were developed, supervisors and health workers were trained, a tool for health worker follow-up was developed and field tested, and a final assessment with feedback was conducted.

The following are results from the baseline survey, compared to the final assessment of December 1996:
End of Phase I

- Seventy-two percent of health workers assessed had received at least one supervision visit during the past six months (compared to 33 percent before project interventions).
- Sixty-one percent of health workers (twice as many) received constructive supervision, including written feedback and discussion during the supervision.

End of Phase II

- DHMT was assisted in adapting the Health Facility Assessment tool, which was adopted and adapted for ERPA. The DHMT participated in the next ERPA assessment; findings were immediately discussed with health workers, and regional- and district-level managers. An integrated supervision checklist was developed, patterned after the ERPA tool; it includes all of the Minimum Activity Package of the integrated health centers.
- Technical and material support was provided for planning and executing key functions of the District Management Teams, including the supervision and the organization of quarterly meetings.

Intermediate results

- Developed an ERPA for the district-level with the district management teams (DMT) and technical support from BASICS consultants.

- Developed and pretested an integrated supervision checklist with the DMTs and technical assistance from a BASICS consultant. Results of early field testing of the checklist revealed that while it is comprehensive, it needs modifications to make it more concise.

- Designing a monitoring tool that will document the impact of the chosen interventions on the health worker's performance. The research is initiated with the technical assistance of the joint project and the MOPH. ERPA monitoring is planned for every six months, over a two-year period. The interventions being researched are IMCI training, immediate feedback after ERPA, use of a structured tool for integrated supervision, and self-evaluation.

- Organized a problem-solving workshop in Dosso about vaccine and gas management to help DHMTs find ways to increase immunization coverage. The December 1996 assessment survey showed that only one out of every two health centers in Boboye had the essential vaccines necessary to implement the policy to reduce "missed immunization opportunities," as recommended by the IMCI strategy. The departmental health authorities documented frequent gas shortages.

- Held a workshop in December 1997. Recommended solutions proposed at different levels be followed up five months after the workshop. The health centers visited in Boboye and Doutchi recorded neither gas outage nor vaccine shortage, and a management system was put in place at the different levels. Outreach and decentralized vaccination sessions are planned, taking into account the health centers' resources and the potential offered by the community.

3. Improve the knowledge of essential practices for appropriate home management of the sick child.

Phase I

Standards for home management by caretakers were conveyed during the "integrated management" training of health workers. Memory aids for health workers were developed.

Comparative results of the baseline survey and the final evaluation in December 1996 showed an improvement in caretaker knowledge:

- Eighty-eight percent of mothers interviewed at the end of the consultation knew how to administer medicine at home (compared to 62 percent in 1995).
- Sixty-one percent of mothers knew that feeding and breastfeeding must be continued during a child's illness (compared to 7 percent in 1995).

It was observed, however, that only 30 percent of the 153 mothers benefited from all three kinds of advice described in the memory aid.

Phase II

In the new districts of Konni and Illéla, home care management standards have been communicated during feedback, after the ERPA evaluation.

In the Boboye District, a "participative approach for the solution of interpersonal communication problems" is underway, with the support of BASICS' regional office. Process steps include (1) data

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collection to determine health center users' perceptions and expectations, and to identify obstacles to interpersonal communications; (2) a feedback workshop, with members of the community, to propose appropriate solutions for community health problems; and, (3) considering the outcome of the workshop, training in interpersonal communication techniques for health workers.

1. After the recent completion of the adaptation process of the WHO modules for IMCI for Niger, standards for correct home care will include feeding practices.

2. Before the end of the project, the IMCI training program will include two of the three project districts: six trainers are trained in IMCI and training techniques, and 18 out of 26 health centers will have health workers trained in IMCI.

3. Combine a management approach and technical public health approach to document and disseminate the lessons learned from the Niger experience.

Phase I
Focused documentation on two project objectives: improving care provided to children and the strengthening district-level capacities.

- In January 1998, a dissemination strategy for Phase II was planned, based on the lessons learned from integrating an approach to improve management with better clinical management. A regional conference, which was held in October 1998, permitted the wide dissemination of the case studies and lessons learned.

Phase I reference documents

- Baseline survey on the management of the sick child in the Say and Boboye Health Districts, January 1995—Nancy Keith and Mutombo wa Mutombo.
- Final project evaluation, December 1996—Patrick Kelly and Bernard Diop.
- Lessons learned from the BASICS experience, December 1996—Hugh Waters.
- Study on the follow-up of sick children in the Boboye, Konni, and Guidan Roumji Districts, May 1997—Patrick Kelly, Lauren Blum, Karki Mahamane, and Colette Geslin.

Phase II reference documents

- Rapid assessment of health workers performance in the Konni and Illéla Districts, October 1997—Karki Mahamane, Sabou Djibrina, and Colette Geslin.
- Lessons learned from April 1998—Eckhard Kleinau, Maina Boucar, Karki Mahamane, Sabou Djibrina, and Colette Geslin.
- Qualitative research on the possibility of improving communication in the community.
- Rapid assessment of health workers performance in the Boboye, Konni, and Illéla Districts, June 1998—Bruno Bouchet, Ed Kelly, Maina Boucar, Sabou Djibrina, and Colette Geslin.
- Final Evaluation, BASICS Trip Report, Tawfik Youssef, November 1998.
- Final Evaluation Report, Twakik Youssef and Stephan Legros, forthcoming.

Future Considerations

Progress was made in strengthening the district health management teams, and the health workers' performance has noticeably improved. After IMCI training, health worker performance should show additional improvements. A supervision system and tools are in place to ensure that the improvements will last.

However, other needs have been identified:

- Strengthen the capacity of the community to support IMCI.
- Strengthen the capacity of the community to support key behaviors for maternal and child health.
- Adapt quality assurance tools to the community level, particularly through training of local health committees.
- Develop selected interventions, with the community, to support IMCI at the home and community levels.
- Strengthen essential health systems, including the supply of essential drugs and their procurement, the reference system of cases, and identification of patients who need more sophisticated health care than what is offered at the primary level.
- Considering the health statistics, give more attention to nutrition.
- Evaluate the advantages and constraints of feeding recommendations for mothers and health workers as part of the adapted IMCI strategy.

Nigeria
Country Achievement Summary

Abstract

In 1994, BASICS Nigeria was mandated to find innovative ways to meet the child health needs of poor urban communities. In 1995, BASICS' Urban Private Sector Integrated Health (UPSI) project facilitated the development of the private health sector partnerships within the predominately urban state of Lagos, Nigeria. Through 1998, rapid urban growth, expanding private health services, and the U.S. government sanction against direct agreements with any branch of the government of Nigeria prompted USAID to concentrate BASICS' work in the Lagos sector. BASICS developed the Community Partners for Health (CPH) to fulfill the mandate.

The initiative links community-based organizations (CBO) and health facilities in low-income and high-risk communities to improve child health services and home health practices. The community-based CPH model entails mobilizing a variety of commercial and non-profit health service providers—western, traditional, pharmacists, and patent medicine vendors—to partner with existing community organizations—religious, social, and occupational. At the household level, BASICS works through community-based organizations to improve home care and care-seeking behavior, including the use of immunization and other preventive and curative health services. At the health service level, BASICS is training health facility staff and other service providers to strengthen the quality of services, expand their preventive services, increase their outreach into high-risk communities, and tailor services to meet the needs of the communities. This model is particularly innovative because it interacts both at the clinic and home-level where behavior change occurs. Moreover, it reaches families and childcare providers through collaborations with well-established, existing community-based organizations.

Context

After the 1993 military take-over of the Nigerian government, the country's economic and social conditions deteriorated, in part due to severe cutbacks in the funding and availability of public services. For example, in 1990, immunization coverage in Nigeria for most childhood antigens approached 80 percent, but, by 1993, it fell to 37 percent. Adequate nutrition is also a problem—thirty-six percent of the children in Nigeria under 5 are moderately or severely underweight. In the *1998 United Nations State of the World's Children* report, Nigeria ranked as the 14th worst nation for child mortality rates, which were 114 for infants and 191 for children under 5 (per 1,000 live births). In deciding to work with Nigeria, USAID and BASICS were responding to a decline in international assistance to the country.

In 1994, U.S. government sanctions were applied to Nigeria because of the evidence of human rights violations. USAID, which was granted an exemption from government restrictions for most child survival programs, proposed a private sector strategy for other USAID cooperating agencies that integrated key child health interventions, as well as family planning, women's empowerment, democracy and governments, and HIV/AIDS. BASICS piloted a CPH model in Lagos in six target neighborhoods, with
early success in improving access to health services and information. Within a short time, the model was

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introduced into northern Nigeria, in the city of Kano. Five additional CPHs were established, which embraced the integrated model and actively included women's empowerment, and democracy and government programs.

Scope

BASICS currently works in six target neighborhoods of six different local government areas of Lagos; the CPHs have mobilized 250,000 people. In the northern district of Kano, BASICS works in five target areas; in Kano, the CPHs mobilized approximately 640,000 people. Indirect impact through CPH members' contact with extended family and friends is estimated at 1.7 million in Lagos and 4.3 million in Kano. BASICS works in close collaboration with other International Partners in Lagos and Kano: CDC, CEDPA, JHU, and FHI.

Objectives

BASICS' primary goal in Nigeria is to reduce child mortality and morbidity by improving maternal and child health and case management of childhood illnesses; and to develop and test sustainable models to improve the quality and coverage of child health services provided by the private sector.

1. Strengthen organizational management and planning in the private sector—Community Partners for Health (CPH).

A total of eleven CPHs have been established, creating a network of 19 private sector health facilities and 197 community-based organizations in Lagos, and five health facilities and 60 CBOs in Kano. They are mobilizing efforts to improve child and maternal health in their communities. The CPHs were established using data from Urban Private Sector Inventory (UPSI) that defined the size, composition, and service capacity of the Lagos/Kano urban health sector. The CPHs are registered as nongovernmental organi-zations (NGO) and have established administrative and financial structures for operations, including memoranda of understanding (MOU), governing boards, constitutions, and bank accounts. They conduct income-generating activities: fundraisers, equipment rental, and cooperative associations to maintain financial sustainability. Insurance plans, established in several of the CPHs, reduce service fees and drug costs for CPH members and ensure provision of services to families who cannot afford health services. Three CPHs buy drugs in bulk using CPH fees for health services, and a majority of the CPHs have established micro-credit and Cooperative Savings and Loan Associations for members.

The CPHs have action plans, including a variety of community mobilization activities with youth groups, sanitation projects, and community immunization days. They have developed the capacity to collect data for local monitoring and for designing and implementing program interventions through UPSIs, household surveys around health facilities, mapping exercises, and Health Facility Quality Assurance assessments. Their membership is gradually expanding to adjacent communities.

2. Improve prevention practices and home-based care for the sick child through private sector community partners.

Each CPH has an action plan that outlines activities to improve prevention practices and home-based care. Thirty health promoters from the CPHs have been trained to work with community members using a range of behaviors related to preventive practices and recognition of danger signs and home case management of diarrhea, acute respiratory infection (ARI), and malaria. A curricula, Information, Education, and Communication (IEC) strategies, and materials helped them mobilize their communities and teach caregivers to improve home case management for childhood illnesses. The youth of the communities are included in health activities as motivated peer-to-peer health promoters, and they actively conduct education programs about HIV/AIDS, STDs, and drug abuse. All CPHs helped mobilize their communities for national immunization days (NID) and three CPHs conducted supplementary community immunization days in their neighborhoods.

Between 1996 and 1998, these activities resulted in increased immunization coverage for children 12–23 months of age. When the CPH communities are compared with the non-CPH communities for children 1 year of age (12–23 months), there is a higher percentage improvement in the CPH communities. In the CPH communities the immunization coverage in 1998 was BCG=53.6 percent, DPT33=47.4 percent, and measles=42.0 percent; the coverage in non-CPH communities was BCG=44.2 percent, DPT3=41.2 percent, and measles=35.4 percent.

3. Improve quality and coverage of integrated child and reproductive health service (family planning, HIV/AIDs, and STDs) provided by private sector health facility partners.

All participating CPH private sector health facility partners provide improved health service delivery. Curriculum and training materials were developed, and a core group of private sector providers were trained as trainers in case management of common childhood illnesses and immunization. Providers were trained in EPI and cold chain management, and facilities were provided with EPI essential equipment. In addition, a core group of 40 traditional birth attendants have been trained and now provide quality perinatal services, in affiliation with partner facilities for technical support and referral. As a result of the training, the immunization services improved and expanded. All CPH health facilities provide immunization services, including full planning and participation in community immunization and NIDs. In 1997, the CPHs carried out 16,000 immunizations in the Lagos area and 4,000 in Kano. Patient loads at many local health facilities have increased dramatically. The health facility partners established ORT corners and 100 percent are practicing improved quality case management of diarrhea. The CPH health facilities also participate in health insurance plans that include reduced fees and drug costs for their members.

4. Strengthen and expand role of female leadership and decision-making among private sector community partners for health constituencies and service communities.

The CPHs are committed to strengthening the role of female leadership and decision making in their communities. All CPHs have female members on their governing boards, and within their structure there are women's empowerment committees. A core group of facilitators have been trained in female leadership, women's rights, and income generation. They use the training materials to reach out to their partnership constituencies and members. Female members of the partnership governing boards have been trained in democratic participation, legal rights, leadership, and income generation. A micro-credit and loan scheme was instituted in five CPH communities, and it includes training in policies and procedures for loan disbursement and monitoring. Through a major democracy and governance initiative, 600 CPH members and 800 CPH members in Kano were trained in democratic participation and women's political empowerment through mock parliaments. These groups address issues related to child survival, specifically promoting breastfeeding. Of particular significance is the progress women have made in the

northern region of Kano where the CPH female members have advocated for women's literacy programs and have obtained the support of the male leadership in promoting programs for improved health for women and children. Overall, 60 percent of the CPHs in Lagos and Kano have implemented income-generating activities to improve the financial empowerment status of women.

Future Considerations

The BASICS/Nigeria project focused on increasing the capacity of the community partners to strengthen their organizational structure, implementing interventions to improve and expand child health services, and sustaining their efforts through income generation activities and NGO registration. Capacity building activities for the community partners include household and facility assessments that provide data for tailoring child survival interventions and improving training programs. The current CPHs in Lagos and Kano will serve as models for new CPHs as the program expands to other urban areas in Nigeria.

The CPHS are meeting the criteria for sustainability as they continue to function more independently, maintaining their high participatory values, and building on the community's existing programs. Long-term sustainability of the CPH projects depends on their ability to resolve conflicts, adhere to the guidelines spelled out in their MOUs, and reach out to community groups and agencies working on related issues. Equally important is the cooperation among the CPH projects to learn from each other's successes and mistakes, and to widen the scope of particular initiatives.

The CPH projects have encouraged citizens in Nigeria to identify their resources, develop their own abilities, and take action in their communities. The CPH model, therefore, has positive implications, not only for the future of public and child health but also for the broader task of local governance in communities worldwide.

NIS Immunization Program
Regional Achievement Summary

Abstract

The overall goal of the USAID immunization program implemented by BASICS in the Newly Independent States (NIS) was reduction of disease, death, and disability from vaccine-preventable diseases through the development of sustainable national immunization and disease control programs. Program activities were primarily focused in six countries of the former Soviet Union: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, and Moldova. Specific objectives of the program included (1) building sustainable national immunization programs through reform of immunization policy, comprehensive operational planning, and more effective advocacy and donor coordination; (2) strengthening institutional capacity for implementation of national immunization programs through training in essential management and technical skills, and design of appropriate systems; and (3) reducing the incidence of priority vaccine-preventable diseases. Two other BASICS programs, Public Health Communications and Diphtheria Control in Russia, and Health Management Information System (HMIS) Reform in Ukraine, also provided assistance that contributed to the goals.

The program provided support in response to individual country needs and priorities, determined through needs assessment and close, ongoing consultation with the Ministries of Health (MOH). This assistance included guidance on policy reform; national operational planning; organization of two Republican Centers for Immunoprophylaxis; development of management information systems; training in vaccine procurement, cold chain management, and vaccine logistics; and planning and evaluation of mass campaigns for polio eradication and diphtheria control.

Although prevailing conditions and the progress of reform varies considerably across the region, BASICS achieved many notable results:

- Viable national immunization programs with a cadre of trained and experienced managers in each country, leading to more efficient use of resources and improved coordination at all levels.
- Improved immunization coverage reporting and coverage that has increased to levels of more than 90 percent for most antigens in most countries.
- Control of the region-wide diphtheria epidemic.
- Zero polio cases reported consistently for more than five years in most countries in the region, with oral polio virus (OPV) coverage rates consistently higher than 90 percent during national immunization days (NID) held each spring.

Context

The health care system of the former Soviet Union worked in the past. An extensive array of health facilities with well-defined catchment areas and up-to-date records on all families allowed thorough follow-up on preventive and disease control measures. Impressive levels of immunization coverage and effective disease control were achieved, but at a high cost. Immunization services, although free for the

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public, were heavily subsidized by the State. Under the previous centralized control and command, the MOH representatives in the former republics received their policies and orders from Moscow. Despite huge differences among oblasts (provinces) in the incidence of specific diseases, such as hepatitis B, and in infant mortality rates ranging from 10 to 100 per 1,000 live births, the top-down decrees from Moscow did not acknowledge the former republics' disparate needs. Investment in prestigious scientific pursuits diverted attention from the production of unglamorous necessities, such as insulated containers and ice packs to maintain the cold chain for heat-sensitive vaccines. In addition, out-of-date policies, such as an immunization schedule with excessive doses per child, further contributed to a costly and inefficient health care system.

Consequently, at independence, the NIS inherited an inefficient health care system whose previously concealed costs could no longer be financed. Long-controlled infectious diseases, such as diphtheria and polio, rapidly re-emerged, principally due to the lack of affordable vaccines, most of which must now come from international sources. Scarce hard currency, higher prices, and insufficient government budgets kept the NIS from maintaining adequate supplies of vaccines. In addition, logistics systems broke down. For example, the breakup of the vast Aeroflot network, which had previously connected vaccine manufacturers in Russia directly to the former republics and many of their constituent provinces, resulted in the need for each administrative level to learn unfamiliar principles of vaccine supply management. The more than 70 years of isolation had left the NIS without the skills required to solve such problems.

Since 1992, the USAID/REACH and BASICS projects have provided technical assistance on immunization and disease control to the NIS in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) and to Moldova. The total population of these countries is more than 50 million, with combined annual births of 1.3 million. The entire under 5 population of Central Asia was targeted during polio NIDs, as part of the polio eradication strategy synchronized by countries in the Mediterranean region, Caucasus, and Central Asia—known as Operation MECACAR.

Initially, BASICS' assistance focused on responding to public health crises by assessing vaccine stocks and cold chain status and guiding U.S. humanitarian donations of vaccines and cold chain equipment. BASICS soon expanded its assistance to include strengthening and modernizing national immunization programs. Ensuring safe storage and transport of vaccines required initiating steps to upgrade cold chain systems. In addition, the USAID/REACH project began a technical exchange process between MOH officials and international experts to revise immunization policies and practices using WHO standards.

Scope

The overall goal of the USAID NIS/Immunization Program is reduction of disease, death, and disability from vaccine-preventable diseases through development of sustainable national immunization and disease control programs. The strategic objectives of the USAID Regional Mission for Central Asia focus on increased delivery of preventive services, introduction of modern management techniques and clinical practices, and reduction of human suffering and negative consequences of crises through protection of the population against emergency health problems and epidemics.

As a follow-on to the work begun under the USAID/REACH project, USAID/BASICS has assisted the MOHs in establishing stronger, more effective and efficient immunization programs and policies; continuing efforts to improve cold chain systems; and improving management information systems. BASICS has also introduced new concepts of social mobilization, as well as procedures for procuring vaccines at competitive prices on the international market.

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The MOHs and USAID/REACH and USAID/BASICS immunization technical staff and expert consultants identified technical needs, and designed and implemented plans of action to support and improve stock control, record keeping, monitoring and reporting of stocks and supplies, refrigerator repair and maintenance, and training of health personnel. In addition, training needs were identified, at various levels, in forecasting supplies of appropriate vaccines for sustainable, effective, continuous, and efficient immunization programs, and for procuring, contracting, and financing vaccines through international tender and bid.

Objectives

1. Build a viable national immunization program with support for revision of immunization policy, comprehensive operational planning, and more effective advocacy and donor coordination.

Under the highly centralized Soviet medical system, pediatricians provided care, while epidemiologists were responsible for disease prevention and control. To create solid national policies aligned with international immunization standards in the NIS, both pediatricians and epidemiologists needed to jointly provide child health services. BASICS and its counterparts initiated the following activities to address this need:

National Immunization Programs
BASICS promoted the development and implementation of National Immunization Programs, beginning in 1993, through policy workshops and technical assistance in the five Central Asian Republics (CAR) and in Moldova. The newly developed plans have helped shift immunizations services from operating in response to central decrees to becoming more independent and appropriate to the respective countries' particular situations. These new plans incorporate WHO immunization standards and promote more cost-efficient immunization services.

Republican Centers for Immunoprophylaxis (RCI)
BASICS technical and financial assistance has helped establish Republican Centers for Immunoprophylaxis (RCI) in Kyrgyzstan and Tajikistan. These centers bring together pediatricians and epidemiologists to coordinate management and formulate policies on disease prevention and control. This coordination of both the clinical and the public health elements of the MOHs has facilitated the development of more affordable and effective disease control.

Vaccination schedules and contraindication policies
Former vaccination schedules in the NIS required an excessive number of doses for every child. For example, four doses of Bacillus of Calmette and Guerin (tuberculosis vaccine) were required, while WHO recommends only one dose. BASICS helped streamline the immunization schedules. BASICS organized policy seminars in the five Central Asian countries and in Moldova that discussed current WHO recommendations and immunization practices in western countries and provided NIS counterparts with much-needed immunization technical information translated into Russian. For example, in March 1997, following a BASICS and MOH national workshop on Child Immunization Policies and Practices, Uzbekistan agreed to a revised immunization schedule. The change to a more modern immunization schedule led to an anticipated annual savings in Uzbekistan of $400,000 from vaccines, needles, and syringes alone; the annual savings in the five Central Asian countries is approximately $1.25 million.

Many children were not immunized because of inappropriate policies, such as excessive contraindications to immunization. Through policy and scientific seminars for MOH officials, BASICS promoted the adoption of WHO recommendations on contraindications and helped countries develop a monitoring component. Kyrgyzstan now includes monitoring of contraindications as part of its streamlined HMIS. This approach monitors the rate of contraindications for DPT immunizations at various levels. At the beginning of the pilot test phase, it was found that some health facilities were not immunizing as many as one-third of the eligible children for DPT due to contraindications, although a MOH decree on the WHO contraindication policy had been issued. However, after the pilot test and the national adoption of this new monitoring system, missed opportunities for immunization due to contraindications were reduced from 20 percent to 5 percent of eligible children, dramatically increasing timely immunization coverage.

Regional seminar on immunization curriculum and policy reform
BASICS and the MOH in Uzbekistan held a regional seminar in Tashkent in March 1997 to introduce practical tools and materials into pre- and in-service training; identify practical solutions for ensuring effective implementation of new policies on contraindications; identify ways to strengthen the teaching roles of medical faculty; and determine the role of professional associations in formulating immunization policies. Participants received Russian translations of numerous international publications on current immunization topics. Revisions of medical curricula on immunization have now begun in Kyrgyzstan, Kazakhstan, Moldova, and Uzbekistan.

2. Strengthen institutional capacity for the implementation of national immunization programs through training in essential management and technical skills, and design of appropriate systems.

Under the Soviet system, vaccines were produced in Russia and sent, upon demand, directly to the oblasts throughout the Soviet Union. After the breakup, each republic required its own national system to track existing stock, properly store and distribute vaccines, and ensure a routine and reliable system for obtaining vaccines. The NIS countries were not well informed about internationally accepted storage, handling, and transport standards for vaccines.

Vaccine logistics and cold chain management
USAID/BASICS staff and expert consultants made a series of short-term technical assistance visits; they trained trainers in cold chain management, refrigerator repair and maintenance, and vaccine logistics in the CAR and Moldova from 1993 through 1997. As the process unfolded, cold chain system specifications for the NIS had to be developed in Russian, and updates on standards and guidelines for safe vaccine handling were needed. The experience gained through the cold chain training sessions and the dissemination of technical materials resulted in the development of USAID/BASICS as a training tool and reference guide, in collaboration with MOH, WHO, and UNICEF staff and consultants. Entitled *Safe Vaccine Handling, Cold Chain, and Immunizations—A Manual for the New Independent States*, the manual provides essential information on vaccines and their proper handling and storage, the use and maintenance of cold chain equipment, proper use and care of injection equipment, and procedures to follow in case of equipment failure. The manual was introduced in October 1998 throughout the former Soviet Union, and it will serve as a primary cold chain reference tool for the NIS region.

With support from BASICS, time-temperature monitoring of selected cold room facilities was conducted in Kazakstan by staff of the RCI, and in Moldova by the National Center for Scientific and Applied Hygiene and Epidemiology, to determine the extent and nature of cold chain equipment problems and inappropriate freezing of vaccines during cold weather. Recommendations, based on the findings of these

studies, were included in the *Safe Vaccine Handling* manual. Counterparts and field staff were trained by BASICS in methods of data collection and analysis using computerized, time-temperature monitors.

Vaccine procurement
One of the most significant problems in the development of sustainable immunization programs in the NIS is the difficulty countries have in acquiring adequate supplies of high-quality vaccines. BASICS initially approached the issue of local self-reliance in vaccine procurement in Moldova; during 1996, BASICS conducted vaccine finance and procurement training for the MOH. BASICS trained officials from the Moldovan government in the procedures for conducting a vaccine tender and bid on the international market. The government of Japan, which intended to purchase hepatitis B vaccine for Moldova, purchased the vaccine from the manufacturer designated by the MOH based on this procurement training. The Moldovans acquired the hepatitis B vaccine on very favorable terms and subsequently purchased other vaccines on the international market, using their own funds.

The Moldovan experience demonstrated the need for standardized training and reference materials to help a country navigate the process of vaccine procurement. This process shaped the development of the manual, *Procurement of Vaccine for Public Sector Programs*, which BASICS, WHO, and PATH compiled and further developed, tested, and disseminated through the Regional Seminar on Vaccine Procurement and Quality Assurance conducted in Kazakhstan in June 1997. This manual presents information on procurement options and procedures, how to write vaccine specifications, how to ensure quality products, how to procure through UNICEF, and other general information needed to procure vaccines on the international market. Current activities to complete and disseminate the manual are a priority for WHO and USAID, given its potential significance for developing countries throughout the world as a comprehensive "how to" guide on the international tender and bid and quality assurance process.

Central Asia Immunization Technical Exchange
BASICS organized and supported the Central Asian Immunization Technical Exchange: Sharing Six Years of Experience in Solving Common Problems, held in 1998 at Lake Issyk-Kul in Kyrgyzstan. Thirty-six national and oblast-level staff from the CAR countries and Moldova presented and discussed innovative solutions to problems facing their immunization programs. Regional and country-level staff from WHO, UNICEF, the USAID/Zdrav Reform Project, and BASICS also participated. This technical exchange helped create an environment where participants could learn from each other. The design of the exchange was new and distinctive in five key ways: (1) its focus on routine immunization services as distinct from special disease control efforts; (2) the participation of operational staff, rather than senior officials; (3) its reliance on presentations from national, rather than international, experts; (4) its exclusive use of Russian language for better comprehension and a livelier exchange during discussions; and (5) its strong emphasis on interaction.

Presentations were made by national participants on communication strategies for immunization; delivery of services to displaced populations; introduction of hepatitis B vaccine; vaccine procurement; partner-ship with NGOs; cold chain training and assessment; facility-based monitoring and supervision; logistic aspects of acute flaccid paralysis (AFP) surveillance; training methodology; and building support for revised immunization policies to achieve more effective implementation. After each presentation the participants prepared country-specific work plans.

Introducing more effective monitoring practices for immunization services in Kyrgyzstan
The NIS inherited an extensive record keeping system that produced excessive amounts of unnecessary and unused data. Beginning in 1994, BASICS worked with the MOH in Kyrgyzstan to streamline the

HMIS to provide more useful information. Given the complexity of the existing HMIS, the MOH decided to begin with information concerning immunization services.

The MOH in Kyrgyzstan started its HMIS reform process by establishing a working group consisting of epidemiologists and pediatricians from national, oblast, and *rayon* (district) levels. The working group first assessed record systems and practices at the level of rayon and health facility, which revealed that data were not being collected uniformly or in a way that would allow effective monitoring. For example, children were not disaggregated into age groups so the MOH could monitor immunization coverage for children under 1 year of age. The working group also found that there was no real monitoring of immunization services at any level. The group then decided on the essential indicators to not only monitor immunization services, but also to reduce the quantity of information being reported. The indicators for all health facilities included DPT3 coverage for children under 1, the contraindication rate for DPT immunizations, DPT vaccine usage, and refrigerator temperatures. At the higher or supervisory levels, drop-out rates and coverage with additional antigens have been added. Introducing and using these new indicators at all levels, from health facility to national, required revising existing records and developing monitoring tools, such as graphs, as well as developing training manuals.

After a successful one-year trial period, the MOH implemented the revised system nationwide in 1997. The rate of contraindications has fallen dramatically nationwide from 20 percent to 5 percent, and the wastage of vaccine has been greatly reduced. Health workers are pleased with the new approach because it allows them to monitor their own work. Supervisors can quickly visualize the status of a facility by reviewing graphs and simplified records. Because the revised system simply improved the existing system, introducing the changes to health workers went relatively smoothly and did not require excessive funding. The MOH is currently expanding its monitoring system to include disease surveillance.

Ukraine health management information system

In late 1996 in response to a request by the Government of Ukraine (GOU) for assistance in strengthening its health information systems, USAID asked a team of experts from BASICS, CDC, and PATH to develop a program to assist the Ukraine MOH. The Ukraine Infectious Disease Program "Health Information Systems and Management Reform" is an outgrowth of HMIS reform activities conducted by BASICS and CDC throughout the former Soviet Union, and of the PATH experience in the USAID/Kyiv diphtheria assistance program. An assessment found that the MOH had very poor access to accurate information regarding vaccine supply, consumption, and coverage. The data collected were excessive and unusable, with unreliable and incomplete data on immunization histories; the result was a weak, decentralized, and overburdened health information and disease surveillance system. The goal of the HMIS program is, therefore, to help Ukraine strengthen its management of infectious disease prevention and control efforts by improving access to and use of accurate, appropriate, and timely health and management information.

Planning trips for the Ukraine HMIS program were made jointly by USAID, BASICS, PATH, and CDC in April and June 1997 to meet with the Ukrainian MOH and USAID/Kyiv to plan and initiate the work plan. This work plan was approved and presented to national MOH staff and oblast-level counterparts in Lviv. Technical advisors from BASICS, PATH, and CDC worked in close collaboration with USAID/Kyiv, national counterparts, and PATH/Kyiv staff to lead planning and implementation activities. A working group composed of national-, oblast-, and rayon-level staff was formed to identify information and training needs, as well as monitor program activities. In November 1997, the working group, with technical guidance and coordination from BASICS and PATH, decided to adopt a local-level monitoring approach for the HMIS. A sub-group was formed to revise reporting forms and develop training materials according to the needs of Lviv oblast. The modifications to the HMIS for

immunization were made on the basis of the working group's recommendations to focus on the registration of children, planning records, contraindications to immunization, vaccine supply, refrigerator temperature records, case definitions, and the monthly immunization reporting form. The modifications streamline and standardize the collection, reporting, and analysis of data, yet do not represent major changes in the MOH's information system.

In 1997 and 1998, seminars were conducted by BASICS, PATH, and the MOH in Lviv to introduce the changes in the oblast's HMIS for immunization to the epidemiologists and pediatricians from the rayons, as well as to other oblasts and national-level representatives. Revised reporting forms were introduced by MOH decree in Lviv in January 1998. The changes and monitoring procedures have been implemented throughout the Lviv oblast and are being introduced to other oblasts in 1998–1999. To work toward national implementation of the revised HMIS, the project will continue under USAID, the MOH, and PATH.

Immunization in a context of health sector reform
In 1997 and 1998 at its most recent meetings, the Inter-agency Immunization Coordinating Committee (IICC) recommended that WHO examine the interplay between health sector reform and immunization in three countries of the NIS and Eastern Europe. On behalf of WHO/Geneva, BASICS was asked to lead a multi-agency team to Kyrgyzstan, the first of the three countries to be visited, on a fact-finding mission to analyze how to ensure that immunization services continue to function well within a context of health reform. The review identified and analysed changes in immunization services; explored how immunization services of high quality can continue to be accessed and utilized to the greatest extent possible within the context of health reform; and provided guidance and identified strategic options for counterparts and partner agencies on maintaining and modernizing immunization services for improved disease control in settings with reformed health systems. The review provided policy options and indicators to guide reforms in Kyrgyzstan on an ongoing basis. The Minister of Health agreed to the team's conclusions that the MOH and World Bank will prioritize immunization when adopting health reform; that explicit prevention goals will be included within health reform; and that immunization coverage will be used to monitor the health outcomes of reform.

3. Reduce incidence of priority vaccine-preventable diseases.

As mentioned previously, with the collapse of the Soviet Union the infrastructure of the NIS countries became extremely unstable. Unvaccinated children were at risk and often were not brought for vaccination. There was also a lack of supplies and vaccines, which interrupted immunization services. BASICS, in cooperation with the MOHs, addressed the immediate need to reduce the incidence of priority vaccine-preventable diseases, particularly diphtheria and polio, and it educated the general public on the importance of vaccination.

National campaigns for diphtheria control
BASICS has participated in control efforts to contain the spread of the diphtheria epidemic in the NIS, particularly in Moldova and Tajikistan. Successful efforts in Moldova have been accepted for publication in the *Supplement to the Journal of Infectious Diseases* in 1999. Together with WHO, UNICEF, and MOHs, BASICS has contributed regionally to the development of the diphtheria control strategies and the revision of national policies to expand the target population and to administer antibiotics to all primary contacts. BASICS also contributed to the diphtheria control manual that WHO developed.

NIDs for polio eradication in Central Asia
In support of polio eradication, BASICS helped with the organization and technical support of the first NIDs in the CAR, in Uzbekistan and Turkmenistan. In Kyrgyzstan, BASICS provided financial and administrative support to the MOH to conduct NIDs training workshops throughout the country. In Kyrgyzstan and Tajikistan, BASICS provided technical assistance to help MOHs plan their social mobilization strategies for informing the public about the mass NID campaigns. In Tajikistan and Moldova, assistance included production of televised public service announcements, establishing a precedent for public health communication through television and radio.

Future Considerations

Partner agencies, working with Ministries of Health and of Finance, need to ensure that primary preventive services are available and used. This is of particular importance as health sector reforms, including privatization and decentralization, are put in place. Immunization remains the "best buy" in health, and it needs public-sector investments and financing to preserve it as a public good and to protect it from any market failures. The re-emergence of previously controlled infectious diseases, such as diphtheria, typhoid, tuberculosis, and malaria is early evidence that the public health infrastructure needs full support in the process of health sector reform. The private sector in all of these countries has traditionally been disinterested in these unprofitable, yet highly cost-effective, preventive interventions.

- Improved MOH and donor coordination is needed to ensure that there are coherent programs in which policies, practices, supply, logistics, monitoring, training, and financing are logically linked.

- BASICS helped enhance the institutional capacity of MOHs in the NIS to implement national immunization programs. Building on this success, international experts need to continue focused technical input and assistance to enable the NIS to maintain and further develop institutional capacity and to incorporate recent technological developments and achievements in immunization.

- Disease control activities for national control programs and health communication efforts need to continue. Continued monitoring and technical assistance is needed to stop the current diphtheria epidemic in the CAR and prevent future vaccine-preventable diseases from occurring or re-emerging in the NIS.

- International organizations need to continue to assist the MOHs with their national immunization programs after BASICS' departure.

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Pakistan
Country Achievement Summary

Abstract

In 1995, after the U.S. withdrew its assistance to the government of Pakistan, USAID developed the Pakistan NGO Initiative (PNI) to provide direct assistance to nongovernmental organizations (NGO) and CBOs. The PNI focused on six aspects of NGO and social sector development: NGO and CBO capacity building; community organization; coalition building and advocacy; maternal, reproductive, and child health; girls' education and literacy; and credit and savings programs for women. Under the PNI, BASICS provided technical assistance in child survival to the key implementors in Pakistan, the Aga Khan Foundation (AKF), and The Asia Foundation (TAF).

Through the implementation of community-self-awareness and health facility assessments, BASICS helped the NGOs understand their communities' needs and learn to assess the services available to their communities. BASICS also worked with two other technical assistance partners, John Snow, Inc. (JSI)/MotherCare and Wellstart International, to develop a curriculum and materials to train community support groups in facilitation skills.

In 1997, BASICS began collaborating with the Community Health Sciences Department at the Aga Khan University (AKU) and the Health and Nutrition Development Society (HANDS), a local NGO, to adapt the Private Practitioner Treatment Improvement Intervention (PRACTION) to improve the care given to sick children by qualified and unqualified private practitioners.

Context

In 1998, Pakistan's population was approximately 140 million, with 49 percent under the age of 18. The under 5 mortality rate was 136 per 1,000 live births and the infant mortality rate 95 per 1,000 live births. In the under 5 age group, 38 percent were underweight, 50 percent were stunted, and 9 percent were wasted. Only 16 percent of infants under 4 months were exclusively breastfed.

In 1995, after the U.S. withdrew its assistance to the government of Pakistan, USAID developed PNI to provide direct assistance to Pakistani NGOs and CBOs. In Pakistan, USAID selected TAF and the AKF to implement the PNI, with technical assistance provided by BASICS, JSI/MotherCare, and WellStart. The technical assistance partners helped TAF and AKF strengthen the NGOs ability to work with local communities to access and deliver improved social sector services, particularly maternal health, child survival, female education, and family planning. Since 1995, BASICS has provided periodic assistance to the PNI.

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Scope

In 1996, at the beginning of its activities in Pakistan, BASICS was to assist TAF with the development of an NGO network. To help the NGOs better understand the needs of the communities they served and to assess the availability of quality services, BASICS focused on strengthening the technical capacity of NGOs in autodiagnosis and health facilities assessments. BASICS also provided technical input to a curriculum and to materials being developed by Wellstart to train community facilitators for community support groups. The initial focus area was the promotion of correct and exclusive breastfeeding. Materials on child feeding, infant care, and home management of diarrhea were to be developed later with assistance from JSI/MotherCare.

In 1997, BASICS shifted its focus to private practitioners. Collaborating with the Department of Community Health Sciences at AKU Medical School, and with HANDS, a local NGO, BASICS facilitated the adaptation and implementation of PRACTION. The PRACTION methodology and tools, developed and tested in Indonesia and India, are used to help qualified and unqualified private practitioners improve their case management practices, which will improve their effectiveness in treating sick children.

Objectives

1. Develop the capacity of local NGOs to better understand and respond to the needs of the communities they serve.

TAF asked the three technical assistance partners to help increase community involvement in NGO activities. To achieve this, BASICS conducted a rapid assessment of health facilities related to the NGOs that would enable them to make recommendations on potential areas of capacity building. Information was collected on the quality of maternal and child health and reproductive health services; clinic organization and management; availability of drugs, supplies, and materials; and the knowledge and skills of clinical health care workers.

BASICS also assisted Wellstart and JSI/MotherCare with the development of community support groups that use interpersonal counseling skills to encourage women group members to discuss important personal issues (for example, appropriate breastfeeding techniques and infant care, child feeding, and home management of diarrhea). BASICS also co-facilitated a workshop on increasing the skills and ability of NGO staff to implement participatory community health activities in their project areas, particularly an autodiagnosis/community-self-awareness assessment activity.

2. Confirm the feasibility and effectiveness of PRACTION, a new methodology and tools to improve the quality and effectiveness of services provided by private practitioners to sick children.

BASICS reached agreement with two organizations, the Community Health Sciences Department (CHS) of AKU, and a Karachi-based health and development–oriented NGO, Health and Nutrition Development Society (HANDS), to apply tools developed and tested in Indonesia and India for improving private practitioner case management practices. With technical support from BASICS, each of the organizations submitted a proposal for funding and a protocol for applying the PRACTION methods to their respective communities. AKU selected two communities, one poor and one middle-class neighborhood in the center of Karachi; the second community was a fishing community, on the ocean, at the periphery of Karachi.

Both were neighborhoods where CHS had ongoing community health activities. HANDS selected nine villages from the communities it serves in a semi-rural area just outside Karachi.

Using the verbal case review (VCR) assessment tool, AKU and HANDS carried out a household survey of mothers whose sick children had been taken to a local practitioner for care. The mothers were asked about recent visits to the practitioners, indirectly assessing the quality of care given. The results from the assessment showed a number of case management practices that were not consistent with national and international standards of care. AKU and HANDS used the information in a series of intervention activities targeting the practitioners who had provided the care.

The approach, INFECTOM, brought the practitioners together in meetings, and provided them with information about good practices and feedback from the assessment on their current practices, feedback that dramatically showed the gap between what they should do and what they did. Discussion led to behavioral contracting—the practitioners agreed to and signed a contract to routinely carry out the desired behaviors in the future. The intervention teams then followed up the initial inputs with ongoing monitoring of the practitioner's behaviors by talking to mothers of sick children and asking the mothers again what the practitioners had done during a recent visit. The information from this monitoring, analyzed at six to eight weekly intervals, was conveyed to the practitioners, either during group meetings or by field staff during visits to their clinics. In all three neighborhoods, the activities resulted in significant changes and improvements in the care being given by the practitioners. The organizations also concluded that the approach was convenient and practical, and that it was an appropriate activity for organizations working in community health in urban settings like Karachi.

Future Considerations

In both sets of activities, the capacity of local organizations to carry out useful community health related tasks were increased. In each case, the skills and methods were considered by the organizations to be useful for their work in the future. Future USAID supported activities could build on these advances, both by helping the group of initial organizations to continue these activities and perhaps improve them further, and by assisting them to spread or scale-up the activities to other organizations and larger populations. If interaction with the government occurs in the future, it would be advisable to introduce government health staff to the private practitioner treatment improvement methods, and to support pilot efforts by government to carry out those methods in other communities, particularly rural communities where unlicensed practitioners, similar to those in the PRACTION trials, are the only sources of care.

Short-Term Project
Country Achievement Summary

Peru

A BASICS consultant traveled to Peru during the fall of 1996 to help the Ministry of Health's Expanded Program on Immunization (EPI) start a program on the prevention and control of hepatitis B. The consultant developed an information, education, and communication (IEC) strategy that identified channels of communication and target audiences, and their information needs. IEC recommendations included use of media, materials needed, messages to develop for proposed target audiences, and a draft strategy describing locally available resources. Cost estimates for producing materials for different media were provided, based on the experience of NGOs.

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REDSO/ESA/Child Survival Advisor
Country Achievement Summary

Abstract

Under an agreement worked out between BASICS, AID/Global, and Regional Economic Development Services Office East and Southern Africa (REDSO/ESA), BASICS employed a Child Survival Advisor (CSA)for two years. Assigned to REDSO, she helped develop and support child health programs in the region. She also provided support to numerous missions that were beginning to develop child health portfolios, assisting with technical analyses, program reviews, results reporting, and identification of opportunities for innovate programming. Playing a lead role in the quality of care component, the advisor also worked closely with the health networking initiative of REDSO.

Context

REDSO provides technical, program, legal, and administrative support to more than a dozen AID missions in East and Southern Africa. The Population, Health and Nutrition (PHN) office of REDSO has historically played an important role in country and regional project development, monitoring and evaluation, and resource programming. For many years, the focus of the PHN staff at REDSO was on family planning, reproductive health, and HIV/AIDS programming, with fewer resources targeting child health issues. A number of factors can explain REDSO's decision to strengthen its capacity to support child heath programming: the unacceptably high rates of infant and child mortality; the health impacts of the HIV/AIDS pandemic; the donor gaps in support to child health; the operational linkages among child health, family planning, and reproductive health; and the congressional mandate and funding earmark for child survival.

BASIS and REDSO negotiated a delivery order agreement that provided BASICS with funding to assign a child survival advisor (CSA) to the REDSO office for approximately two years. As a full and integrated member of the REDSO/PHN team, the advisor made significant contributions to the promotion of child health activities in the region..Her association with BASICS allowed access to state-of-the-art information and support across the spectrum of technical and cross-cutting child health areas.

Scope

The role of the REDSO/ESA/CSA was to develop interest among USAID missions for child survival, strengthen USAID missions in the region in the development of their child survival strategies, and provide technical assistance on implementation issues. In PY2, BASICS negotiated a delivery order with REDSO/ESA to place a long-term Regional CSA in the REDSO/PHN office in Kenya. The advisor began work in March 1995 and concluded her assignment with BASICS in August 1997. She became an integral member of the REDSO/PHN team, providing a broad range of child survival technical assistance to USAID missions in the East and Southern region in the core programmatic areas of child survival, including immunizable diseases, diarrheal disease control, and oral rehydration therapy, acute respiratory

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infections, infant/child feeding, and breastfeeding. The CSA provided technical assistance that included programmatic aspects of emerging areas of malaria case management, AIDS orphans, and urban health. Cross-cutting aspects of child health service delivery, such as supervision, management information systems, drug and supply issues, and training and quality of care, were also within her purview.

The CSA and other REDSO/PHN staff also play an active role in the REDSO Health Networking Initiative, described in greater detail in the country achievement summary for REDSO Health Networking. The CSA's contributions to Health Networking have been primarily related to quality of care, and among her many contributions was the successful establishment of a "home" for quality of care initiatives within an African institution.

Objectives

1. Assist in the development and support of effective child survival programs in the East and Southern region of Africa by providing short-term technical assistance to USAID missions.

The efforts and enthusiasm of the CSA contributed to an increased interest and programming of child health programs in the region. During the period of the Delivery Order, the CSA provided technical assistance to numerous USAID missions in the region, including Eritrea, Madagascar, Mozambique, Tanzania, Botswana, Kenya, and Somalia. She assisted in the development of their child survival portfolios, developing strategy and results packages, undertaking technical child survival analyses, assessing delivery systems, developing policy, and advocating for child health. She used her programming skills and extensive knowledge of the health landscape to link ideas, resources, and institutions in innovative ways.

Most of the CSA's work involved short-term technical assistance missions to the countries in the region. Her services were in great demand; the list below are only a few of her country-level contributions.

Kenya
Participated in USAID/Kenya's review of malaria and MCI-related activities planned through the Africa Integrated Malaria Initiative (AIMI) project.

Somalia
Supported the USAID mission in Somalia in monitoring and redesign of continued child survival assistance, funded by USAID/Somalia through UNICEF.

Eritrea
- Worked with regional medical officers to develop strategic plans for health-related issues and to continue collaboration with USAID on development of their strategic plan for child survival.
- Participated in the policy review and revision of the USAID health project implementation plan.
- Worked through a task force to develop a strategy for micronutrients.
- Helped USAID in negotiations with the Ministry of Health (MOH) regarding the PHN portfolio.
- Reviewed and refined workplans for the OMNI and SEATS projects.
- Collaborated with the World Bank team to design the World Bank health sector assistance program.

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Tanzania

- Reviewed child survival opportunities with the USAID mission and set a schedule for planning future child survival activities.
- Prepared a document for USAID describing child survival approaches for Tanzania.

Mozambique

Facilitated a private voluntary organization (PVO) strategic planning session for population and health.

Botswana

Presented ISA child survival recommendations for the region.

Madagascar

Refined indicators and developed monitoring tools for USAID's strategic objective and results framework.

Regional

Set in motion the Quality of Care (QoC) initiative for the ESA region, starting with the Greater Horn of Africa meeting. This resulted in country leaders identifying priority strategic development areas to improve quality of care in their countries. The CSA implemented follow-on activities including two large QoC conferences in Mauritius and Kenya; development of a QoC foundations course in conjunction with Makerere University in Uganda and the Johns Hopkins University; and implementation of urban initiative meetings in Kenya on the quality of reproductive health. The Quality of Care initiative included an in-depth look at issues related to malaria, examined in regional conferences in Malawi and Kenya in early 1999.

Future Considerations

Upon completion of the delivery order with BASICS, the CSA continued to work with REDSO through a different mechanism. As such, she will be able to continue to provide support to USAID missions in child health, and help oversee the establishment of a long-term approach to supporting quality of care initiatives in the region.

REDSO/WCA/FHA PROJECT
Country Achievement Summary

Abstract

The BASICS project, in partnership with the Family Health and AIDS-West and Central Africa (FHA/WCA) activity has provided health and population assistance in four countries in the region—Togo, Côte d'Ivoire, Burkina Faso, and Cameroon. In the second year of the FHA activity, BASICS was asked to provide technical assistance for the child survival objectives targeting increased use of oral rehydration solution/salts (ORS) in the region, and increased capacity for program development and implementation among regional partner institutions.

A major need in the region has been to increase demand for ORS and to ensure a sustainable supply of ORS as external donations diminish. BASICS facilitated the development of a partnership between the largest pharmaceutical company (geographic coverage and sales) in West and Central Africa, Rhône Poulenc-Rorer (RPR), and Population Services International (PSI), a nongovernmental organization (NGO). Merging RPR's expertise in pharmaceutical production, promotion, and distribution with PSI's expertise in generating market demand for products, such as ORS, has the potential of ensuring a continual supply and demand in the region for this key child survival product.

BASICS has helped build regional capacity by providing systematic training in the development of health messages using radio spots, and bringing together health and radio professionals. Additionally, WHO and the Ministry of Health (MOH) have appreciated the key technical role BASICS has played with the introduction of the Integrated Management of Childhood Illnesses (IMCI) approach in Togo.

Context

The FHA activity, launched in 1995, provided health and population assistance when USAID presence in West and Central Africa was reduced. The FHA activity is the principal vehicle for achieving USAID's Strategic Objective to improve access to and use of family planning, maternal and child health, and HIV/AIDS prevention services in the region. Three intermediate results were (1) increased availability of and demand for family planning (FP), maternal and child health (MCH), and STI/AIDS prevention services in target areas; (2) increased regional capacity for program development and implementation; and (3) more efficient use of resources through improved donor collaboration. Togo, Burkina Faso, Cameroon, and Côte d'Ivoire are the target countries for this USAID activity.

In early 1996, USAID asked BASICS to provide technical assistance to the child survival component of the FHA activity, whose primary focus is family planning/reproductive health and HIV/AIDS. The project was already launched in West Africa with specific objectives and an evaluation plan established for each technical area. BASICS was asked to help increase the use of ORS in the region, build regional capacity in information, education, and communication (IEC), and build capacity for IMCI. In August

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1996, after a series of country assessment visits, planning meetings with FHA, and the development of a Memorandum of Understanding (MOU), joint activities began.

Scope

The FHA project, regional in scope, focuses on issues and problems common across the West and Central Africa region, and supports the identification and application of best health and family planning practices throughout the region. Because FHA is a regional project, BASICS activities were primarily regional in focus, with some efforts targeted toward specific countries. To maximize resources and potential impact, some regional activities were attended by representatives from other West African countries.

Objectives

BASICS contributed to two overall results of the FHA Project:

1. *Result 3:* Increased use of ORS by an average of 5.0 percentage points per year in project target countries.
2. *Result 4:* Increased capacity for program development and implementation among regional partner institutions.

BASICS specific objectives in its collaboration with FHA include the following.

1. Increase access to and use of ORS on a regional level by implementing a social marketing plan with a regional ORS producer (corresponds to FHA result #3).

ORS availability and utilization remains low in West Africa. REDSO/WCA asked BASICS to support efforts by PSI, an NGO with worldwide expertise in marketing public health products at consumer (non-pharmaceutical) and retail levels, to develop and implement promotional strategies to increase demand for ORS in Togo, Côte d'Ivoire, and Cameroon. Specifically, BASICS was asked to support promotional strategies to launch Orasel (an ORS product developed by PSI with UNICEF) in these countries.

To date, the availability of ORS in most countries in the region has depended heavily on donor subsidization of ORS packets, subsidies that are rapidly decreasing. The need to ensure a continuous supply of ORS in the region was obvious. Yet, prior to BASICS collaboration with FHA, the focus was to generate demand for ORS with less attention to long-term supply. To ensure a sustainable supply, an established local commercial partner was identified and engaged to produce, promote, and distribute the public health product. BASICS' role was to increase awareness of the supply problem, and to identify and engage a commercial sector partner who could combine their expertise with PSI.

Based on successful experiences in other regions, BASICS mobilized a commercial partner based in West Africa for ORS production, promotion, and distribution on a regional level (see BASICS guide, *Mobilizing the Commercial Sector for Public Health Objectives*). In one year, with input from PSI, BASICS assessed regional and national companies for their capacity to produce, promote, and distribute ORS. RPR was identified as a suitable partner, and after completing its feasibility study, they expressed interest in the ORS market.

In 1997, a consensus meeting was held in Abidjan with representatives from PSI, RPR, BASICS, and USAID/REDSO/WCA. Major issues were discussed, including consumer pricing, distribution, trademark ownership, and the promotional launch of the ORS product. BASICS recommended a phased distribution strategy, first targeting health care professionals, and, later, sales to retailers. This schedule would strengthen the overall distribution strategy. Promotion would begin with the medical community, and later be scaled up to the general public.

In December 1997, the terms of a regional partnership and a formal 10-year MOU were negotiated; RPR and PSI signed an agreement that outlined general terms of the regional partnership. The general approach called for RPR to conduct intensive promotion of ORASEL among the medical and pharmaceutical communities during the first six months of the launch. This effort is to continue as PSI distributes and promotes the product at the consumer and retail levels.

In January 1998, the partnership agreed to country-level implementation plans. They agreed on a key issue: how to set an acceptable price for both the public and private sectors. They needed a uniform pricing policy across the region, despite the higher margins for wholesaler and pharmacists in Côte d'Ivoire. RPR recommended a wholesale price of 95 CFA=U.S. $0.16, with a consumer price of 150 CFA=U.S. $0.26 for the region. RPR and PSI agreed to their respective promotion and distribution roles in each target country. BASICS-funded market research activities that determined price sensitivity among consumers was essential to the negotiation, and knowledge, attitude, and practices (KAP) information from prescribers guided the development of promotional materials. Additionally, it was agreed that RPR's facility in Dakar would produce ORS for the regional market, and donors would supply ORS during the transitional period.

In February 1998, BASICS staff met with MOH officials in Côte d'Ivoire. They felt the ORASEL wholesale price proposed by RPR was too high, as the current price through the public sector was 50 CFA. It was crucial to have a commitment by the MOH in Côte d'Ivoire, because RPR would not enter into a local production agreement without the largest market. In March 1988, the partnership submitted a formal report to the MOH of Côte d'Ivoire outlining full details of the joint venture. A positive response to the partnership was expected.

BASICS met with RPR in June 1998 to determine if they wanted to pursue the partnership. Because of the company's downsizing in 1998, a new vice president for Francophone Africa said that it would be difficult for RPR to finance the necessary equipment needed for local ORS production. BASICS offered help in pursuing other options for equipment procurement, such as a loan through PATH (a BASICS subcontractor) or the European Union.

In July 1998, the PSI Côte d'Ivoire representative sent a letter to the MOH recommending that the ORASEL consumer price be set at 100 CFA=U.S.$ 0.17. The MOH responded officially in mid-August 1998 and agreed to PSI's suggested price, insisting on immediate distribution through all available channels (as opposed to the two-tiered distribution plan developed by the partnership), a strategy that could alienate pharmacists and health care providers. RPR would be unable to recover their costs based on this price and could no longer consider the local production and distribution of ORS for the Côte d'Ivoire market, at least in the short-term. However, RPR continues to explore the possibility of collaboration with PSI for ORASEL promotion in Côte d'Ivoire. Additionally, talks continue between PSI and RPR for a two-tiered ORS promotion and distribution schedule in Cameroon.
At this point, a formal evaluation would be premature, but there are many achievements to highlight as well as lessons learned from the joint initiative. The West Africa ORS initiative responds to the FHA

project directive to generate economies of scale by supporting regional initiatives, encouraging capacity building, promoting sustainability, and fostering ownership through strong partnerships between the public and private sectors. The public sector realized that sustainable ORS delivery cannot occur without commercial suppliers, and the private sector realized that it can contribute to public health objectives and still reach economic targets. Another important outcome of the partnership was the approval of retail sales of ORS in all project countries, which will increase access to ORS in rural areas.

2. Improve the quality and institutionalize regional IEC capacities.

A second objective for BASICS collaboration with FHA was to improve the quality of and to institutionalize regional IEC capacities. BASICS' anticipated results were to improve the regional capacity by using radio for broadcasting child survival messages and to develop communication/behavior change strategies; to undertake, analyze, and use the results of qualitative research; and to strengthen regional and national networks/partnerships for IEC planning, training, and implementation.

BASICS' major IEC capacity building activity with FHA was training in developing short, concise radio spots for communicating health messages. The advantage of using this format is that spots can deliver frequent, focused health messages to local audiences in their own languages. Approximately 40 representatives from six BASICS and FHA countries participated in two regional radio programming workshops in Burkina Faso in July 1997. BASICS designed, prepared, and directed the workshops, providing training in systematic, rational, and scientific development of radio spots, using, with other tools, the *WHO/UNICEF/USAID Guide to Using Radio Spots in National CDD Programmes*. BASICS applied the guide, adapting it to the West African context, including, for example, making the training process more participatory and using local comedians and animators to translate into local languages.

BASICS helped increase the regional capacity to utilize radio for broadcasting child survival messages. The regional training initiative increased participants' skill levels, providing a forum for radio and health personnel to develop working partnerships, increase the use of radio for broadcasting child survival messages, and strengthen regional health communication networks. Participants at the workshops identified a research base for the health messages; developed, produced, and translated spots into local languages; pretested spots for specific target audiences; and designed and implemented tools to evaluate their programs.

Forty-eight radio spots, emphasizing family planning, AIDS, and child survival messages were developed. All radio spots for Burkina Faso (12) were translated into local languages and pretested during the workshops. FHA is now incorporating some of the radio spots into their *Clé de la Vie* radio series. With technical assistance from BASICS, representatives from the other countries will carry out similar steps prior to broadcasting messages. In 1997–1998, BASICS held similar radio communication training work-shops in Senegal, Mali, and Benin, with support from respective USAID missions. Radio spots for health programming were broadcast in Mali in three districts selected by the GOM as priority IMCI pilot sites. Maternal and child nutrition radio spots will be broadcast in Senegal in 1999.

Private, public, and rural radio and health program representatives participated in the workshops, marking the first formation of these key partnerships between private and public radios and public health services in West Africa. BASICS/FHA's regional partnership for radio programming was expanded to include regional institutions, such as PANOS, CIERRO, and IRESCO.

Another FHA project goal was to work closely with regional institutions implementing IEC activities related to health. BASICS co-sponsored a training needs assessment of regional IEC institutions and

presented findings in a report at a summit meeting with the institutions. FHA requested BASICS participation in planning for a workshop to train institutions in qualitative research methods. (BASICS has been active in qualitative research in its country programs, with a frequent focus on nutrition issues.)

3. Build regional capacity for IMCI implementation and improve health workers performance (district level) in Togo and Côte d'Ivoire. (Note: Co-sponsored with the USAID Africa Bureau.)

BASICS played a leading role, with the MOH, in introducing IMCI in Togo by building on experiences gained while introducing and implementing IMCI in other countries in the region. BASICS negotiated with the FHA project to incorporate IMCI into the project's work plan, with BASICS providing the technical assistance. The expected results were to create regional capacity for IMCI implementation through a series of orientation and planning meetings, and workshops for IMCI materials adaptation; and to train national level facilitators in Togo.

To date, BASICS has carried out a number of steps integral to IMCI in Togo and Côte d'Ivoire. In Côte d'Ivoire, an IMCI feasibility assessment was conducted in collaboration with the MOH and WHO/AFRO. Based on the results of the assessment, it was determined that Côte d'Ivoire was not ready for the introduction of IMCI. In Togo, BASICS and the MOH carried out a feasibility assessment to collect information about the current situation of child survival programs as an important part of the preparatory process for IMCI.

BASICS co-sponsored an IMCI orientation forum in Togo that helped the MOH and other key partners start preparations for the implementation phase. A rapid health facility assessment was carried out, with the MOH staff in Togo, to collect information on the quality of case management for the common causes of childhood mortality, drug and supply availability, and clinic organization. BASICS helped the MOH adapt the Rapid Health Facility Survey methodology and sampling approach to the Togolese context. According to IMCI standards, the sample size was small. They found that health workers correctly assessed signs for malnutrition in only 5 percent of children. Five percent of children were correctly assessed for acute respiratory infections, and zero percent of children were correctly evaluated for fever.

BASICS also helped the MOH develop an early implementation IMCI strategy for Togo. BASICS guided the MOH on the formation of the IMCI committee in Togo, a committee sanctioned to review and identify case management and other policy issues. BASICS has played an important role with the local adaptation of the generic IMCI training materials involving four steps: a review of national policies and guidelines, the clinical adaptation, the local adaptation of feeding recommendations, and the local terminology for common complaints.

Three key Togolese clinicians (a pediatrician from the University Hospital, two MOH staff, and members of the IMCI advisory committee) attended the first WHO Francophone Regional IMCI Facilitator Course held in Niamey, Niger, which was co-sponsored by WHO and BASICS.

In Dakar, in July 1997, at a regional workshop organized and led by BASICS (non-FHA funding), a team of Togolese health professionals were trained in the adaptation of the feeding recommendations for IMCI. Building on this training, with BASICS funding from the Africa Bureau, the Togolese are completing small-scale studies in selected districts to facilitate the adaptation of the feeding recommendations and the local terms used for counseling mothers.

BASICS helped co-facilitate the IMCI Consensus Meeting and also co-sponsored the first national IMCI Training of Trainers (TOT) course which took place in April 1999, where a cadre of national IMCI facilitators were trained.

Future Considerations

The BASICS collaboration with the FHA regional project brought to the forefront key child survival issues on both a regional level and in Togo. However, ensuring follow-up to regional activities at a national level has been challenging from both technical and managerial perspectives. To maximize investments made thus far, it will be necessary to ensure continued technical support for the initiatives described in this summary. Similar collaborative efforts would need to address management issues, such as how field support projects can implement activities effectively in the absence of an established presence or office in the country.

REDSO/ESA Health Networking
Country Achievement Summary

Abstract

In 1994, BASICS negotiated a delivery order with the Regional Economic Development Services Office Eastern and Southern Africa (REDSO/ESA) to help develop and support information-sharing networks in the East and Southern region of Africa. During a four-year period, BASICS collaborated with REDSO and other regional partners to identify priority issues and concerns in the region, promote a better understanding of key health policy and service issues, document and disseminate lessons and success stories, and develop capacity among African organizations and individuals in key health development areas. The objectives for the networking activity included health care financing (HCF), integration of STD/HIV services with maternal and child health/family planning (MCH/FP) services, improving quality of care, family planning and drug logistics, post-abortion care, adolescent reproductive health, and nutrition and food security in the Greater Horn of Africa, and institutional capacity building.

Based on an external evaluation in 1998, the networking strategy is working well. Program managers, health ministries, researchers, and trainers throughout the ESA region benefit from their participation in the network, and they are applying new information to address critical problems in the Population, Health, and Nutrition (PHN) sector. The USAID PHN officers surveyed by the evaluation team were almost unanimous in affirming the value of the network and the REDSO/PHN staff who make it work.

Context

In 1994, REDSO/ESA launched a new assistance modality—the "Health Networks" strategy—which redefined the way REDSO does business in the ESA region. Until then, REDSO's task was straightforward—provide USAID missions with technical support to help them develop and implement bilateral assistance programs. The staff of the REDSO PHN division, however, believed that they could build on this role to make REDSO significantly more useful in advancing the PHN agenda in the region. Their proposition was networking.

The networking model was based on the premise that REDSO staff, who traveled widely in the region providing technical support to USAID missions, were in a unique position to observe and recognize cross-border and cross-cutting problems that confront many organizations, program managers, and decision makers in the region. REDSO staff also noticed that some of the countries and organizations were already developing and applying innovative solutions to these problems—solutions that, if widely shared, could significantly reduce the cost, duration, and frustration experienced by others trying to solve the same problems. Networking was developed to promote and encourage the systematic sharing of information and experiences to larger numbers of change agents in the ESA region, and it helped REDSO disseminate emerging, cutting-edge information to REDSO's partners and clients in key PHN areas.

In many ways, BASICS' association with the networking activities marked the beginning of a more systematic approach to networking by REDSO. An agreement was reached between the various

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organizations (USAID Global Bureau, BASICS, and REDSO/PHN), for BASICS to coordinate and support activities for the network. BASICS hired a coordinator and administrative assistant to provide day-to-day programmatic and administrative support for network activities. From August 1996 to August 1997, BASICS also employed a full-time staff member, based in Nairobi, to provide technical and management assistance for health care finance activities. BASICS' headquarters assisted with work plan and budget development, procurement, consultant hiring, report editing, and document dissemination.

Scope

The primary goal of networking is to maximize the impact of Africa's successes in health care, in key technical areas, by promoting effective information exchange and experience-based learning: lessons learned are shared, borrowed, and adapted across borders of countries in East and Southern Africa. A variety of mechanisms were used to encourage effective dialogue and exchange: conferences; seminars; regional and national workshops, study tours; focused technical assistance; south-to-south exchanges; consultant development; regional newsletter; and dissemination of pertinent reports, guides, and articles.

Objectives

From three focus areas, the Health Network expanded to a larger set of technical and capacity-building themes. BASICS primarily worked in Health Care Finance, Integration of Services, and Quality of Care, but the systems the BASICS team put in place (with some funding) contributed to achievements in other focus areas. Significantly, many other cooperating agencies (CA) and AID-funded projects participated in the networking experience: Pathfinder International, AVSC, FPLM, JHPIEGO, RPM, the Population Council, the Partnerships for Health Reform Project, and the Kenya Health Care Finance Project.

1. Build regional health systems planning capacity for financing and decentralization of health service delivery.

The bilateral health care financing project in Kenya was a valuable asset to the networking initiative. Countries in the region were able to visit the project; learn about its successes and setbacks; and tap into the technical assistance, experiences, tools, and approaches developed and tested by the project. The project's Chief of Party set aside time during the project's final year to work on HCF networking efforts; the following year, he was hired by BASICS to work continue his work full-time. Summaries of progress made on HCF issues follow:

Eritrea: Helped USAID refine the HCF position description for its bilateral project. Provided guidance and orientation to an Eritrean student studying at the University of Cape Town, Health Economics Unit, with his thesis (evaluating part of Eritrea's national cost sharing program).

Ethiopia: Network-provided technical assistance led to the development of a National Health Care Finance Strategy, which was formally approved by the Ethiopian Government. The network sponsored Ethiopians for short-term training, study tours in Kenya, and participation in workshops on cost sharing, service costing, and consulting skills development. Also gave USAID/Ethiopia assistance in preparing for and developing the Ethiopia Sector Investment Program.

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Kenya: Provided technical assistance to the Chogoria Mission Hospital with its management information system development and implementation. The Chogoria approach is one that was shared with and studied by several other countries of the region. Kenyan HCF experts were consultants for the network in Tanzania, Uganda, Mozambique, and Ethiopia.

Mozambique: With support from the network, the MOH pilot-tested a revised cost sharing program and cost sharing manuals. Exposure to the network also influenced donors and projects: USAID has included a cost sharing strategy in its overall strategic plan; the Quality Assurance Project expanded its scope to include HCF and hired a long-term HCF advisor. Mozambican health officials participated in study tours on insurance and cost sharing, and participated in training courses on cost sharing, costing of health services, and insurance.

REDSO/ESA: Established a database of African HCF consultants; conducted a workshop on consulting skills that provided initial training to African health finance-related professionals, resulting in a pool of African consultants for HCF.

Tanzania: The network helped the Tanzanian MOH adapt cost sharing manuals from the Kenya MOH for use in local programs nationwide, and network consultants worked with Evangelical Lutheran Churches of Tanzania (ELCT) hospitals to pilot a health insurance scheme. Network consultants conducted a National Health Insurance Training Workshop to provide staff from the MOH with basic health insurance concepts, and facilitated a discussion on the issues of designing and implementing a national health insurance plan with the Health Insurance Implementation Team (HIIT). The network helped the HIIT design the format and identify issues to be investigated during their study tours to health insurance programs in other countries, later worked with HIIT to draft an initial implementation plan, sponsored study tours and training, and used one Tanzanian as a consultant to Uganda's MOH.

Uganda: The network's technical assistance contributed to the MOH's development of a draft national HCF strategy; a pilot health insurance scheme by several mission hospitals; field testing and evaluation of cost sharing, led by a Kenyan network consultant, in lower-level health facilities; and development and adoption of user fee manuals for lower-level health facilities. The network also sponsored study tours on insurance and cost sharing, and participated in training costing, consulting skills, and contracting training.

Whenever possible, the network established collaborative relations with African institutions, for example, a subcontract with the University of Witwatersrand's Centre for Health Policy and the University of Cape Town, Health Economics Unit for several meetings and workshops. The network engaged the CIMAS insurance company in Zimbabwe to help implement an insurance training program, and the Apollo Insurance company in Kenya to talk about the health insurance program at Chogoria Hospital. The Centre for African Family Studies (CAFS) in Nairobi recently helped implement the second consulting skills workshop and has now taken over presenting the workshop as a regular regional training offering.

2. Improve the logistical support for contraceptive and essential drug supply.

A relatively new focus area, highlighted during the early stages of the quality of care network, logistics has emerged as a distinct technical focus area. Logistics to support contraceptive and essential drug supply is widely recognized as a critical need in the region, although there are few success stories. Largely built on the logistics model for contraceptives in Kenya, which improved the availability of contraceptives and supplies, regional attention is growing for approaches that work in this critical area.

Activities include intra-African study exchanges, technical assistance to a number of countries, and workshops featuring better practices and agenda setting. Network partners include the Family Planning Logistics Management Project and the Rational Pharmaceutical Management Project.

3. Provide strengthened capacity to advocate for postabortion care (PAC).

This technical focus area is increasing the awareness among USAID missions, CAs, and other donors and local counterparts about the magnitude of unsafe abortion as a public health concern in the region. Additionally, this focus area has strengthened regional and local capacity to advocate for PAC issues and plan PAC programs using technical assistance, training, and study tours. Country-level assessments are completed in Zambia and Uganda, and work is underway in Malawi and Kenya. In addition, a brochure was developed, "What Can You Do? Postabortion Care in East and Southern Africa," which has been widely distributed and used in the region.

4. Promote and advocate for adolescent reproductive health (ARH).

Three main objectives for this area include stimulating interest and attention for adolescent reproductive health; increasing and sharing knowledge about current adolescent health status, behaviors, service programs and stakeholders, and increasing the skills and competencies within USAID missions and their partners in the design, implementation, monitoring, and evaluation of ARH programs. Through assessments, technical assistance, and meetings in the region the objectives are being met. The network includes key players in the region interested in ARH and, with these partners, REDSO continues its promotion and advocacy efforts.

5. Develop capacity building within Centre for African Family Studies (CAFS).

During the past year, REDSO expanded its cooperative agreement with CAFS (CAFS III) to begin incorporating networking activities into CAFS' ongoing programs. CAFS is now a networking partner, providing technical, logistical, and consulting services in carrying out networking activities. Although capacity building is one of the principles underlying all of the network focus areas, this area can stand on its own with the Nairobi-based CAFS. Under a six-year cooperative agreement, REDSO is providing technical assistance to help develop within CAFS the requisite managerial, technical, and entrepreneurial capability to become a stable, self reliant, market-oriented institution that can effectively transfer modern reproductive health technologies to both private and public sector programs. During the past two years, CAFS has undergone dramatic institutional changes, moving toward a serious market orientation. New agreements have been developed with GTZ, UNFPA, SIDA, Exeter University, and USAID missions to provide training programs for their partners in the region. CAFS also developed working relationships with several CAs to jointly provide training and technical assistance. Through this approach, CAFS staff are teamed with CA consultants in a mentoring relationship, further building the capacity of CAFS to provide these services in the future.

6. Improve the nutrition and food security linkages to support of the Greater Horn of Africa Initiative (GHAI).

This focus area has been developed during the past year in response to earmarked child survival funds being added to the GHAI. In addition to the support for the GHAI, nutrition, as it links to food security, it is being promoted outside the GHAI countries in the rest of the REDSO/ESA region. Using a consensus building process in the region, three focus areas have been identified: maternal, infant and child nutrition (including micronutrients); cross-cutting agriculture and food security policies and their effect on

nutrition outcomes; and nutrition in relief and emergency situations. Activities to date include development of micronutrient assessment plans and implementation; case studies linking food security and nutrition in Uganda, Ethiopia, and Eritrea; a case study on the linkages in the entire region, and; identification of better practices in reproductive and child health as they apply to nutrition interventions.

7. Develop additional methods of costing AIDS services in Africa to develop a greater understanding of the macroeconomic impact of AIDS.

To develop guidelines for better resource allocation and design of more appropriate services, a costing analysis of three Family Planning Private Sector Project sites in Kenya was completed; the results were presented to the program managers from the three sites. This forum allowed the program managers to share insights and experiences on how to use better cost control to improve the quality of services.

8. Encourage and facilitate increased utilization of key public health information by USAID, MOH, and other decision makers in the ESA region.

To accomplish this objective, BASICS procured the necessary equipment and supplies to help establish the REDSO Resource Center, enabling REDSO and BASICS staff to create the REDSO web page. In addition, two editions of *The Regional HealthNet* newsletter were published and disseminated to approximately 350 network participants, including USAID missions and a database of contact names and addresses of people involved with network activities.

9. Share, borrow, and adapt experiences and lessons learned in integrated health service delivery for RTI/HIV/MCH/FP among countries to better understand approaches to integration, and to assist countries to plan and implement integrated primary health care programs.

For the past three years, activities have centered around the sharing, adapting, and borrowing of experiences and lessons learned to better understand and resolve issues associated with providing integrated services in the ESA region. With funds and technical assistance from BASICS, the network held a large conference to launch the integration focus area. Participants at the conference developed an agenda and regional workplan for integration activities. Subsequently, BASICS and REDSO staff members conducted a costing analysis of three sites to determine the cost implications of integrating services. These data were presented at the APHA in November 1996, and also contributed to the overall study being conducted by the CAs on ways to improve the delivery of integrated services. A follow-on integration conference took place in 1998.

10. Share, borrow, and adapt experiences and lessons learned to develop and sustain the quality of health services in African countries.

In September 1996, a large group of experts and decision makers from the region set the agenda for Quality of Care. The participants selected six priority areas for improving quality of care: standards and guidelines; innovative training; facilitative supervision; logistic support for quality improvements; quality assurance; and cost and quality. Through conferences, study tours, regional workshops and meetings, many technical areas (nutrition, reproductive health, malaria) have been examined.

The Quality of Care Network in East and Southern Africa is now well-established, active, and housed within an African institution, the Regional Centre for Quality of Health Care, within the Institute of Public Health, Faculty of Medicine, at Makerere University in Uganda. The Centre's director and staff,

have dedicated space, a vision, and a program with objectives. It is developing courses, disseminating lessons learned and better practices, special studies, and in-country follow-up on implementation of quality initiatives.

Based on network experiences with other short-term courses for the region, the Centre has developed a series of short-term courses for the region called Improving Quality of Care: Nutrition Update, Malaria Update, HIV/AIDS Update, Foundations in Logistics, Foundations in Quality Improvement, and Foundations in Operations Research. The network is also working with the Centre to develop a long-term course, beginning with a graduate diploma course in Quality of Health Care, to become a master's degree in science in two years.

Future Considerations

The success of health networks requires refinements to promote sustainability and management for results. Greater emphasis needs to be placed on developing African capacity to manage the network. Mechanisms need to be put in place to ensure consistent funding over the long-term and to allow a larger percentage of resources to go to the field, be managed there, and, to the extent possible, spent there.

REDSO has made great strides in sustaining the successes of health networks activity by institutionalizing regional health networking in African organizations. During the past four years, the REDSO health team has gained considerable networking expertise. In keeping with the principles of African ownership and capacity building to promote sustainability, REDSO has developed formal agreements to transfer responsibility for health networking to already-established African institutions, based on their organizational readiness to undertake networking activities and their experience working with networking partners in the region. In September 1998, a grant agreement was signed with a key partner, the Commonwealth Regional Health Community Secretariat (CRHCS), a regional body comprised of fourteen member countries through their MOH, to expand the impact of health networking activities throughout the ESA region. Established twenty-five years ago, CRHCS has tremendous potential to effect health policy and programs across the board. REDSO, collaborating with its CA partners, will work with CRHCS, CAFS, and Makerere during the coming years to strengthen the institutional capacity to manage and implement health networking activities.

In developing the activity during the past four years, the REDSO health team has gained considerable networking expertise. However, in keeping with the underlying principles of African ownership and capacity building to promote sustainability, the results package will try to transfer responsibility for health networking to already-established African institutions, based on their organizational readiness to undertake networking in particular focus areas, and their experience working with networking partners in the region. Other partners, with the potential to develop capacity in networking, will be identified over the life of the results package and will receive support to strengthen them, where appropriate. During the transition period, the REDSO health team will work closely with its African and CA partners to continue fostering and expanding the existing networks and identifying other focus areas for future development.

Senegal
Country Achievement Summary

Abstract

During the past five years, BASICS Senegal has worked closely with the National Service for Feeding and Applied Nutrition in Senegal (SANAS) to help reduce the number of infants who die because of dehydration resulting from diarrheal disease and malnutrition. BASICS has worked in 18 districts of the four regions that are supported by USAID: Fatick, Kaolack, Louga, and Ziguinchor. BASICS worked closely with the Management Sciences for Health (MSH) bilateral team as a component of the Child Survival and Family Planning (CS/FP) project of USAID Senegal. BASICS' plan of action focused on strengthening the control of diarrheal diseases (CDD) and on nutrition programs that are the responsibility of SANAS.

BASICS defined the six Senegal program objectives to conformity with the guidelines of the USAID/ Dakar mission's health bilateral—the CS/FP project. BASICS Senegal project objectives focus on preventing dehydration through proper management of diarrhea at home and in health facilities, and preventing malnutrition by promoting adequate infant feeding.

BASICS work in Senegal (1) improved the Ministry of Health's (MOH) capacity to plan, implement, and evaluate child survival programs, (2) increased access to standard case management for diarrhea and malnutrition, (3) improved diarrhea and malnutrition prevention and home care, (4) increased nutrition education through growth promotion in children under 3, emphasizing adequate infant feeding, (5) improved the nutritional status of pregnant women, and (6) promoted exclusive breastfeeding in the rural health posts and in their communities.

Context

At the start of the BASICS program in Senegal, the population of Senegal was estimated at 8.1 million, with 60 percent of the people living in rural areas. Literacy rates in Senegal are approximately 37 percent for males and 18 percent for females (DHS, 1992/93). The child mortality rate is estimated at 68 per 1,000 live births, the infant mortality rate is 131 per 1,000 live births, and the maternal mortality rate is 510 deaths per 100,000 live births (DHS, 1992/93). Although there have been significant decreases in respiratory infection, malaria, diarrhea, and malnutrition, these diseases still threaten the health and survival of children.

The DHS of 1992/93 showed that 13 percent of infants and children under 5 in urban areas were malnourished and 24 percent in rural areas were malnourished. While more than 90 percent of mothers breastfeed their infants, women do not breastfeed until several hours after birth and colostrum is rarely given to the infant. Exclusive breastfeeding of infants under 4 months is low.

Only 5.7 percent of the national budget is allocated to health, half the level recommended by WHO. Two-thirds of the budget is allocated to personnel expenses and very little to operating costs. In 1998,

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most of the funds for health programs came from donors. Among the 75 percent of the population that has access to health services, only 15 percent benefit from effective preventive services and only 6 percent from effective curative services. The vaccination rate for infants under 1 year is estimated to be only 45 percent. The DHS 1992/93 showed that 21 percent of infants and children under 5 had one episode of diarrhea during the previous two weeks.

A health facility survey for CDD conducted in 1994 in the four regions supported by USAID showed that only 33 percent of health agents fulfilled the criteria for case management of diarrhea. In addition, only 14.1 percent of mothers were correctly counseled by health workers about management of diarrhea in the home. A survey conducted with SANAS to analyze the Country Activity Plan showed that there were insufficient numbers of health agents and the quality of services was inadequate to carry out all the activities and responsibilities of the service. The coordination and collaboration with NGOs working on child survival, as well as with donors, was also poor. Based on these studies, BASICS prepared a strategic plan with six objectives and activities to support the CDD and nutrition program in the four USAID-supported regions.

Scope

BASICS has focused on each health level in the 18 districts of the four regions supported by USAID, Fatick, Kaolack, Louga, and Ziguinchor. The population in these regions represents one-third of Senegal's total population, or about 2.7 million people.

Objectives

1. Improve the capacity of the MOH to plan, implement, and evaluate child survival programs.

A major effort for the BASICS Senegal Country program has been to assist the MOH in 18 districts in four regions to develop health plans that include CDD and nutrition activities. To help implement these activities, BASICS has provided training assistance: program management for SANAS agents and their regional representatives; information, education, and communication (IEC), and radio communication to help radio broadcasters and health workers develop radio spots about feeding pregnant women and children; and on the three rules for CDD home case management. BASICS sponsored a planning workshop on Integrated Management of Childhood Illness (IMCI) for the MOH, the Institute of Social Pediatrics at Cheikh Anta Diop University, UNICEF, WHO, OSTROM, and NGOs. BASICS also provided guidance on the adaptation of the IMCI food box for SANAS and the MOH in Senegal.

In 1995, BASICS developed a PROFILES nutrition advocacy software tool, specifically for Senegal, to demonstrate the economic benefits of addressing malnutrition. To ensure that cost-effective nutrition interventions are effectively integrated into health services at facilities and in the community, BASICS and SANAS staff conducted a Minimum Package of Nutrition Interventions (MinPak) assessment in two districts in 1997. During a workshop, a guide to feeding and nutrition was developed by SANAS, BASICS, and the University of Dakar (Institute of Social Pediatrics, Institute of Food Technologies). To assist the MOH in evaluating child survival programs, BASICS supported a number of baseline health facility surveys. In 1994 and 1997, a CDD Health Facility Survey was conducted in all four regions.

BASICS started providing SANAS assistance in planning in 1993, and by 1994 all 18 districts had improved child survival activities and strategies in their annual plans. Implementation of the activities began in 1994 and continued through 1998. An IMCI committee was established and subcommittees are working to adapt the WHO/IMCI modules; the committees will meet in June 1999 to discuss their progress. SANAS/MSPAS and WHO are leading this activity, with BASICS providing technical assistance in nutrition, CDD, and other areas.

PROFILES presentations were conducted in 1996/1997 by health personnel trained by BASICS, National Center for Information, Education, and Communication for Health (CNIECS), and MSH in how to use the software. As a result, a National Nutrition Plan of Action was developed and presented by the Ministry of Health and Social Action (MSPAS) and the Ministry of Agriculture at the FAO conference in Rome. To further the work in nutrition advocacy, the head of SANAS plans to present PROFILES to the Senegal National Assembly and to community leaders in the four regions.

By 1997, MinPak had been adopted and adapted for two districts. To incorporate a BASICS' objective of improved nutrition for pregnant women, "mothers' diet" replaced the component on iron-folate supplements under the MinPak component, although iron supplements are now inclusive under the mother's diet initiative, which was originally aimed at the health facility/center level. To increase contact with the community, growth promotion was added to MinPak. To promote ownership of the MinPak, its name was changed to *Paquet d'Activitiés Intégrées Nutrition (PAIN)*, or bread in French. Findings from a December 1997 evaluation of *PAIN* activities in the two districts showed that vitamin A and iron-folate procurement and distribution had increased during the four months of PAIN implementation. Vitamin A coverage increased dramatically. Before the introduction of PAIN, vitamin A was given only to children with measles, in just four months after the introduction of PAIN, 20 percent of children under 5 were receiving vitamin A. Knowledge of PAIN protocols was high for both health staff and community workers. To support PAIN, BASICS/SANAS reformatted and tested a Feeding and Nutrition Guide. The guide was completed and disseminated to health center and health post nurses in the 18 districts.

The 1994 Health Facility Survey (HFS) provided a baseline of knowledge and practices to diagnose and treat diarrheal disease at health facilities in the four regions. The 1997 survey helped determine impact and program areas that needed attention. Many of the indicators improved during the three-year period. For example, at health centers in three regions the correct evaluation of diarrhea had improved from 35 percent in 1994 to 40 percent in 1997, while in the fourth region correct evaluation increased from 36 percent in 1994 to 57 percent in 1997. There was also an overall improvement in the diagnosis of diarrhea in the regions. The treatment of diarrhea improved almost two-fold in two regions. Because a few important indicators did not show improvement, simplified targeted retraining was held, stressing the most important points. By the end of September 1998, all nurses at health centers and posts in three regions had been trained.

BASICS and the Division of Statistics conducted research on the preceding birth technique (PBT), a recently developed method for measuring early childhood mortality, and found that the best way to estimate infant mortality was to interview women at delivery and postpartum. The MOH adopted PBT as a rational approach and Division of Statistics in the MOH integrated PBT in the Health Information System.

2. Increase access to standard case management for diarrhea and malnutrition.

BASICS has improved the management of severe cases of diarrhea and malnutrition in the 18 districts. Its strategy has been to make quality services more accessible by training health workers in correct case

management of diarrhea and malnutrition. In addition, because there were few IEC materials and messages on the subject, a major BASICS activity was to develop materials; job aids for health workers, and educational materials and messages for mothers and families.

BASICS helped set up URO/CRENs where severe diarrhea and malnutrition can be managed at each health center. Health center staff were trained by BASICS to manage the URO/CRENs and properly treat children referred with diarrhea and malnutrition. BASICS developed a manual for staff use and provided the necessary supplies. USAID bought 1.5 million sachets of oral rehydration salts, which BASICS distributed to URO/CRENs, other health center units, and health posts.

Health workers have obtained training under PAIN to provide nutritional care of the sick and malnourished child. Simple messages on feeding sick children were developed by SANAS and CNIECS and disseminated to health workers in facilities and the community. Job aids on this component were adapted and translated into French and will be used in the expansion of PAIN to 15 districts. Two types of posters on CDD have been developed, produced, and distributed for health center and post use. The first is a counseling tool that prompts the health worker about the messages to give a mother when her child has diarrhea (continue to feed, give frequent feeding, use ORS, and so on). The second is a poster with the technical protocols for the health worker to follow for CDD case management.

3. Improve diarrhea and malnutrition prevention and home care.

BASICS and SANAS conducted several activities to improve the quality of care in preventing and managing diarrhea and malnutrition in the home. To better understand family feeding practices for small children and pregnant women, staff conducted qualitative research in the Kaolack and Louga regions. Messages were developed for counseling cards and other printed materials and radio spots, and a protocol for an evaluation of the radio messages was developed by BASICS. All work done in Senegal is in a partnership with SANAS, CNIECS, and WHO. BASICS gave technical assistance to support breastfeeding, in collaboration with UNICEF, during World Breastfeeding week.

The qualitative research results were used to develop messages for six radio spots in seven national languages, and for printed materials (counseling cards) for the program. The radio spots were broadcast from January through April 1999 in the three regions that have local radio stations. Each spot was broadcast 100 times during that period. This gave the community an opportunity to ask questions and give feedback. It gave SANAS and others feedback on existing programs and suggested other programs to address these problems.

A package of counseling cards on maternal and child nutrition and the control of diarrheal disease have been tested in French and Wolof. These cards are appropriate for use by health facility workers and literate community health workers, trained under the PAIN program or other community members, such as NGOs or women's groups. BASICS distributed 1,000 packages of the cards for USAID regions and, with SANAS, trained health workers in four USAID-assisted regions in the appropriate use of the nutrition counseling cards. SANAS plans to produce the cards needed for the other six regions in the country. In addition, 1,000 posters with information for mothers on the three rules of home case management of diarrhea were printed and distributed, and posters have been developed for mothers on the control of diarrhea disease.

A network of 30 journalists dedicated to reporting on health, including child survival, has been established in each of the radio and written press networks to foster wide dissemination of child survival problems and their solutions in newspapers and on radio programs throughout Senegal. A plan has also

been made for a video on PAIN that can be shown in the waiting rooms of health centers where VCR equipment exists to reinforce the components of PAIN and give the contacts where women can obtain certain services related to PAIN.

4. Increase nutrition education through growth promotion in children under 3, emphasizing adequate infant feeding.

The community-based nutrition activities under BASICS use growth promotion as an entry the community. If prevention of malnutrition is a goal, a mechanism for changing behaviors and practices at the household level is needed. The Dioffior growth promotion program was initiated in 1992 with assistance from the PRITECH project. BASICS and its partners conducted consultative research on feeding sick children, and growth promotion was established in the community with supervision provided by the health post nurse. An evaluation by a BASICS consultant found, however, that because the link with the health center had deteriorated, growth promoters had lost their credibility in the community and women stopped bringing their children to sessions to be weighed. The results of this evaluation were presented to SANAS representatives from the four regions, who agreed this intervention is a useful activity and could be expanded to other districts. Health staff and community workers in Dioffior were retrained to improve the quality of the activities.

Growth promotion activities at the community level expanded in 1998, with health center and post staff trained in five additional districts. Community workers of health center communes were also trained in nine districts. In all, 15 districts have had community growth promotion activities.

The Dioffior program was reinstated with newly trained community workers and health staff in July 1997. The coverage for the program has increased since, from 992 children enrolled in July to 1,907 children enrolled in December, but this is still only 27 percent of the estimated number of children under 3 years of age living in the program area. The percentage of children not growing or declining in growth has consistently decreased since the beginning of the program, with an overall decline from 35 percent of children not growing or declining in growth in July to 25 percent in December (a 28 percent decrease).

5. Improve the nutritional status of pregnant women.

An evaluation of feeding counseling provided during prenatal visits helped improve the nutritional status of pregnant women when evaluators observed that pregnant women were not regularly counseled about their diet. If counseling was given, it tended to be vague and not individualized. No counseling materials exist to help health personnel in this area. In 1998, PAIN was adapted to include mothers' diet in 15 districts. Other components of PAIN provide additional support for improving the quality of the diet by ensuring the distribution and intake of iron-folate supplements and the promotion of adequate intake of vitamin A during pregnancy.

Because postpartum women were not receiving vitamin A capsules, health workers were trained to give them the capsules. Under PAIN, a focus had been placed on the correct contacts and protocols for distributing vitamin A to all vulnerable groups. Coverage for postpartum vitamin A is expected to increase if community workers counsel newly delivered women to obtain vitamin A from health facilities.

Iron-folate supplements are promoted through PAIN. Counseling messages to improve compliance with iron-folate supplementation, which can often be low, have been developed and disseminated. In addition, use of the supplements tends to be low when pregnant women attend prenatal care late in their pregnancy or not all. Matrons have been identified to provide iron-folate supplements in the community, and all

community health workers encourage women to visit a health worker to obtain the pills. In Sokone district, supplements purchased in one post due to PAIN promotion increased more than 200 percent in only five months.

6. Promote exclusive breastfeeding in the rural health posts and in their communities.

Exclusive breastfeeding has been supported through two major activities that will be linked: (1) assist health centers in meeting the 10 steps of a "Baby Friendly" facility, and (2) exclusive breastfeeding (initially supported under PAIN in two districts, and then expanded to a total of 15 districts in 1998).

BASICS trained 252 nurses and midwives from health centers and posts in the 18 districts in breastfeeding. In February 1997, BASICS/SANAS conducted a supervisory visit at health centers. No health center had a statement on breastfeeding (one of the 10 Baby Friendly steps). In 1998, formative supervision was conducted by SANAS, several nurses, and a BASICS consultant. Centers in three regions were helped to write statements on breastfeeding, and all health center matrons were trained.

Future Considerations

Two effective approaches, PAIN and growth promotion, have helped integrate nutrition into health services at facilities and in the community. Additional integration will occur when IMCI protocols are adapted and implemented in two districts. Considerable progress has been made at improving knowledge of health workers in nutrition, and coverage for the micronutrients has improved in a short time. Continued technical assistance in supervision, evaluation, and on-the-job training is needed to continue to improve the quality of care. Institutionalizing protocols and training at the pre-service level would further support these interventions.

Short-Term Projects
Country Achievement Summary

Country Projects

Burundi
BASICS consultants traveled to Burundi in the spring of 1994 to develop a strategy for possible assistance in the control and prevention of epidemic dysentery, decentralization of health services, and re-establishment of a national Expanded Program on Immunization (EPI) program. To strengthen the treatment of dysentery and assist communities with adequate dysentery control measures, the consultants recommended that a strategy for training health personnel be prepared. The strategy included types of training activities, methods, target participants, and training materials. Civil unrest prevented BASICS from doing further work in Burundi.

Central African Republic (CAR)
A senior BASICS consultant traveled to the Central Africa Republic (CAR) in June 1995 as the Team Leader for the Midterm Evaluation of the USAID-funded Sustainable Child Survival (SCS) project. The expert found that the CAR is making demonstrable progress in ensuring that its children have an improved chance of survival. The SCS project is helping the CAR recover ground, lost during a three-year paralysis of the entire public health system, and to push ahead in other areas where, in the past, little activity has taken place.

Malawi
In 1994, two BASICS staff members worked with USAID/Malawi to provide technical guidance and recommendations for improved promotion, distribution, and use of oral rehydration salts (ORS) in Malawi. BASICS worked with Pharmanova, Ltd., USAID/Malawi, the Ministry of Health (MOH), and other participating organizations to develop an ORS social marketing strategy and a new ORS package design. The following year, a BASICS subcontractor assisted the mission, MOH, and Pharmanova, Ltd. to finalize the ORS package design. He also worked with the ORS marketing team on the final product launch plans and marketing communications strategies.

In early 1995, a team of BASICS consultants assisted USAID/Malawi in development of technical analyses to support the Community Health Partnership project. The team presented an assessment that focused on five areas: health interventions, institutional analyses, social soundness, economic/financial analyses and policy issues, assumptions, and risks.

Namibia

A BASICS' senior Expanded Program on Immunization (EPI) technical officer traveled to Namibia in late 1994 for discussions with USAID, UNICEF, WHO, and Ministry of Health and Social Services (MOHSS) about the needs of the EPI effort in Namibia and to acquaint the same agencies with the technical role played elsewhere by BASICS in support of sustainable development of EPI within the context of integrated primary health care services. Recommendations for future activities included (a) assessing health facilities, (b) preparing IEC/Social Mobilization campaigns, (c) assisting MOHSS to prepare five-year strategic and financial plans to estimate program costs and to plan for the phasing out of donor support, (d) promoting formation of an Inter-Agency Coordinating Committee (ICC), (e) reviewing immunization policies, (f) assisting MOHSS to define an appropriate role for the private sector in various aspects of program support, and (g) assisting the MOHSS in its attempt to strengthen transport policies and improve transport management practices.

Nepal

A senior BASICS technical advisor traveled to Nepal in early 1995 to assist in the testing of a vaccine supply methodology. The MOH/WHO/UNICEF joint team, of which the BASICS expert was a member, made several findings and recommendations regarding immunizations strategy, forecasting methodology, vaccine supply and financing, and vaccine licensing and quality control procedures.

During the summer of 1996, a senior BASICS consultant traveled to Nepal as a member of a three-person WHO team that was preparing for national immunization days (NID) for polio eradication (which took place in December 1996 and January 1997). The consultant conducted a rapid assessment survey of the vaccine cold chain at national, regional, district, and immunization outlet levels of the system, using a standardized protocol (WHO TECHNET 1992), and visited the national vaccine store, two regional vaccine stores, five district stores, and three immunization providers. In addition, a review of equipment and supplies on order for the routine immunization program, as well as for the NIDs, was carried out with the cooperation of both UNICEF/Kathmandu and WHO/Nepal. The consultant also reviewed an equipment inventory study conducted by a national UNICEF consultant in one region. The findings are indicative of the range of problems and are the basis for the report's recommendations.

Nicaragua

Two BASICS technical officers traveled to Nicaragua in early 1997 to help introduce IMCI to potential partners and to begin laying the groundwork for the country's participation in the new LAC Regional IMCI initiative. In mid-1997, a BASICS technical specialist paid a follow-up visit to Nicaragua as part of a joint PAHO/BASICS IMCI team.

Peru

A BASICS consultant traveled to Peru during the fall of 1996 to help the Ministry of Health's Expanded Program on Immunization (EPI) start a program on the prevention and control of hepatitis B. The consultant developed an information, education, and communication (IEC) strategy that identified channels of communication and target audiences, and their information needs. IEC recommendations included use of media, materials needed, messages to develop for proposed target audiences, and a draft strategy describing locally available resources. Cost estimates for producing materials for different media were provided, based on the experience of NGOs.

South Africa
Country Achievement Summary

Abstract

In response to a request from the South African government, USAID/South Africa identified high priority activities in primary health care that would lay the groundwork for a longer seven-year EQUITY in the Integrated Primary Health Care (PHC) project. As part of *Bridging Activities* for the equity project, BASICS (collaborating with INTRAH/PRIME) trained a cadre of trainers in PHC, in the target site of Eastern Cape Province, to improve the quality and access to integrated PHC services for the community through accelerated preparation of regional and district-based PHC trainers. A six-month PHC Comprehensive Skills curriculum was developed using distance teaching methodologies, which included six modules, each building on and expanding knowledge, skills, and applications from previous modules. The distance-based training approach, assisted by mentors/ preceptors, included face-to-face sessions, self-study, and worksite applications.

The twenty-one regional PHC trainers in Eastern Cape Province trained improved their PHC knowledge, management and training skills, curriculum and materials development experience, and consensus building skills. Nine PHC facilitators, mentors, and preceptors were also trained in PHC knowledge, management and training skills, and practical applications. Distance-based PHC training materials and learning modules for training PHC trainers were tested, revised, and disseminated to other provinces.

Context

The momentous political events in 1994 was an opportunity for the new South African government to develop a health system that would correct the problems of inadequate access to services; fragmentation of services; emphasis on curative, not preventive, services; and inadequate resource development and management during the past fifty years. The 1994 Health Plan for the Government included the achievement of equitable health services for the entire population through a coordinated and decentralized national health system devoted to the promotion of priority health interventions, with an emphasis on preventive care and health promotion.

The Department of Health (DOH) wanted rapid decentralization of implementation responsibility for PHC to the provincial health authorities. PHC knowledge, training skills, and management skills were to be substantially improved. At the same time, the new role of the central DOH had to be practically defined and mechanisms developed to allow the DOH to influence, support, and monitor the quality of implementation at the provincial level, in a way that was both effective and acceptable to central and provincial decision makers.

In 1995, the government of the Republic of South Africa and USAID agreed to implement four short-term activities aimed at laying the groundwork for a longer seven-year EQUITY Health Care in the PHC project. The four activities, or Bridging Activities, took place over 24-months, including

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(1) Demographic and Health Survey (DHS), (2) situational analysis, (3) training in PHC health management, and (4) PHC nurse clinician training. BASICS and the INTRAH/PRIME project for PHC clinical training; CDC/Data for Decision-Making (CDC/DDM), and the MSH/Family Planning Management Development Project (FPMD) for PHC Management Training were the collaborating international agencies responsible for the design and implementation of the assistance.

Scope

Eastern Cape Province was selected by the DOH as the site to implement the PHC clinical training program because of its largely rural character, low socio-economic status, weak health infrastructure, and willingness of the Provincial Department of Health to participate in and continue training efforts. Provincial PHC trainers were trained with improved PHC knowledge, management and training skills, curriculum and materials development experience, and consensus building skills. PHC facilitators, mentors, and preceptors were trained in PHC knowledge, management and training skills, and curriculum and materials development. Distance-based PHC training materials and learning modules for training of PHC trainers were tested, revised, and disseminated to the other eight provinces. Innovative distance-based training technologies were implemented and considered for replication in other provinces.

Objectives

1. Use Bridging Activities to improve PHC services by expanding the knowledge and skills of service providers, particularly those posted in rural, hard-to-reach areas.

The training component of the Bridging Activities is summarized in the following section:

The PHC comprehensive clinical skills in-service training course for rural nurse clinicians
Led by the Eastern Cape Provincial Department of Health, collaborating with INTRAH/PRIME and BASICS, the training course improved the quality and access of integrated PHC services for the community through accelerated preparation of regional- and district-based PHC trainers. A working group was established to develop a PHC Comprehensive Skills curriculum. With assistance from BASICS and PRIME, the group designed a six-month course using an adaptation of a distance-based training approach. The course consisted of six modules, each beginning with a one-week, face-to-face session, followed by three to four weeks of self-study and worksite applications assisted by mentors/ preceptors. The modules were incremental, each building on and expanding knowledge, skills, and applications from previous modules, including distance-based learning materials with practical activities, self-assessment questions, self-tests, and additional readings. This innovative approach reduced the amount of time trainees spent away from their worksite and built on South Africa's long-term experience with distance-based learning. One group of 21 trainers/service providers was trained using this curriculum. Nine tutors and regional trainers were trained on-the-job to facilitate face-to-face sessions; they co-trained, with technical assistance consultants, and supervised the trainees during the on-site phase.

PHC management in-service training course for health care managers at the provincial level
The National DOH led this activity with assistance from CDC/DDM. Collaborating with the DOH, curriculum and course materials were developed for a six-week, face-to-face course for 30 managers from the nine South African provinces. BASICS provided technical assistance in the design of the course and management/logistical support during the implementation phase.

Future Considerations

An external evaluation was conducted by USAID, and the lessons learned were shared with the follow-on bilateral EQUITY project. To increase the number of service providers who have PHC expertise, the PHC Comprehensive Clinical Training curriculum was to be implemented by the 21 trainers in their respective regions in the province. The PHC curriculum and distance-based learning materials were shared with the other eight provinces. Recommendations centered around the need for a post-training evaluation of the trainers at the end of one year.

War Victims

Among the first activities carried out by BASICS were technical assistance missions in support of War Victims, in five countries:

Angola. A BASICS consultant visited Angola in the summer of 1994 to follow-up an initial visit made earlier that year. The specialist analyzed several proposals from the Christian Children's Fund, Handicap International, and Save the Children Federation. Recommendations of the proposals were made to USAID.

Laos. A BASICS team traveled to Laos in November 1993 as part of a War Victim's Fund evaluation. The team assessed the following: grantee project status, current prosthetics technology, technical quality of the prostheses produced by the grantee, relations between the grantee and the Lao People's Democratic Republic, and feedback from the government about current and future activities. In June 1994, a BASICS consultant returned to work with USAID/Bangkok to review the progress under the War Victims' Fund grant to World Vision. While in Laos, the expert evaluated the technical quality, training needs, and outreach programs of a local prosthetic workshop and made recommendations to improve the effectiveness of World Vision's current program.

Liberia. A BASICS team traveled to Liberia in early 1994 to assist in USAID in evaluating UNICEF proposals for technical and financial assistance to children's programs and to gather information on the condition of disabled persons in Liberia. In April 1994, a BASICS consultant again visited the country to follow-up on recommendations made by the previous team. The expert further assessed the possibility of programs for handicapped people and studied and revised a UNICEF war victims proposal.

Sri Lanka. In the spring of 1994, a BASICS consultant traveled to Sri Lanka to assist USAID and local NGOs in assessing the need for assistance with vocational training and preparation, vocational rehabilitation, and job placement for the handicapped.

Vietnam. In October 1993, a team of BASICS staff consultants visited Vietnam on behalf of the War Victims' Fund. They assessed the needs of the disabled, availability of services to war victims, program management, and the role of USAID. Recommendations were made based upon the assessment. In early 1994, a BASICS consultant returned to conduct a follow-up assessment of the recommendations made during the previous visit. The specialist visited various orthopedic centers and assessed the quality of their work and their training needs.

Zimbabwe

In early 1998, USAID/Zimbabwe requested that a BASICS consultant assess the vaccine procurement organization and procedures, and examine the type of technical assistance required. The specialist made two additional visits to train MOH officials in the international tender and bid process, and quality assurance. The USAID/BASICS/WHO *Reference Manual for Procurement of Vaccines for Public Sector Programs* was used as a reference guide. This manual will become the standard for African countries, in circumstances similar to Zimbabwe, who wish to procure their own vaccine.

Short-Term Project
Country Achievement Summary

Tanzania

In early 1995, a BASICS team traveled to Tanzania to assist WHO in testing IMCI training materials. The course was designed to promote the optimal outpatient management of sick children attending first-level health facilities. The nine-day facilitator training was followed by an 11-day training of health workers.

A BASICS consultant visited Tanzania in mid-1996 to participate as a technical advisor in a joint U.S./Japan health planning mission to Tanzania. The consultant conducted a rapid situation analysis for both the regular activities of Tanzania's Expanded Program on Immunization (EPI) as well as preparatory work for the first NID for polio eradication.

In mid-1997, a BASICS Technical Officer joined a USAID-UNICEF-WHO team that reviewed immunization program experience in Tanzania. The major finding was that health sector reform is leading to a reorganization in the management and delivery of immunization services. This restructuring is being introduced at the same time that the national immunization program is faced with implementing intensive activity in connection with the global initiative to eradicate polio.

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Short-Term Project
Country Achievement Summary

Uganda

BASICS carried out several technical assistance assignments in Uganda in support of their immunization program. In November 1996, a BASICS technical officer traveled to Uganda to work with the Uganda Expanded Program on Immunization (UNEPI) central management and district health teams to assist in the preparation of Uganda's first NID for polio immunization, primarily on logistics preparations and refining monitoring and supervision tools. Assistance focused on the immunization delivery strategy, contingency planning for unexpected problems with the cold chain and logistics system, tools and guidelines for supervision and monitoring, and management of vaccine supply.

In February 1997, the same technical officer returned to Uganda to develop UNEPI's approach for implementing district planning and strengthening polio/acute flaccid paralysis and other EPI diseases surveillance at district and local levels. He worked with UNEPI management and the working group established by UNEPI for planning and implementing an improved disease surveillance system. With the working group, the adviser visited Iganga District to initiate planning on disease surveillance and to field-test their checklist on assessing district capacity for a surveillance system.

In the fall of 1997, a BASICS consultant teamed with a DANIDA consultant, under the auspices of WHO/Geneva., to identify key issues in Uganda for immunization services in health reform settings and to provide guidance for sustaining and increasing the impact of immunization services in settings where health systems are undergoing reform. After the field trips, the specialists debriefed with staff at WHO/Geneva's EPI Unit of the Global Programme for Vaccines and Immunization (GPV). A reference guide and case study descriptions of immunization services were later produced utilizing information gathered during the assignment.

Short-Term Project
Country Achievement Summary

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Zambia
Country Achievement Summary

Abstract

The government of the Republic of Zambia (GRZ) asked USAID, through BASICS and the Zambia Child Health Project (ZCHP), to provide technical leadership for their comprehensive health reforms. BASICS, closely collaborating with WHO, UNICEF, bilateral aid agencies, and nongovernmental organizations (NGO), assisted many areas that directly supported the health reforms and USAID Results Framework.

To improve health worker performance, BASICS led the introduction of the Integrated Management of Childhood Illnesses (IMCI) and helped ensure its acceptance as national policy. More than 450 health workers have been trained, and a national cadre of IMCI facilitators exists. A series of health facility assessments (HFA) was conducted, demonstrating the training' effectiveness. BASICS had an integral role in developing the Integrated Technical Guidelines (distributed to every health worker in the country) and generic training materials for the IMCI components. BASICS also provided technical assistance in developing national information, education, and communication (IEC) capacity and materials to increase demand for services and effectively support the implementation of the Essential Health Care Package. The pioneering work with Community Partnerships and "Centers of Learning" gave BASICS and its collaborators an opportunity to develop an effective approach to community mobilization and empowerment. In Community Partnerships, BASICS introduced the Participatory Learning and Action (PLA) methodology, and developed training modules and a PLA manual, now used by all districts and health centers. BASICS also produced modules for front-line health workers; supported the initial efforts to fortify all of Zambia's sugar with vitamin A; and contributed to the development, testing, training, and nationwide roll-out of a new Health Management Information System (HMIS).

Context

The new Movement for Multi-Party Democracy (MMD) government, elected in 1991, launched a comprehensive and courageous reform of Zambia's health system. With support from many donors, the GRZ set out on a rapid course of decentralization in health, which will lead, hopefully, to better access to higher quality services. Specifically, the goal of the health reforms is *to provide equity of access to cost-effective, quality health care as close to the family as possible.* All of the country's 72 districts prepares annual plans and budgets that are reviewed and approved by the Central Board of Health (CBoH). Districts are then eligible for government funds, as well as pooled donor funds, known as basket funding.

Zambia, a country of almost 10 million people, suffers from a high child mortality rate: nearly 200/1,000 live births, and an infant mortality rate of 109/1,000 live births (1996 DHS). Alarmingly, this rate has increased in recent years because of chloroquine-resistant malaria and the HIV/AIDS pandemic. The major causes of infant and child mortality are typical of countries in sub-Saharan Africa—malaria, diarrhea, respiratory infection, and malnutrition. The 1997 Situation Analysis in Zambia showed that access to health services is good when measured by the convenience of opening hours, travel time, waiting time, and cost of services. Before the health reforms, the Ministry of Health (MOH) channeled its

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health activities through vertical programs, such as Expanded Program on Immunization (EPI), Control of Diarrheal Diseases (CDD), acute respiratory infection (ARI), and others. Central-level technical capacity has been sharply reduced in the transition to a decentralized health system. The health reforms aim to promote a more integrated approach to disease prevention and control, which involves and depends on strengthening district-level capacity. BASICS' presence in Zambia coincided with most of the transition to decentralization, creating both challenges and opportunities for program implementation.

BASICS began work in Zambia about the same time that USAID decided to fully support health and family planning activities. USAID looked to BASICS to carry out technical analyses to provide the background and rationale for a large bilateral health effort, the ZCHP. BASICS staff and consultants worked with the MOH, bilateral and multilateral donors, and USAID staff to design this comprehensive project to support the health reforms, enrich it with better technical (as opposed to administrative) content, and help USAID regain a voice in improving health services and outcomes in the Zambia health reforms agenda.

In early 1996, BASICS sent a team of resident advisors to implement a major portion of the ZCHP, while coordinating and supporting services to nearly a dozen other cooperating agencies, also working under the ZCHP umbrella. The BASICS team, a Chief of Party, Child Health Advisor, Community Mobilization Advisor, and Administrative Officer, each served for two to three years. The project office in Lusaka had many talented Zambians—technical and administrative. Activities were funded through delivery order, core, and field support funds and most program activities ended in December 1998. The office closed in February 1999.

Achievements were both numerous and substantial, often despite consequential events. Several events should be mentioned—the Minister of Health who fathered the health reforms was replaced in 1998. The new minister placed a moratorium on training for health workers. She was concerned that workers were absent from post too often for training events; and she was concerned about the "de-linking" process that caused tremendous staff movement, job uncertainty, and morale problems for MOH civil servants; aggressive inflation and devaluation of the local currency; and continually evolving relations between key donors and the GRZ.

Scope

BASICS activities in Zambia align with and fully support the USAID Results Framework. As with many country programs, BASICS in Zambia targets specific geographic areas for intensive program development, but, through its policy and capacity-building efforts, its operations directly or indirectly affect the entire country. For example, the ZCHP has worked closely with partners, such as WHO and UNICEF, to introduce and begin the process of institutionalizing IMCI, now accepted by the GRZ as the protocol used to diagnose and treat all children in Zambia, and to counsel caretakers. While BASICS has trained only a small percentage of the health workers in IMCI, it has developed and produced a significant number of supporting training materials; guidelines; and IEC materials that will be the standard references in the national health program for years to come.

Similarly, a population of approximately 150,000 in 12 (out of 72) districts were directly involved in BASICS Community Partnership activities, but BASICS developed the guidelines and training materials used to replicate this approach nationwide. BASICS has impacted the national effort to create a new cadre of grassroots health workers, Public Health Practitioners (PHP), produced four modules (out of nine) for their in-service and pre-service training, as well as PHP manuals and guidelines. BASICS

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supported the CBoH to develop a HMIS for routine data that was rolled out nationwide. BASICS also supported the Quality Improvement unit of CBoH, by training health workers from eight out of nine administrative regions in quality improvement.

Objectives

BASICS work, under the USAID Results Package, has a goal of achieving "Sustainable Improvements in the Health Status of Zambians," and a strategic objective of "Increased Use of Integrated Child and Reproductive Health and HIV/AIDS Interventions," BASICS' activities include five intermediate results or objective areas.

1. Increase demand for population, health, and nutrition (PHN) interventions.

In late 1996, a BASICS inventory of IEC materials found few materials. Existing materials for health facility staff did not include user-friendly instructions. Since 1996, BASICS, in close collaboration with the CBoH through the newly created IEC Working Group, drafted a national IEC policy that has the support of partners, such as UNICEF and NGOs. For the first time, the GRZ has an IEC policy to support and promote the Essential Health Care Package (EHCP).

BASICS also helped develop and test integrated IEC materials for the EHCP, including a simplified Neighborhood Health Committee (NHC) handbook, with minimal text, that is easy for community health workers (CHW) to use when they work with the community. Also, at the community level, BASICS supported the development of an Integrated Flip Chart, a set of Integrated counseling cards, Nutrition Counseling Cards, and a Growth Monitoring and Promotion Manual, all field-tested and introduced in the development districts. The CBoH is interested in distributing the four IEC products for use in all front-line health facilities throughout the country; all materials are being used in combination with mass media. Anecdotal reports, based on health center caseload, indicate there has been an increase in demand for services associated with the use of IEC materials.

2. Increase the delivery of PHN interventions at the community level.

A major component of Zambia's health reform is the transformation from a facility-based system controlled by a highly centralized bureaucracy in Lusaka to a decentralized operation featuring district-based programming; budgeting and planning; and empowered communities, making the communities active partners in the health care system. To begin the process, the CBoH created the NHCs. BASICS contributed significantly to the development of a three-year Community Partnership strategy to ensure that the objective of the reform is achieved—to make health care accessible to all.

To support the development of the NHCs, BASICS helped the CBoH establish technical guidelines for how the NHCs should function, including how an NHC is formed, who is eligible for membership, how to select CHW, and the components of the EHCP. The project has used the experience from its "Centers of Learning" in the four Community Partnership districts to develop the supporting materials, which the CBoH adopted nationally.

BASICS developed three types of Community Partnerships: (1) the *rural* Community Partnership, carried out in three districts (Chipata, Chama, and Lundazi) of Eastern Province; (2) an *urban* modification, carried out in Kitwe District of Copperbelt Province, adds a private sector/commercial firm component to

the basic Community Partnership strategy; and (3) linking *NGOs* with District Health Management Teams (DHMT). Four districts participated in the third approach and the experience benefited both sides by demonstrating what can be accomplished when DHMTs and NGOs introduce Community Partnerships as a team.

BASICS introduced a number of techniques and materials to support the national Community Partnership effort. The PLA approach was developed to identify community health problems and potential solutions. The PLA includes community/risk mapping, a transect walk (to identify important local features), Venn diagraming (to identify resources that can be applied to solve community health problems), conducting a household health behavior survey, matrix ranking, establishing causal relationships, and holding focus group discussions. Experience has shown that communities become involved as active participants, generating plans of action and achieving some impressive results, such as construction and use of latrines, formation of nutrition clubs, construction of Primary Health Care units, linking with existing NGOs in partnership areas, and forming active drama groups as a health education strategy. The CBoH adopted the PLA methodology as the national tool for community planning, as part of the district's annual planning exercise.

To support the Community Partnership effort, BASICS developed an innovative Process Evaluation Checklist to monitor the progress made by health centers implementing the Community Partnership approach. Not only does the checklist show progress over time, it constantly reminds the DHMT and health center staff of the Primary Health Care components of effective community involvement, including child survival. Moreover, it identifies areas the center must strengthen to achieve a higher score and who is responsible for carrying out necessary actions. This understanding is signed by representatives of the DHMT, health center, and community.

In the urban (Kitwe) version of Community Partnership, private partners expressed an interest in participating, including Lever Brothers, Lions Club, Gamma Pharmaceuticals, and Ndola Catholic Diocese. The approach has demonstrated that an effective grassroots partnership can be formed between the health office, community, and private sector to improve health and nutrition status. Two major interventions—Growth Monitoring and Promotion (GMP) and Household Water Chlorination—were tested using this approach. A community-based GMP was developed in three Kitwe communities by BASICS and Manoff. As of December 1998, 60 Child Health Promoters, in addition to seven DHMT supervisors have been trained. CDC spearheaded the water chlorination project in Kitwe. The product, "Chlorin," has been launched in Kitwe and Lusaka districts by Population Services International (PSI). More than 30,000 bottles have been sold.

In the NGO/DHMT variation, the initial experience in the four districts is positive and will continue to expand in USAID's follow-on phase to ZCHP. The Church's Medical Association of Zambia (CMAZ) was contracted to continue linking NGOs and DHMTs, as well as developing the institutional capacity of indigenous NGOs to more broadly and effectively participate in child survival efforts.

3. Strengthen the public and private sector partnership for child health.

Zambia's health reformers also want to know if the country's private practitioners can play a significant role in delivering and promoting child health services. BASICS provided on-the-ground support to two groups: Population Services International and the Partnerships for Health Reforms project. Both groups explored different approaches to working with private sector health care providers. Several other options may be explored in the future.

Another activity under the private sector component of the ZCHP, which received funding from BASICS, was the vitamin A fortification of sugar. With the cooperation of OMNI, studies were made to determine sugar consumption patterns and the acceptability of fortified sugar. The National Food and Nutrition Commission of Zambia, collaborating with the Zambia Sugar Company, launched a national vitamin A sugar fortification program in April 1998. Since May 1998, all sugar in Zambia, designated for household consumption, has been fortified. Initial results indicate that fortified sugar has been well received. Based on the success of this fortification process, plans are underway to fortify mealie meal (the maize staple food in Zambia), with vitamin A. In June 1998, BASICS also trained all sugar company health center staff in IMCI. Zambia Sugar, the only sugar company in Zambia and the largest provider of health services in Mazabuka district, now provides quality child health services in collaboration with the Mazabuka DHMT.

With technical and financial assistance from OMNI and NFNC, the UTH/UNZA School of Medicine conducted a baseline survey of the serum retinol levels of children 0–6 years, before the launch of the fortified sugar. It is anticipated that a follow-on study will be conducted during the fall of 1999 to determine the effectiveness of the fortification.

4. Improve health facility worker performance in the delivery of PHN interventions.

IMCI has been adopted by the architects of the Zambian health reforms because it supports programmatic integration, one of the reform's basic principles. Since BASICS introduced IMCI in Zambia in May 1996, the CBoH has given its full support, and plans have been developed to adopt it nationwide. About 450 Zambian health staff and trainers have completed the 11-day IMCI training; at present, people from 14 districts and a number of health worker training institutions have been introduced to IMCI. In Eastern Province, district-wide saturation of IMCI has reached levels as high as 90 percent in all BASICS focus districts. In the urban districts of Kitwe and Lusaka, saturation is lower at about 60 percent because of the larger size of the health center staff.

To determine and demonstrate the effectiveness of the IMCI training, baseline HFAs were conducted in three areas (Kitwe, Lusaka urban, and Lusaka rural). The studies show that after more than a year post-training, health workers clinical skills in diagnosing and treating child illnesses and counseling caretakers remain significantly higher than at baseline. For example, in urban health facilities in Lusaka only 2 percent of the health worker's counted respiration prior to IMCI training; this increased to 70 percent three months after training and, after nine months, remained at 65 percent.

BASICS collaborated with the CBoH to initiate an integrated approach for supervision to reinforce positive behaviors and identify any potential performance problems. This instrument helped reverse a slight trend in falling performance among health workers that began about a year after IMCI training. BASICS organized integrated supervision workshops for members of the DHMTs in target districts; some of the DHMTs later used the integrated checklist to conduct routine support visits to health centers.

Zambia was the site selected by BASICS Headquarters to develop a simplified IMCI course for less literate health workers. The "Complementary Course" has been field-tested in Zambia and may be used for certain cadres of workers as part of their pre-service or in-service training. With modifications, the Complementary Course is now being used in Bolivia.

The success of the approach in Zambia, to date, combined with the strong support of the CBoH, has lead districts to request IMCI training; some have even budgeted scarce resources in their district budgets to cover their portion of the costs. In addition, collaborating partners, such as WHO and UNICEF, have supported the introduction and capacity building in IMCI. The IMCI course has been incorporated into national in-service training programs for first-line facility workers (the Public Health Practitioners) and into pre-service training for physicians and nurses. For example, in March 1998, as potential IMCI facilitators, 16 instructors from nursing training institutions around the country received IMCI training.

BASICS also produced four modules (out of nine) that will be used nationally in the training of Public Health Practitioners on Water/Sanitation (diarrhea and malaria), Well Child (immunization and nutrition), Sick Child (Zambia-adapted IMCI module), and Key Approaches (IEC, Community mobilization, and gender). BASICS produced the Growth Monitoring and Promotion manual and Integrated Technical Guidelines (used in all 72 districts to train 10,000 health workers). Ten thousand copies of the technical guidelines booklet were printed and distributed to health workers.

5. Improve policies, planning, and support systems for the delivery of PHN interventions.

BASICS has an important role in both the Child Health and Malaria Advisory Groups. Both groups formulate policies, strategies, and guidelines; and review plans and progress on respective programs. One result is the development and adoption of a national malaria policy. Besides policy development, BASICS supported an accelerated malaria initiative in Eastern Province of Zambia. To date, approximately 90 percent of the health workers have been trained in malaria case management and, in collaboration with PSI, more than 2,000 impregnated bednets have been sold to the communities.

PHR and BASICS strengthened the government's ability to assess, analyze, design, implement, monitor, and modify, as required, health care finance policies to support the decentralized health care system. Based on the findings from a cost-sharing assessment in five districts, PHR made some suggestions about the retention and use of locally generated revenues, which were accepted by the CBoH.

BASICS developed, published, and disseminated District Technical Planning Guidelines for DHMTs to all districts and regional offices. The guidelines have improved the quality of the district and health center annual action plans, especially better program planning for child health, and quantification of drugs, vaccines, and other medical supplies. To date, all 14 focus districts have IMCI in their action plans and they budget a substantial amount to support its implementation.

BASICS has provided considerable technical assistance to support a new HMIS. Working closely with DANIDA and CDC/Data for Decision Making (DDM) project, the new system was developed in the field in two districts. In mid-1997, it was tested in 12 districts after 600 health facility staff received two weeks of training. Follow-up showed that health workers understood the basic principles of reporting and they understood data analysis and interpretation of results for local use. The new HMIS was rolled out in September 1998 and it is used nationally.

Since 1996, BASICS has contributed to the successful planning and implementation of national immunization days (NID), and has supported the planning and implementation of an integrated disease surveillance system that includes acute flaccid paralysis (AFP). BASICS persuaded CBoH to hire five national surveillance officers, using funds from WHO, to support the newly evolving surveillance system. BASICS helped CBoH train health staff and volunteers for the NIDs, and they developed and

disseminated the NID training manual and guide. These support services helped Zambia achieve a very high coverage rate of 92–96 percent during the NIDs. BASICS also initiated discussions that led to the inclusion of vitamin A in the NIDs, beginning in 1997. To support routine EPI services, BASICS provided technical assistance to the CBoH for review of its EPI program in 1997 and development of a comprehensive EPI policy in April 1998.

A computer-based nutrition policy development and advocacy tool that demonstrates the long-term impact of nutrition investments on important developmental indicators (such as nutritional status, mortality, school performance, and productivity), PROFILES, was adapted for use in Zambia with technical assistance from BASICS. The Zambian partner institution, the National Food and Nutrition Commission, has used PROFILES for presentations to the Minister of Health and the Zambia Parliament. The presentations and resulting awareness by policy makers, positively influenced the decision to fortify sugar with vitamin A in 1997.

Future Considerations

With the conclusion of the BASICS project, the work of the ZCHP will continue under several USAID-funded bilateral projects. The future of Zambia's health reform is still in question. With one of the primary forces for health reform leaving, will the government have the political will to continue the often painful process? Will they be willing to stand up to pressures exerted by retrenched staff and political interests and continue the present course of decentralization and Community Partnership? The reform effort has not achieved its goal or reached the point when it can no longer be reversed. However, USAID and the collaborating donors remain committed to supporting the Zambian reform effort until its lofty objectives are achieved.